Yakima River Basin Integrated Water Resource Management Plan

Technical Memorandum
Hydrologic Modeling of System Improvements

U.S. Bureau of Reclamation
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Prepared by

HDR Engineering, Inc.

U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Columbia-Cascades Area Office

State of Washington
Department of Ecology
Office of Columbia River

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ERRATA SHEET

(July 2016)
Page inserts to appendices titled:

Appendix C: Model Scenario Results Summary Tables
Under Existing Climate Conditions
Appendix D: Model Scenario Results Summary Tables
Under Existing Climate Conditions

Prepared by U.S. Department of Interior, Bureau of Reclamation,
Columbia Cascades Area Office, Yakima, Washington

As of July 2016 the following errata to the *Yakima River Basin Integrated Water Resources Management Plan: Technical Memorandum – Hydrologic Modeling of System* and its Appendix C and Appendix D are corrected below. Additions to the documents below are shown in *italics*.

TECHNICAL MEMORANDUM

Front Cover
Insert: *Updated July 2016*

APPENDIX C

Appendix C-1: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: Baseline – Kachess Reservoir Release (kaf)*

Appendix C-2: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP0 – Kachess Reservoir Release (kaf)*

Appendix C-3: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP1A 400 cfs – Kachess Reservoir Release (kaf)*

Appendix C-4: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP2A – Kachess Reservoir Release (kaf)*

Appendix C-5: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP2 – Kachess Reservoir Release (kaf)*

Appendix C-6: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP3A – Kachess Reservoir Release (kaf)*

Appendix C-7: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP3 – Kachess Reservoir Release (kaf)*

Appendix C-8: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP4 – Kachess Reservoir Release (kaf)*

Appendix C-10: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP5 – Kachess Reservoir Release (kaf)*

Appendix C-12: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP6 – Kachess Reservoir Release (kaf)*

APPENDIX D

Appendix D-1: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: Baseline (Adverse Climate Change –Kachess Reservoir Release (kaf)*

Appendix D-2: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP0 (Adverse Climate Change) – Kachess Reservoir Release (kaf)*

Appendix D-3: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP1A (Adverse Climate Change) – Kachess Reservoir Release (kaf)*

Appendix D-4: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP2A (Adverse Climate Change) – Kachess Reservoir Release (kaf)*

Appendix D-5: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP2 (Adverse Climate Change) – Kachess Reservoir Release (kaf)*

Appendix D-6: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP3A (Adverse Climate Change) – Kachess Reservoir Release (kaf)*

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Appendix D-8: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP4 (Adverse Climate Change) – Kachess Reservoir Release (kaf)*

Appendix D-9: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP5 (Adverse Climate Change) – Kachess Reservoir Release (kaf)*

Appendix D-10: **Insert new table** – Yakima River Basin RiverWare Modeling Integrated Plan Implementation, *Run: IP6 (Adverse Climate Change) – Kachess Reservoir Release (kaf)*

Contents

1.0 Introduction 1

1.1 Content and Organization of the Report 1

1.2 Yakima River Basin Features 2

1.3 The YAKRW Model 5

1.4 Summary of Results 7

2.0 Model Calibration and Updates 14

2.1 Models Compared 14

2.2 Model Calibration and Comparison 16

2.3 Calibration Results 16

2.4 Additional Model Modifications 17

3.0 Extended Period of Record 18

4.0 Model Scenarios and Operating Rules 18

4.1 Sequence of Modeled Scenarios 18

4.2 Metrics for Comparing Scenarios 20

4.3 Operating Rules Applied to Model Scenarios 21

5.0 Modeling Analyses and Results 21

5.1 KKC Conveyance Results (Scenarios IP1A and IP1) 22

5.2 KDRPP Capacity Results (Scenario IP2A) 27

5.3 Clem Elum Pool Raise Water Supply Results (Scenario IP3A) 30

5.4 Initial Development Phase (IP3) 30

5.5 Wymer Dam and Reservoir Results (Scenario IP4) 35

5.6 Bumping Reservoir Enlargment Results 42

5.7 Full Integrated Plan Results 44

6.0 Climate Change Simulation Results 52

6.1 Effect of Adverse Climate Change on Baseline Results 52

6.2 Effect of Adverse Climate Change on Initial Development Phase Results 57

6.3 Effect of Adverse Climate Change on WDR, BRE, and Full IP Water Supply and Instream Flow Results 61

6.4 Effect of Three Climate Change Scenarios on Full Integrated Plan Results 66

7.0 References 69

8.0 List of Preparers 70

List of Tables

Table 1. River Reaches Benefitting from the Five Structural Projects 11

Table 2. Scenario Codes for Hydrologic Modeling 20

Table 3. Effect of Keechelus Reservoir Target Storage on Instream Flow and Water Supply (1981 – 2009) 23

Table 4. Effect of CEPR Project on Water Supply Results 30

Table 5. Summary of Water Supply Results – Initial Development Phase Projects 34

Table 6. Summary of Water Supply Benefits of Each Scenario in 15 Years when Prorationing was less than 70 Percent under Baseline – Initial Development Phase 35

Table 7. Effect of the Wymer Dam and Reservoir Alternative Sizing and Diversion Constraints on Prorationing and Diversions during Years less than 70% under IP3 37

Table 8. Effect of WDR Capacity and Diversion Constraints on September 30 Prorationing and April-September Diversions during Years less than 70% under IP3 39

Table 9. Summary of Water Supply Benefits of Each Scenario in 12 Years when Prorationing was less than 70 Percent under Revised IP3 Scenario 40

Table 10. Effect of BRE Release Pattern on September 30 Prorationing and April-September Diversions during Years less than 70% under IP3 44

Table 11. Summary of Instream Flow Benefits 45

Table 12. Summary of Water Supply Results 51

Table 13. Effect of Adverse Climate Change on Integrated Plan Water Supply Simulation Results - Initial Development Phase Scenario 59

Table 14. Water Supply Benefits of Each Initial Development Phase Scenario under Adverse Climate Change in Years when Prorationing was less than 70 Percent under the Baseline Scenario 61

Table 15. Water Supply Benefits under Adverse Climate Change in Years when Prorationing was less than 70 Percent under Revised IP3 Scenario 62

Table 16. Summary of Water Supply Results for IP 6 under Three Climate Change Scenarios 68

List of Figures

Figure 1. Yakima River System 3

Figure 2. Development of the Model Used in this Study 6

Figure 3. Summary of Water Deliveries under Alternate Scenarios 12

Figure 4. Summary of Proratable Deliveries under Alternate Scenarios 13

Figure 5. Effect of KKC Capacity Sizing on Achievement of Keechelus Reach Instream Flow Objectives (1981 - 2009) 24

Figure 6. Effect of KKC Capacity Sizing on Water Supply 26
Figure 7. Frequency and Volume of Flow in KKC Tunnel under Varying Capacities 27
Figure 8. Effect of KDRPP Capacity on Water Supply Results 29
Figure 9. Keechelus Reach Instream Flow Results 31
Figure 10. Easton Reach Instream Flow Results 31
Figure 11. Cle Elum River Instream Flow Results 32
Figure 12. Water Supply Results Associated with Phased Implementation of the Integrated Plan – Initial Development Phase 33
Figure 13. Keechelus Reach Instream Flow Results 40
Figure 14. Easton Reach Instream Flow Results 41
Figure 15. Cle Elum River Instream Flow Results 41
Figure 16. Tieton River Instream Flow Results 42
Figure 17. Bumping Reservoir Enlargement – Outflow Hydrograph of More Normative Minimum Reservoir Release Requirements 43
Figure 18. Water Supply Results Associated with Phased Implementation of the Integrated Plan – Subsequent Development Phases 50
Figure 19. Effect of Climate Change Scenario on Inflow to Yakima River System Reservoirs 54
Figure 20. Effect of Adverse Climate Change on the Percentage of Time Keechelus Reach Flow Objectives are Achieved 55
Figure 21. Effect of Adverse Climate Change on the Percentage of Time Easton Reach Flow Objectives are Achieved 56
Figure 22. Effect of Adverse Climate Change on the Percentage of Time Cle Elum River Flow Objectives are Achieved 56
Figure 23. Effect of Adverse Climate Change on the Percentage of Time Wapato Reach Flow Objective is Achieved 57
Figure 24. Keechelus Reach Instream Flow Results under Adverse Climate Change 58
Figure 25. Easton Reach Instream Flow Results under Adverse Climate Change 58
Figure 26. Cle Elum River Instream Flow Results under Adverse Climate Change 59
Figure 27. Water Supply Results under Adverse Climate Change – Initial Development Phase 60
Figure 28. Water Supply Results under Adverse Climate Change 63
Figure 29. Keechelus Reach Instream Flow Results-Adverse Climate Change 64
Figure 30. Easton Reach Instream Flow Results- Adverse Climate Change 64
Figure 31. Cle Elum River Instream Flow Results- Adverse Climate Change 65
Figure 32. Tieton River Instream Flow Results- Adverse Climate Change 65
Figure 33. Water Supply Results for IP6 under Three Climate Change Scenarios 67

Appendices

A. Hydrologic Model Calibration

B. Operating Rules Technical Memorandum

C. Model Scenario Results Summary Tables Under Existing Climate Conditions

D. Model Scenario Results Summary Tables Under Climate Change Conditions

Glossary and List of Acronyms

acre-feet	The volume of water required to cover 1 acre of land (43,560 square feet) to a depth of 1 foot; Equal to 325,851 gallons or 1,233 cubic meters.
Baseline Model	A YAKRW Model developed for this study to represent future conditions and operations without any elements of the Integrated Plan. Future conservation under YRBWEP, and other changes from existing conditions, are included, as discussed in Section 2.1
BRE	Bumping Reservoir Enlargement.
CEPR	Cle Elum Pool Raise.
cfs	Cubic feet per second
EIS	Environmental Impact Statement.
EPOR	Extended Period of Record.
Existing Model	A YAKRW Model developed for this study to represent existing conditions and operations (including completed elements of the YRBWEP), but without any elements of the Integrated Plan or future elements of the YRBWEP.
flip-flop	The annual late-summer river operation that shifts reservoir releases from the upper Yakima River basin reservoirs to the Naches system reservoirs to avoid disruption of salmonid habitat and impacts on aquatic insect populations.
Flow objective	An instream flow goal established or proposed to protect fish habitat. May vary by season.
Hydromet	Reclamation's network of automated hydrologic and meteorological monitoring stations throughout the Pacific Northwest and its associated communications and computer systems.
Integrated Plan	Yakima River Basin Integrated Water Resource Management Plan.
kaf	Thousands of acre-feet.
KDRPP	Kachess Drought Relief Pumping Plant.
KKC	Keechelus-to-Kachess Conveyance.
KRD	Kittitas Reclamation District
Major irrigation deliveries	Water delivered to the six major divisions during the period from April 1 to September 30 of each year.
Mini flip-flop	Similar to flip-flop, but river-reservoir operations performed to limit late summer and early fall releases from Keechelus Reservoir, by increasing releases from Kachess Reservoir.
Normative hydrograph	A flow pattern that mimics the natural hydrograph, including higher runoff in late spring and lower runoff in late summer.
O&M	Operation and maintenance.
Operating Rules	Instructions programmed into the model representing protocols Reclamation and water users may apply to store, release, or divert water at different locations and facilities. Some of these reflect existing requirements or agreements. Reclamation defined others solely in to simulate how the system could be operated with proposed future facilities.
Participating Users	Proratable irrigation divisions assumed to participate in financing the structural improvements needed to improve proratable water supplies. This is a subset of the proratable users.
Proratable	Subject to prorationing. (See "prorationing").
Prorationing	The process of equally reducing the amount of water delivered to junior (i.e. "proratable") water users in water-deficient years.

Reclamation	U.S. Department of the Interior, Bureau of Reclamation.
RM	River miles.
RMJOC	Reservoir Management Joint Operating Committee for the Columbia River Basin (with members from Reclamation, Bonneville Power Administration, and the U.S. Army Corps of Engineers).
Roza	Roza Irrigation District
Scenario Model	A YAKRW Model developed for this study to represent conditions and operations that include the Baseline Model, plus one or more elements of the Integrated Plan.
Title XII flows	The target flows that have been defined in the Yakima River basin, as mandated by Congress through the Yakima River Basin Water Enhancement Project (Title XII of the Act of October 31, 1994, United States Congress [Public Law 103-434]). The target flows are defined at the Parker Gage on the Yakima River.
TWSA	Total Water Supply Available.
Reclamation Model	A YAKRW Model maintained by Reclamation staff at the Columbia-Cascades Area Office and assumed to represent current conditions and operations.
WDR	Wymer Dam and Reservoir.
WIP	Wapato Irrigation Project
WY	Water year
YAKRW	Reclamation's model of the Yakima River system which uses RiverWare© software.
YRBWEP	Yakima River Basin Water Enhancement Project

List of Models

Model	Description
Adverse Climate Change	Approximately represents the central tendency of the range of predicted climate variations associated with the 30-year window 2030 to 2059
Baseline	A YAKRW Model developed for this study to represent future conditions and operations without any elements of the Integrated Plan. Future conservation under YRBWEP, and other changes discussed in Section 2.1 are included.
Existing	A modification of the Baseline Model developed to represent current operating conditions and operations, without any future elements
Integrated Plan Scenario	A model used to simulate any, all, or none of the projects proposed for inclusion in the Integrated Plan
Reclamation	The most recent "official" version of the YAKRW Model, representing current conditions and operations
YAKRW	Yakima River Basin RiverWare Model

List of Modeled Scenarios

IP0	Integrated Plan Conservation: Baseline system plus the inclusion of 137,687 acre-feet of water conservation projects to be completed under the Integrated Plan (all subsequent scenarios include these conservation projects)
IP1A	Individual Structural Project: Keechelus-to-Kachess Conveyance (KKC)
IP2A	Individual Structural Project: Kachess Drought Relief Pumping Plant (KDRPP)
IP3A	Individual Structural Project: Cle Elum Pool Raise (CEPR)
IP1	Same as IP1A
IP2	Project Combination: KKC and KDRPP
IP3	Project Combination: KKC, KDRPP, and CEPR
IP4	Project Combination: KKC, KDRPP, CEPR, and WDR
IP5	Project Combination: KKC, KDRPP, CEPR, and BRE
IP6	Project Combination: KKC, KDRPP, CEPR, WDR, and BRE

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1.0 Introduction

This technical memorandum describes use of a computerized model of the Yakima River basin to evaluate scenarios associated with the implementation of the Yakima River Basin Integrated Water Resource Management Plan (Integrated Plan; Reclamation and Ecology 2011a). The model was developed using U.S. Department of the Interior Bureau of Reclamation's model of the Yakima River system (YAKRW) using RiverWare© software. HDR Engineering, Inc. (HDR) used the model to estimate the effects of proposed new water resource projects on water supply and instream flow conditions, and to assist in refining the conceptual design of these projects.

The goals of the Integrated Plan are to protect, mitigate, and enhance fish and wildlife habitat; provide increased operational flexibility to manage instream flows to meet ecological objectives; and improve the reliability of the water supply for irrigation, municipal supply, and domestic uses.

The information reported here covers hydrologic modeling activity completed in 2014. Additional modeling analysis is ongoing, and will be documented in a subsequent report. The *Modeling of Reliability and Flows* Technical Memorandum (Reclamation and Ecology, 2011b) documents prior modeling activity related to the Integrated Plan. That technical memorandum provides more detail on the physical features, such as diversions and return flows, which are represented in the model.

1.1 Content and Organization of the Report

This technical memorandum documents the hydrologic modeling analysis performed in 2013 and 2014. The following projects are components of the Integrated Plan: Keechelus-to-Kachess Conveyance (KKC), Kachess Drought Relief Pumping Plant (KDRPP), Cle Elum Pool Raise (CEPR), Wymer Dam and Reservoir (WDR), and Bumping Reservoir Enlargement (BRE). The analysis evaluated the performance of these five proposed projects and certain combinations of these projects relative to the water supply and streamflow objectives of the Integrated Plan. This technical memorandum documents the results of hydrologic modeling.

HDR performed the following activities during this analysis:

1. Calibrated the model to improve agreement with the corresponding model used by Reclamation operations staff and with historical flows and water levels.
2. Ran scenarios for the proposed structural projects to explore potential operating rules and determine approximately optimal capacity of certain project features.
3. For the five structural projects and for certain combinations of these projects, modeled project performance to evaluate outcomes for water supply and streamflow. Ran a sequence of project scenarios to assist in understanding how adding each project contributes incrementally to overall objectives of the Integrated Plan.
4. Performed modeling of the project scenarios under climate change conditions to assist in understanding how the projects and the full Integrated Plan may perform over the long term.

This technical memorandum is organized into six sections, as follows:

- The Introduction presents a brief description of the purpose of the modeling completed under this study, and background on the Integrated Plan and the individual projects proposed for implementation.
- Section 2 describes the model adjustments performed to improve the agreement of the HDR models (Existing, Baseline, and Integrated Plan Scenarios) and the Reclamation Yakima River system RiverWare© (YAKRW) Model.
- Section 3 summarizes the extension of the hydrologic database and simulation period of the Baseline and Integrated Plan Scenario Model to include water years 1926 through 2009.
- Section 4 summarizes the model scenarios and the operating rules programmed into the YAKRW Model (Existing, Baseline, or individual Integrated Plan Scenarios). Section 4 also briefly describes the Yakima River system and the summary metrics used to document the simulated performance under each scenario.
- Section 5 presents the results of modeling, using the Integrated Plan Scenario Model to determine approximate optimum capacities for select project facilities. It also compares the water supply and instream flow performance of the scenarios simulated against performance under the Baseline scenario.
- Section 6 summarizes the simulated performance of the Integrated Plan scenarios against the Baseline scenario under assumed climate change conditions.

1.2 Yakima River Basin Features

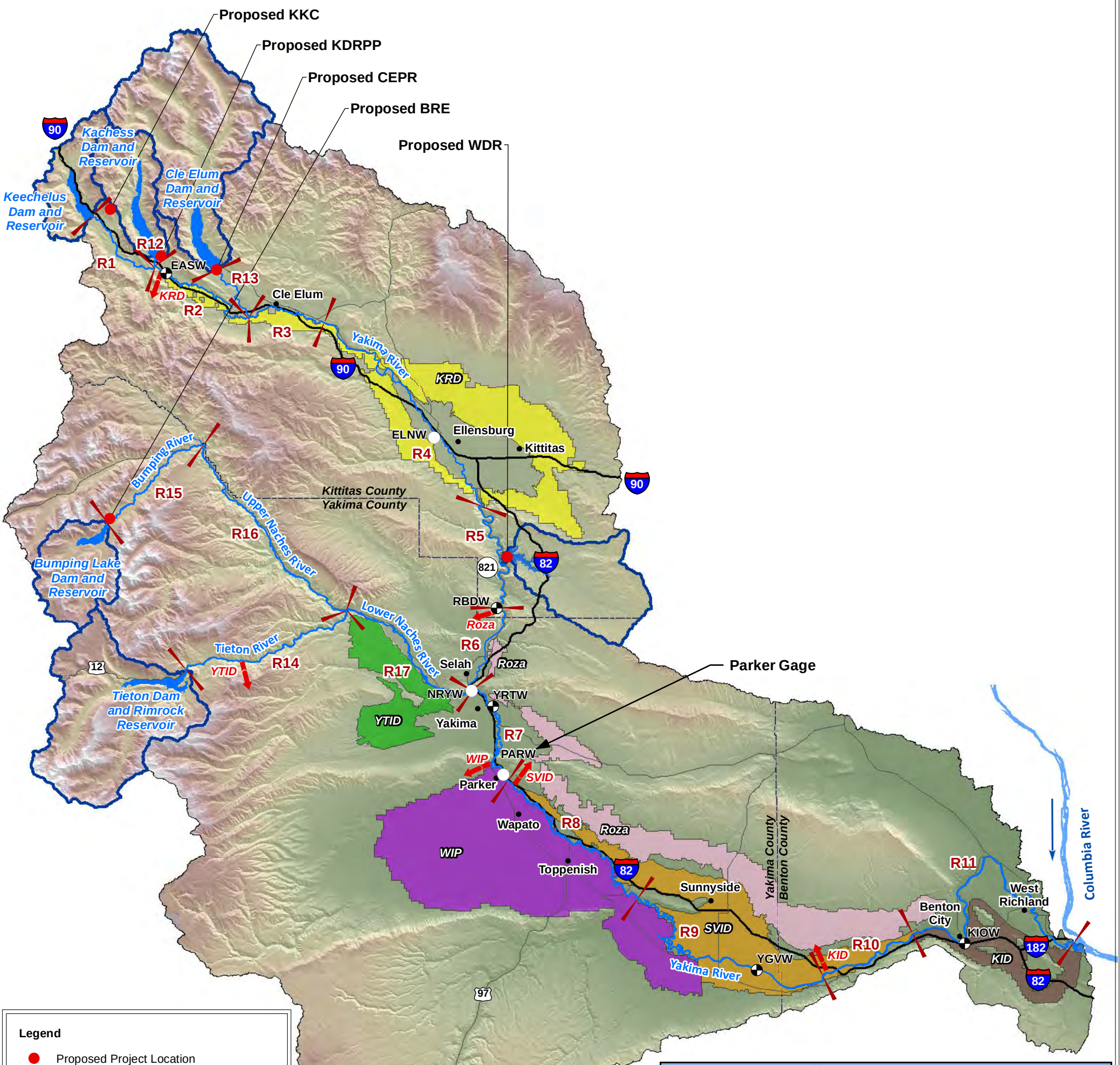
Figure 1 presents a map of the Yakima River basin. It displays the proposed project facilities from the Integrated Plan that are discussed in this technical memorandum, the various reaches for which streamflows are reported, major diversions for water uses, and stream gages as well as other information.

The following five structural projects are addressed by the modeling project and included in Figure 1:

- Keechelus-to-Kachess Conveyance (KKC)
- Kachess Drought Relief Pumping Plant (KDRPP)
- Cle Elum Pool Raise (CEPR)
- Wymer Dam and Reservoir (WDR)
- Bumping Reservoir Enlargement (BRE)

These projects were described in the Integrated Plan (Reclamation and Ecology, 2011a). The hydrologic modeling analysis uses updated information on project designs and operational assumptions, based on ongoing project assessments conducted by Reclamation and the Washington State Department of Ecology.

Yakima River Basin
RiverWare Modeling



Legend

- Proposed Project Location
- City
- Stream Gage
- Primary Highway
- Primary Road
- River
- Reservoir
- Point of Diversion
- Reach Endpoint
- R1 Reach Number
- Subbasin

Irrigation Districts

- Kittitas Reclamation District (KRD)
- Roza Irrigation District (Roza)
- Wapato Irrigation Project (WIP)
- Sunnyside Valley Irrigation District (SVID)
- Kennewick Irrigation District (KID)
- Yakima-Tieton Irrigation District (YTID)

N W E S

0 10.8 21.6 Miles

Map Production Date: 1/24/2014

Proposed Projects Key		Basin	
		Size (sq.mi.)	%
KKC	Keechelus to Kachess Conveyance	54.8	0.89%
KDRPP	Kachess Drought Relief Pumping Plant	63.5	1.03%
CEPR	Cle Elem Pool Raise	202.2	3.29%
WDR	Wymer Dam and Reservoir	104.6	1.70%
BRE	Bumping Reservoir Enlargement	68.7	1.12%
Yakima River Basin		6,148.6	100.00%

TABLE 1 – YAKIMA RIVER BASIN
YAKIMA RIVER AND OTHER RIVER REACHES

YAKIMA RIVER REACHES

No.	Yakima River Reach Names	River Mile Start	River Mile End	Length (miles)	Reach Description
R1	Keechelus	214.5	202.5	12.0	Keechelus Dam to Lake Easton
R2	Easton	202.5	185.6	16.9	Lake Easton to Cle Elum River
R3	Teanaway	185.6	176.1	9.5	Cle Elum River to Teanaway River
R4	Kittitas	176.1	150.0	26.1	Teanaway River to Mouth of Canyon
R5	Canyon	150.0	127.9	22.1	Mouth of Canyon to Roza Dam
R6	Selah	127.9	116.3	11.6	Roza Dam to Naches River
R7	Union Gap	116.3	103.8	12.5	Naches River to Sunnyside Diversion Dam
R8	Wapato	103.8	80.4	23.4	Sunnyside Diversion Dam to Toppenish Creek
R9	Mabton	80.4	47.1	33.3	Toppenish Creek to Prosser Dam
R10	Chandler	47.1	35.8	11.3	Prosser Dam to Chandler Power Plant
R11	Lower Yakima	35.8	0	35.8	Chandler Power Plant to Columbia River

OTHER RIVER REACHES

No.	Other Basin River Names	River Mile Start	River Mile End	Length (miles)	Reach Description
R12	Kachess River	1	0	1	Kachess Dam to Yakima River
R13	Cle Elum River	8.2	0	8.2	Cle Elum Dam to Yakima River
R14	Tieton River	21.3	0	21.3	Tieton Dam to Naches River
R15	Bumping River	16.6	0	16.6	Bumping Dam to Little Naches River
R16	Upper Naches River	44.6	17.5	27.1	Bumping River to Tieton River
R17	Lower Naches River	17.5	0	17.5	Tieton River to Yakima River

Map Document: \\bel-srv03\GIS\DATA\Projects\Washington\USBR_PNW_449220\YakimaBasin_Hydro_218857\Map_Docs\Draft\Vicinity11x17Port_V5.mxd

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The Integrated Plan addresses seven elements: reservoir fish passage, structural and operational changes to existing facilities, surface water storage, groundwater storage, habitat/watershed protection and enhancement, enhanced water conservation, and market reallocation. Reclamation and Ecology anticipate implementation of the Integrated Plan over 30 years. In March 2014, the Yakima River Basin Water Enhancement Project (YRBWEP) Workgroup proposed an Initial Development Phase, covering the first ten-year period (2014-2023), which advances all seven plan elements and represents approximately one-third of the estimated plan cost. This Initial Development Phase includes the KKC, KDRPP, and CEPR as well as other actions. For this modeling effort, the Initial Development Phase is represented by scenario IP3 (see Section 4.1 for definition of scenario codes). Reclamation and Ecology anticipate implementation of WDR and BRE in subsequent development phases after 2023.

Demand for irrigation water by existing users significantly exceeds supply in dry and drought years, leading to severe prorationing (shortages) for junior water rights holders. The Integrated Plan establishes a goal of achieving not less than 70 percent of proratable water rights whenever feasible. Reclamation reached this number following extensive discussions with stakeholders regarding the lowest level of water supply that could be accommodated without serious crop losses, assuming aggressive water management techniques are employed (Reclamation and Ecology, 2012).

For a discussion of the hydrology, water uses, and operation of the Yakima River basin, see the technical memorandum *Yakima River Basin Water Resources* (Reclamation and Ecology 2011c).

1.3 The YAKRW Model

The RiverWare© software was developed by the Center for Advanced Decision Support for Water and Environmental Systems at the University of Colorado. The YAKRW Model of the Yakima River basin uses RiverWare© software and was originally developed for the Yakima Field Office to evaluate seasonal operational strategies. It was then adapted for use as part of the *Yakima River Basin Storage Assessment Appraisal Study*, completed from 2006 through 2008. It was further updated in 2009 and 2010 to represent current operational practices for use in the Columbia Basin River Management Joint Operations Committee studies, and by HDR in 2010 and 2011 to estimate the effects of the Integrated Plan on water supply and instream flows.

Figure 2 shows the development of the YAKRW Models used in this study. The 2011 HDR version of the model was the starting point for the modifications described in this technical memorandum. For the current study HDR developed an Integrated Plan Scenario Model that Reclamation can use to simulate any, all, or none of the projects proposed for inclusion in the Integrated Plan. For ease of understanding, the following define the models used in this study:

- The Baseline Model is a YAKRW Model developed for this study to represent future conditions and operations without any elements of the Integrated Plan. Future YRBWEP conservation efforts, and other changes discussed in Section 2.1 are included.

- The Existing Model, is a modification of the Baseline Model developed to represent current operating conditions and operations, without any future elements.
- The Integrated Plan Scenario Model is a model used to simulate any, all, or none of the projects proposed for inclusion in the Integrated Plan.

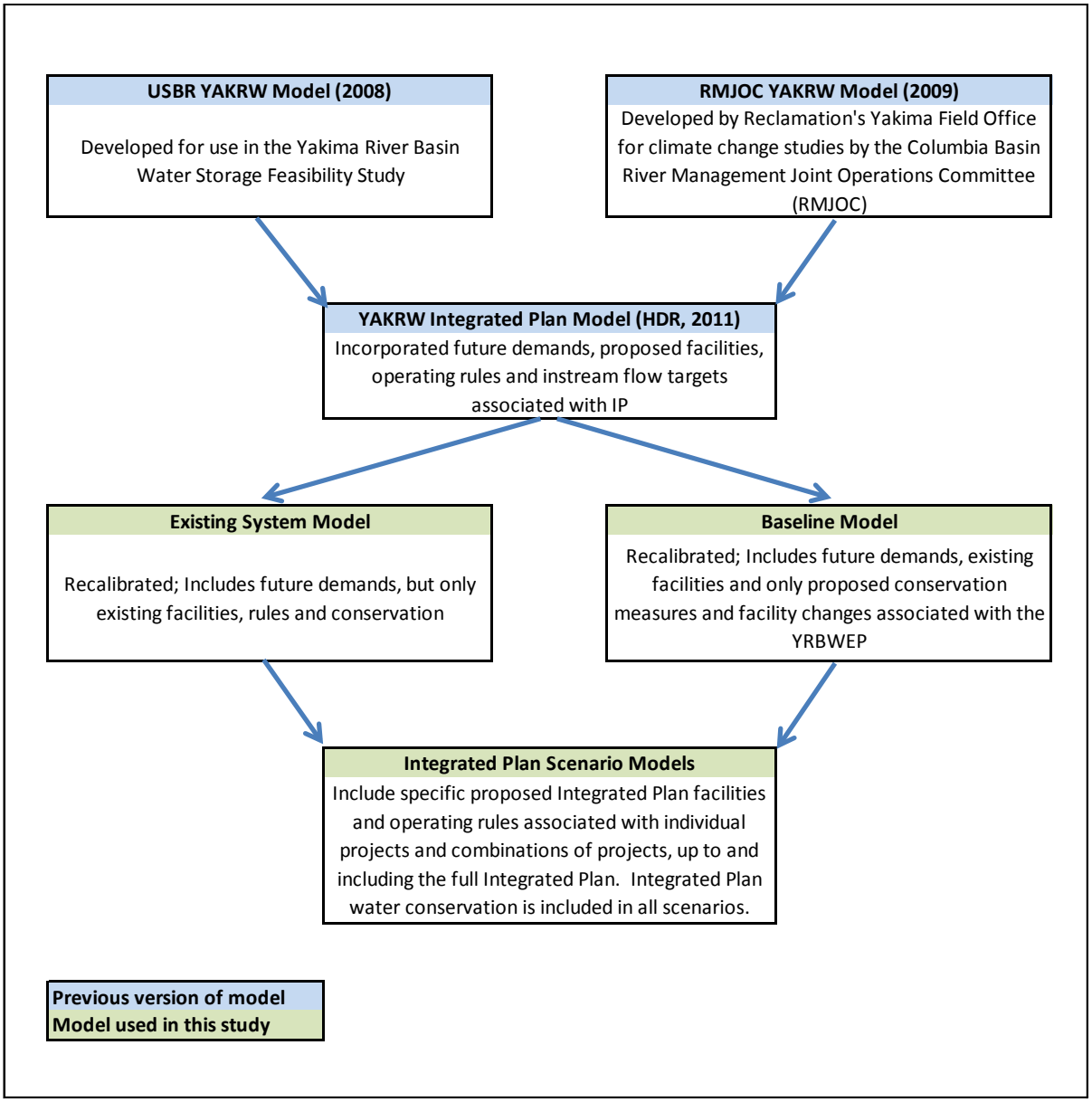


Figure 2. Development of the Model Used in this Study

The YAKRW Model provides a large volume of output, including daily stream flows, water levels, and water deliveries at dozens of locations in the Yakima River basin. For this analysis, HDR used the following four primary metrics to summarize and compare the water supply outcomes of modeled scenarios:

- *Total Water Supply Available* (TWSA), which is a combined measure of available water in streams and reservoirs
- *Prorationing*, which represents the percentage of a given year's supply that is available to proratable water right holders, who receive reduced supplies in low supply years
- *April through September deliveries*, which is the total volume of water Reclamation delivers to water users during the irrigation season
- *End of September reservoir storage*, which shows how much additional water is available at the end of the water year to be carried over to the next year

HDR used a different set of metrics to summarize the instream flow performance of the scenarios simulated. These metrics provide the percentage of time, by season, that simulated streamflows approach (within 10 percent), achieve, or exceed (by 10 percent or more) the recommended flow objectives in 17 critical reaches throughout the basin.

For this study Reclamation extended the period of record used for system simulations, compared with previous analyses associated with the Integrated Plan. Prior analyses used a period of record from 1981 to 2005. The extended period of record (EPOR) goes from 1926 to 2009. It includes a wider range of water-supply conditions compared with the shorter period of record. Reclamation used the EPOR because using a longer period of record is generally considered good practice in the field of hydrologic modeling. However it should be noted that, due to climate change considerations, the longer period of record used in this study is not necessarily more representative of current or future conditions, compared with the shorter period of record used previously.

1.4 Summary of Results

This section summarizes results of the current study. Further detail is provided in the remainder of this report and the report appendices.

1.4.1 Simulations Under Existing Climate Conditions

The following points represent significant findings in terms of facility capacities, operating rules, and simulation results. Operating rules were defined to support the modeling effort, and will require further discussion and refinement as projects progress through feasibility studies, environmental analyses, and subsequent stages of decision-making and development under existing climate conditions.

KKC

- Reclamation established an operating rule that allows transfers of water from Keechelus Reservoir to Kachess Reservoir via the KKC only when there are at least 80,000 acre-feet of water stored in Keechelus Reservoir. This would help maintain conditions for bull trout migration from the reservoir into tributary creeks. It would not prevent Keechelus Reservoir water from being fully used below this level; it would simply limit the transfer from Keechelus Reservoir to Kachess Reservoir.

- A KKC capacity of 400 cubic feet per second (cfs) is adequate to eliminate high flows in July and August in the Keechelus Reach. A larger KKC does not provide further instream flow benefits.
- Under historical hydrology, the hydrologic modeling does not show direct, quantitative water supply benefits, regardless of capacity. KKC would, however, provide operational flexibility and the potential to refill Kachess Reservoir more quickly, following drawdown. KKC also would allow larger water supply deliveries to be made from Keechelus during the month of July, while allowing flow in the Keechelus reach to remain at or below 500 cfs.
- The predicted water supply changes associated with climate change could increase the need to release large volumes of water late in the summer. The modeling shows that KKC would provide some water supply benefits (as well as additional operational flexibility) under these conditions. The KDRPP and KKC EIS provides additional information on environmental considerations and potential impacts (Reclamation and Ecology, 2014).

KDRPP

- KDRPP would be used only in years when prorationing below 70% would otherwise occur; and in subsequent years while Kachess Reservoir is re-filling (in refill years, pumping from Kachess Reservoir would be needed in order for Reclamation to meet water delivery obligations).
- Compared with baseline, KDRPP would improve prorationing by an average of 12.1 percent in years when prorationing falls below 70% under the baseline scenario. Average major irrigation deliveries during the period April 1 through September 30 increase by an average of 98 kaf, and up to 238 kaf in some years.
- KDRPP provides optimum water supply benefits when capacity is 800 cfs or larger. A capacity of 800 cfs may not meet full demands by Kittitas Reclamation District (KRD) and Roza Irrigation District (Roza) during flip-flop. Pumping capacity above 1,000 cfs does not increase water supply benefits.
- KDRPP was not designed to improve achievement of instream flow objectives. However, by providing additional water supply during prorationed years, Reclamation's operation of KDRPP would raise late season flows in the Kachess River and the Yakima River below Lake Easton closer to normal-year levels and may contribute to meeting flow objectives in the Easton Reach.

KKC Combined with KDRPP

- KKC combined with KDRPP improves water supply benefits somewhat compared with those provided by KDRPP alone. Compared with KDRPP alone, average prorationing is increased by 1.7 percent during years when prorationing falls below 70% under the baseline scenario. Compared with KDRPP alone, average major irrigation deliveries during the period April 1 through September 30 increase by an average of 16 kaf, and up to 44 kaf in some years when prorationing falls below 70% under the baseline scenario. KKC also would allow large water supply deliveries to be made from Keechelus during the month of July when flow in the Keechelus reach

is restricted to less than 500 cfs. Under the impacts of adverse climate change benefits are higher.

- KKC combined with KDRPP allows the inactive storage in Kachess Reservoir to refill more quickly, following drawdown of the Kachess Reservoir by the KDRPP during a drought period. By doing so, KKC would reduce the environmental impacts of the KDRPP. Reclamation and Ecology are preparing an Environmental Impact Statement for the KDRPP and KKC; the EIS provides additional information on the environmental considerations and potential impacts of the projects (Reclamation and Ecology, 2014).

CEPR

- CEPR expanded storage would fill or partially fill in about 80 percent of years simulated during the 84-year period of record.
- CEPR provides relatively small additional capacity in the context of the overall Yakima River basin supply system, so it provides relatively small water supply or instream flow benefits. This is true both for CEPR by itself, and in combination with the other storage projects analyzed.
- When evaluated in combination with WDR and BRE, CEPR water supply is used to increase winter instream flow in the Cle Elum River.

WDR

- For the WDR scenario Reclamation analyzed a 300, 500, 700, and 1,000 cfs fill system capacity, two different diversion timing and flow constraints, two reservoir storage allocations, and two different reservoir storage capacities (162.5 thousand acre-feet [kaf] and 120 kaf).
- Under the operating rules defined for WDR, the project would provide significant stream flow benefits in the Keechelus and Easton Reaches of the Yakima River (11 and 17 miles respectively), the Cle Elum River (8 miles), and the Tieton River (21 miles). Instream flow benefits would be relatively independent of the differing analytical parameters listed above, although these benefits would be more reliable in dry years if Reclamation used less restrictive constraints.
- Water supply benefits would be relatively constant for any fill system capacity above about 400 cfs.
- Adding WDR to KKC, KDRPP and CEPR could improve prorationing to nearly 70 percent in all except six years. It would improve average prorationing by approximately 5.5 percent in the years that would remain below 70% with only KKC, KDRPP and CEPR in place. Average deliveries to proratable users would increase by an average of 40.5 kaf and up to 123 kaf in some years.
- Improvements in prorationing would be slightly greater with the larger reservoir storage capacity, but would not be proportional to the change in capacity.
- Water supply benefits from WDR would be significantly higher in the first year of a multi-year drought, compared with subsequent years of a multi-year drought.

BRE

- The BRE scenario analyzed two operational assumptions (1) release of at least 130 cfs using a normative seasonal hydrograph pattern in the spring and early summer, and (2) release of this, plus the remaining water from expanded storage to meet participating users' demands up to a 70 percent level of prorationing.
- The first operational assumption would slightly decrease average prorationing and April-September diversions.
- The second operational assumption would improve average prorationing and April-September diversions. Adding BRE to KKC, KDRPP and CEPR could improve prorationing to nearly 70 percent in all except six years. It would improve average prorationing by approximately 4.9 percent in the years that would remain below 70% with only KKC, KDRPP and CEPR in place. Average deliveries to proratable users would increase by an average of 30.8 kaf and up to 87 kaf in some years.
- BRE would improve the ability to achieve minimum instream flows in the Tieton River (21 miles). The release of a spring pulse from BRE would improve outmigration of young fish in the Bumping River (17 miles); Naches River (45 miles) and the lower 116 miles of the Yakima River (i.e. from the Naches River confluence to the Columbia River).
- Water supply benefits from BRE would be significantly higher in the first year of a multi-year drought, compared with subsequent years of a multi-year drought.

Full Integrated Plan

- The full Integrated Plan scenario included KKC, KDRPP, CEPR, WDR and BRE. For this scenario, Wymer was modeled using a capacity of 162.5 kaf, and BRE was modeled using the second operational assumption, which includes releases to improve prorationing levels.
- Development of all five projects using the operational rules defined would improve instream flow conditions at all targeted reaches discussed above for the individual projects. Table 1shows reaches where flow would be improved, project-by-project and for all of the projects combined.
- Adding both WDR and BRE to the 3 Initial Development Phase projects could improve prorationing by approximately 10 percent in the years that remain below 70% following the Initial Development Phase. The full Integrated Plan would raise the prorationing level to 70 percent in all except four years modeled.
- With all 5 projects, water supply benefits would be significantly higher in the first two years of multi-year droughts, compared to subsequent years.

Table 1. River Reaches Benefitting from the Five Structural Projects

Reaches	KKC	KDRPP	CEPR	WDR	BRE	Five Projects Combined
Yakima R. - Keechelus Reach (12 mi.)	✓			✓		✓
Yakima R. - Easton Reach (17 mi.)				✓		✓
Cle Elum River (8 mi.)			✓	✓		✓
Tieton River (21 mi.)				✓	✓	✓
Bumping River (17 mi.)					✓	✓
Naches River (45 mi.)				✓	✓	✓
Yakima River from Naches R. to Columbia R. (116 mi.)					✓	✓

Effect of Adding WDR and BRE to the Initial Development Phase Projects

To understand the effects of the modeled projects on water supply, it is informative to review results for just the years out of the extended period of record when prorationing was less than 70 percent under the comparable scenario without the project(s). There are 15 such years under the baseline scenario. The modeled combination of the KKC, KDRPP, and CEPR projects (Scenario IP3) represents the Initial Development Phase of the Integrated Plan. The Initial Development Phase would improve prorationing by an average of 12.2 percent; TWSA by an average of 102,600 acre-feet; and major irrigation deliveries by an average of 98,200 acre-feet during these 15 years. These deliveries represent water delivered to the six major divisions during the period from April 1 to September 30 of each year. The modeled combination of the three projects would achieve the minimum prorationing goal of 70 percent in three of these 15 years. In the other 12 years, the goal would not be achieved by the Initial Development Phase alone.

Adding WDR following the Initial Development Phase would meet the prorationing goal in an additional six years. The WDR (with a storage capacity of 162.5 kaf) would also increase April-September deliveries by up to 168 kaf, with an average of 41 kaf.

Similarly, adding BRE following the Initial Development Phase (without adding WDR) would also would meet the prorationing goal in an additional six years. BRE would increases April-September deliveries by up to 87.7 kaf, with an average of 30.8 kaf.

The full Integrated Plan (adding both WDR and BRE following the Initial Development Phase) would meet the prorationing goal in an all except four years. The full Integrated Plan would increases April-September deliveries by up to 213 kaf and by an average of 76.8 kaf, compared with the IP3 scenario. Prorationing would increase to approximately 67 percent in the 12 years where prorationing remains below 70 percent with the Initial Development Phase completed. The prorationing result represents only the "participating" users who contribute to finance the Integrated Plan projects. For purposes of this technical memorandum they are assumed to be Kittitas Reclamation District (KRD), Roza Irrigation District (Roza), and Wapato Irrigation Project (WIP).

Figures 3 and 4 show how the addition of WDR and/or BRE would affect prorationing and deliveries to proratable water users. The prorationing percentage applies only to participating proratable users; while the deliveries apply to all proratable users.

All of these conclusions depend upon the specific operating rules applied to storage, release and diversion of water, including maintenance of stream flows at desired levels. If operating rules are applied differently than applied in the particular scenarios as modeled, results would be different. Appendix B explains the operating protocols that Reclamation applied in the modeling process.

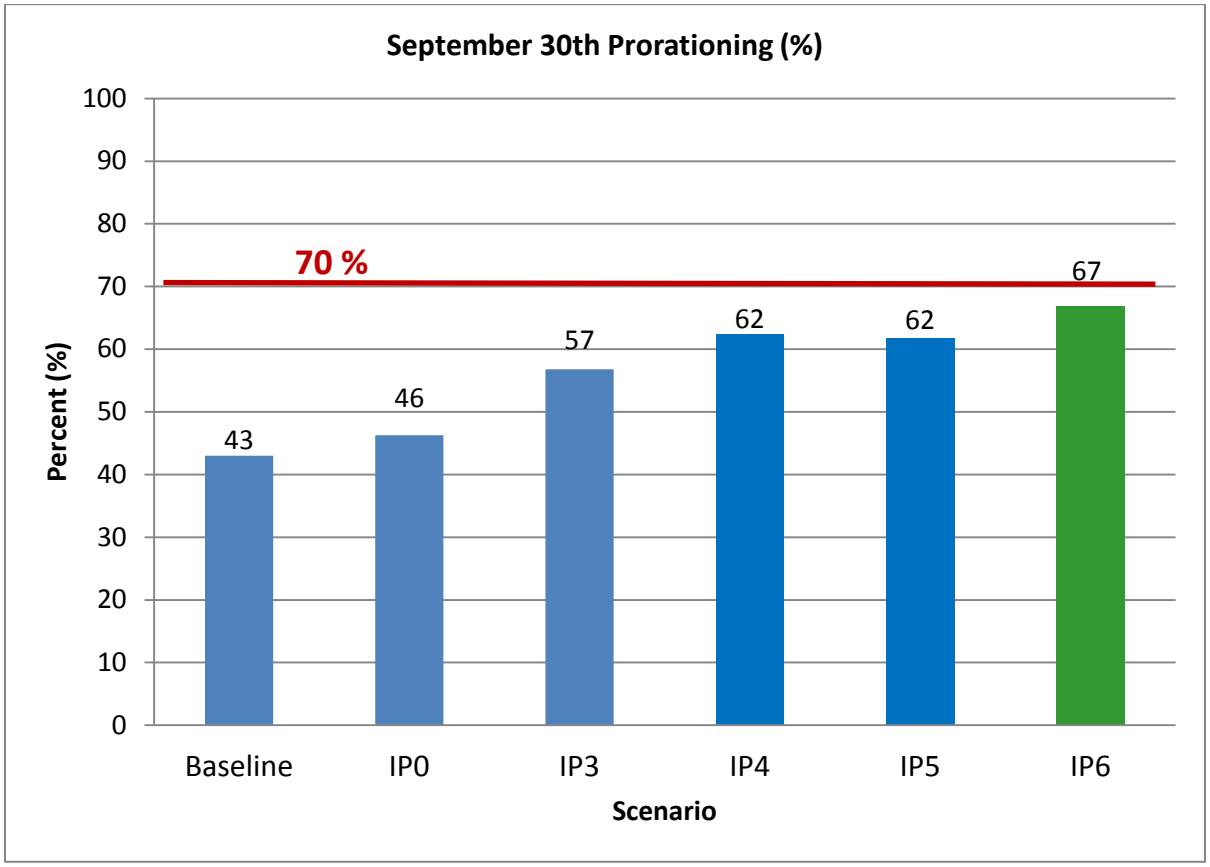


Figure 3. Summary of Water Deliveries under Alternate Scenarios

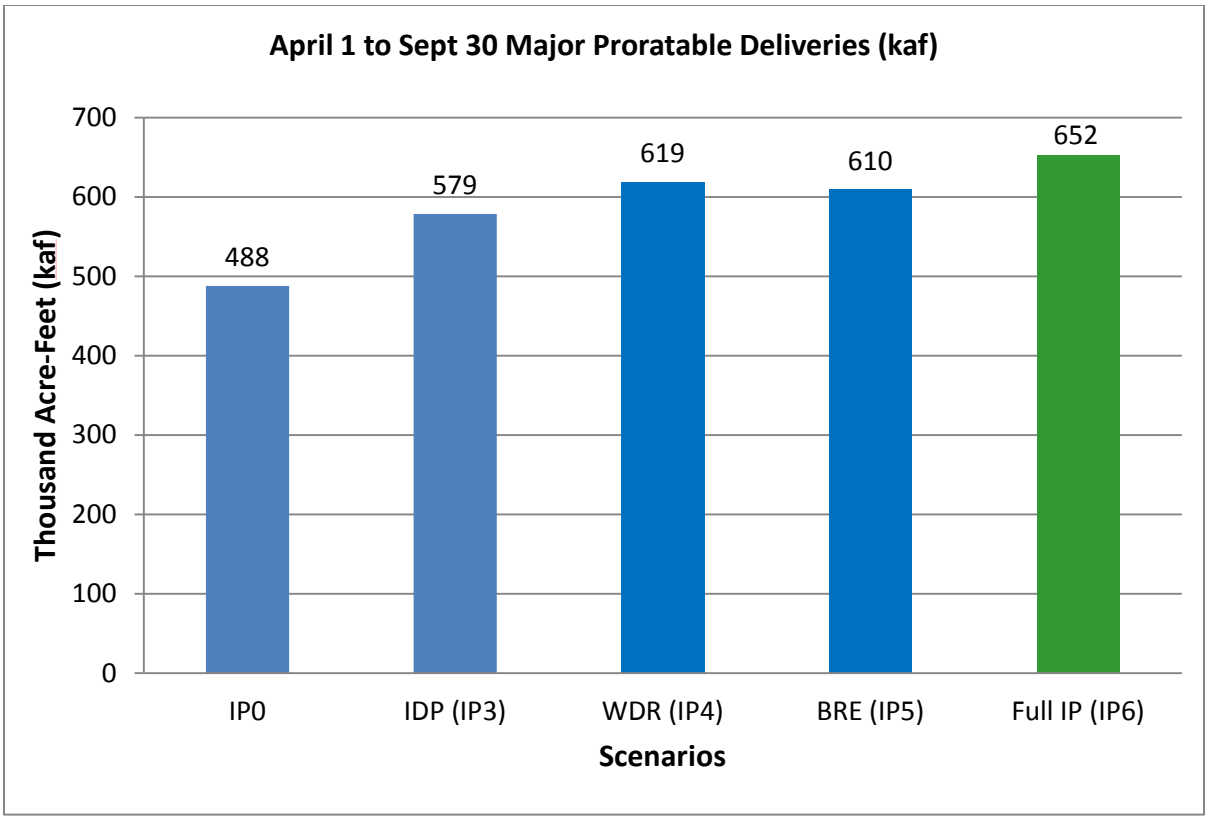


Figure 4. Summary of Proratable Deliveries under Alternate Scenarios

1.4.2 Simulations Under Climate Change Conditions

Reclamation anticipates that the most significant effect of climate change on the hydrology of the Yakima River basin would be reduction in runoff in the summer months. This large reduction in summer runoff would puts a much larger demand upon the reservoirs in the Yakima River system. Simulation results show that under baseline conditions, the reservoirs are not capable of meeting these demands in most years.

Three climate change scenarios were defined for use in this analysis: less adverse, adverse, and more adverse. The adverse climate change scenario shows an average reduction in September 30 prorationing of 21.5 percent and a minimum year reduction of 17.7 percent (resulting in less water delivered to prorated users). Under these conditions, prorationing would occur in all except 18 years, and prorationing of less than 70 percent would occur in 40 out of 84 years. Average July 1 TWSA would decrease by 333,000 acre-feet, and average delivery to the major irrigation districts would decrease by 121,000 acre-feet.

Compared with the IP0 scenario under adverse climate conditions, the IP3 scenario would increase the September 30 prorationing level by an average of 10.5 percent (resulting in higher deliveries to prorationed users) during the 40 years when the 70 percent target is not met under the baseline scenario. July 1 TWSA increases by an average of 87,200 acre-feet, and major irrigation deliveries increase by an average of 86,600 acre-feet during these 40 years. There are still 37 years remaining when the 70 percent prorationing goal would not be met under the IP3 scenario under the adverse climate change conditions.

Compared with the IP3 scenario[1] under adverse climate conditions, WDR would increase September 30 prorationing level by an average of 5.0 percent (resulting in higher deliveries to prorationed users) during the 37 years when the 70 percent target is not met under the IP3 scenario. Major irrigation deliveries would increase by up to 168,000 acre-feet and by an average of 41,400 acre-feet during these 37 years. Additional water supply benefits might be achieved under adverse climate conditions, with a higher than simulated capacity for the WDR refill system.

Compared with the IP3 scenario under adverse climate conditions, the BRE would increase the September 30 prorationing level by an average of 5.5 percent (resulting in higher deliveries to prorationed users) during the 37 years when the 70 percent target is not met under the IP3 scenario. Major irrigation deliveries would increase by up to 130,000 acre-feet and by an average of 43,200 acre-feet during these 37 years.

Compared with the IP3 scenario under adverse climate conditions, the full Integrated Plan would increase the September 30 prorationing level by an average of 9.9 percent (resulting in higher deliveries to prorationed users) during the 37 years when the 70 percent target is not met under the IP3 scenario. Major irrigation deliveries would increase by up to 306,700 acre-feet and by an average of 80,900 acre-feet during these 37 years.

2.0 Model Calibration and Updates

This section summarizes model calibration work performed to support the analyses documented in this technical memorandum. HDR performed calibration to identify, understand, and if necessary correct any significant deviations between the HDR-developed RiverWare© model of the Yakima River basin and Reclamation's version of the model. The technical memorandum titled *Hydrologic Modeling Calibration*, which is included in Appendix A, documents the model calibration results.

2.1 Models Compared

Staff at Reclamation's Columbia Cascades Area Office completed the most recent "official" version of the YAKRW Model, and provided it to the HDR project team in September 2013. Reclamation assumes the model represents current conditions and operations for the basin above Parker; this technical memorandum refers to this model as the "Reclamation Model". HDR has used agreement with the Reclamation Model as the overall basis for the calibration described in this technical memorandum. During the calibration process, HDR generated model simulation results from the following two HDR-developed YAKRW Models, and compared them with simulation results from the Reclamation Model.

[1]Model changes implemented following the completion of the IP3 analysis tended to decrease simulated water supply results somewhat, For the purposes of comparison with the IP4, IP5, and IP6 climate change influenced scenarios, IP3 adverse climate prorationing results have been adjusted downward by 3.1 percent, and IP3 adverse climate change April-September diversions have been adjusted downward by 24 kaf.

- **Baseline Model.** The first of these two comparison models is the Baseline Model (previously called "Future without Integrated Plan") that HDR created for the Integrated Plan. This version of the YAKRW Model was originally obtained from Reclamation's Technical Service Center in 2010, when HDR used it to evaluate the potential effects of climate change. HDR developed and refined this model to estimate water supplies, streamflows, and reservoir levels. HDR's modifications included future YRBWEP water conservation measures and anticipated water demand changes for the basin over the next 30 years in the absence of the Integrated Plan. In 2010 and 2011, HDR used the results from the Baseline Model to estimate the effects of the Integrated Plan on water supplies, streamflows, and reservoir levels.
- **Existing Model.** The second of these two comparison models is the Existing Model. HDR developed this model by making modifications to the Baseline Model to represent current operating conditions, rather than future conditions. HDR created this model to represent current conditions and therefore more precisely compare the simulation results against the Reclamation Model.

HDR generated the Existing Model by making the following changes to the Baseline Model:

- Turn off future planned conservation of 36,000 acre-feet associated with the Roza Irrigation District.
- Turn off future planned conservation of 6,870 acre-feet associated with the Benton Irrigation District.
- Turn off future planned conservation of 54,000 acre-feet associated with the Sunnyside Canal.
- Correct the model "bug" associated with the proposed Wymer Reservoir flow bypass through the Wilson-to-Umtanum Reach that was causing approximately 60 kaf of extra water to be discharged from the system during the period August 2 through September 15.

The following is a list of differences between the Existing Model and the Reclamation Model:

- The Existing Model includes future changes to the Benton and Reservation points of diversion from the Yakima River.
- The Existing Model includes inflow data from American Rivers on discrepancies in four water years (Appendix A provides additional information).
- The Existing Model includes projected future municipal and industrial water demands for Kittitas, Yakima, and Benton counties.
- Irrigation efficiencies for several irrigation diversions are somewhat lower in the Existing Model, compared with the Reclamation Model.

The Integrated Plan includes groundwater storage as one element. However because the exact quantities and locations are not well defined, HDR has not included groundwater storage (infiltration and/or aquifer storage and recovery) in the model described in this technical memorandum.

2.2 Model Calibration and Comparison

HDR compared the simulation results from the Baseline Model and Existing Model with results from the Reclamation Model for agreement with respect to the overall water balance within the Yakima River system, water supply metrics, and instream flow metrics. Appendix A presents these metrics and the comparison between the Reclamation and Baseline Model simulation results.

HDR compared both the Baseline and Existing Model results with the Reclamation Model results for the historical period from November 1, 1981 to October 31, 2005. HDR and Reclamation developed the following set of primary metrics to summarize and compare the models:

- Prorationing Level
- TWSA
- Major Deliveries
- YRBWEP Title XII Flows at Parker Gage
- Flow Objectives from the Integrated Plan
- Reservoir Releases
- Reservoir Storage

2.3 Calibration Results

The calibration process identified an error in one operating rule and some "bugs" in the model programming, all of which HDR corrected. After turning off the future water conservation projects planned for Roza Irrigation District, Kittitas Reclamation District, and the Sunnyside Valley Irrigation District, the results produced by the Existing Model closely match those from the Reclamation Model. The following summarize specific findings:

- **Overall Water Balance.** Total inflows in the model match exactly. Total outflows match within 4 percent. The difference in total outflows is equal to the sum of the difference in depletions and seepage losses.
- **Irrigation Prorationing Level.** Irrigation prorationing is nearly the same in both models (within 0.7 percent), with a maximum difference of 3.4 percent.
- **Total Water Supply Available.** On average, the Existing Model calculates 4 percent less TWSA on September 30.
- **Major Irrigation District Deliveries**. Major deliveries for the five largest irrigation districts match within 2.7 percent.
- **Reservoir Storage**. Reservoir storage in each reservoir matches, with improved performance for Rimrock Reservoir.
- **Instream Flow Metrics**. YRBWEP Title XII target flows at the Parker Gage match closely in volume and pattern. Other flow objectives match well at locations below major reservoirs. (Evaluated instream flow metrics are reported in the summary tables in Appendix B and C.) Reservoir releases from each reservoir match, except for minor target flow issues.

The adjusted Existing Model and Baseline Model simulation results closely match those from the Reclamation Model. HDR used this Baseline Model to derive the Integrated Plan Scenario Model. Where slight differences exist, there is good reason for the underlying operating rules, flow objectives, and assumptions to be included in the Baseline Model and in the Integrated Plan Scenario Model. HDR subsequently correct certain discrepancies between the Baseline and the Reclamation Model for the remainder of the modeling analysis. Therefore, HDR and Reclamation concluded that the Baseline Model and the Integrated Plan Scenario Model are well calibrated.

2.4 Additional Model Modifications

Following completion of the scenario runs for KKC, KDRPP, and CEPR, HDR modified the Integrated Plan Scenario Model in response to comments received from Reclamation staff. These comments were primarily concerned with the model's tendency not to protect minimum flow objectives and reservoir storage quantities during drought years. The primary modifications include:

- KKC: Removed a smolt restriction on conveying more than 200 cfs of water through KKC in the spring.
- KDRPP: Examined timing of use of KDRPP with other projects to improve overall benefits. Improved the coordination between KDRPP and the use of the Kittitas Reclamation District's spillway 1146 (return flow canal), to control flows in the Easton reach.
- CEPR: Added the ability to use the Cle Elum expanded pool to provide additional increases to winter minimum instream flow in the Cle Elum River.
- WDR: Incorporated minimum flow objectives at the Roza Reach, that subordinate Wymer fill system pumping and/or Roza power generation. Adjusted allocation of storage between irrigation and instream flow accounts to improve overall project benefits. Adjusted use of Wymer with other IP projects to improve overall project benefits.
- BRE: Bumping pool capacity was separated into existing pool and expanded pool accounts. The expanded pool account can be modeled with goals of maintaining the storage for minimum flows only or applications for water supply.
- Conservation: Revised calculations for assignment of instream flow conservation over the irrigation season.
- Minimum Flows: Added incorporation of groundwater return flows into calculated storage releases needed for minimum flows. Each model scenario was run multiple times to revise storage releases, considering travel times and other project operations, to improve achieving minimum flow targets at the Parker gage. The model will be updated in a future phase to eliminate this required iteration.

The modifications described above improve the model's ability to provide overall project benefits through balancing the use of individual IP projects, and support adding WDR and BRE scenarios.

To test effects of the modifications listed above, HDR re-ran the IP3 scenario (KKC, KDRPP, and CEPR) and compared the results against the results produced at the end of the initial modeling effort. In general, the modifications moderately decreased water supply performance. In the 12 years where simulated prorationing was less than 70 percent, the average prorationing decreased by about 3 percent. In these same 12 years, the average April through September diversions decreased by about 24,000 acre-feet. Because these changes are relatively small, Reclamation and HDR decided it was not necessary to re-run the baseline and scenarios IP0, IP1A, IP2A, IP2, or IP3A. When comparing results between the initial model (presented in Sections 5.1 through 5.4, 6.1, and 6.2) and modified model (presented in Sections 5.5 through 5.7, 6.3, and 6.4), the reader should keep in mind that the water supply benefits in the baseline and scenarios IP0, IP1A, IP2A, IP2, or IP3A results are probably slightly higher than they would be if re-simulated with the modified model.

3.0 Extended Period of Record

Prior modeling of the Integrated Plan, performed by HDR in 2010 and 2011, analyzed Yakima River basin operations based on hydrologic conditions during the period from 1981 to 2005. For the simulations of Yakima River basin operations discussed in this technical memorandum, HDR extended the period of record to include hydrologic conditions from water year 1926 through 2009 (WY 1926-2009). For the purpose of this technical memorandum, this is called the "Extended Period of Record" (EPOR).

Use of the EPOR permits assessment of how the Yakima River basin would perform under the range of dry, medium, and wet conditions throughout this 84-year period. For example, the EPOR includes hydrologic conditions for the driest year on record, 1941; for extended dry periods that occurred from 1929 to 1931, 1941 to 1945, and 1992 to 1994; and for a number of single-year dry periods. The EPOR also includes an extended period of favorable water-supply conditions from 1946 to 1972.

The EPOR refers only to the historical hydrologic data used as an input to the modeling exercise. The water-supply facilities and users included in the model are those that are in place today or are proposed future facilities and operations (described in Section 4.0).

4.0 Model Scenarios and Operating Rules

4.1 Sequence of Modeled Scenarios

HDR developed a numbering system for the various modeling scenarios. HDR numbered the scenarios starting at the upstream end of the Yakima River system. The following subsections describe the scenarios that HDR evaluated in this study. Figure 1 displays the locations of the projects discussed in this section.

4.1.1 Baseline Scenario

The Baseline Model operations are very similar to existing operations, except that the Baseline Model incorporates future water conservation measures that the YRBWEP

Workgroup has planned and are independent of the Integrated Plan (listed below). It also includes certain municipal water demand changes that Reclamation anticipates to occur in the basin over the next 30 years. The baseline scenario also incorporates certain changes in points of diversion.

The baseline scenario and Integrated Plan scenarios do not include flow requirements that may be associated with consultation under the Endangered Species Act. If Reclamation or other agencies establish new flow requirements for streams within the Yakima River basin, additional analysis would be required. Existing and with Integrated Plan flow targets are summarized in Table 3 in Appendix B.

The baseline scenario includes the following future conservation measures:

- Roza Irrigation District: 36,000 acre-feet per year for irrigation.
- Sunnyside Valley Irrigation District: 36,400 acre-feet per year for instream flow and 18,180 acre-feet per year for irrigation.
- Benton County 5,420 acre-feet per year for instream flow, 1,450 acre-feet per year for irrigation.
- Point of diversion changes at the Benton and Reservation diversions contained within the model.
- Future growth in municipal demands distributed among Kittitas, Yakima, and Benton counties.

4.1.2 Integrated Plan Conservation

HDR defined a scenario designated IP0 to include the baseline system plus future water conservation projects identified under the Integrated Plan. These projects are predicted to reduce irrigation district diversions by approximately 138,000 acre-feet. The model also accounts for reduced return flows associated with the reduced diversions from those irrigation districts. HDR added this scenario to separate the effects of the water conservation actions under the Integrated Plan, from the effects of the structural projects discussed in Section 1.2.

4.1.3 Integrated Plan Structural Projects

The modeling exercise examined how adding the five projects that were identified in Section 1.2 would affect outcomes for water supply and stream flow. The codes used for the various project combinations are shown in Table 2.

Table 2. Scenario Codes for Hydrologic Modeling

Individual Projects	Project Combinations
IP0 – Water Conservation Projects[1]	IP0 – Water Conservation Projects[1]
IP1A – IP0 and KKC	IP1 – IP0 and KKC
IP2A – IP0 and KDRPP	IP2 – IP0, KKC and KDRPP
IP3A – IP0 and CEPR	IP3 – IP0, KKC, KDRPP and CEPR
---	IP4 – IP0, IP3 and WDR
---	IP5 – IP0, IP3 and BRE
---	IP6 – IP0, IP3, WDR and BRE

[1] All of the subsequent numbered scenarios include water conservation from IP0.

The first three projects, KKC, KDRPP and CEPR would be constructed during the Initial Development Phase of the Integrated Plan. These three projects (combined with conservation) are designated as IP3. The last two projects, WDR and BRE, would be constructed in later development phases. A sequence of construction between WDR and BRE has not yet been determined. Therefore each of them was added by itself to IP3 (forming IP4 and IP5), and then both WDR and BRE were added to IP3 (forming IP6).

4.2 Metrics for Comparing Scenarios

HDR and Reclamation developed the following sets of water supply and instream flow metrics to summarize and compare the scenario results.

4.2.1 Water Supply Metrics

Prorationing Level – Presented in summary tables for July 1 and September 30. In graphics, summarized as the minimum September 30 value for the 84 years simulated, and as the average level for the 15 years when prorationing is less than 70 percent under the baseline scenario. The September 30 value represents what the prorated districts received for the period from April through September. In real operations, the last prorationing value is typically reported in August or very early September.

Total Water Supply Available – Reported for April 1 and July 1.

Major Deliveries – Reported for April through September for six major irrigation divisions.

End of Year Reservoir Storage – Reported for September 30 (the conventional system storage carryover point) and October 15. (Note that the irrigation season ends October 20, and that November 1 storage is used for decision making.)

Volume of Flow Past Parker Gage – Reported for April through September.

4.2.2 Instream Flow Metrics

The instream flow metrics compared the winter, spring, summer, and fall simulated flow with the appropriate flow objective (where available) in 17 high priority reaches. Achievement of objectives is summarized in Section 5. Values reported in the summary tables in Appendix B and C include the seasonal percentage of time that the simulated flow met one of the following criteria:

- More than 10 percent above the flow objective
- Zero to 10 percent above the flow objective
- Zero to 10 percent below the flow objective
- More than 10 percent below the flow objective (This should only occur when reservoirs are completely empty, or no water supply is provided to meet the objective.)

4.2.3 System Constraints Metrics

The system constraints metrics include examining the Rimrock Reservoir storage on August 10 for achievement of a minimum storage of 127,000 acre-feet. Operations have been adjusted, where possible, to achieve this minimum target.

4.3 Operating Rules Applied to Model Scenarios

Each of the model scenarios described in this technical memorandum includes operating rules that govern how the YAKRW Model handles inflows, reservoir releases, deliveries to water users, management of streamflows, and overall system balancing. The original operating rules were contained within the Reclamation Model provided to HDR. HDR adjusted operating rules to model each of the projects, since the addition of each project creates new opportunities and constraints in terms of water storage, reservoir releases, instream flows, and water deliveries. HDR worked closely with Reclamation staff to identify changes in operating rules needed to run the scenarios with proposed new project facilities.

Appendix B provides a description of the operating rules for the Existing and Baseline Models and for each scenario listed in Section 4.1. All of the simulation results presented in the subsequent sections reflect these operating rules.

The operating rules described in Appendix B are used solely to support this modeling exercise. At the time new projects are actually constructed, Reclamation would need to work with stakeholders and perform further evaluation of regulatory considerations and contractual obligations before developing final protocols to guide project operations.

5.0 Modeling Analyses and Results

This section summarizes results of the modeling described in the prior sections. Appendix C presents more detailed model results.

HDR evaluated the water supply benefits of all projects in terms of the following parameters:

- The prorationing percentage on September 30 of each year
- The TWSA on July 1 of each year
- The total deliveries to the six largest irrigation divisions between April 1 and September 30 of each year

Because the water supply benefits of the proposed projects would primarily occur in years when prorationing is less than 70 percent, HDR focused evaluation of the three parameters

listed above on the years out of the EPOR when prorationing was less than 70 percent under the scenario being compared against.

HDR evaluated instream flow benefits by comparing them to seasonal flow objectives defined in the Integrated Plan. HDR defined a simplified metric for comparing instream flow benefits across scenarios, which is the percentage of time flow objectives are achieved in each season for which a flow objective was defined.

The following subsections present the hydrologic modeling results of the proposed Integrated Plan projects.

5.1 KKC Conveyance Results (Scenarios IP1A and IP1)

The modeling of the KKC included the following refinement of two key aspects of the project to support the ongoing feasibility study:

- The operating rules associated with use of the KKC target storage volume for Keechelus Reservoir. HDR used this to establish when Reclamation would transfer water from Keechelus Reservoir to Kachess Reservoir.
- The capacity of the KKC, which informs the diameter and other physical characteristics of tunnel design.

These aspects were simulated for the period 1981 through 2009, prior to the extension of the period of record to 1925. There is a certain amount of interaction among these parameters and other aspects of the KKC and KDRPP projects. For example, the capacity of KKC could affect the optimum capacity of KDRPP, and the operating rules and target storage assumed for KKC could affect each of the other parameters. HDR followed a systematic procedure, wherein the most basic and farthest upstream parameters were optimized first, and then these results were checked for sensitivity as more downstream parameters were added and optimized.

5.1.1 Keechelus Reservoir Target Storage

HDR defined a target storage level in Keechelus Reservoir that would limit when water could be transferred to Kachess Reservoir via the KKC. This is important for maximizing the benefit to the Keechelus Reach of the Yakima River (by reducing summer high flows), while avoiding drawing Keechelus Reservoir down so low that bull trout migration from the reservoir into tributary creeks is adversely impacted. Establishing a target storage amount is not a permanent decision, in that it does not involve a physical structure. Reclamation could modify the Keechelus Reservoir target storage based on new findings or to adapt to future conditions.

To identify the optimum Keechelus Reservoir target storage, HDR ran a series of IP1A scenario simulations that kept the KKC capacity constant at 400 cfs while adjusting the target storage (ranging from 40,000 acre-feet to 140,000 acre-feet). HDR then evaluated the results of these simulations using the United States Geological Survey Decision Support System, which evaluates instream flow impacts (USGS, 2008). Table 3 summarizes these results.

Table 3. Effect of Keechelus Reservoir Target Storage on Instream Flow and Water Supply (1981 – 2009)

Run ID	KKC Capacity (cfs)	Keechelus Target Storage (acre-feet)	Instream Flow Effects	Water Supply Effects		
			Outmigration impassable days	TWSA and Prorationing	Keechelus Average Maximum Storage (acre-feet)	Kachess Average Maximum Storage (acre-feet)
B1S1C1K0	400	40,000	Keechelus reduced by 7%.	No significant change	134,566	476,142
B1S3C1K0	400	60,000	Keechelus reduced by 9%.	No significant change	140,061	473,250
B1S5C1K0	400	80,000	Keechelus reduced by 9%.	No significant change	144,372	470,499
B1S7C1K0	400	100,000	Keechelus reduced by 9%.	No significant change	146,630	468,798
B1S9C1K0	400	120,000	Keechelus reduced by 7%.	No significant change	148,139	467,385
B1S0C1K0	400	140,000	Keechelus reduced by 9%.	No significant change	148,756	466,909

This table illustrates that the value of the Keechelus Reservoir target storage has an effect on Keechelus Reservoir outmigration (from the reservoir, into the tributaries). Medium target storage values (between 60,000 and 100,000 acre-feet) reduce adult bull trout outmigration impassable days by the most, while still allowing a large amount of Keechelus storage to be transferred. The Keechelus Reservoir target storage does not appear to have any significant water supply effects. The target storage has a small effect on the average maximum storage attained in Kachess and Keechelus Reservoirs.

Based upon a review of the target storage results and close examination of other YAKRW Model results, Reclamation set the Keechelus Reservoir target storage at 80,000 acre-feet for modeling purposes. Reclamation can modify the Keechelus Reservoir target storage as needed based upon adaptive management or experience gained in the operation of the Integrated Plan facilities.

5.1.2 KKC Capacity Results

HDR established the desired capacity of the KKC to support the feasibility study. HDR used a series of YAKRW Model simulations to examine the effects of project capacity on instream flow and water supply. HDR evaluated instream flows in the Keechelus Reach (approximately 12 river miles, from just below Keechelus Dam to Lake Easton) using the following four conditions:

- The percentage of time that winter flow is equal to or greater than 100 cfs
- The percentage of time that spring flow is greater than or equal to 100 cfs

- The percentage of time that July flow is less than or equal to 500 cfs
- The percentage of time that August flow is within 10 percent of the desired ramping levels
- The percentage of time that fall flow is equal to or greater than 100 cfs, but less than 110 cfs.

HDR examined KKC capacities ranging from 200 cfs to 1,000 cfs. Figure 5 and Figure 6 summarize the effects of KKC capacity on instream flow and water supply, respectively. The results show that increasing KKC capacity has very little effect on instream flow, and essentially no effect on water supply. Appendix C provides additional information and results for the KKC capacities evaluated.

Figure 5 presents the instream flow results of the Keechelus Reach under baseline conditions and with five different KKC capacities. Results suggest that the improvement in instream flow conditions from increasing the capacity from 200 cfs to 400 cfs is small. Increasing the KKC capacity above 400 cfs does not produce additional instream flow improvements in the Keechelus Reach.

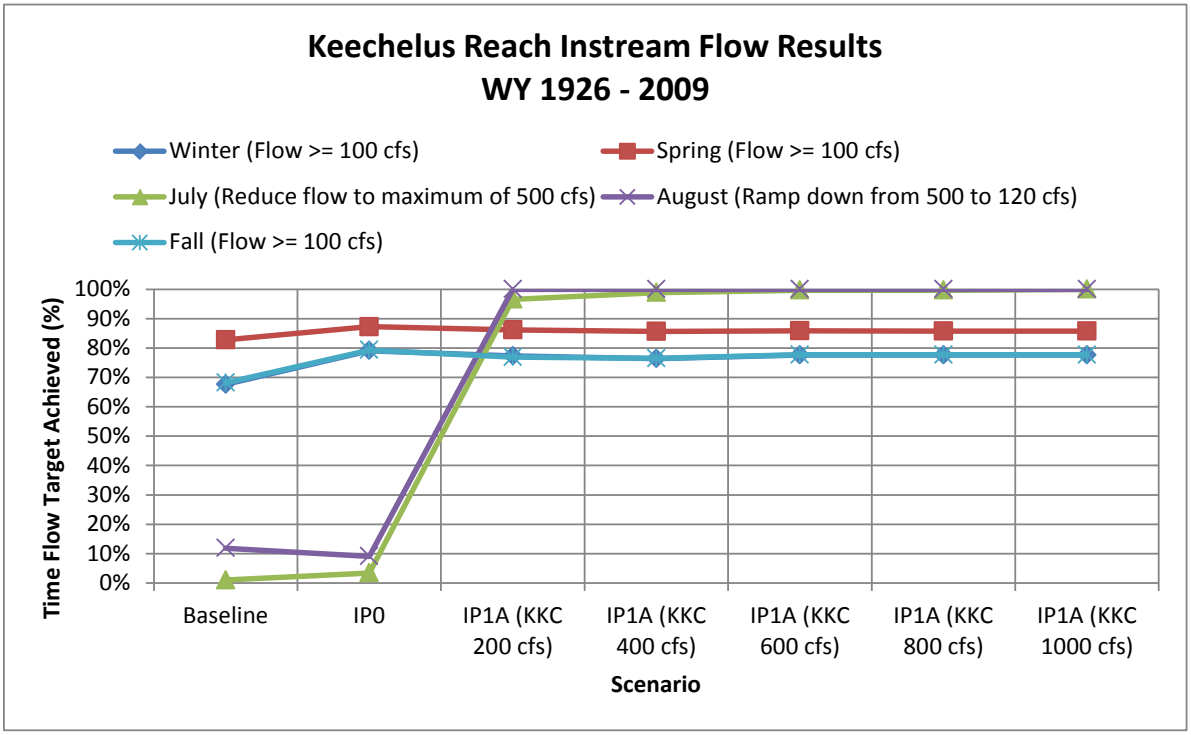
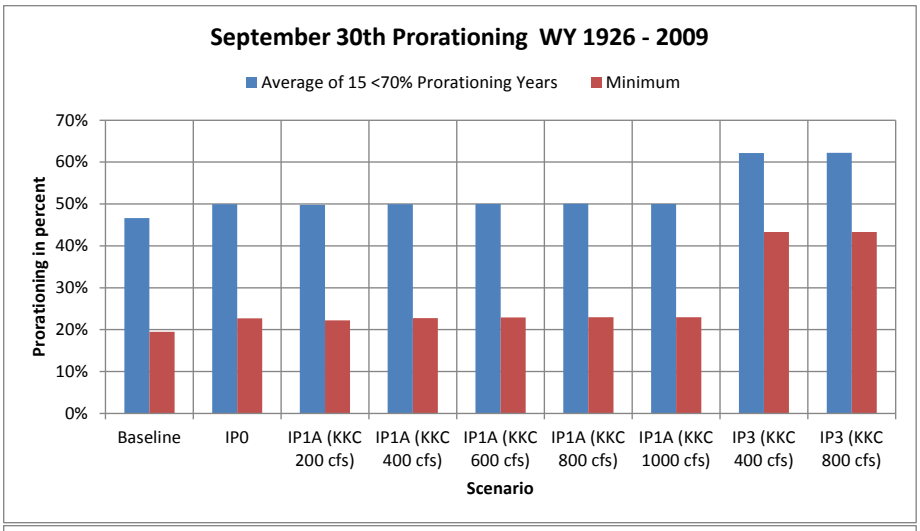
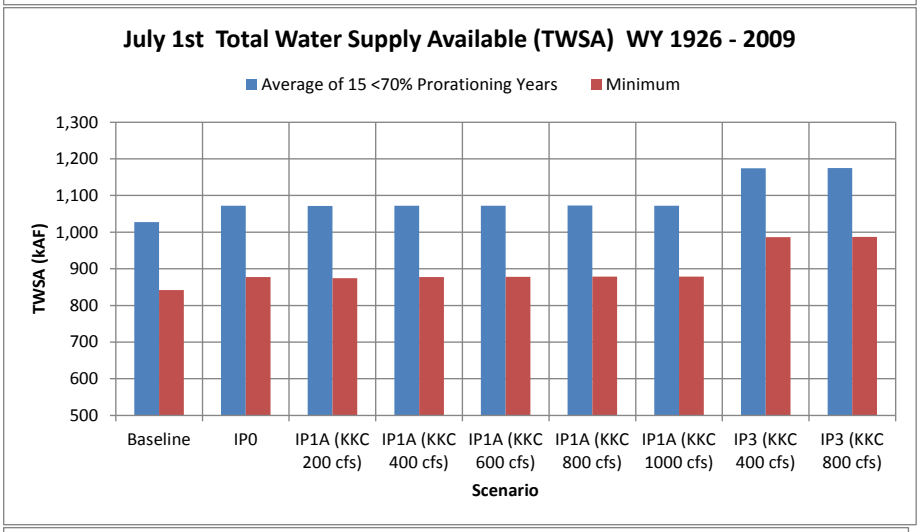


Figure 5. Effect of KKC Capacity Sizing on Achievement of Keechelus Reach Instream Flow Objectives (1981 - 2009)

Figure 6 presents the water supply results under baseline conditions and with the same five KKC capacities. Water supply results presented are based on the three water supply parameters discussed above. The results indicate that there is a small increase in minimum year prorationing and total irrigation deliveries and that no additional benefits are produced by a larger tunnel. The small improvement in prorationing and total deliveries is seen under the IP0 scenario, indicating that the water supply improvements are actually produced by the Integrated Plan water conservation, and not by the KKC.





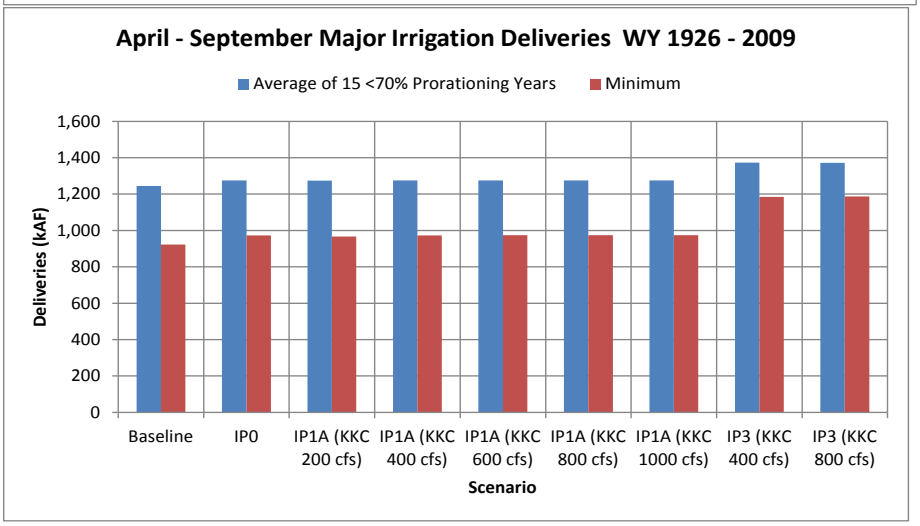


Figure 6. Effect of KKC Capacity Sizing on Water Supply

Figure 7 summarizes the frequency and volume of flow through the KKC tunnel. This figure illustrates that a capacity larger than 400 cfs does not produce significantly different instream flow or water supply benefits. It shows that a larger tunnel moves slightly more water, but above a capacity of 400 cfs, each new increment of increased capacity provides a smaller increase in water transferred. This is a result of the operational rules put in place for the water transfer through KKC, described in Appendix B.

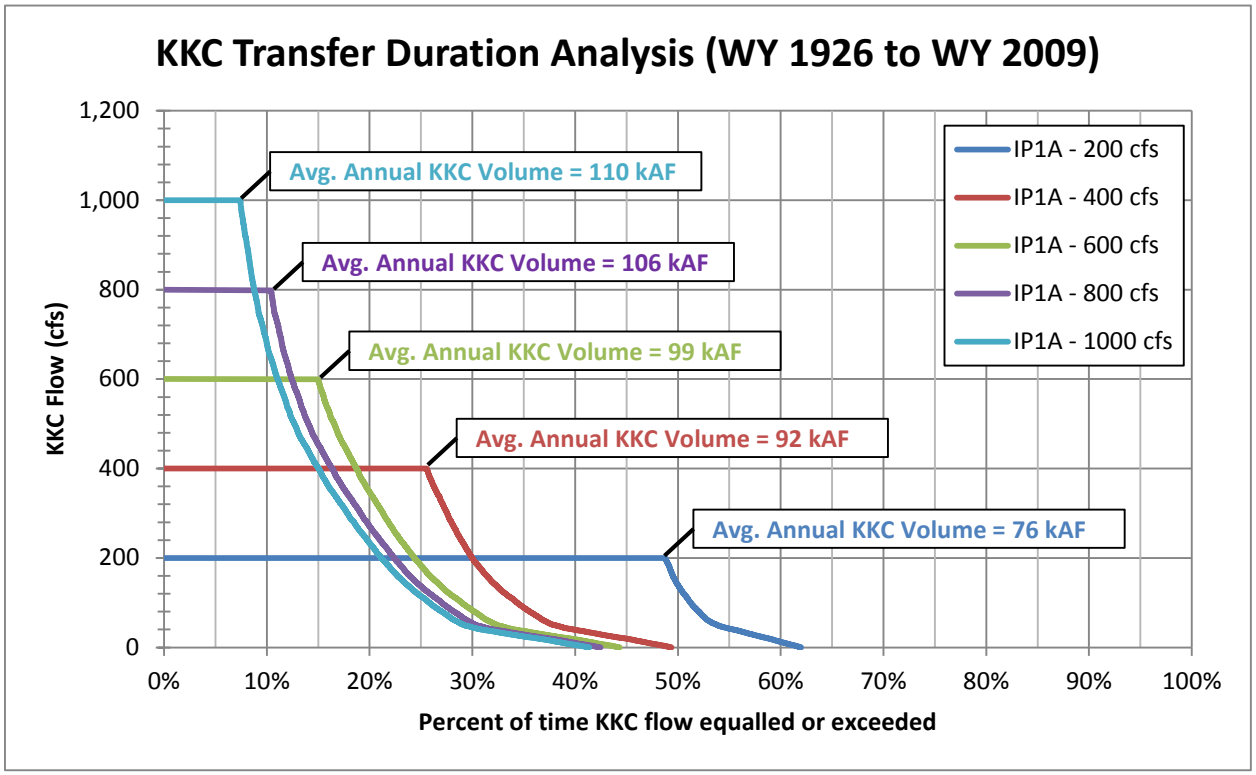


Figure 7. Frequency and Volume of Flow in KKC Tunnel under Varying Capacities

5.2 KDRPP Capacity Results (Scenario IP2A)

HDR established the desired capacity of the KDRPP to support the KDRPP feasibility study. HDR used a series of YAKRW Model simulation runs to examine the effects of project capacity on instream flow and water supply.

If constructed, Reclamation would use the KDRPP to access water stored in Kachess Reservoir that is below the elevation of the existing outlet works. Reclamation could use this water to increase water supply during periods of drought and provide greater flexibility to deliver water to proratable water users.

During a year when the TWSA is not expected to be adequate to supply 70 percent of entitlement to proratable users, Kachess Reservoir would be drafted relatively more heavily early in the season. This would result in Reclamation drawing down Kachess Reservoir to the level of the existing outlet works by about August. Reclamation would then use the

KDRPP to deliver Kachess Reservoir inactive storage water throughout the remainder of the water year and until the reservoir refills above the inactive storage level.

The KDRPP does not produce any significant, direct benefits for instream flow objectives because Reclamation would only operate it only for water supply purposes. Reclamation designed the KDRPP to maintain a minimum flow to Kachess River of 20 cfs when reservoir levels are below the level of the existing gravity outlet. (Note: Recent changes to operations will increase this to 30 cfs, in the future.)

HDR used the YAKRW Model to evaluate the appropriate sizing of this facility to support this objective. Initial modeling was done for the period 1982 through 2009. Figure 8 illustrates the water supply results of the KDRPP simulation under baseline conditions and at a capacity of 600, 800, 1,000, 1,400, 1,600, 1,800, 2,000, 2,200, and 2,400 cfs. These graphs display the three water supply evaluation parameters: September 30 prorationing, July 1 TWSA, and total deliveries (April through September) to the six largest irrigation districts. The results suggest the KDRPP produces an increase in minimum year prorationing and total irrigation deliveries. KDRPP capacities above 1,000 cfs produce no additional water supply benefits. The majority of water supply improvements are apparent at a KDRPP capacity of 600 cfs. There are remaining water supply shortages, but these are not significantly decreased by increasing the KDRPP capacity.



Figure 8. Effect of KDRPP Capacity on Water Supply Results

5.3 Clem Elum Pool Raise Water Supply Results (Scenario IP3A)

Reclamation designed the CEPR to provide an additional 14,600 acre-feet of storage capacity for water supply and instream flow in the Cle Elum River. Figure 9 through Figure 11 illustrate the effects of CEPR (Scenario IP3A) on instream flow. The simulation results show that CEPR improves achievement of instream flow objectives in the Keechelus and Easton reaches by about 5 percent. Table 4 summarizes the water supply results unique to the CEPR.

Table 4. Effect of CEPR Project on Water Supply Results

	Change in September 30th Prorationing (%)		Change in July 1st TWSA (kaf)		Change in April 1 to Sept. 30 Major Irrigation Deliveries (kaf)	
Comparison	Average	Minimum Year	Average	Minimum Year	Average	Minimum Year
From Scenario IP0 to IP3A	0.20	0.80	12.3	5.1	2.0	9.3
From Scenario IP2 to IP3	0.36	0.17	10.9	4.0	1.8	8.6

5.4 Initial Development Phase (IP3)

The results presented above focus on each structural project individually. This was necessary to examine the capacity requirements for KKC and KDRPP. However, Reclamation and Ecology intend to construct and operate Integrated Plan projects concurrently, to achieve the full and synergistic benefits of the Integrated Plan for ecosystem improvement and water supply. Reclamation and Ecology anticipate implementing the Integrated Plan over 30 years. The Initial Development Phase, covering the first ten-year period (2013-2023), includes the KKC, KDRPP, and CEPR. Therefore, this section provides information on how the water supply and instream flow metrics discussed in this technical memorandum are affected by the combination of these projects.

For purposes of modeling the Initial Development Phase, HDR assumed that Reclamation would develop these projects in the following order: KKC, KDRPP, and CEPR. This section summarizes the instream flow and water supply results of the combined projects. The first project, KKC project alone, was previously described (recall that IP1A is the same as IP1). Scenario IP2 adds the 1,000-cfs-capacity KDRPP project to scenario IP1. Scenario IP3 adds the 14,600 acre-feet CEPR project to scenario IP2.

5.4.1 Initial Development Phase Instream Flow Results

Figure 9 through Figure 11 present the effects of the Initial Development Phase on instream flow. The instream flow results suggest the following conclusions:

- Improvements to Keechelus Reach are attributed to the KKC. The addition of KDRPP and CEPR do not produce significant additional benefits in this reach.

- Improvements to the Easton Reach are primarily attributed to Integrated Plan conservation efforts (scenario IP0).
- CEPR produces a small improvement to the Cle Elum River.

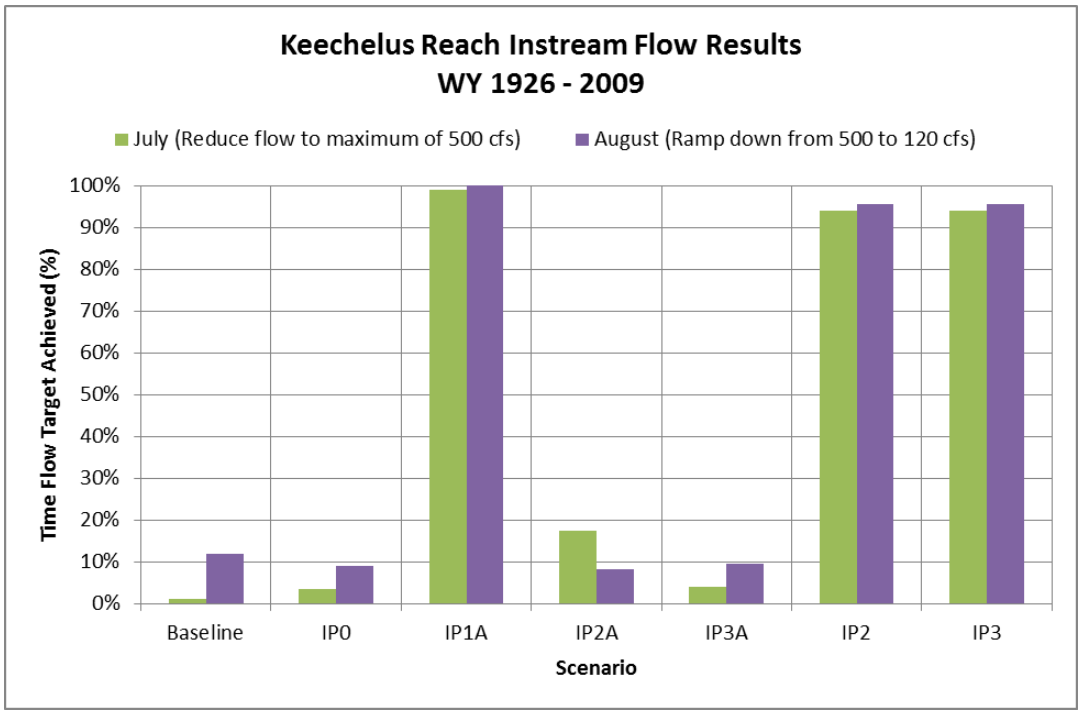


Figure 9. Keechelus Reach Instream Flow Results

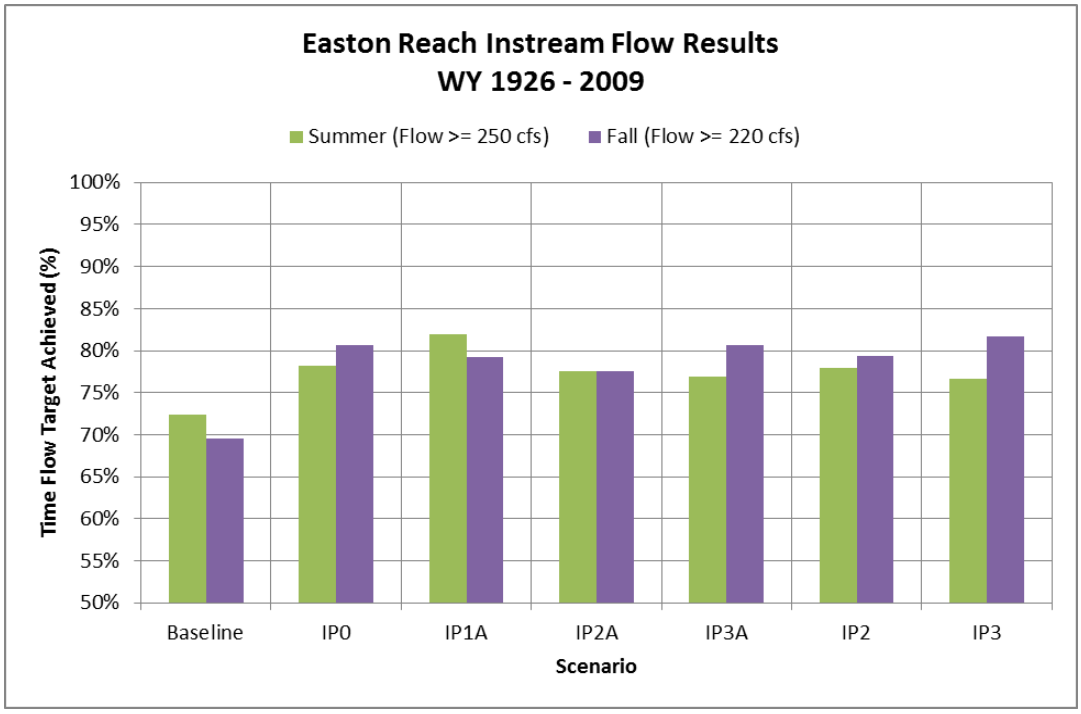


Figure 10. Easton Reach Instream Flow Results

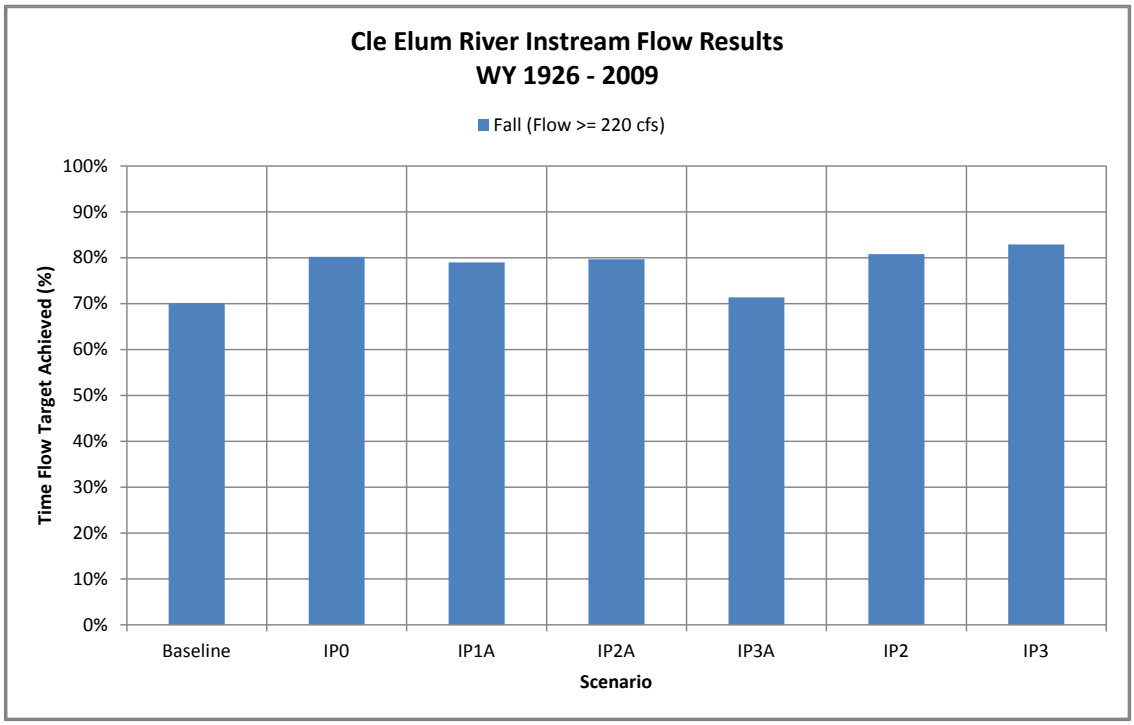


Figure 11. Cle Elum River Instream Flow Results

5.4.2 Initial Development Phase Water Supply Results

The combination of the KDRPP with the KKC would allow Kachess Reservoir to refill more quickly following drawdown of the Kachess Reservoir by the KDRPP during a drought period. Compared with scenario IP2A (KDRPP only), October 15 water levels at the end of a critically dry year are typically 15,000 to 30,000 acre-feet higher under scenario IP2 (KKC and KDRPP). This additional storage is likely to have benefits associated with reducing the impacts of Kachess Reservoir drawdown on bull trout migration into tributaries. There is a slight water supply improvement between scenario IP2A and scenario IP2. This is illustrated in Figure 12.

Table 5 summarizes the results of the baseline, individual project (IP1A, IP2A, and IP3A), and combined project (IP2 and IP3) scenarios from the Initial Development Phase.

Rimrock Reservoir storage on August 10 needs to be at or above 127,000 acre-feet, according to Reclamation's system operations metrics. Scenario IP2 shows fewer failures of this requirement, going from 5 years under the baseline (1941, 1944, 1977, 1994, and 2001) to 3 years (1944, 1977, and 2001) with generally higher pool elevations in these years.

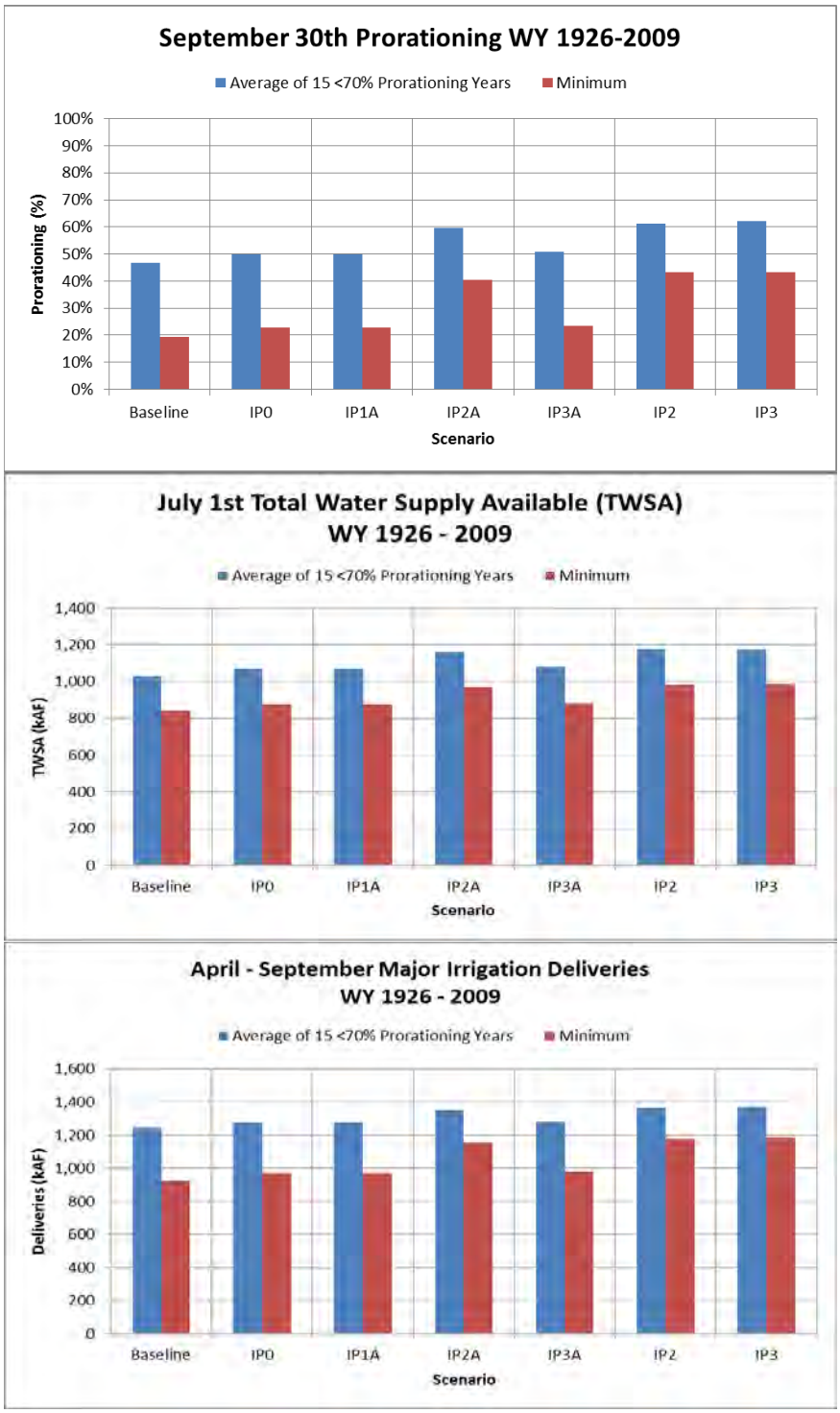


Figure 12. Water Supply Results Associated with Phased Implementation of the Integrated Plan – Initial Development Phase

Table 5. Summary of Water Supply Results – Initial Development Phase Projects

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)
Run: Baseline (EPOR)										
Avg. WY 1926 to 2009	3,030	714	1,580	1,521	88.2%	333	87	87.9%	294	70
1941 (Dry Year)	1,646	235	923	842	18.6%	96	8	19.5%	116	15
1994 (Dry Year)	1,770	254	1,036	886	25.7%	91	20	26.3%	53	9
2001 (Dry Year)	1,841	195	1,156	989	39.1%	111	46	39.6%	80	26
2005 (Dry Year)	1,877	175	1,201	1,019	42.4%	136	29	45.0%	119	28
Run: IP0 (EPOR)										
Avg. WY 1926 to 2009	3,065	758	1,538	1,546	89.3%	384	103	88.8%	349	88
1941 (Dry Year)	1,697	240	973	878	22.4%	117	10	22.7%	137	16
1994 (Dry Year)	1,817	258	1,080	923	30.1%	111	22	30.3%	70	12
2001 (Dry Year)	1,895	197	1,204	1,032	43.3%	137	52	43.3%	106	46
2005 (Dry Year)	1,933	176	1,253	1,065	46.8%	165	45	48.9%	148	45
Run: IP1A - KKC 400 cfs (EPOR)										
Avg. WY 1926 to 2009	3,067	761	1,538	1,546	89.3%	384	92	88.7%	349	79
1941 (Dry Year)	1,697	239	972	878	22.4%	119	6	22.8%	139	13
1994 (Dry Year)	1,816	257	1,078	922	29.9%	112	8	30.2%	71	5
2001 (Dry Year)	1,895	197	1,204	1,032	43.3%	137	34	43.3%	106	28
2005 (Dry Year)	1,922	176	1,242	1,058	45.9%	164	31	48.0%	147	31
Run: IP2A - KDRPP 1000 cfs (EPOR)										
Avg. WY 1926 to 2009	3,021	749	1,545	1,527	90.0%	328	22	89.3%	296	7
1941 (Dry Year)	1,687	246	1,153	971	40.6%	-93	-200	40.4%	-67	-196
1994 (Dry Year)	1,810	258	1,219	998	44.7%	-91	-200	44.8%	-122	-200
2001 (Dry Year)	1,895	184	1,394	1,170	65.8%	-27	-87	64.4%	-55	-100
2005 (Dry Year)	1,880	167	1,389	1,168	64.6%	-6	-108	65.4%	-13	-120
Run: IP3A - CEPR (EPOR)										
Avg. WY 1926 to 2009	3,075	755	1,540	1,559	89.6%	395	105	89.0%	358	89
1941 (Dry Year)	1,706	241	982	883	23.2%	116	9	23.5%	137	16
1994 (Dry Year)	1,819	258	1,081	924	30.2%	110	21	30.4%	70	12
2001 (Dry Year)	1,911	197	1,222	1,041	44.6%	138	51	44.6%	107	44
2005 (Dry Year)	1,943	176	1,262	1,071	47.6%	165	45	49.7%	148	45
Run: IP2 (EPOR)										
Avg. WY 1926 to 2009	3,045	753	1,553	1,549	91.0%	345	57	90.5%	312	43
1941 (Dry Year)	1,673	237	1,176	982	42.6%	-87	-182	43.2%	-64	-184
1994 (Dry Year)	1,801	250	1,246	1,010	47.1%	-89	-192	47.8%	-120	-200
2001 (Dry Year)	1,895	175	1,397	1,170	65.8%	-20	-71	65.2%	-43	-84
2005 (Dry Year)	1,915	156	1,416	1,192	67.3%	13	-78	68.9%	6	-90
Run: IP3 (EPOR)										
Avg. WY 1926 to 2009	3,055	750	1,554	1,560	91.3%	357	60	90.8%	322	46
1941 (Dry Year)	1,678	234	1,185	986	43.1%	-85	-181	44.0%	-62	-184
1994 (Dry Year)	1,805	248	1,251	1,013	47.5%	-88	-193	48.4%	-119	-200
2001 (Dry Year)	1,910	177	1,408	1,180	67.0%	-18	-71	66.2%	-41	-84
2005 (Dry Year)	1,920	156	1,421	1,195	67.8%	13	-80	69.3%	6	-92

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.

Table 6 provides additional information on water supply results for each of the scenarios in the Initial Development Phase compared to the baseline scenario. This table looks only at the 15 years when prorationing is less than 70 percent under the Baseline scenario. The modeled combination of the KKC, KDRPP and CEPR (scenario IP3) improves prorationing by an average of 12.2 percent; TWSA by an average of 102,600 acre-feet; and April through

September major irrigation deliveries by an average of 98,200 acre-feet during these 15 years. The modeled combination of the three projects achieves the minimum prorationing goal of 70 percent in four of these 15 years. In the other 11 years, the goal is not achieved by these three projects alone. Simulated September 30 prorationing is above 60 percent in 6 of these 11 years. In order to meet the goal in all years, additional projects would be needed besides KKC, KDRPP, and CEPR.

Table 6. Summary of Water Supply Benefits of Each Scenario in 15 Years when Prorationing was less than 70 Percent under Baseline – Initial Development Phase

	September 30 Prorationing (%)		July 1 TWSA (KAF)		April 1 to Sept 30 Major Irrigation Deliveries (KAF)	
Scenario	Average in 15 <70% Years	Minimum Year	Average in 15 <70% Years	Minimum Year	Average in 15 <70% Years	Minimum Year
Baseline Level	46.6	19.5	1,027.5	842.2	1,244.8	923.1
IP0 Level	50.0	22.7	1,071.9	877.7	1,274.9	972.8
Improvement Compared with IP0						
IP1A Improvement	0.0	0.1	-0.1	0.0	-0.2	-0.4
IP2A Improvement	9.6	17.7	90.5	93.4	76.6	180.3
IP3A Improvement	0.8	0.8	6.8	5.1	7.8	9.3
IP2 Improvement	11.4	20.4	107.7	104.7	91.9	203.6
IP3 Improvement	12.2	20.6	102.6	108.7	98.2	212.2

Following the Initial Development Phase, Reclamation assumes that the next water storage project developed under the Integrated Plan could be either WDR or BRE. The following sections describe the effects of combining the WDR or BRE with the Initial Development Phase projects.

5.5 Wymer Dam and Reservoir Results (Scenario IP4)

5.5.1 Wymer Dam and Reservoir Capacity Results

The WDR project would provide a significant volume of new storage capacity and would offer new flexibility in managing water supply and stream flow. Reclamation would dedicate a portion of WDR capacity to capturing water stored for TWSA that would be released from upstream reservoirs in the winter to improve instream flows. Reclamation would use the remaining capacity in WDR to store water for participating, proratable users to use in years when water supply is less than 70 percent of their entitlements. The water for proratable users would be diverted into Wymer Reservoir from natural flow that would be present in the Yakima River even if TWSA water were not released from the upper basin reservoirs.

HDR evaluated WDR with two different reservoir capacities (120,000 acre-feet and 162,500 acre-feet). The scenarios simulated for WDR plus the Initial Development Phase projects are labeled IP4 small and IP4 large, to represent these different capacities. HDR also applied

two different operational assumptions concerning the times of year when natural flows could be diverted and the quantity of natural flow (separate from TWSA releases) that would need to be left in the Yakima River while refilling Wymer Reservoir. These are called Wymer Diversion Constraint 1 and Wymer Diversion Constraint 2 (WDC1 and WDC2). Finally, HDR examined five different capacities for the WDR refill system, which would consist of a pumping plant and associated piping system that would be used to divert water from the Yakima River and convey it into Wymer Reservoir. These refill system capacities are 300, 400, 500, 700, and 1,000 cfs. Appendix B summarizes the process used in the hydrologic analysis and the operating assumptions.

Table 7 and Table 8 summarize the results from the initial round of WDR hydrologic model simulation. Conclusions from these simulations are:

- The larger Wymer Reservoir capacity (162.5 kaf) increases prorationing performance by an average of between 1 and 1.5 percent, and average April through September diversions by between 6,000 and 10,000 acre-feet, compared with the smaller reservoir capacity (120 kaf)
- The extended refill period (included in WDC1) increases prorationing performance by an average of between 1 and 1.5 percent, and average April through September diversions by between 8,000 and 12,000 acre-feet.
- The water supply performance of WDR does not improve appreciably when the fill system is larger than 500 cfs.
- The average annual volume stored in Wymer Reservoir that came from TWSA water released from upstream reservoirs was about 50,000 acre-feet.

Table 7. Effect of the Wymer Dam and Reservoir Alternative Sizing and Diversion Constraints on Prorationing and Diversions during Years less than 70% under IP3

A. Prorationing

Wymer Diversion Constraint 1

IP3 (Revised, Phase II)	162,500 acre-feet capacity									
	300 cfs		400 cfs (interpolated)		500 cfs		700 cfs		1000 cfs	
Prorationing (%)	Prorationing (%)	Improvement (%)	Prorationing (%)	Improvement (%)	Prorationing (%)	Improvement (%)	Prorationing (%)	Improvement (%)	Prorationing (%)	Improvement (%)
56.8	60.9	4.1	61.2	4.4	61.5	4.8	61.7	5.0	61.9	5.1
	120,000 acre-feet capacity									
56.8	60.3	3.5	60.3	3.6	60.4	3.7	60.6	3.8	60.7	3.9

Wymer Diversion Constraint 2

IP3 (Revised, Phase II)	162,500 acre-feet capacity									
	300 cfs		400 cfs (interpolated)		500 cfs		700 cfs		1000 cfs	
Prorationing (%)	Prorationing (%)	Improvement (%)	Prorationing (%)	Improvement (%)	Prorationing (%)	Improvement (%)	Prorationing (%)	Improvement (%)	Prorationing (%)	Improvement (%)
56.8	59.4	2.7	59.8	3.0	60.2	3.4	60.5	3.7	60.7	4.0
	120,000 acre-feet capacity									
56.8	59.1	2.4	59.3	2.6	59.5	2.7	59.6	2.8	59.7	2.9

Note: WDC1 allows diversion of surplus natural flow in winter and spring. WDC2 only allows diversion of surplus natural flow prior to April.

B. Diversions

Wymer Diversion Constraint 1

IP3 (Revised, Phase II)	162,500 acre-feet capacity									
	300 cfs		400 cfs (interpolated)		500 cfs		700 cfs		1000 cfs	
Diversion (kAF)	Diversion (kAF)	Increase (kAF)	Diversion (kAF)	Increase (kAF)	Diversion (kAF)	Increase (kAF)	Diversion (kAF)	Increase (kAF)	Diversion (kAF)	Increase (kAF)
1,329	1,357	28	1,360	31	1,363	34	1,365	36	1,366	38
	120,000 acre-feet capacity									
1,329	1,351	22	1,351	23	1,352	23	1,353	24	1,354	25

Wymer Diversion Constraint 2

IP3 (Revised, Phase II)	162,500 acre-feet capacity									
	300 cfs		400 cfs (interpolated)		500 cfs		700 cfs		1000 cfs	
Diversion (kAF)	Diversion (kAF)	Increase (kAF)	Diversion (kAF)	Increase (kAF)	Diversion (kAF)	Increase (kAF)	Diversion (kAF)	Increase (kAF)	Diversion (kAF)	Increase (kAF)
1,329	1,345	16	1,347	19	1,350	22	1,353	25	1,356	27
	120,000 acre-feet capacity									
1,329	1,340	12	1,342	13	1,344	15	1,345	16	1,346	17

Note: WDC1 allows diversion of surplus natural flow in winter and spring. WDC2 only allows diversion of surplus natural flow prior to April.

Table 8. Effect of WDR Capacity and Diversion Constraints on September 30 Prorationing and April-September Diversions during Years less than 70% under IP3

Scenario	September 30 Prorationing (%)	April- September Diversions (kaf)
IP3 (Revised)	56.8	1,329
Improvement Compared to IP3		
IP4 Small-120 kaf (WDC1)	3.6	23
IP4 Small-120 kaf (Modified Rules and WDC1)	4.4	31
IP4 Large-162.5 kaf (WDC1)	4.4	31
IP4 Large-162.5 kaf (Modified Rules and WDC1)	5.5	41

Based on the results above and discussion with Reclamation, HDR utilized the following operating assumptions in the remainder of the WDR model simulations:

1. A fill system capacity of 400 cfs.
2. An extended refill period with a diversion constraint below Roza Dam set at 1,000 cfs from April through June, and with a flow of 1,300 cfs below Roza Dam (the additional 300 cfs is provided by subordinating Roza Dam power diversions).
3. The capacity of Wymer Reservoir is split into a TWSA portion of 50,000 acre-feet; and a proratable supply portion using the remainder of the capacity. This formula is applied to either size reservoir (i.e. the TWSA portion remains fixed, while the proratable portion varies with the size of the reservoir).

The following subsections summarize the performance of Scenario IP4 (Initial Development Phase projects plus WDR) operated under these assumptions.

5.5.2 Wymer Dam and Reservoir Results

Table 9 summarizes the water supply benefits of each scenario. This table displays results from the 12 years when prorationing would be less than 70 percent under the IP3 scenario. During these 12 years Scenario IP4 small (with WDR sized at 120,000 acre-feet) would improve prorationing by an average of 4.4 percent; TWSA by an average of 59,500 acre-feet; and April through September major irrigation deliveries by an average of 31,100 acre-feet. The model predicts that IP4 would raise the prorationing level to the 70 percent goal in five of these 12 years. In the other seven years, IP4 small would not achieve the goal. However September 30 prorationing would be above 60 percent in one of these seven years.

Table 9. Summary of Water Supply Benefits of Each Scenario in 12 Years when Prorationing was less than 70 Percent under Revised IP3 Scenario

	September 30th Prorationing (%)		July 1st TWSA (kaf)		April 1 to Sept 30 Major Irrigation Deliveries (kaf)	
Scenario	Average in 12 <70% Years	Minimum Year	Average in 12 <70% Years	Minimum Year	Average in 12 <70% Years	Minimum Year
Baseline Level	43.0	19.5	1,002.5	842.2	1,202.3	923.1
IP0 Level	46.3	22.7	1,044.2	877.7	1,237.9	972.8
IP3 Level	59.8	43.3	1,140.0	986.4	1,351.8	1,185.0
IP3 (Revised) Level	56.8	39.1	1,140.2	972.3	1,328.7	1,154.1
Improvement compared with IP3 (Revised)						
IP4 (Small) Improvement	4.4	1.2	59.5	7.2	31.1	9.9
IP4 (Large) Improvement	5.5	2.2	87.9	12.5	40.5	20.1
IP5 Improvement	4.9	2.5	73.2	21.2	30.8	25.9
IP6 Improvement	10.1	13.8	168.6	96.8	73.8	142.8
IP6 Level	66.8	52.9	1,308.7	1,069.1	1,402.4	1,296.9

During the same 12 years scenario IP4 large (with WDR sized at 162,500 acre-feet), would improve prorationing by an average of 5.5 percent; TWSA by an average of 87,900 acre-feet; and April through September major irrigation deliveries by an average of 40,500 acre-feet. IP4 would achieve the prorationing goal of 70 percent in six of the 12 years. September 30 prorationing would be above 60 percent in one of the remaining six years.

Instream flow improvements associated with WDR include achievement of increased flow objectives in the Keechelus Reach and Easton Reach of the Yakima River, the Cle Elum River, and the Tieton River. The improvements in instream flow are summarized on Figures 13 through 16. Appendix C provides further detail.

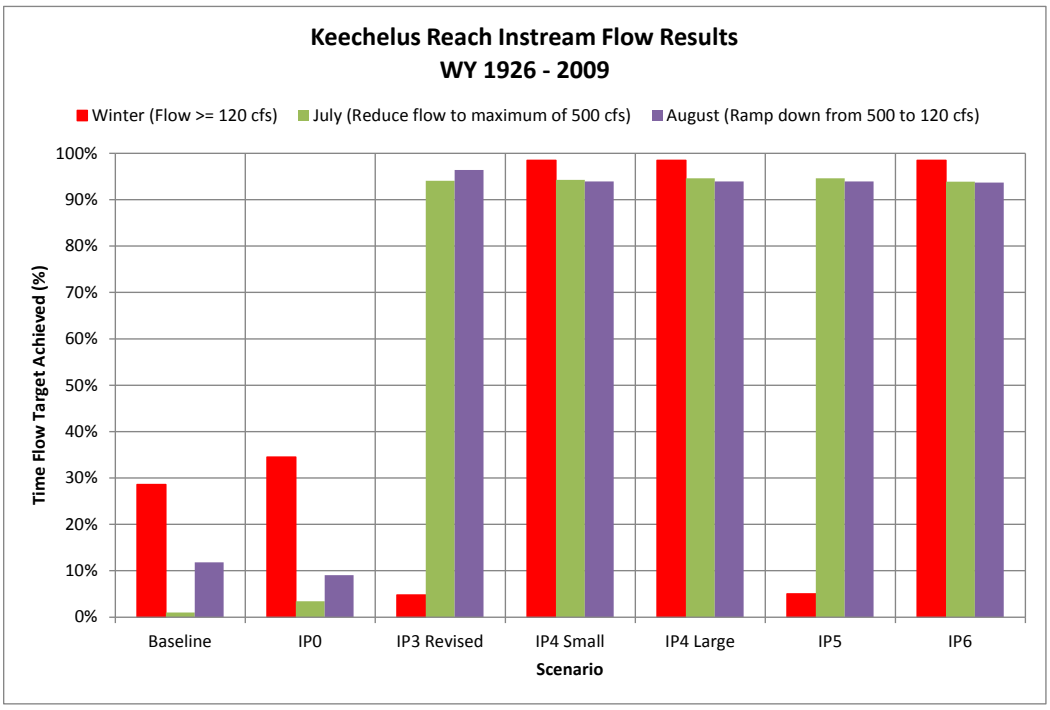


Figure 13. Keechelus Reach Instream Flow Results

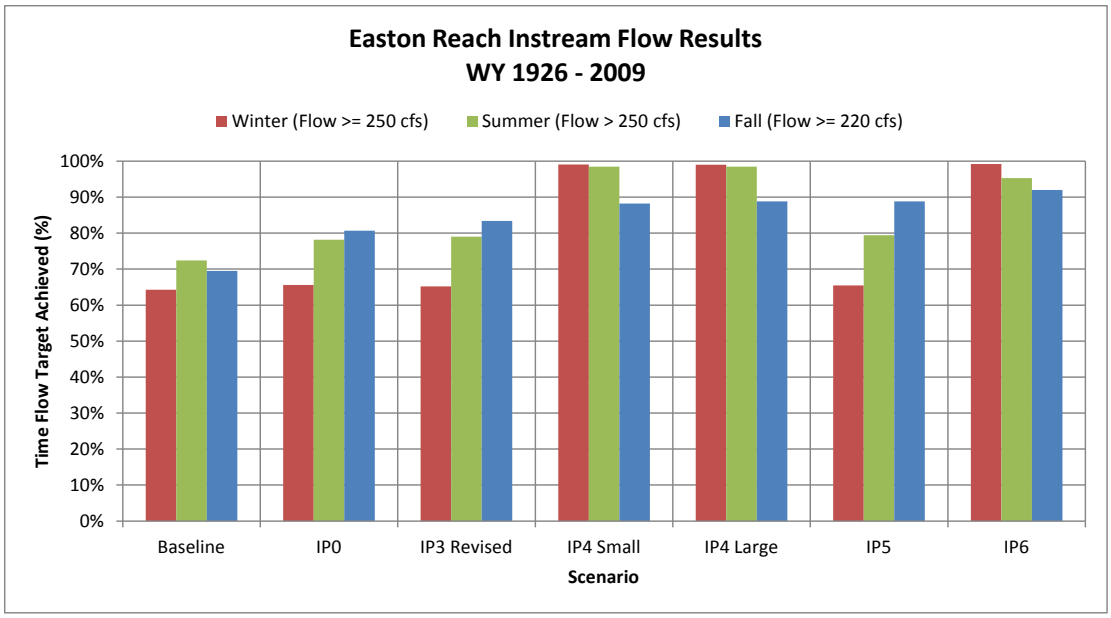


Figure 14. Easton Reach Instream Flow Results

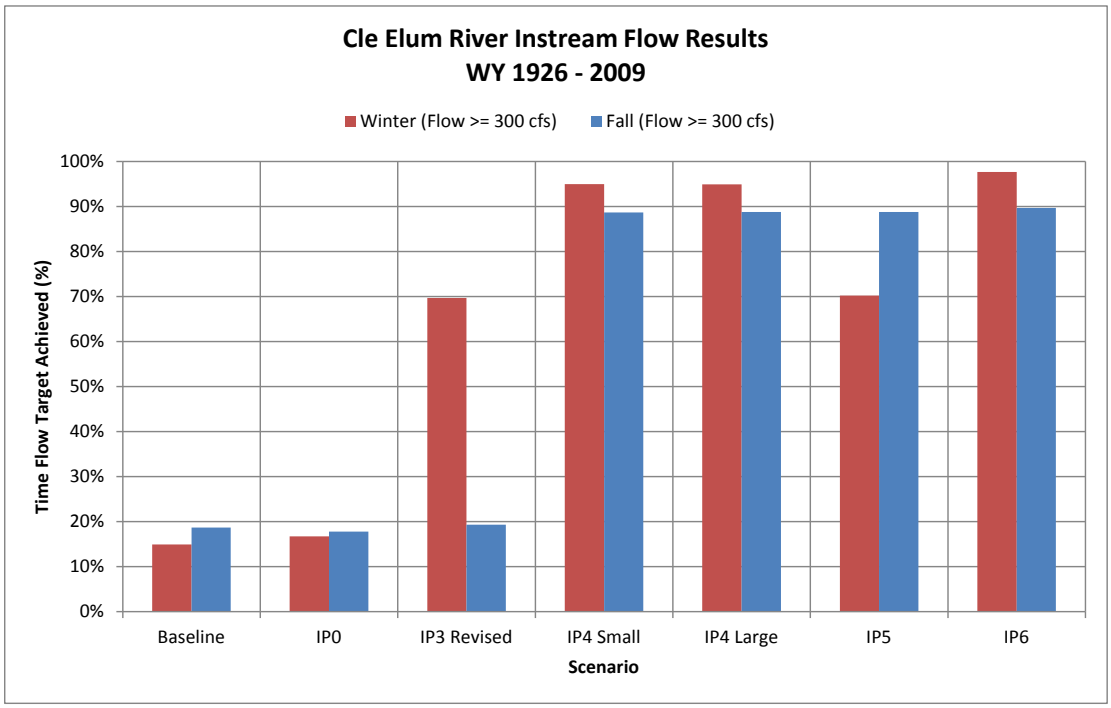


Figure 15. Cle Elum River Instream Flow Results

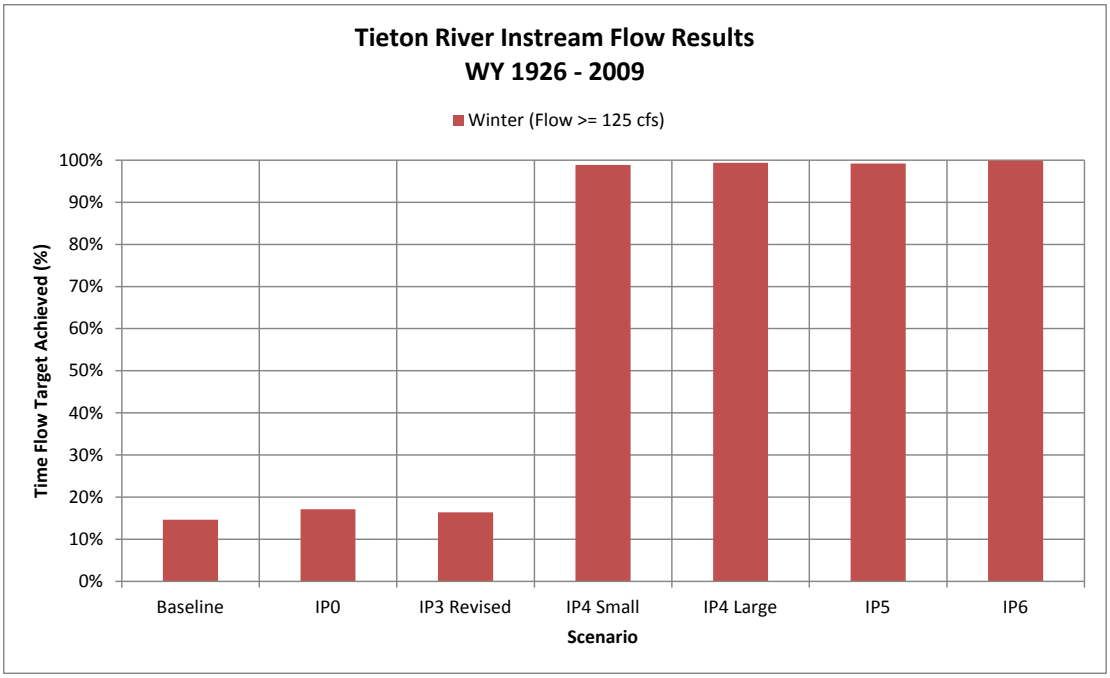


Figure 16. Tieton River Instream Flow Results

5.6 Bumping Reservoir Enlargment Results

Bumping Dam and Reservoir is an existing 33,970 acre-feet (rounded to 34,000 acre-feet) water storage project on the Bumping River (a tributary of the upper Naches River) that is operated by Reclamation for both fisheries and water supply purposes. Bumping Reservoir Enlargement (BRE) is a proposed expansion of Bumping Reservoir from 34,000 acre-feet to 190,000 acre-feet, an increase of 156,000 acre-feet. For purposes of the discussion below, the existing storage capacity is called the "existing pool" and the additional capacity that would be added is called the "BRE pool."

The BRE project would provide a significant volume of new capacity for water supply storage. In addition, because it would be located on the Naches River arm of the system, the additional storage has the potential to improve instream flow conditions, and particularly smolt outmigration in a different part of the Yakima River basin compared with the other proposed structural projects.

The existing pool would continue to be operated in essentially the same way that it is currently except that because of the larger safety margin due to with the BRE pool, the existing pool could be used somewhat more aggressively to meet water supply needs without compromising stream flows; and up to 34,000 af would be used for flood control. BRE would be filled during periods of the fall, winter, and spring. Filling would terminate on or before the date when the Yakima system goes onto storage control, which is typically in late June. The BRE Pool would only be refilled after the Existing Pool is filled. The BRE Pool would be refilled from natural flows occurring at the dam site that are in excess of flows needed to meet required flows at Parker, meet other instream flow requirements, and/or meet water supply demands; or that are unavailable to refill other reservoirs or supply instream flow requirements or water supply demands due to location.

The scenario called IP5 simulates the effect of BRE added to the Initial Development Phase projects. Two different operational assumptions concerning the use of BRE storage were simulated.

- Assumption 1 (scenario IP5.1) releases water from the expanded pool to meet the more normative hydrographs shown in Figure 17, in order to aid smolt outmigration. No additional releases are made from the expanded pool for water supply purposes.
- Assumption 2 (scenario IP5.2) follows the same assumptions as IP5.1 plus it releases water to meet participating water users' needs up to the 70 percent supply level, in years when prorationing is less than 70 percent.

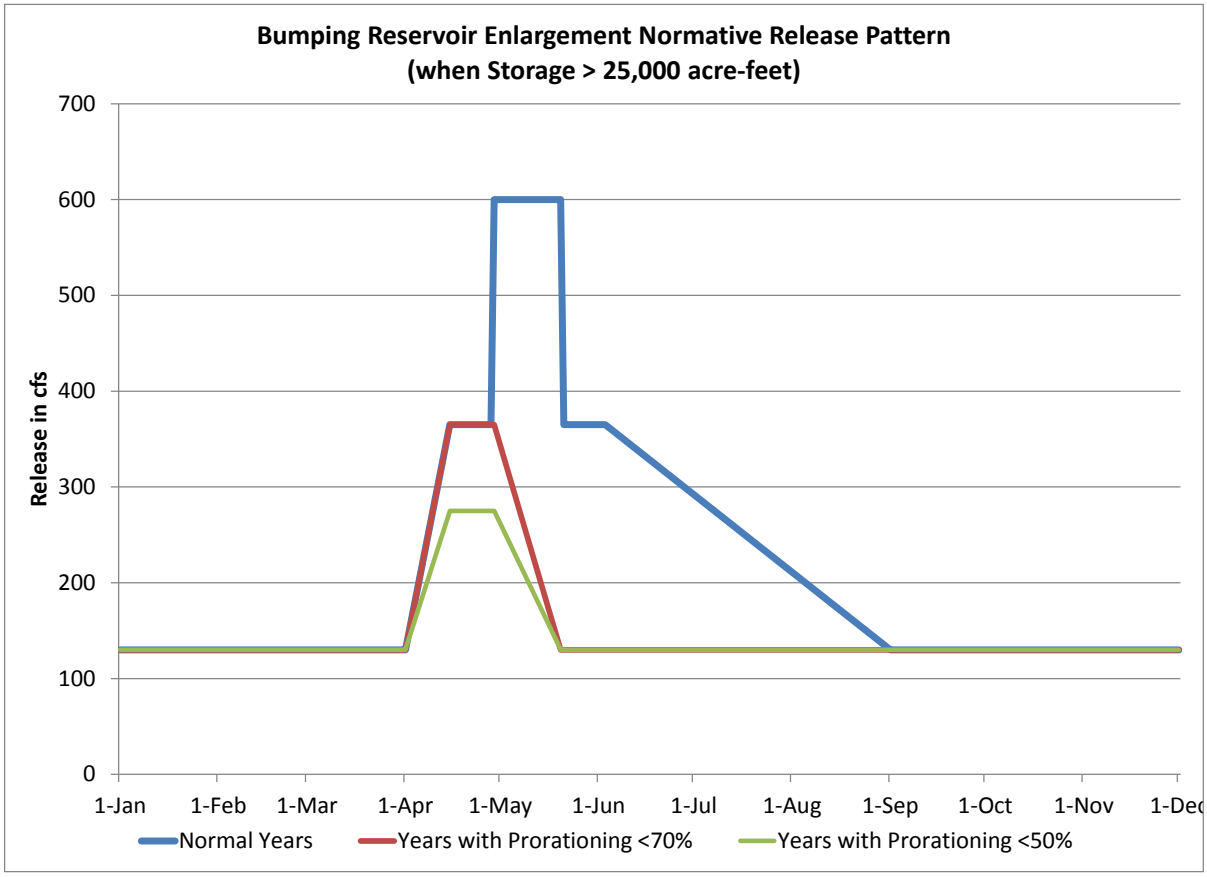


Figure 17. Bumping Reservoir Enlargement – Outflow Hydrograph of More Normative Minimum Reservoir Release Requirements

5.6.1 Bumping Reservoir Enlargement Operating Rule Results

Table 10 summarizes the water supply results from the initial round of BRE hydrologic model simulation. The release of water under scenario IP5.1 was not found to have significant impacts on water supply during prorated years. Scenario IP5.2 does show positive impacts to water supply, with an average increase in September 30 prorationing of 4.9 percent and an average increase in April – September water deliveries of 30.8 kaf. Based on these results, scenario IP5.2 was selected for further analysis and is reported as IP5 throughout the remainder of this document.

Table 10. Effect of BRE Release Pattern on September 30 Prorationing and April-September Diversions during Years less than 70% under IP3

Scenario	September 30 Prorationing (%)	April- September Diversions (kaf)
IP3 (Revised)	56.8	1,329
Improvement Compared to IP3		
IP5.1 (Release Pattern)	-0.3	-0.9
IP5.2 (Release Pattern & Prorationing)	4.9	30.8

5.6.2 Bumping Reservoir Enlargement Water Supply Results

During the 12 years when prorationing under scenario IP3 was less than 70 percent Scenario IP5 (IP 5.1) would improve prorationing by an average of 4.9 percent; TWSA by an average of 73,200 acre-feet; and April through September major irrigation deliveries by an average of 30,800 acre-feet. IP5 would achieve the minimum prorationing goal of 70 percent in six of these 12 years. September 30 prorationing would be above 60 percent in one of the remaining six years.

5.6.3 Bumping Reservoir Instream Flow Results

The modeled BRE (Scenario IP5) would provide for a spring pulse as displayed previously in Figure 17. The block of water available for this purpose would be on the order of 55 kaf in normal years; 17 kaf in years when prorationing is between 50% and 70% and 11 kaf in years when prorationing falls below 50% but the reservoir still has at least 25 kaf stored. Each of these volumes is in addition to the 95 kaf required to be released to maintain the 130 cfs minimum flow objective. Reclamation could use these quantities of water to "shape" the hydrograph of the Bumping River and Naches River, in consultation with fisheries biologists and in accordance with other hydrologic conditions and the specific needs of fish in each particular year. The spring pulse released in the Naches Arm would also move down the Yakima River below the confluence of the Naches River, assisting out-migrating fish to reach the Columbia River.

The additional water stored in BRE would also enable Reclamation to adjust releases from Rimrock Reservoir in order to meet flow objectives in the Tieton River.

5.7 Full Integrated Plan Results

IP6 includes all five of the structural projects discussed in this report, together with water conservation from IP0.

5.7.1 Instream Flow Results for Full Integrated Plan

Table 1displayed the river reaches where stream flow conditions for fish would benefit under the various modeled scenarios. Table 11 provides additional, summary-level information on these benefits, and Appendix C provides more detailed results.

Scenario IP6 would generate all of the benefits for instream flow produced by the various projects discussed in this technical memorandum. These include benefits in the Keechelus and Easton reaches of the Yakima River (12 and 17 RM); as well as the Cle Elum River (8 RM), Bumping River (17 RM), Naches River (62 RM), Tieton River (21 RM), and the Lower Yakima River from the Naches confluence down to the Columbia River (116 RM). For more information on the river reaches, see Figure 1.

The changes in instream flow are further summarized on Figures 13 through 16.

Table 11. Summary of Instream Flow Benefits

Scenario	Projects Included	Instream Flow and Fish Benefits			
		Upper Yakima River	Cle Elum River	Bumping, Naches and Tieton Rivers	Lower Yakima River
IP0	Baseline with Integrated Plan Conservation	Easton Reach (17 RM) –Small reduction in summer flow, no change in fish habitat conditions. Local benefits in some tributary creeks and in "bypass reaches" of individual districts that modify diversions and facilities.	Approximately 10% increase in attainment of fall target flow, with a small benefit to fisheries.	Tieton and Naches - Local benefits in "bypass reaches" between diversion and return flow points.	Local benefits in "bypass reaches" between diversion and return flow points. Increased flow at Parker.
IP1A	KKC	Keechelus Reach (12 RM) - Large reduction in summer flows (400 cfs). Substantial improvement of summer rearing conditions for juvenile fish. Would benefit spring Chinook currently. Also steelhead, coho and possibly bull trout in future.	Same as IP0	Same as IP0	Same as IP0
IP2A	KDRPP	Keechelus Reach - Small reduction in summer flows. Easton Reach - Same as IP0, plus flows closer to normal year levels in dry years when pumping occurs.	Same as IP0	Same as IP0	Same as IP0

Scenario	Projects Included	Instream Flow and Fish Benefits			
		Upper Yakima River	Cle Elum River	Bumping, Naches and Tieton Rivers	Lower Yakima River
IP2	KKC and KDRPP	Keechelus Reach - Same as IP1A Easton Reach – dry-year flows would be closer to normal-year levels.	Same as IP0	Same as IP0	Same as IP0.
IP3	KKC, KDRPP, and CEPR	Keechelus Reach - Same as IP1A.	Approximately 13% increase in frequency of attainment of fall flow objective (8 RM). Winter flow increase of 40 cfs (20% increase). Species potentially benefiting are Chinook (spawning and rearing); coho, bull trout and steelhead (rearing). Small improvement in juvenile winter rearing habitat conditions.. An alternative to winter releases is to carry over CEPR storage to increase water levels for downstream outmigration of smolts in spring.	Same as IP0	Same as IP0.

Scenario	Projects Included	Instream Flow and Fish Benefits			
		Upper Yakima River	Cle Elum River	Bumping, Naches and Tieton Rivers	Lower Yakima River
IP4 (large and small)[1]	KKC, KDRPP, CEPR, and WDR	Keechelus Reach – Same reduction in summer flows as IP1A. Keechelus Reach - Increase in fall and winter flow to 100-120 cfs (from baseline of 80-100 cfs). This would substantially benefit fish spawning and juvenile winter rearing habitat. Easton Reach - winter baseline flows would increase to 250 cfs (from baseline of190 -220 cfs). Would improve spawning and juvenile winter rearing habitat. Would benefit spring Chinook currently. Would benefit steelhead, coho and possibly bull trout in future.	Increased attainment of fall flow as in IP3. Winter minimum flow increase to 300 cfs (from baseline of 180-220 cfs). This would benefit juvenile winter rearing conditions for the same species listed for IP3. (If water is not released from Cle Elum Reservoir in winter, a smaller benefit as described in IP0 would result.)	Tieton River (21 RM) minimum flow maintained at 125 cfs 99% of the time (increase of 25 to 35 cfs from IP0).	Same as IP0.

Scenario	Projects Included	Instream Flow and Fish Benefits			
		Upper Yakima River	Cle Elum River	Bumping, Naches and Tieton Rivers	Lower Yakima River
IP5	KKC, KDRPP, CEPR, and BRE	Keechelus Reach – Same reduction in summer flows as IP1A.	Increased attainment of fall flow as in IP3.	Tieton River minimum flow could be maintained at 125 cfs for 99% of time, an increase of 25-35 cfs from IP0 conditions. Bumping River (17 RM) and Naches River (62 RM) outflows would be shaped to meet anadromous fish needs, with earlier releases in spring to improve smolt outmigration. The spring pulse would be 600 cfs in normal years. In normal years, approximately . 55,000 acre-feet would be released.	Provides greater volume of flow for 116 RM. Could be used to increase spring flow for smolt outmigration; or used at other times to benefit other fisheries needs. All anadromous fish species would benefit with greater spring flow. Flow can be used at other times to benefit specific species or life stages. Also increased flow at Parker, same as IP0.
IP6	All: KKC, KDRPP, CEPR, WDR, and BRE	Same as IP4.	Same as IP4.	Same as IP5.	Same as IP5.

See Figure 1 for river/reach definitions and data.
RM = river miles N/A = not applicable
[1] Modeling runs for both the large and small Wymer reservoir sizes in IP4 were set up to provide the same flow benefits.

5.7.2 Full Integrated Plan Water Supply Results

Figure 18 presents the water supply results of IP4, IP5 and IP6 compared to the IP3 and IP3 (Revised) scenarios.

Table 12 summarizes water supply improvements for the 12 years when prorationing is less than 70 percent under scenario IP3. The modeled combination of KKC, KDRPP, CEPR, WDR, and BRE (Scenario IP6) improves prorationing by up to 27 percent and an average of 10.1 percent; TWSA by up to 300 kaf and an average of 168.6 kaf; and April through September major irrigation deliveries by up to 200 kaf and an average of 75.8 kaf during these 12 years. The modeled combination of the full Integrated Plan projects achieves the minimum prorationing goal of 70 percent in eight of these 12 years. In the other four years, the goal is not achieved by the full Integrated Plan. Simulated September 30 prorationing is above 60 percent in three of these four years.

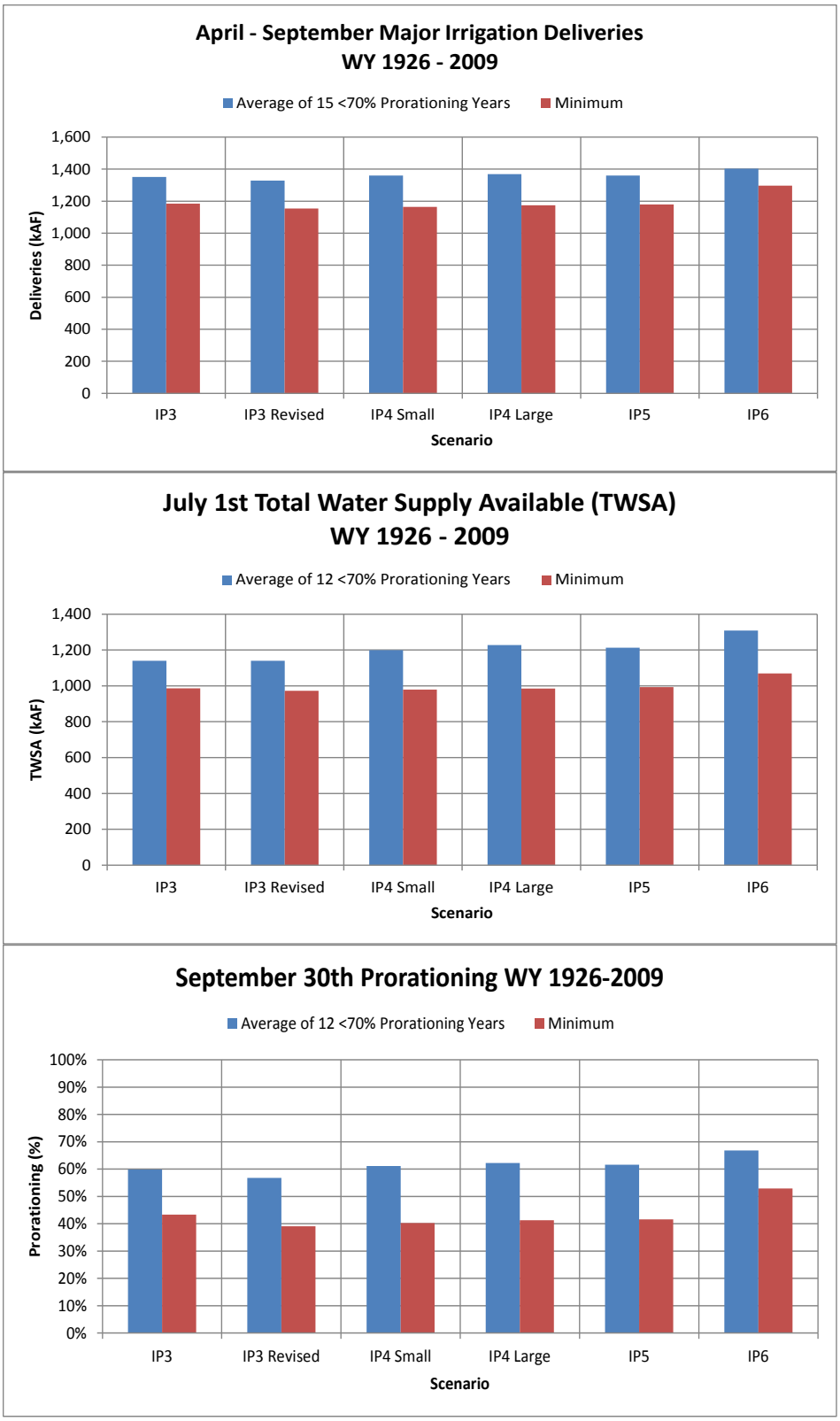


Figure 18. Water Supply Results Associated with Phased Implementation of the Integrated Plan – Subsequent Development Phases

Table 12. Summary of Water Supply Results

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)
Run: IP3 KKC, KDRPP, and CEPR										
Avg. WY 1926 to 2009	3,044	747	1,551	1,558	90.9%	412	65	90.2%	376	49
1941 (Dry Year)	1,666	255	1,155	972	41.0%	-41	-188	40.0%	-20	-190
1994 (Dry Year)	1,783	263	1,206	990	43.8%	-37	-199	43.4%	-72	-200
2001 (Dry Year)	1,891	183	1,378	1,166	65.3%	46	-65	64.1%	29	-78
2005 (Dry Year)	1,903	182	1,406	1,184	66.7%	46	-81	66.3%	33	-94
Run: IP4 WDR Small 400 cfs WDC1										
Avg. WY 1926 to 2009	3,024	742	1,553	1,567	91.3%	444	78	90.7%	406	62
1941 (Dry Year)	1,664	256	1,220	1,006	47.0%	-100	-157	46.1%	-78	-159
1994 (Dry Year)	1,799	262	1,297	1,049	53.0%	-92	-171	52.7%	-132	-187
2001 (Dry Year)	1,894	199	1,425	1,280	70.0%	50	-29	70.0%	19	-42
2005 (Dry Year)	1,820	186	1,419	1,223	70.0%	14	-70	70.0%	0	-82
Run: IP4 WDR Large 400 cfs WDC1										
Avg. WY 1926 to 2009	3,028	741	1,555	1,574	91.4%	481	78	90.8%	443	63
1941 (Dry Year)	1,710	257	1,262	1,036	51.1%	-98	-156	50.1%	-76	-158
1994 (Dry Year)	1,814	262	1,330	1,079	59.0%	-87	-152	56.2%	-127	-168
2001 (Dry Year)	1,893	200	1,425	1,322	70.0%	91	-18	70.0%	60	-31
2005 (Dry Year)	1,806	185	1,418	1,253	70.0%	45	-59	70.0%	32	-71
Run: IP5.1 BRE										
Avg. WY 1926 to 2009	3,033	747	1,549	1,544	90.6%	493	59	89.8%	457	45
1941 (Dry Year)	1,652	259	1,126	953	38.4%	35	-194	37.2%	53	-196
1994 (Dry Year)	1,815	261	1,234	985	46.3%	28	-200	45.7%	-11	-200
2001 (Dry Year)	1,890	197	1,385	1,160	65.1%	106	-69	62.9%	88	-82
2005 (Dry Year)	1,875	186	1,379	1,164	64.0%	137	-82	63.4%	123	-95
Run: IP5.2 BRE										
Avg. WY 1926 to 2009	3,026	737	1,554	1,565	91.5%	475	64	90.9%	437	48
1941 (Dry Year)	1,607	249	1,217	1,004	47.6%	-88	-168	47.1%	-66	-171
1994 (Dry Year)	1,793	254	1,294	1,052	53.3%	-77	-173	53.0%	-116	-189
2001 (Dry Year)	1,877	176	1,413	1,276	70.0%	89	-68	70.0%	67	-80
2005 (Dry Year)	1,877	179	1,415	1,290	70.0%	103	-78	70.0%	92	-85
Run: IP6 Full Integrated Plan										
Avg. WY 1926 to 2009	3,027	741	1,561	1,586	92.3%	619	72	91.8%	580	57
1941 (Dry Year)	1,640	253	1,371	1,136	68.5%	-59	-178	65.8%	-37	-181
1994 (Dry Year)	1,801	252	1,407	1,206	70.0%	4	-159	70.0%	-36	-175
2001 (Dry Year)	1,893	196	1,423	1,453	70.0%	237	-51	70.0%	207	-62
2005 (Dry Year)	1,867	187	1,424	1,444	70.0%	242	-67	70.0%	226	-68

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.

6.0 Climate Change Simulation Results

This section summarizes simulations performed to evaluate the potential effects of climate change on the instream flow and water supply performance of the projects discussed in prior sections. Appendix D presents more extensive model results for climate change simulations.

6.1 Effect of Adverse Climate Change on Baseline Results

The initial task associated with developing and understanding the potential effect of climate change on the Integrated Plan facilities was to simulate and compare the baseline system under historically based and climate-influenced hydrology. For purposes of primary comparison, Reclamation selected a climate change scenario that approximately represents the central tendency of the range of predicted climate variations for the 30-year period from 2030 to 2059. Reclamation selected the scenario, termed the "Adverse Climate Change scenario", from a group of 12 hybrid-delta[2] datasets, using a range of assumptions about future greenhouse gas emissions and a range of different global climate models that have been reviewed by the Reservoir Management Joint Operating Committee (RMJOC) (Brekke et al., 2010). RMJOC is comprised of representatives from Reclamation, Bonneville Power Administration and the U.S. Army Corps of Engineers.

The Adverse Climate Change scenario uses results generated by the Hadley Centre Coupled Model (HADCM) global circulation model and incorporates a 1.7^{o} Celsius (approximately 3^{o} Fahrenheit) average increase in temperature, and a 3.7 percent average increase in precipitation. More Adverse and Less Adverse Climate Change scenario simulation results are also available, but are only summarized for the IP6 Scenario. Each of these climate change scenarios are examples of the kind of changes in meteorology and hydrology that are included in the RMJOC study (and in the large number of similar climate change modeling studies developed to date). Reclamation selected these three scenarios to represent a range of predicted effects on Yakima River basin runoff in terms of both volume and timing.

The increase in temperature and slight increase in precipitation assumed under the Adverse Climate Change scenario has a large effect on the simulated runoff into the Yakima River system. The central panel in Figure 19 illustrates this change, by showing the average monthly pattern of total inflow to the five major reservoirs in the system. Under historical conditions (shown in blue with a solid line marker), this inflow averages a total of 1.7 million acre-feet per year. Under the Adverse Climate Change scenario (shown in green with a dashed line marker), the annual average would be 1.5 million acre-feet, or 11 percent less. The change in inflow in the irrigation season would be much larger. In July, August, and September, the average reservoir inflow would decrease by 45 percent, 54 percent, and 61 percent, respectively. These effects are not volumetrically large compared with the springtime period, but they do show the large effect of climate change on summer inflow. Figure 19 also shows the reservoir inflow results under the Less Adverse and More Adverse Climate Change scenarios (see upper and lower panels, respectively).

[2] Hybrid-delta datasets reflect a step change in climate from a historical period to a future period. The datasets maintain historically-based variations in hydrology, but with a consistent "delta" (or shift) based on the predicted change in atmospheric conditions from historic to 2040 conditions.

The large reduction in summer runoff predicted under all three climate change scenarios would put a much larger demand upon the reservoirs in the Yakima River system. For the Adverse Climate Change Scenario, with the natural runoff and streamflow in the system decreased by 50 percent or more during the summer, irrigation demands and instream flow objectives would need to be met by releasing larger amounts of water from the existing reservoirs. In many years, the reservoirs would not be capable of meeting these demands. Under the baseline scenario, average September 30 prorationing would be reduced by 21.5 percent, and minimum year prorationing would be reduced by 17.7 percent to a level where prorated water supply is zero. Under the baseline scenario, prorationing would occur in all except 18 years, and prorationing of less than 70 percent would occur in 40 out of 84 years. Average July 1 TWSA would be reduced by 333,000 acre-feet, and average delivery to the major irrigation districts would be reduced by 121,000 acre-feet.

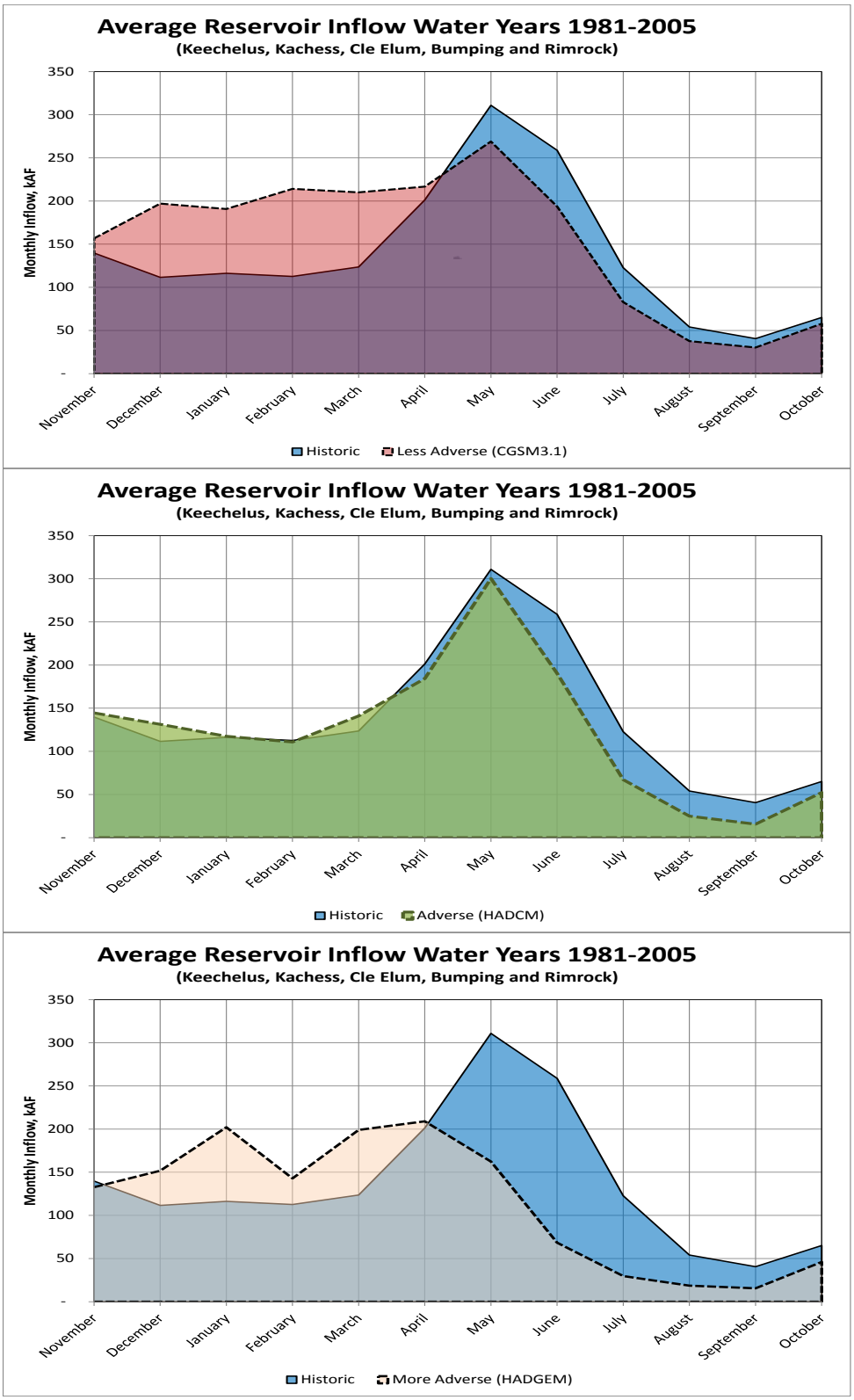


Figure 19. Effect of Climate Change Scenario on Inflow to Yakima River System Reservoirs

The effects of the Adverse Climate Change scenario on instream flow results under the baseline scenario conditions are also large. Appendix D presents more detailed model results. Figure 20 illustrates the effect of the Adverse Climate Change scenario under baseline conditions on the Keechelus Reach. All of the metrics except the July flow limit (500 cfs) and the August ramp-down would be achieved between 20 and 40 percent less frequently. The apparent improvement in July and August results may not be meaningful, as fish produced could have inadequate water for rearing and migration when streamflow decreases later in the year, as Reclamation empties the reservoirs. However, under real (versus modeled) operations assuming these adverse conditions, a portion of the available reservoir storage would need to be reserved for meeting critical minimum instream flows.

Figure 21 shows the effects on instream flow in the Easton Reach under baseline scenario with Adverse Climate Change conditions. The winter and spring metrics would be met 10 to 20 percent less frequently, and the fall flows would be met 41 percent less frequently. There would be essentially no change in the frequency that summer flow objectives are met.

Figure 22 shows the effects on instream flow in the Cle Elum River under the baseline scenario with Adverse Climate Change conditions. The winter and spring metrics would be met 17 and 14 percent less frequently, and the fall flows would be met 42 percent less frequently. There would be essentially no change in the frequency that summer flow objectives are met.

Figure 23 shows the effects on instream flow in the Wapato Reach under baseline scenario with Adverse Climate Change conditions. The percent of time the flow objective would be met falls from 92 to 87 percent.

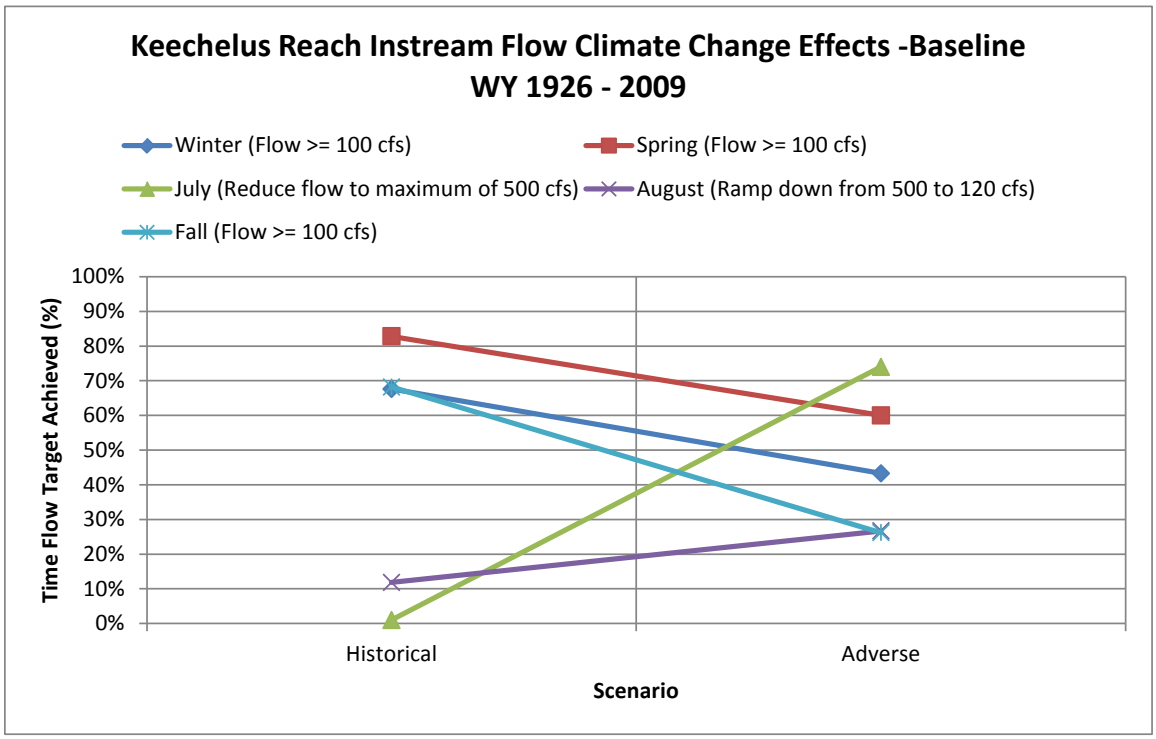


Figure 20. Effect of Adverse Climate Change on the Percentage of Time Keechelus Reach Flow Objectives are Achieved

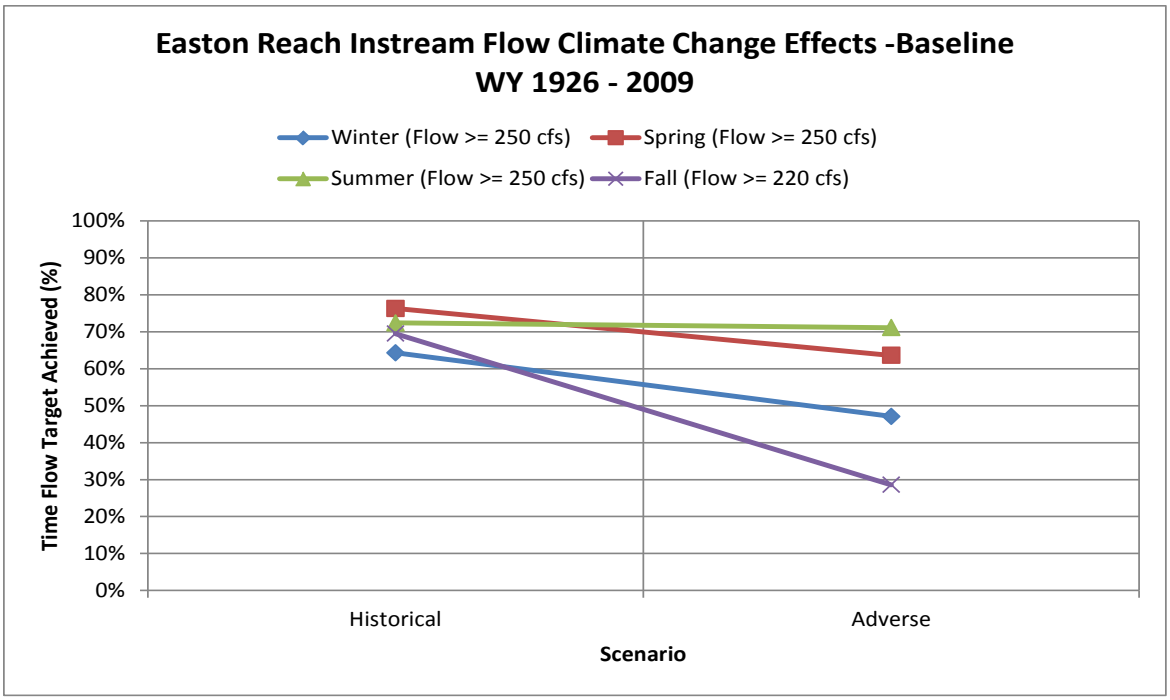


Figure 21. Effect of Adverse Climate Change on the Percentage of Time Easton Reach Flow Objectives are Achieved

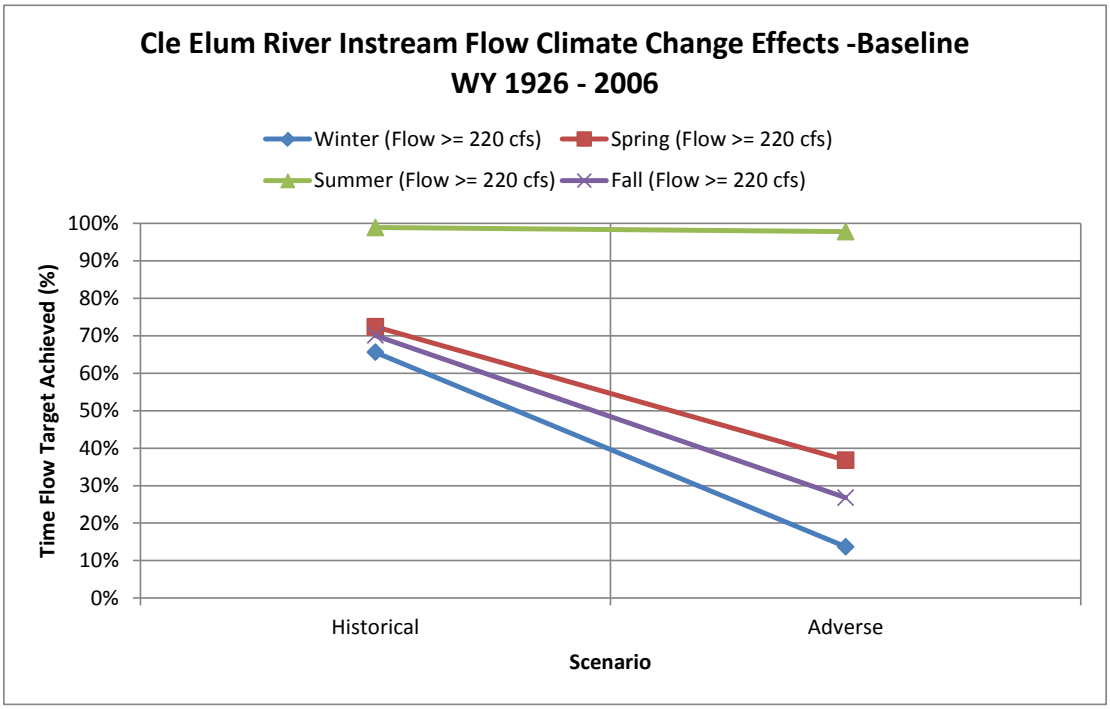


Figure 22. Effect of Adverse Climate Change on the Percentage of Time Cle Elum River Flow Objectives are Achieved

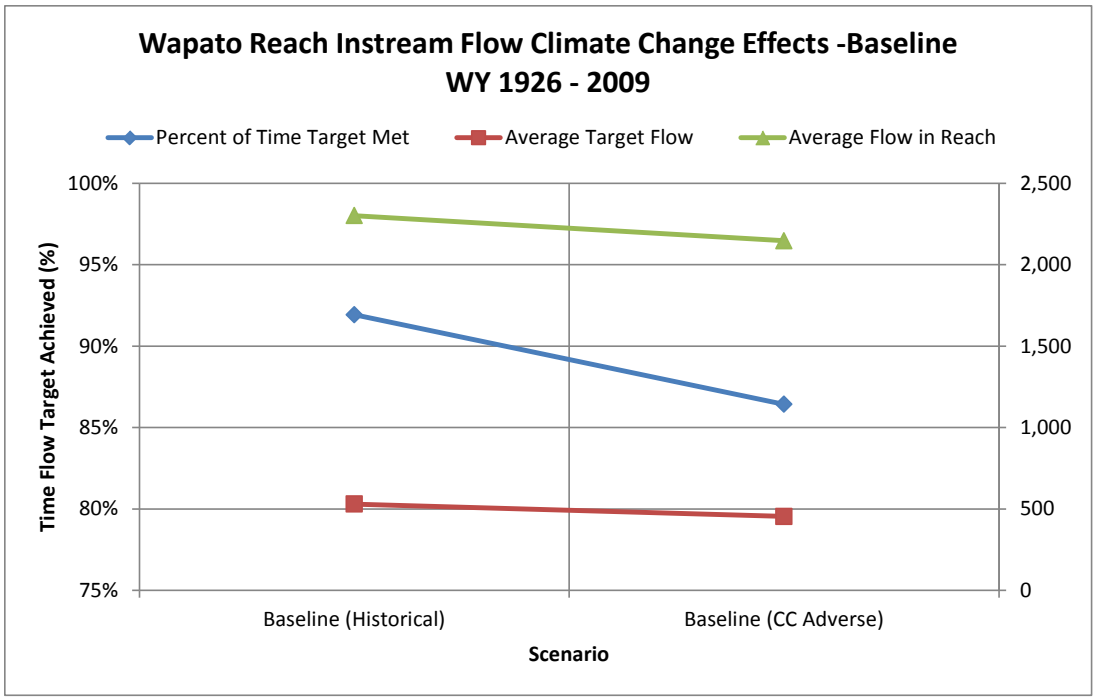


Figure 23. Effect of Adverse Climate Change on the Percentage of Time Wapato Reach Flow Objective is Achieved

6.2 Effect of Adverse Climate Change on Initial Development Phase Results

HDR simulated each of the Initial Development Phase projects (KKC, KDRPP, and CEPR) under the Adverse Climate Change scenario. Figure 24 through Figure 26 show the effect of the Adverse Climate Change scenario on instream flow results in the Keechelus, Easton, and Cle Elum River reaches. The changes from existing conditions can be seen by comparing Figures 24 through 26 with Figures 9 through 11 shown in Section 5.

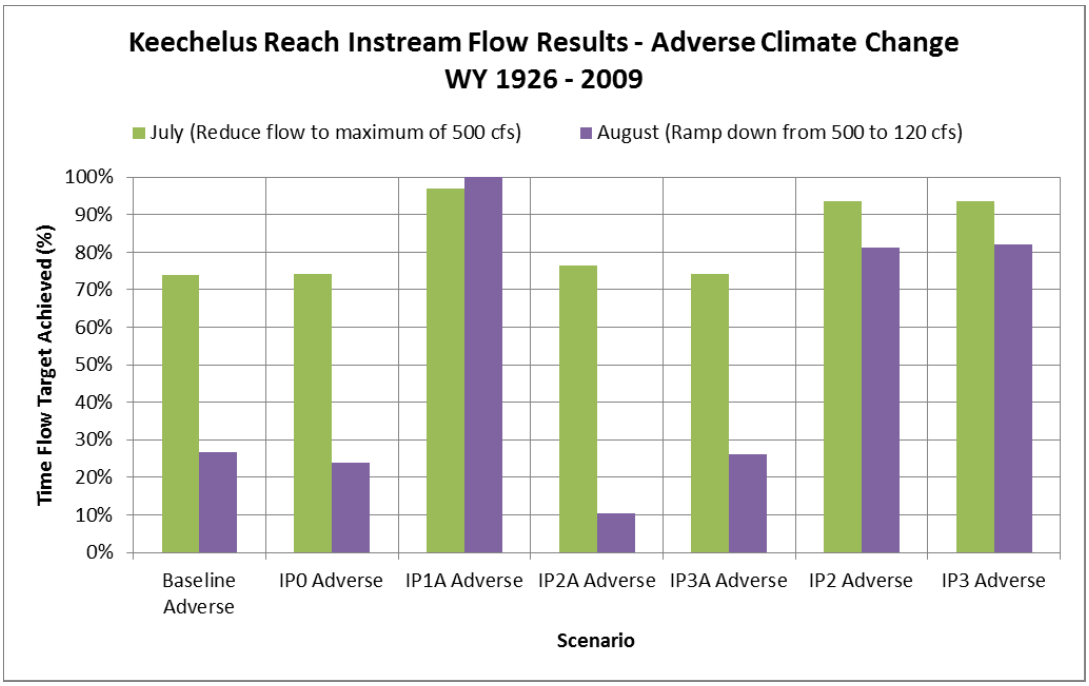


Figure 24. Keechelus Reach Instream Flow Results under Adverse Climate Change

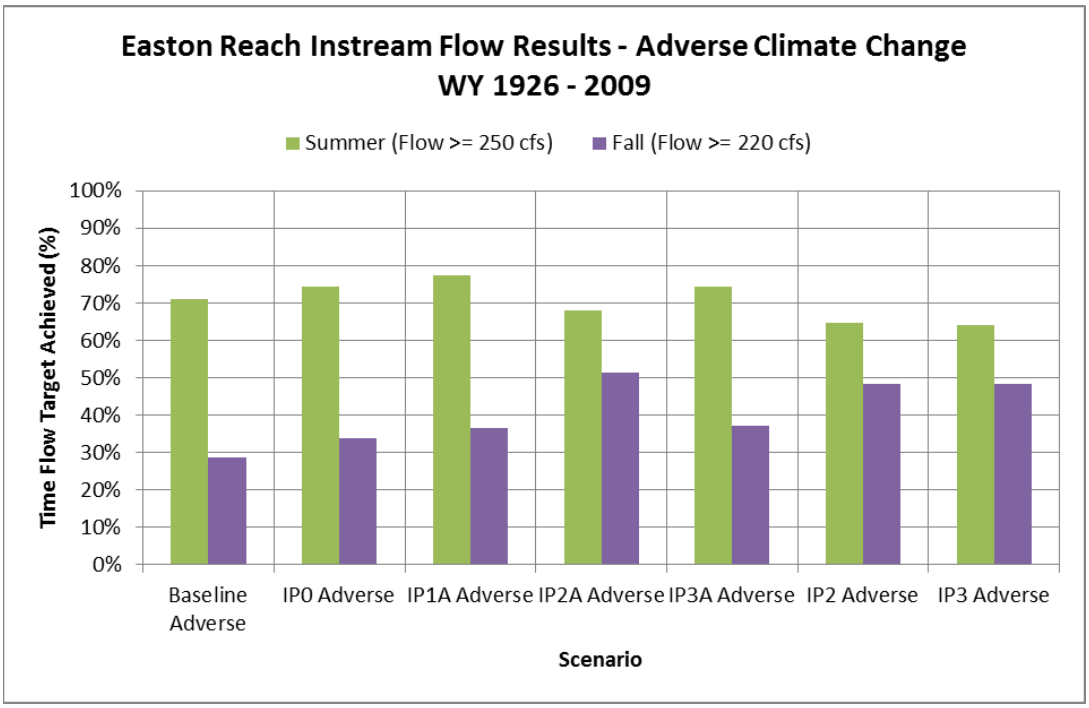


Figure 25. Easton Reach Instream Flow Results under Adverse Climate Change

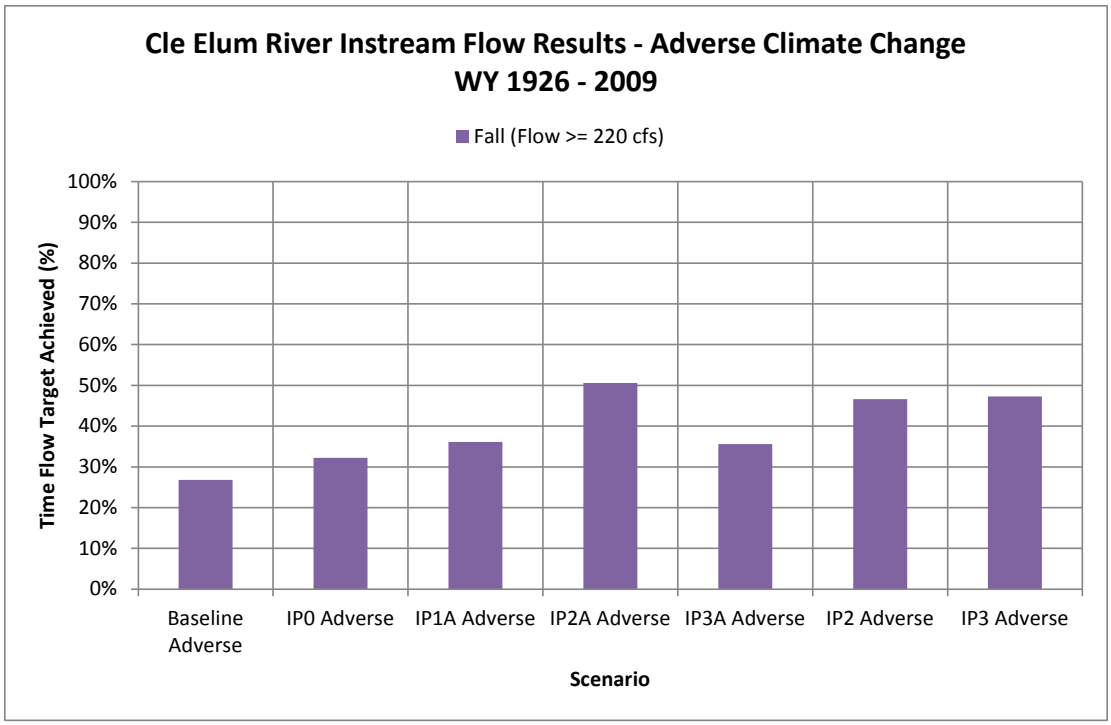


Figure 26. Cle Elum River Instream Flow Results under Adverse Climate Change

Table 13 summarizes the change in water supply results under the Adverse Climate Change scenario. Negative values represent a reduction in the various metrics presented. Results represent all 84 years in the EPOR. Figure 27 presents the effects of climate change on the water supply benefits. This figure shows that the combined KKC, KDRPP, and CEPR result in an improvement in prorationing compared to the baseline scenario. However, this improvement is primarily attributed to the KDRPP.

Table 13. Effect of Adverse Climate Change on Integrated Plan Water Supply Simulation Results - Initial Development Phase Scenario

Effect of Adverse Climate Change on Water Supply Results						
	Change in September 30th Prorationing (%)		Change in July 1st TWSA (kAF)		Change in April 1 to Sept 30 Major Irrigation Deliveries (kAF)	
Scenario	Average	Minimum Year	Average	Minimum Year	Average	Minimum Year
Baseline	-21.5%	-17.7%	-333.6	-110.3	-121.0	-229
IP0	-21.7%	-20.0%	-336.9	-124.4	-92.5	-269
IP1A	-21.0%	-20.1%	-329.3	-123.8	-87.7	-268
IP2A	-23.8%	-37.9%	-317.3	-223.1	-107.7	-450
IP3A	-21.4%	-20.9%	-341.3	-129.9	-89.9	-279
IP2	-21.3%	-36.2%	-310.0	-212.7	-86.9	-428
IP3	-21.1%	-36.7%	-315.3	-217.8	-84.5	-439

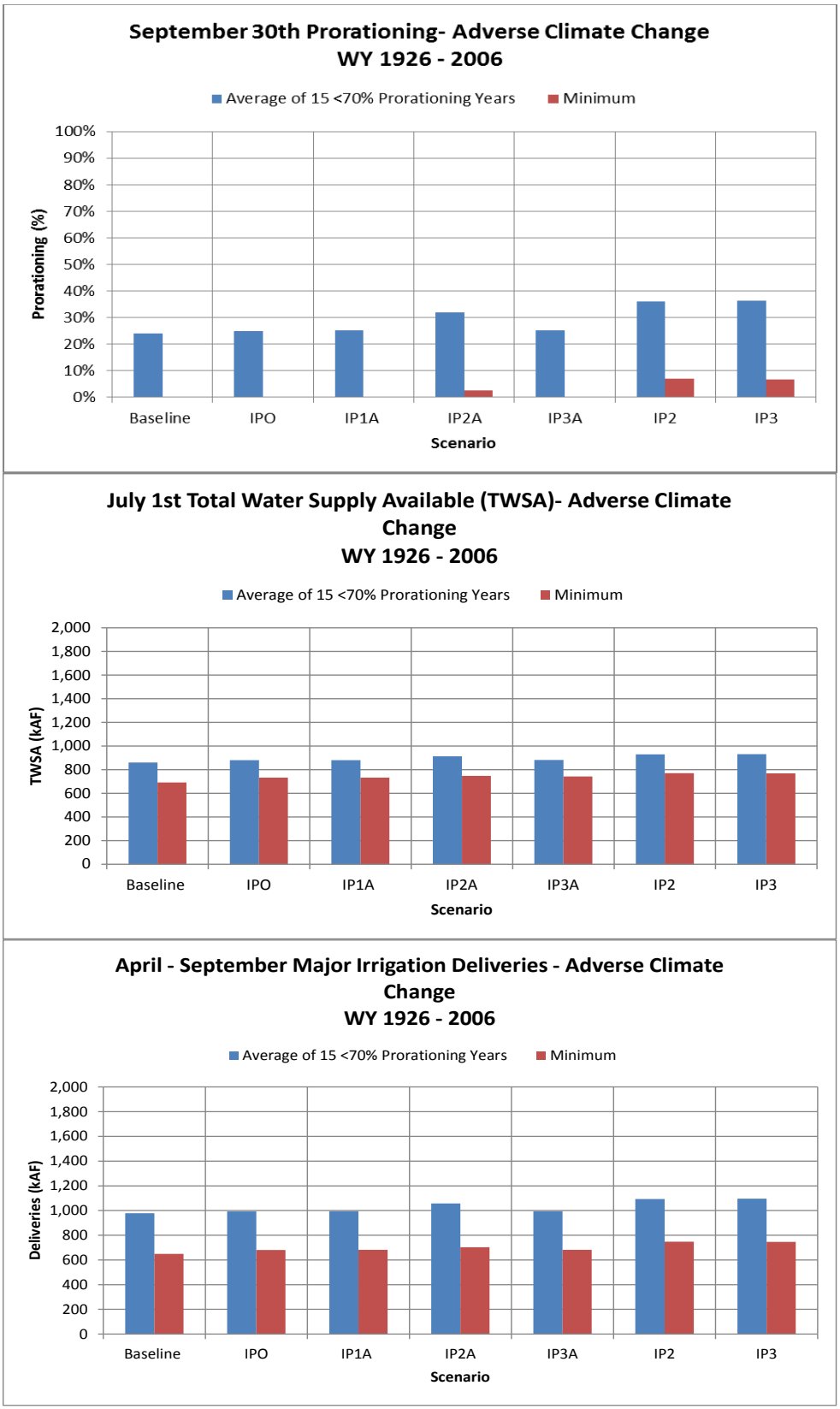


Figure 27. Water Supply Results under Adverse Climate Change – Initial Development Phase

Table 14 summarizes the water supply benefits of each Initial Development Phase scenario under climate change. This table only displays results for the 40 years when prorationing would be less than 70 percent under the baseline scenario with Adverse Climate Change conditions. During the 40 years when the 70 percent target is not met under the baseline, the three projects would increase September 30 prorationing by an average of 10.5 percent; July 1 TWSA by an average of 87,200 acre-feet; and April through September major irrigation deliveries by an average of 86,600 acre-feet. Under adverse climate change conditions, over the 84-year EPOR the IP3 projects would reduce the number of years when prorationing fails to achieve 70 percent, from 40 years under the baseline scenario to 37 years. September 30 prorationing would be above 60 percent in 16 of these 37 years, compared with 8 years under the baseline scenario.

Table 14. Water Supply Benefits of Each Initial Development Phase Scenario under Adverse Climate Change in Years when Prorationing was less than 70 Percent under the Baseline Scenario

	September 30 Prorationing (%)		July 1 TWSA (KAF)		April 1 to Sept 30 Major Irrigation Deliveries (KAF)	
Scenario	Average in <70% Years	Minimum Year	Average in <70% Years	Minimum Year	Average in <70% Years	Minimum Year
Baseline Level	41.3	0.0	977.8	692.3	1,197.9	648.7
IP0 Level	42.3	0.0	997.8	732.3	1,208.7	680.6
Improvement compared with IP0						
IP1A Improvement	0.3	0.0	2.5	-0.2	3.1	2.0
IP2A Improvement	6.9	2.5	65.2	15.7	54.8	22.6
IP3A Improvement	0.3	0.0	2.8	10.8	3.4	1.3
IP2 Improvement	10.4	6.9	90.2	37.5	84.0	67.6
IP3 Improvement	10.5	6.6	87.2	36.4	86.6	65.3

6.3 Effect of Adverse Climate Change on WDR, BRE, and Full IP Water Supply and Instream Flow Results

HDR simulated the WDR, BRE, and full Integrated Plan (IP4 Large, IP5, and IP6) scenarios under the Adverse Climate Change scenario, using the same operational assumptions included in the historical hydrology simulations.

Table 15 and Figure 28 summarizes the water supply benefits of the WDR, BRE, and full Integrated Plan (IP4, IP5, and IP6) scenarios under the Adverse Climate Change scenario. During the 37 years when prorationing is less than 70 percent under the IP3 scenario, September 30 prorationing increases by an average of 4.4 percent; July 1 TWSA increases by an average of 38,200 acre-feet; and April through September major irrigation deliveries increase by an average of 35,500 acre-feet. Under adverse climate change conditions, over the 84-year EPOR the Wymer project (IP4 large) would reduce the number of years when prorationing fails to achieve 70 percent, from 37 years under the IP3 scenario to 32 years. September 30 prorationing would be above 60 percent in 13 of the 32 years.

Table 15. Water Supply Benefits under Adverse Climate Change in Years when Prorationing was less than 70 Percent under Revised IP3 Scenario

	September 30th Prorationing (%)		July 1st TWSA (kaf)		April 1 to Sept 30 Major Irrigation Deliveries (kaf)	
Scenario	Average in 37 <70% Years	Minimum Year	Average in 37 <70% Years	Minimum Year	Average in 37 <70% Years	Minimum Year
Baseline Level	48.0	0.0	1,023.9	692.3	1,268.5	648.7
IP0 Level	49.0	0.0	1,044.9	732.3	1,275.4	680.6
IP3 Level	55.3	5.6	1,125.3	765.0	1,327.7	739.0
IP3 (Revised) Level	52.5	3.5	1,120.7	769.1	1,310.2	722.9
Improvement compared with IP3 (Revised)						
IP4 (Large) Improvement	4.4	2.3	38.2	-1.1	35.5	22.1
IP5 Improvement	4.9	2.0	57.2	-10.6	36.7	28.2
IP6 Improvement	8.3	4.1	137.1	2.6	65.9	48.1
IP6 Level						
IP6 Level	60.8	7.6	1,257.9	771.7	1,376.1	771.0

During the 37 years when prorationing is less than 70 percent under the IP3 scenario, the BRE project would improve September 30 prorationing by an average of 4.9 percent; July 1 TWSA by an average of 57,200 acre-feet; and April through September major irrigation deliveries by an average of 36,700 acre-feet. Under adverse climate change conditions, over the 84-year EPOR the Bumping project (IP5) would reduce the number of years when prorationing fails to achieve 70 percent, from 37 years under the IP3 scenario to 29 years. September 30 prorationing would be above 60 percent in nine of these 29 years.

Instream flow results under Adverse Climate Change are similar to those under historical hydrology. As shown in Figure 29, in the Keechelus Reach the WDR project and the full Integrated Plan (scenarios IP4 and IP6) improve the percent of time that the winter instream flow objective of 120 cfs could be met, from 17 percent under IP3 to 94 percent under scenarios IP4 and IP6. The BRE project (scenario IP5) is not designed to provide benefits in the Keechelus Reach.

Figure 30 shows that under Adverse Climate Change WDR and the full Integrated Plan could improve the percent of time that winter, summer, and fall flow objectives are met in the Easton Reach, by between 12 and 50 percent. Under adverse Climate Change BRE provides an improvement of about ten percent in the percent of time that the fall flow objective is met.

Figure 31 shows that under Adverse Climate Change in the Cle Elum River, the WDR and full Integrated Plan increase the percent of time that the 300 cfs winter flow objective is met from 37 percent under IP3 to between 85 and 90 percent. BRE is not designed to affect flows in the Cle Elum River.

Figure 32 shows that under Adverse Climate Change, IP4, IP5, and IP6 would enable attainment of the 125 cfs winter flow objective in the Tieton River between 95 and 100 percent of the time.

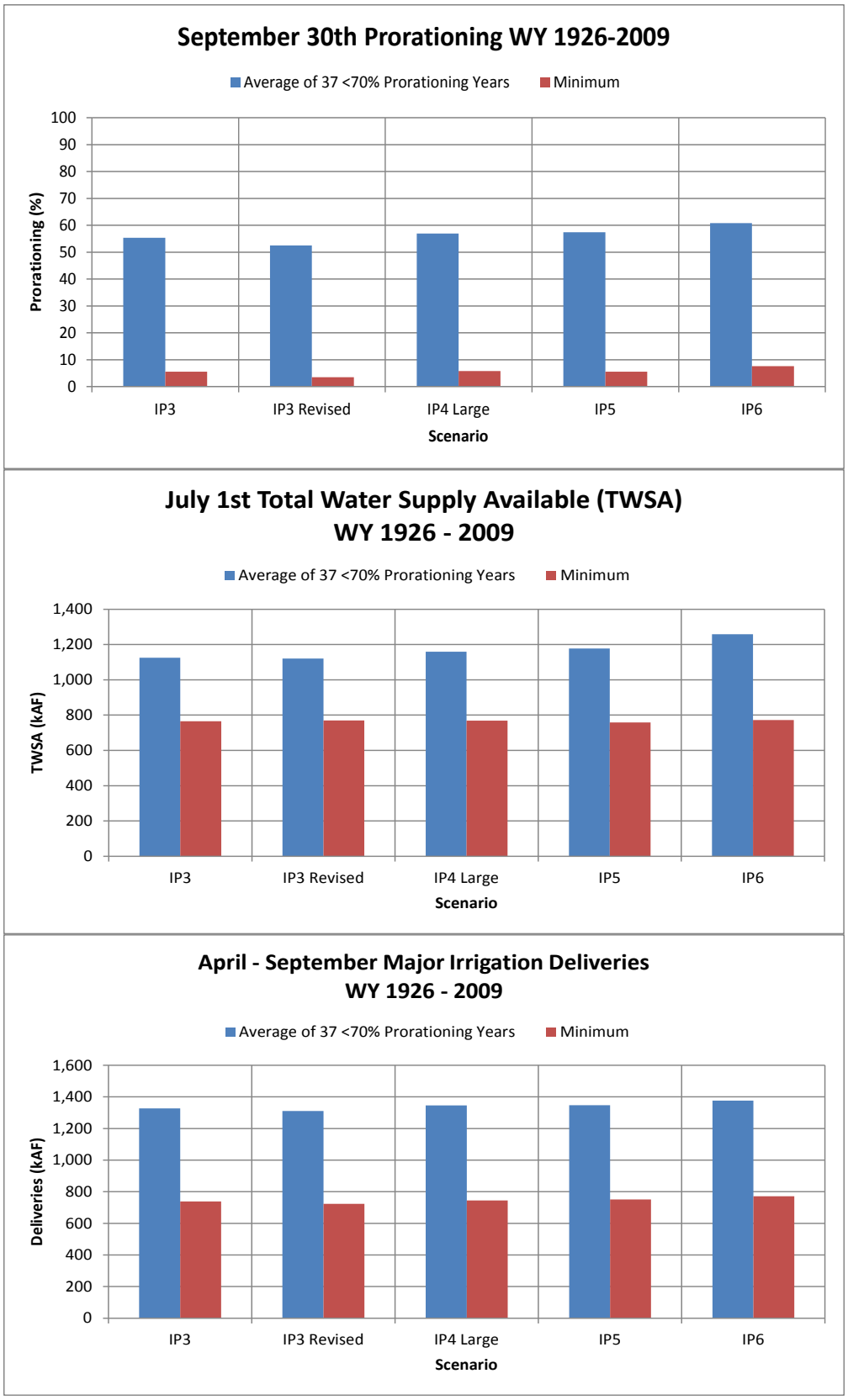


Figure 28. Water Supply Results under Adverse Climate Change

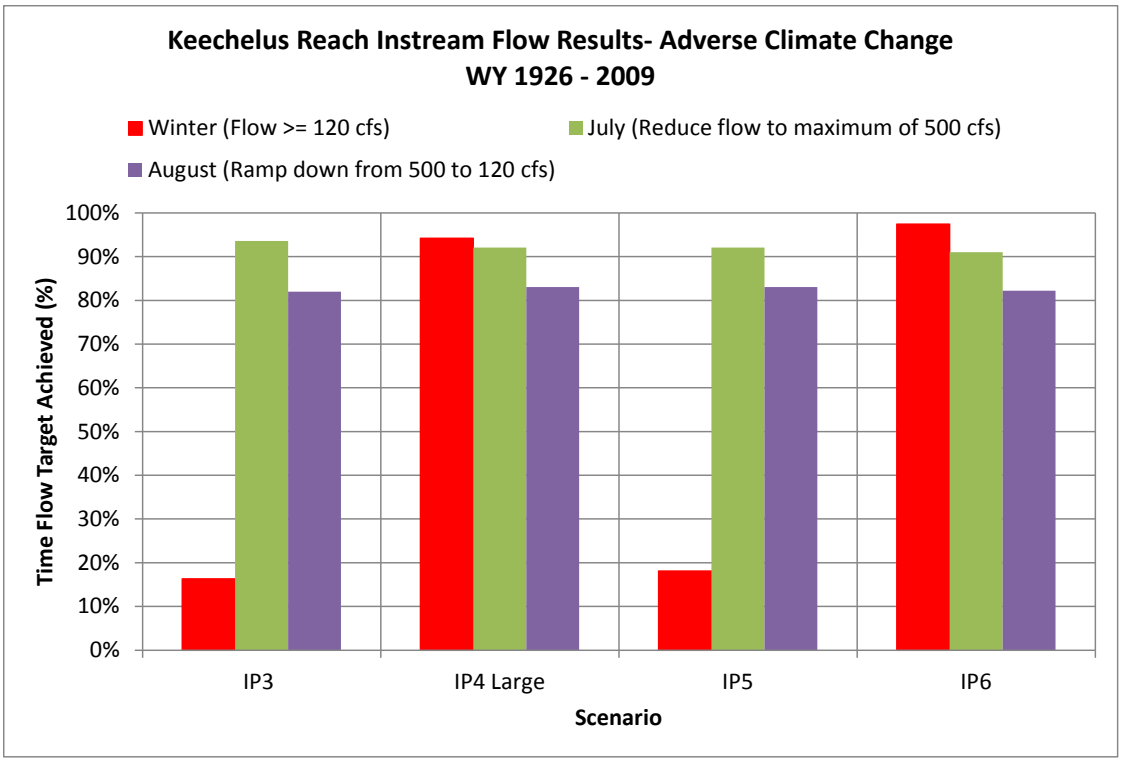


Figure 29. Keechelus Reach Instream Flow Results-Adverse Climate Change

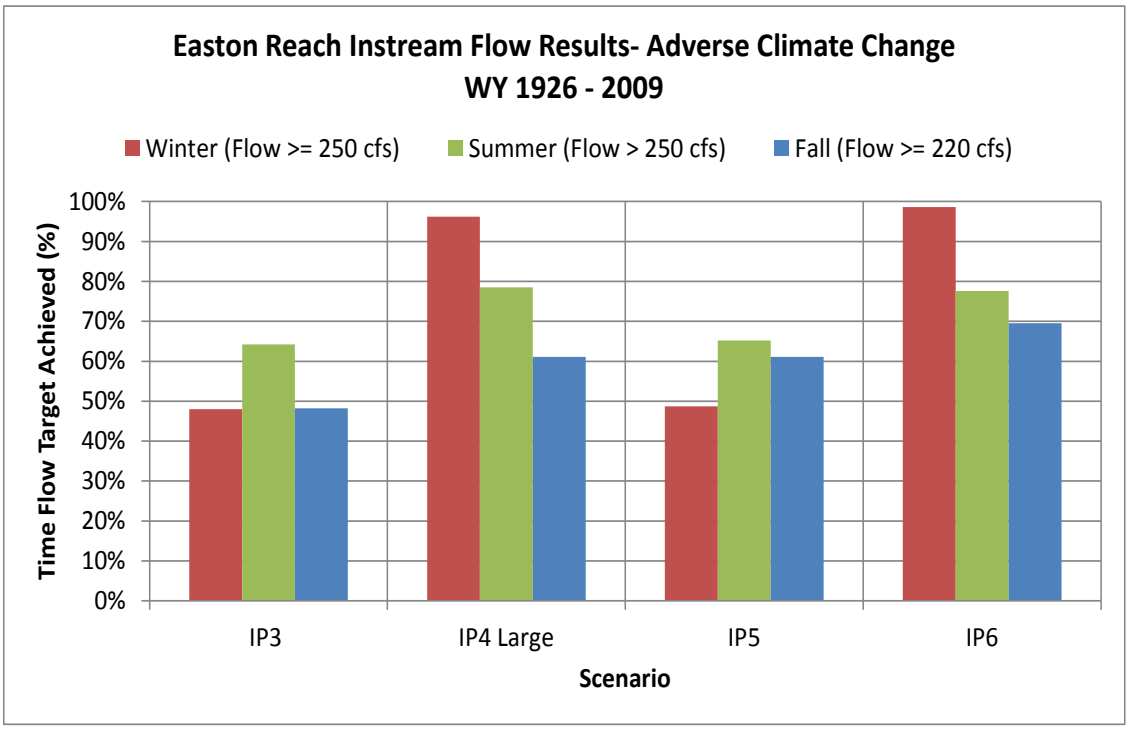


Figure 30. Easton Reach Instream Flow Results- Adverse Climate Change

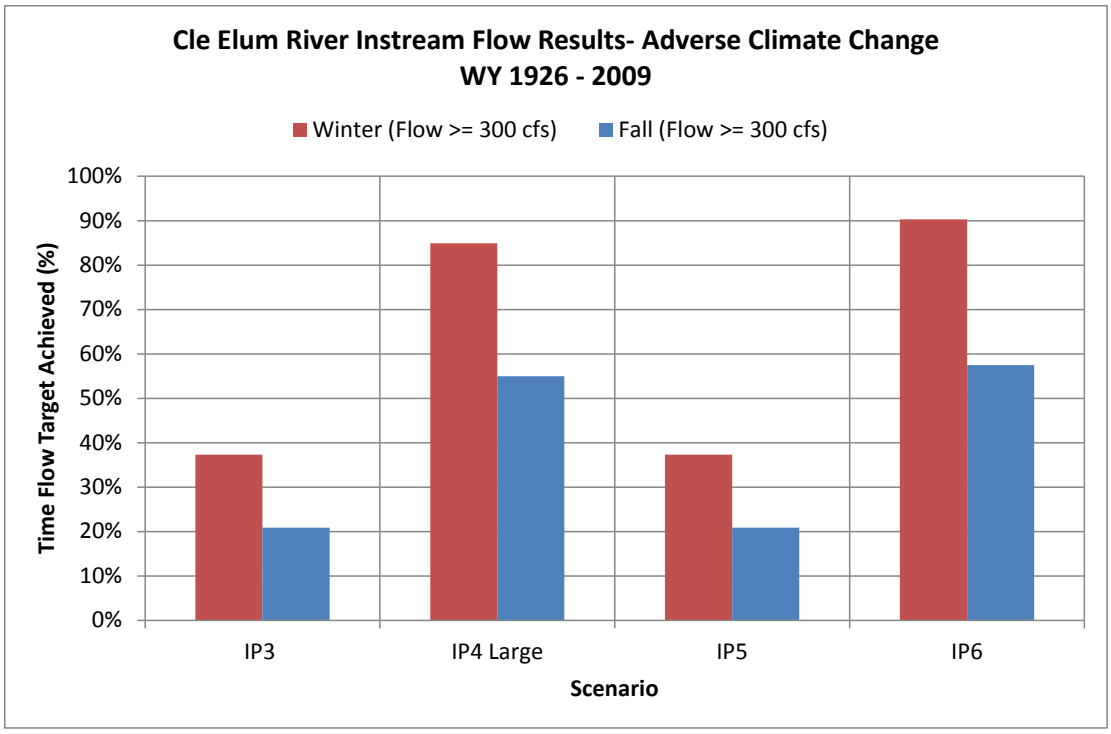


Figure 31. Cle Elum River Instream Flow Results- Adverse Climate Change

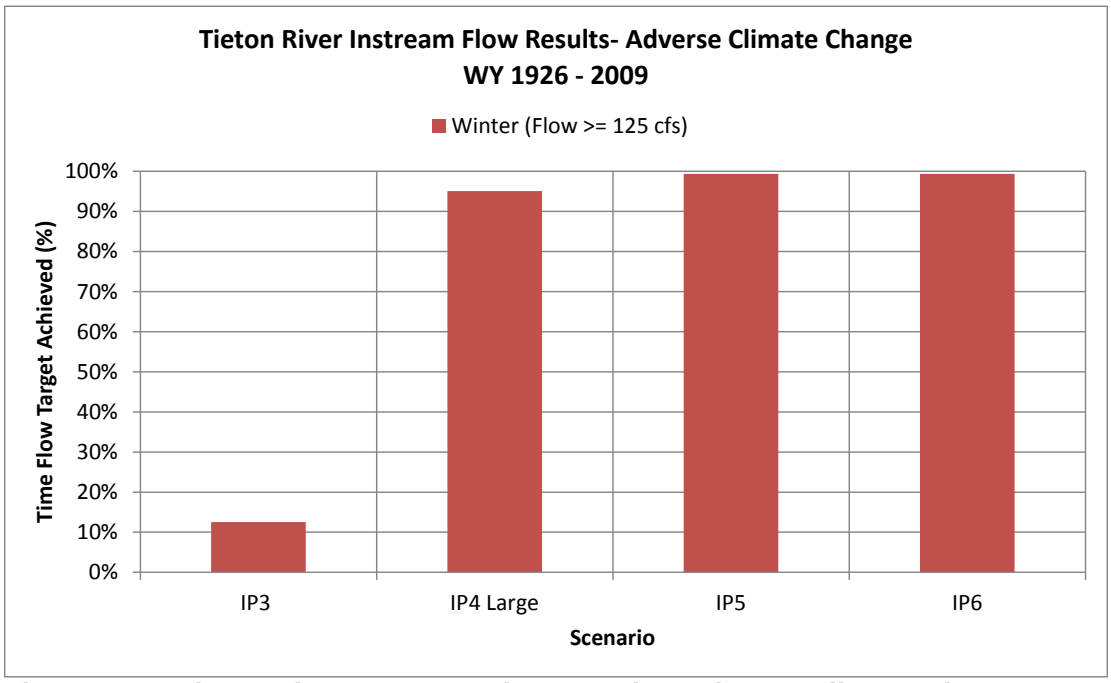


Figure 32. Tieton River Instream Flow Results- Adverse Climate Change

6.4 Effect of Three Climate Change Scenarios on Full Integrated Plan Results

HDR simulated the full Integrated Plan (IP6) scenario under three different climate change scenarios, defined as: 1) Less Adverse, 2) Adverse and 3) More Adverse. Table 16 and Figure 33 summarize the effects of these three climate change scenarios.

Under the impacts of the Less Adverse Climate Change scenario, the combination of all five structural projects (IP6) would yield minimum simulated September 30 prorationing of 38 percent in 1931. July 1 TWSA would average 1,473 kaf, with a minimum level of 947 kaf. April through September major irrigation deliveries would average 1,635 kaf, with a minimum of 1,135 kaf. Under the Less Adverse climate scenario, over the 84-year EPOR the combination of all five structural projects (IP6) would reduce the number of years when prorationing fails to achieve 70 percent, to just 6 years. September 30 prorationing would be above 60 percent in 4 of the 6 years.

Under the impacts of the Adverse Climate Change scenario, the full Integrated Plan (IP6) scenario would be unable to meet the September 30 prorationing target of 70 percent in 23 years. September 30 prorationing would be above 60 percent in nine of these years. Minimum simulated September 30 prorationing would be 7.6 percent in 1930. July 1 TWSA would average 1,322 kaf, with a minimum level of 772 kaf. April through September major irrigation deliveries would average 1,495 kaf, with a minimum of 771 kaf. During the 37 years when prorationing would be less than 70 percent under the IP3 Adverse climate scenario, September 30 prorationing would increase by an average of 8.3 percent; July 1 TWSA would increase by an average of 137 kaf; and April through September major irrigation deliveries would increase by an average of 65.9 kaf (all compared with IP3).

Under the impacts of the More Adverse Climate Change scenario, the full Integrated Plan (IP6) scenario would be unable to meet the September 30 prorationing target of 70 percent in 41 years of the 84-year EPOR. September 30 prorationing would be above 60 percent in seven of these years. Minimum September 30 prorationing would be 0 percent in 1930, 1931, 1941, 1977, 1994, and 2001. July 1 TWSA would average 1,144 kaf, with a minimum level of 570 kaf. Simulated April through September major irrigation deliveries would average 1,278 kaf, with a minimum of 526 kaf.

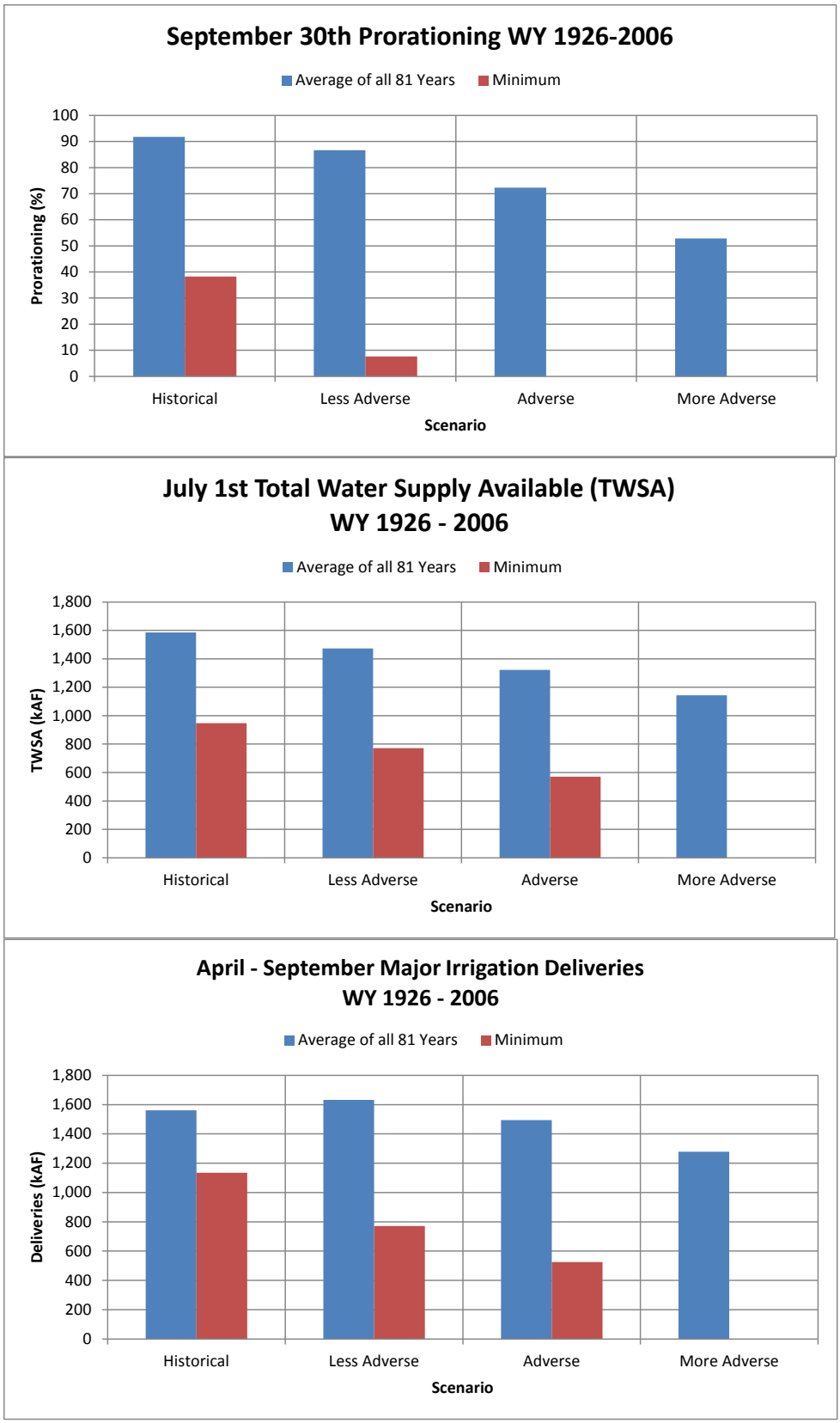


Figure 33. Water Supply Results for IP6 under Three Climate Change Scenarios

Table 16. Summary of Water Supply Results for IP 6 under Three Climate Change Scenarios

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prora-tioning (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Proration ing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)
Run: IP6 Full Integrated Plan - Historical										
Avg. WY 1926 to 2009	3,027	741	1,561	1,586	92.3%	619	72	91.8%	580	57
1941 (Dry Year)	1,640	253	1,371	1,136	68.5%	-59	-178	65.8%	-37	-181
1994 (Dry Year)	1,801	252	1,407	1,206	70.0%	4	-159	70.0%	-36	-175
2001 (Dry Year)	1,893	196	1,423	1,453	70.0%	237	-51	70.0%	207	-62
2005 (Dry Year)	1,867	187	1,424	1,444	70.0%	242	-67	70.0%	226	-68
Run: IP6 Full Integrated Plan - Less Adverse Climate Change										
Avg. WY 1926 to 2009	2,778	610	1,633	1,473	87.5%	453	40	86.7%	411	25
1941 (Dry Year)	1,720	237	1,433	1,242	70.0%	18	-147	70.0%	16	-153
1994 (Dry Year)	1,738	225	1,434	1,184	70.0%	-39	-182	70.0%	-94	-199
2001 (Dry Year)	1,653	217	1,374	1,186	70.0%	44	-119	70.0%	29	-131
2005 (Dry Year)	2,269	348	1,501	1,630	70.0%	370	-35	70.0%	366	-33
Run: IP6 Full Integrated Plan - Adverse Climate Change										
Avg. WY 1926 to 2009	2,419	495	1,495	1,322	73.0%	252	-47	72.3%	217	-58
1941 (Dry Year)	1,264	205	941	866	24.7%	-89	-189	24.5%	-89	-193
1994 (Dry Year)	1,417	278	809	783	10.6%	-87	-196	11.5%	-151	-200
2001 (Dry Year)	1,664	222	1,347	1,157	70.0%	45	-116	70.0%	28	-129
2005 (Dry Year)	1,713	277	1,254	997	49.4%	-113	-200	49.9%	-138	-200
Run: IP6 Full Integrated Plan - More Adverse Climate Change										
Avg. WY 1926 to 2009	1,891	357	1,278	1,144	53.0%	78	-89	52.9%	49	-102
1941 (Dry Year)	939	189	526	570	0.0%	-108	-185	0.0%	-105	-188
1994 (Dry Year)	1,178	220	677	724	0.0%	-79	-190	0.0%	-141	-200
2001 (Dry Year)	829	173	627	683	0.0%	-40	-103	0.0%	-66	-119
2005 (Dry Year)	1,343	268	807	751	5.9%	-83	-128	6.2%	-103	-140

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.

7.0 References

Brekke, et al, 2010 — Brekke, L., B. Kuepper and S. Vaddey, 2010. *Climate and Hydrology Datasets for use in the RMJOC Agencies' Longer-Term Planning Studies.* December 2010.

Ecology, 2009 — Washington State Department of Ecology. 2009. *State Air Quality Map*. <https://fortress.wa.gov/ecy/enviwa/Default.htm>. Accessed May 2009.

Reclamation and Ecology, 2011a — Bureau of Reclamation and Washington State Department of Ecology. 2011. *Yakima River Basin Study, Volume 1: Proposed Integrated Water Resource Management Plan*. Prepared by HDR Engineering, et al., April 2011. U.S. Department of the Interior, Bureau of Reclamation; and Washington State Department of Ecology.

Reclamation and Ecology, 2011b — Bureau of Reclamation and Washington State Department of Ecology. 2011. *Yakima River Basin Study, Volume 2: Modeling of Reliability and Flows.* Technical Memorandum. Prepared by HDR Engineering and Anchor QEA, March 2011. U.S. Department of the Interior, Bureau of Reclamation; and Washington State Department of Ecology.

Reclamation and Ecology, 2011c — Bureau of Reclamation and Washington State Department of Ecology. 2011. *Yakima River Basin Study, Volume 2: Yakima River Basin Water Resources.* Technical Memorandum. Prepared by Anchor QEA, March 2011. U.S. Department of the Interior, Bureau of Reclamation; and Washington State Department of Ecology.

Reclamation and Ecology, 2012 — Bureau of Reclamation and Washington State Department of Ecology. 2012*. Yakima River Basin Integrated Water Resource Management Plan Final Programmatic Environmental Impact Statement*. Prepared by ESA and HDR Engineering, Inc. March 2012.

Reclamation and Ecology, 2014 — Bureau of Reclamation and Washington State Department of Ecology. 2014*. Kachess Drought Relief Pumping Plant and Keechelus Reservoir-to-Kachess Reservoir Conveyance Environmental Impact Statement*. Prepared by ESA and HDR Engineering, Inc., for the U.S. Department of the Interior, Bureau of Reclamation. Contract No. R13PC10006 ID/IQ. (DRAFT). December 2014.

USGS, 2008 — US Geological Survey. 2008. *Development and Application of a Decision Support System for Water Management Investigations in the Upper Yakima River, Washington*. USGS Open-File Report 2008–1251. 307 pages.

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ANCHOR QEA.		
Bob Montgomery	Engineering	QC Review, and System Operations
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Chris Lynch	Water Resources Operations	Review and input on modeling assumptions and RiverWare Model
Joel Hubble	Yakima River Fisheries	Review and input on modeling assumptions

Appendix A
Hydrologic Modeling Calibration

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Yakima River Basin Integrated Water Resource Management Plan

Technical Memorandum: Hydrologic Modeling Calibration

U.S. Bureau of Reclamation

Contract No. R13PC10006 ID/IQ

Prepared by

HDR Engineering, Inc.

U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Columbia-Cascades Area Office

State of Washington
Department of Ecology
Office of Columbia River

June 2014

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Yakima River Basin Integrated Water Resource Management Plan

Technical Memorandum: Hydrologic Modeling Calibration

U.S. Bureau of Reclamation

Contract No. R13PC10006 ID/IQ

Prepared by

HDR Engineering, Inc.

U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Columbia-Cascades Area Office

State of Washington
Department of Ecology
Office of Columbia River

June 2014

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Table of Contents

1 Introduction 1

1.1 Models Compared 1

1.2 Basis of Model Calibration and Comparison 2

2 Overall Water Balance Results 2

2.1 Inflow 3

2.2 Outflow 4

2.3 Depletions 5

2.4 Seepage Losses 7

2.5 Change in Storage 8

2.6 Overall Water Balance and Unaccounted Losses 8

3 Specific Results 8

3.1 Prorationing 8

3.2 Total Water Supply Available 12

3.3 Major Deliveries 13

3.4 Title XII Flows at Parker 22

3.5 Other Target Flows 29

3.6 Reservoir Releases 33

3.7 Reservoir Storage 42

4 Conclusions 52

5 List of Preparers 53

Appendix A. YakRW Water Budget Calculation 56

List of Tables

Table 1. Annual Combined Inflow to the Models in Thousands of Acre-feet 4

Table 2. Main Canal Efficiencies 7

Table 3. USBR and FWIPC Proration Level with Prorationed Years Shaded 11

Table 4. FWIP Conservation Projects 23

List of Figures

Figure 1. Sunnyside System Distribution 6

Figure 2. USBR and FWIPC Daily Proration Level 9

Figure 3. USBR and FWIPC End of Season Proration Level 10

Figure 4. USBR and FWIPC End of Season TWSA 12

Figure 5. USBR and 2010 FWIP Total of All Major Irrigation District Diversions 13

Figure 6. USBR and 2010 FWIP Daily Diversions KRD 14

Figure 7. USBR and 2010 FWIP Daily Diversions Roza 15
Figure 8. USBR and 2010 FWIP Daily Diversions Wapato 15
Figure 9. USBR and 2010 FWIP Daily Diversions Sunnyside 16
Figure 10. USBR and 2010 FWIP Daily Diversions Tieton 16
Figure 11. USBR and 2010 FWIP Daily Diversions Kennewick 17
Figure 12. USBR and FWIPC Total of All Major Irrigation District Diversions 18
Figure 13. Annual Major Irrigation District Deliveries 18
Figure 14. USBR and 2010 FWIP Daily Diversions KRD 19
Figure 15. USBR and 2010 FWIP Daily Diversions Roza 19
Figure 16. USBR and 2010 FWIP Daily Diversions Wapato 20
Figure 17. USBR and 2010 FWIP Daily Diversions Sunnyside 20
Figure 18. USBR and 2010 FWIP Daily Diversions Tieton 21
Figure 19. USBR and 2010 FWIP Daily Diversions Kennewick 21
Figure 20. FWIP Simulated Irrigation Conservation 23
Figure 21. FWIP Instream Conservation 24
Figure 22. USBR and 2010 FWIP Flow at Parker 25
Figure 23. USBR and 2010 FWIP Flow at Parker - Detail 25
Figure 24. USBR and 2010 FWIP Volume at Parker 26
Figure 25. USBR and FWIPC Flow at Parker 27
Figure 26. USBR and FWIPC Flow at Parker - Detail 27
Figure 27. USBR and FWIPC Volume at Parker 28
Figure 28. USBR and FWIPC Target Flow at Parker 28
Figure 29. Flow at Cle Elum Gage 30
Figure 30. Flow at Easton Gage 31
Figure 31. Flow at Tieton Gage 32
Figure 32. USBR and 2010 FWIP Total Reservoir Outflow 33
Figure 33. USBR and 2010 FWIP Total Reservoir Outflow – Detail 34
Figure 34. USBR and 2010 FWIP Total Annual Reservoir Outflow 34
Figure 35. USBR and FWIPC Total Reservoir Outflow 35
Figure 36. USBR and FWIPC Total Reservoir Outflow – Detail 36
Figure 37. USBR and FWIPC Total Annual Reservoir Outflow 36
Figure 38. USBR and FWIPC Cle Elum Reservoir Outflow 37
Figure 39. USBR and FWIPC Cle Elum Reservoir Outflow - Detail 37
Figure 40. USBR and FWIPC Bumping Lake Reservoir Outflow 38
Figure 41. USBR and FWIPC Bumping Lake Reservoir Outflow - Detail 38
Figure 42. USBR and FWIPC Kachess Reservoir Outflow 39
Figure 43. USBR and FWIPC Kachess Reservoir Outflow - Detail 39
Figure 44. USBR and FWIPC Keechelus Reservoir Outflow 40
Figure 45. USBR and FWIPC Keechelus Reservoir Outflow - Detail 40
Figure 46. USBR and FWIPC Rimrock Reservoir Outflow 41
Figure 47. USBR and FWIPC Rimrock Reservoir Outflow - Detail 41
Figure 48. USBR and Measured Rimrock Reservoir Storage 42
Figure 49. USBR Reservoir Release for All Reservoirs for 1982 43
Figure 50. Hydromet Reservoir Release for All Reservoirs for 1982 44
Figure 51. Hydromet and FWIPC Rimrock Reservoir Storage 45
Figure 52. USBR and FWIPC Total Reservoir Storage 45
Figure 53. USBR and FWIPC Total Reservoir Storage - Detail 46
Figure 54. USBR and FWIPC Total September 30 Reservoir Storage 46
Figure 55. USBR and FWIPC Cle Elum Reservoir Storage 47
Figure 56. USBR and FWIPC Cle Elum Reservoir Storage - Detail 47
Figure 57. USBR and FWIPC Bumping Lake Reservoir Storage 48
Figure 58. USBR and FWIPC Bumping Lake Reservoir Storage - Detail 48
Figure 59. USBR and FWIPC Kachess Reservoir Storage 49

Figure 60. USBR and FWIPC Kachess Reservoir Storage - Detail 49
Figure 61. USBR and FWIPC Keechelus Reservoir Storage..... 50
Figure 62. USBR and FWIPC Keechelus Reservoir Storage - Detail 50
Figure 63. USBR and FWIPC Rimrock Reservoir Storage 51
Figure 64. USBR and FWIPC Rimrock Reservoir Storage - Detail 51

List of Acronyms and Terms

acre-feet	The volume of water required to cover 1 acre of land (43,560 square feet) to a depth of 1 foot. Equal to 325,851 gallons or 1,233 cubic meters.
flip-flop	The annual late-summer river operation that shifts reservoir releases from the upper Yakima River basin reservoirs to the Naches system reservoirs to avoid disruption of salmonid habitat and impacts on aquatic insect populations.
FWIP	Future without Integrated Plan (model)
FWIPC	FWIP Calibration (model)
Hydromet	The Bureau of Reclamation operates a network of automated hydrologic and meteorological monitoring stations throughout the Pacific Northwest. This network and its associated communications and computer systems are collectively called, “Hydromet.”
Integrated Plan	Yakima River Basin Integrated Water Resource Management Plan
kAF	Thousands of acre-feet
KRD	Kittitas Reclamation District, located in Central Washington in the Kittitas Valley
M&I	municipal and industrial
POD	Point of Diversion
Title XII flows	The target flows that have been defined in the Yakima River basin, as mandated by Congress through the Yakima River Basin Water Enhancement Project (Title XII of the Act of October 31, 1994, United States Congress [Public Law 103-434]).
TWSA	Total Water Supply Available
USBR model	A YAKRW model maintained by CCAO staff and assumed to represent current conditions and operations
YAKRW	RiverWare model of the Yakima system

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1 Introduction

This memorandum documents review and calibration of the RiverWare model of the Yakima River basin that is being used to analyze various elements of the Yakima River Basin Integrated Water Resource Management Plan (Integrated Plan). After this calibration step, the model will be used to simulate the operation of the Integrated Plan and its components. The results from these simulations will be used in future engineering refinement and environmental analysis. The simulations will update and supplement similar simulations that were performed in prior years.

The goals of the Integrated Plan are to protect, mitigate and enhance fish and wildlife habitat; provide increased operational flexibility to manage instream flows to meet ecological objectives; and improve the reliability of the water supply for irrigation, municipal supply and domestic uses

1.1 Models Compared

The RiverWare model of the Yakima system (YAKRW) is being used to estimate the specific effects of proposed new water resources projects on water supply and instream flow conditions. It is also being used to estimate the effects of potential climate change on future water supplies, facilities, and instream flows.

The RiverWare software was developed by the Center for Advanced Decision Support for Water and Environmental Systems at the University of Colorado. The YAKRW model of the Yakima River basin (which uses the RiverWare software) was originally developed for the Yakima Field Office to evaluate seasonal operations strategies. It has been adapted through the years by the U.S. Department of the Interior Bureau of Reclamation to predict the potential effects of changes in facilities or operational rules in the Yakima River basin. Chris Lynch of Reclamation's Columbia Cascades Area Office completed the most recent version of the model, and provided it to the project team in September of 2013. The model is assumed to represent current conditions and operations and is referred to as the "USBR model" in the paragraphs below. Agreement with the USBR model is the overall basis for the calibration described in this technical memorandum.

The purpose of this memorandum is to present and compare model results from two primary HDR-developed RiverWare models of the Yakima River basin, against the USBR model. The first of these two comparison models is the "Future without Integrated Plan Model" created by HDR for the Yakima Basin Plan. This version of the YAKRW model was originally obtained from Reclamation's Technical Service Center in the spring and summer of 2010, where it had been used in evaluating the effects of potential climate change. HDR developed and refined this model to estimate water supplies, stream flows, and reservoir levels associated with a scenario titled "Future without Integrated Plan" (FWIP). HDR's modifications incorporated the future, non-Integrated Plan water conservation measures and water demand changes anticipated for the basin over the next 30 years. Results from the FWIP scenario YAKRW model were used as the baseline against which the effects of the Integrated Plan were documented in 2010 and 2011.

The second model compared against the USBR model is a modification of FWIP developed to represent current, rather than future operating conditions. This subsequent model was created to represent current conditions so that HDR's YAKRW model could be more precisely checked and compared against the USBR model. The second, resulting model is called the "FWIP Calibration model" (FWIPC). The results compared against USBR in this memorandum are from the 2010 FWIP model, or from the subsequent current conditions FWIPC model.

The following changes were made to get from the 2010 FWIP Model to the FWIPC Model:

- Turn-off future planned conservation of 36,000 acre-feet associated with Roza
- Turn-off future planned conservation 6,870 acre-feet associated with Benton
- Turn-off future planned conservation 54,000 acre-feet associated with Sunnyside
- Correct the model "bug" associated with the proposed Wymer bypass of flow through the Wilson-to-Umtanum reach that was causing approximately 60 kAF extra water to be sent out of the system during the period August 2 through September 15

The following is a list of known differences between the FWIPC and the USBR model:

1. The FWIPC model includes future Point of Diversion (POD) changes at the Benton and Reservation PODs.
2. American River Inflow discrepancy in four water years is included in the FWIPC model (see Section 2.1).
3. Future municipal and industrial (M&I) demands are implemented in the FWIPC model for the Kittitas, Yakima, and Benton water users (see Section 2.3).
4. Irrigation efficiencies for several irrigation diversions are somewhat lower in the FWIPC model.

1.2 Basis of Model Calibration and Comparison

Simulation results from the 2010 FWIP and the FWIPC models were compared against results from the USBR model for agreement with respect to the following:

- Overall inflow
- Overall outflow
- Irrigation prorationing level
- Total water supply available (TWSA)
- Major irrigation district deliveries
- Title XII flow at Parker (see Section 3.4)
- Target flows at key locations
- Reservoir releases
- Reservoir storage

2 Overall Water Balance Results

Both the FWIP and FWIPC model results were compared against USBR model results for the historical period from November 1, 1981 to October 31, 2005. Because the overall water balance is identical in the FWIP and FWIPC models, the following sections only compare the FWIPC model against the USBR model. The overall water balance represented by the models can be compared by looking at the sum of inflows, computed losses, change in storages, and outflows from each. The water budget is as follows:

Outflows = Inflows – Depletions – Unrecovered Seepage Losses – Change in System Storage

Appendix A details the specific model slots used in the water budget. Total inflow can be compared by looking at the inflows to the five major reservoirs, local unregulated reach gains, and other unregulated headwater inflows. Total outflow can be compared by summing the volume of water flowing at the most

downstream reach on the Columbia River, and system losses. As Columbia River flows are much higher than Yakima River basin inflows, the base Columbia River flows were subtracted from the water budget so that the budget reflects Yakima River basin operations only.

Losses in the water budget are in the form of project depletions and unrecovered seepage. Depletions were totaled from all individual irrigation project places of use. The M&I depletions are also part of this total. Seepage throughout the model is simulated as a combination of recovered and unrecovered water. In most cases, the seepage losses are transmitted through the shallow aquifer and are recovered as base flow to river systems. These types of seepage losses include main canal seepage and on-farm losses. In other cases, all or a portion of the seepage is transmitted to the deep aquifer and is lost from further reuse. This unrecovered seepage loss is considered a loss in the water budget. Note that certain canals in the model (portions of Kittitas Reclamation District, Sunnyside, Westside, and the Prosser-to-Kiona reach) are configured in the model as completely unrecoverable. It is not clear if this is intentional or a model configuration issue.

Lastly, the change in storage in the system between the first and last time step of the simulation is included in the water budget. The storage includes the surface water reservoirs as well as the simulated groundwater aquifer storage. This change in storage term is relatively small compared to the other terms, but is included in the water budget for completeness.

2.1 Inflow

Overall inflow to the two models (FWIPC and USBR) can be quantified by comparing the volume of inflow to the models. The average total of all inflows is the same in the 2010 FWIP, FWIPC, and USBR models. This is a good sign that the hydrologic data driving the models are effectively the same. As discussed below, there are some significant changes in the pattern of releases from all reservoirs, and from individual reservoirs, but (as shown in Figure 1) the total inflows to the two models are approximately the same. The only difference in inflow datasets is in the American River gage inflow point. The American River gage inflows differ by less than 1,000 acre-feet per year in water years 1995, 1996, 1997, and 2002. The average annual volume of inflow in the models is 4,080 kAF per year. This is summarized in Table 1.

Table 1. Annual Combined Inflow to the Models in Thousands of Acre-feet

Water Year	FWIPC Inflows (acre-feet)	USBR Current Conditions (acre-feet)
1982	5,080,676	5,080,676
1983	5,105,977	5,105,977
1984	4,653,944	4,653,944
1985	3,346,732	3,346,732
1986	3,851,309	3,851,309
1987	3,313,851	3,313,851
1988	3,239,230	3,239,230
1989	3,645,032	3,645,032
1990	4,177,188	4,177,188
1991	4,701,979	4,701,979
1992	2,994,259	2,994,259
1993	2,976,714	2,976,714
1994	2,473,876	2,473,876
1995	4,852,584	4,852,405
1996	6,596,392	6,596,838
1997	6,440,787	6,441,198
1998	4,412,567	4,412,567
1999	5,367,622	5,367,622
2000	4,283,980	4,283,980
2001	2,182,868	2,182,868
2002	4,336,767	4,336,466
2003	3,683,159	3,683,159
2004	3,578,796	3,578,796
2005	2,576,715	2,576,715

2.2 Outflow

Overall outflow in the two models were compared by examining the most downstream reach on the Columbia River. The inflows of the Columbia River at Priest gage is subtracted from both outflow datasets to compare effects of the Yakima River basin on the outflows. The average annual totals of these two flows are 2,207 kAF in the FWIPC model and 2,295 kAF in the USBR model. On average, the USBR model calculates approximately 88 kAF more outflow than the FWIPC model. This difference of about 4 percent is believed to result because of differences in depletions and other water losses in the two models, as described below.

2.3 Depletions

Depletions are consumptive water losses from irrigation and M&I uses. The FWIPC has an average annual depletion loss of 1,008 kAF per year, or 25 percent of total inflows. The USBR model has an average annual depletion loss of 944 kAF per year, or 23 percent of total inflows. The difference between the models is 64 kAF per year more depletion losses in the FWIPC model. Breaking out this difference further, the increase in depletion losses is from the following:

- Future M&I: 11,800 acre-feet per year in the FWIPC model
- Sunnyside irrigation: 23,705 acre-feet per year more in the FWIPC model
- Roza irrigation: 22,638 acre-feet per year more in the FWIPC model
- Union Gap irrigation: 791 acre-feet per year more in the FWIPC model
- Kittitas Reclamation District (KRD) irrigation: 4,815 acre-feet per year more in the FWIPC model
- Other irrigation systems: 287 acre-feet per year more in the FWIPC model

The Future M&I depletions are additional input data in the FWIPC model. The irrigation system changes are due to assumed changes in main canal distribution efficiency. Figure 1 provides a schematic of an irrigation distribution system in the model. The model diverts flows from the Yakima River based on diversion curves and prorationing. This diverted flow travels down the main canal. Periodically, laterals pull water from the main canal for on-farm uses. The lateral diversions are based on a fixed percentage of the main canal flow. In the USBR model for the Sunnyside canal system, the first lateral (Sunnyside 3) diverts 18 percent of the main canal flow. The remaining 82 percent of canal flow continues in the main canal until it reaches the next lateral diversion. The Sunnyside 4 lateral diverts 38 percent of the main canal flow, leaving 51 percent of the original diversion in the main canal (82 percent * [100 percent-38 percent]). In the next two laterals, 48 percent and 34 percent of the remaining main canal flow is diverted. The flow at the end of main canal after the lateral diversions is 17 percent of the original diversion from the Yakima River. The main canal is 83 percent efficient at delivering flows at the laterals.

In the FWIPC model, the lateral diversion rates are based on a previously supplied No Action condition. The lateral diversions are higher than in the USBR model. The Sunnyside 3 lateral diverts 22 percent of main canal flow, Sunnyside 4 diverts 47 percent, Sunnyside 5 diverts 67 percent, and Sunnyside 6 diverts 79 percent. The remaining flow at the end of the main canal is 3 percent of the original Yakima River diversion, for a main canal efficiency of 97 percent. The higher efficiency allows more of the main canal diversion to reach on-farm use and generates proportionally higher depletions.

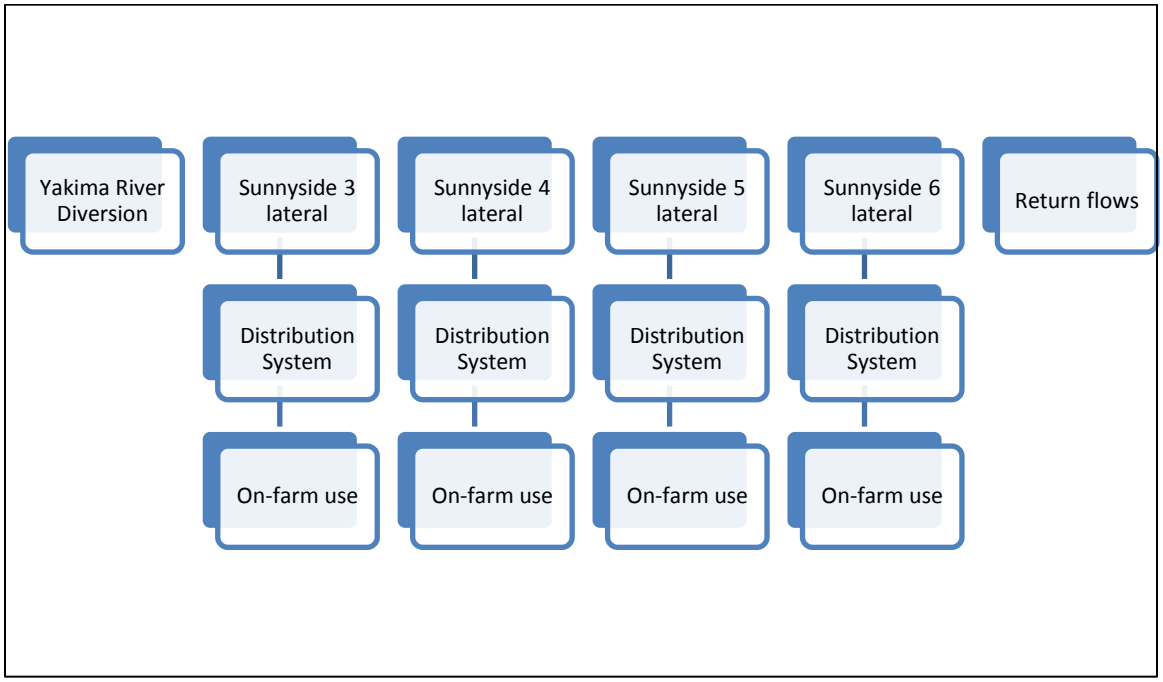


Figure 1. Sunnyside System Distribution

Many of the other irrigation systems also have higher diversions into laterals and higher assumed main canal efficiencies. Table 2 shows the computed main canal efficiencies for canals having different diversion rates between the two models.

Table 2. Main Canal Efficiencies

Main Canal System	Main Canal Efficiency (%)	
	USBR Model	FWIPC
KRD North	94	99
KRD South	95	99
Roza	83	99
Sunnyside	83	97
Union Gap	89	97

2.4 Seepage Losses

Seepage in the model is simulated in two ways. In the first approach, the seepage is transmitted through the shallow aquifer and over time contributes to river base flows. Seepage in this sense is not a loss to the system and is not accounted for as "seepage loss" in the water budget. The second approach, which is what is referred to in this section as "Seepage Losses," is that a portion of seepage is communicated to the deep aquifer and assumed to not be recovered. The model simulates these as "Percolation" losses. In certain canal and river reaches (KRD South, Prosser-to-Kiona reach, Sunnyside, and Westside) even the shallow aquifer seepage is assumed to be unrecoverable losses.

The FWIPC has average annual seepage (percolation) losses of 856 kAF per year, or 21 percent of total inflows. The USBR model has average annual seepage losses of 832 kAF per year, or 20 percent of total inflows. The FWIPC model generates 24 kAF per year more of seepage losses, primarily in the following canal areas:

- Sunnyside: 16,132 acre-feet per year more in FWIPC
- Roza: 8,813 acre-feet per year more in FWIPC
- Town: 2,848 acre-feet per year more in FWIPC
- Union Gap: 1,310 acre-feet per year more in FWIPC
- KRD: 1,056 acre-feet per year more in FWIPC
- South Naches: 4,518 acre-feet per year *less* in the FWIPC
- Boise Cascade: 2,889 acre-feet per year *less* in the FWIPC
- Other: 588 acre-feet per year more in FWIPC

The higher FWIPC seepage losses are again driven by the higher main canal efficiencies shown in Section 2.3. Seepage is simulated as a percent of flow in the laterals and on-farm uses. Higher diversions into the laterals and on-farm uses results in higher seepage losses. The South Naches and Boise Cascade canal systems produce less seepage losses in the FWIPC model versus the USBR model. The irrigation efficiency of these two systems is the same in both models. As further discussed in Section 3.3, main canal deliveries in the USBR model are higher than in the FWIPC model. With identical main canal efficiencies, losses in the FWIPC are less than in the USBR model. Losses are higher when the main canal efficiencies are increased.

2.5 Change in Storage

The change in system storage is measured as the total storage at the last simulated time step minus the total storage in the first time step. Storage includes the surface water reservoirs as well as the groundwater storage. Given the limited system storage compared to the annual river flows, the change in storage is a minor component of the water budget. The FWIPC model has a total change in storage of 106,244 acre-feet, or 0.1 percent of total inflow. The USBR model has a change in storage of 42,872 acre-feet, or 0.04 percent of total inflow. One aspect of this difference is that the starting (initial) surface reservoir storage in the FWIPC model is 21,441 acre-feet more than in the USBR model. On an average annual basis, this amounts to less than 1,000 acre-feet per year.

2.6 Overall Water Balance and Unaccounted Losses

The previous water budget components account exactly for the 88,000 acre-feet difference in modeled outflow noted in Section 2.2 (64,000 acre-feet more depletions, and 24,000 acre-feet more seepage losses).

This balance does not include some minor unaccounted losses. These are most likely additional seepage losses in river reaches or canals not previously identified. As the unaccounted losses are small and not likely to influence the model comparison conclusions, no additional effort was made to track down the source of these losses. For the FWIPC model, unaccounted losses averaged 5 acre-feet per year, or 0.14 percent of total inflows. The USBR model unaccounted losses averaged 7 acre-feet per year, or 0.17 percent of total inflows.

3 Specific Results

As mentioned in Section 2.0, both the 2010 FWIP and FWIPC model results were compared against USBR model results for the historical period from November 1, 1981 to October 31, 2005. Due to the overwhelming amount of results associated with a daily time-step model, a set of primary metrics was used to summarize and compare models. The set of primary metrics included the following:

- Proration Level
- Total Water Supply Available
- Major Deliveries
- Title XII Flows at Parker
- Other Target Flows
- Reservoir Releases
- Reservoir Storage

3.1 Prorationing

Prorationing represents the percent of the supply that is available to the proratable water right holders, who may have their supplies cut in low supply years. In years with prorationing, the USBR model predicted a lesser extent of prorationing than the original 2010 FWIP model. On average during the period modeled, the proration level calculated by the USBR model on September 30 was 5.5 percent higher than the 2010 FWIP model proration level. When looking only at years with prorationing (< 100 percent), the USBR model calculated the September 30 proration level to be 10.7 percent higher on

average than the FWIP proration level. The minimum prorationing level for 1994 was 28.5 percent for the USBR model and 20.8 percent for the 2010 FWIP model, a difference of 7.7 percent.

After turning off the future conservation assumed in the 2010 FWIP model and running the FWIPC model, the predicted prorationing levels increased, and became much closer to the USBR predicted results. On average during the period modeled, the September 30 proration level calculated by the USBR model was 0.7 percent higher than the FWIPC model proration level. When looking only at years with prorationing (< 100 percent), the USBR model calculated the September 30 proration level to be 1.2 percent higher than the FWIPC proration level on average. The minimum prorationing level for 1994 was 28.5 percent for the USBR model and 25.4 percent for the FWIPC model, a difference of 3.1 percent.

The FWIPC and USBR prorationing levels are compared in Figure 2 and Table 3.

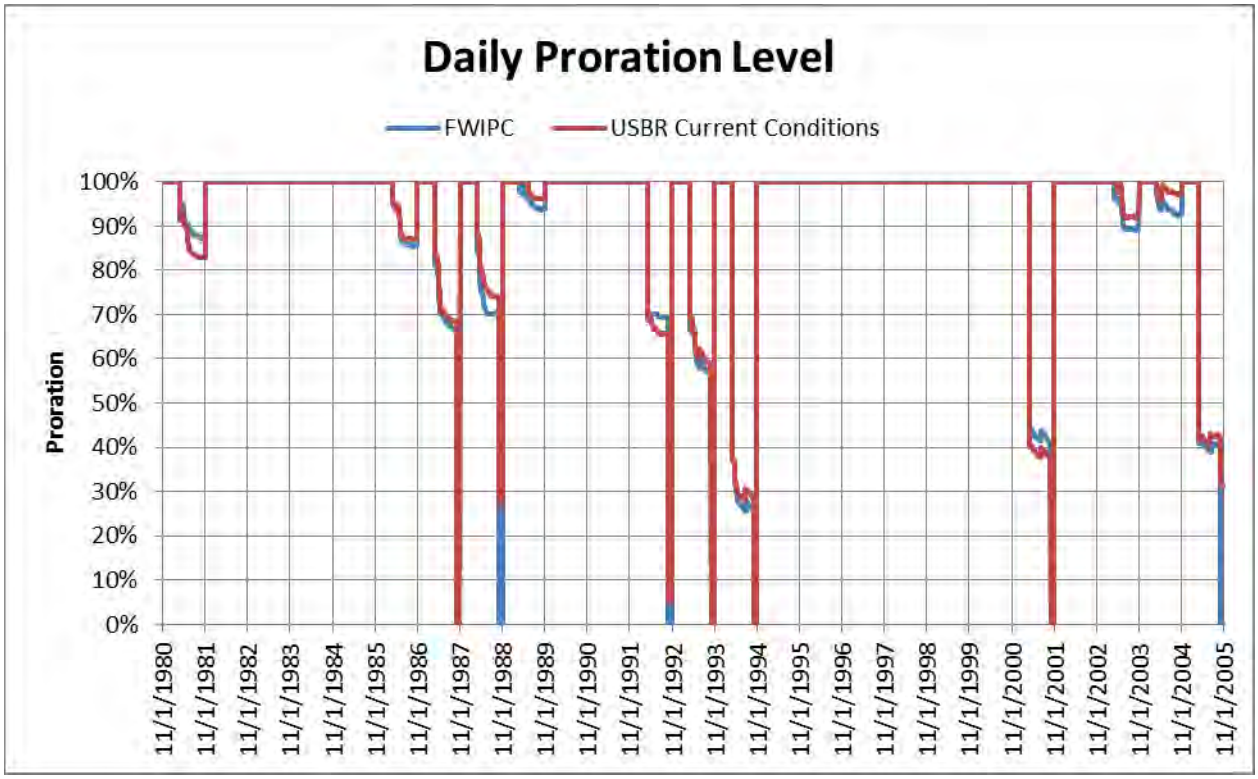


Figure 2. USBR and FWIPC Daily Proration Level

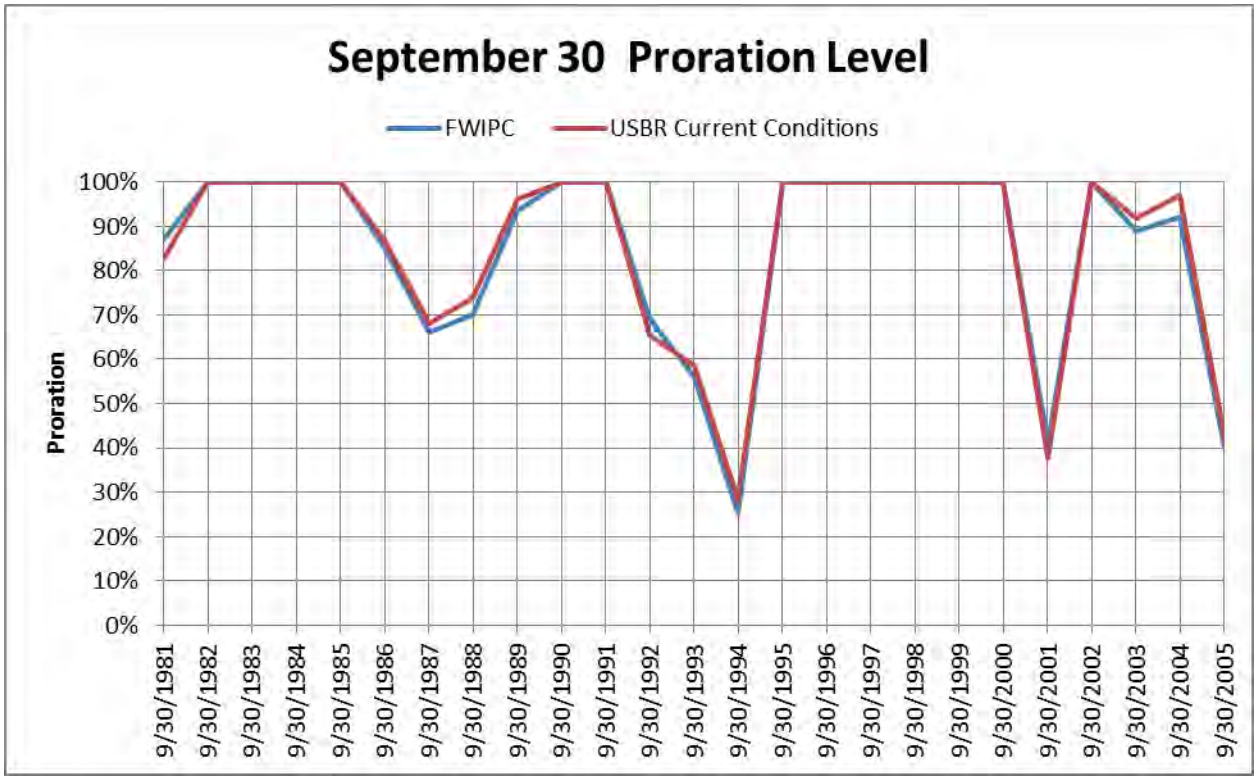


Figure 3. USBR and FWIPC End of Season Proration Level

Table 3. USBR and FWIPC Proration Level with Prorationed Years Shaded

Date	Proration Level		Delta
	FWIPC	*USBR Current Conditions*	
9/30/1981	87.2%	82.8%	4.4%
9/30/1982	100%	100%	0.0%
9/30/1983	100%	100%	0.0%
9/30/1984	100%	100%	0.0%
9/30/1985	100%	100%	0.0%
9/30/1986	85.3%	86.9%	-1.6%
9/30/1987	66.1%	68.1%	-1.9%
9/30/1988	70.0%	73.8%	-3.8%
9/30/1989	93.5%	96.1%	-2.5%
9/30/1990	100%	100%	0.0%
9/30/1991	100%	100%	0.0%
9/30/1992	69.2%	65.6%	3.6%
9/30/1993	55.9%	58.6%	-2.6%
9/30/1994	25.4%	28.5%	-3.1%
9/30/1995	100%	100%	0.0%
9/30/1996	100%	100%	0.0%
9/30/1997	100%	100%	0.0%
9/30/1998	100%	100%	0.0%
9/30/1999	100%	100%	0.0%
9/30/2000	100%	100%	0.0%
9/30/2001	41.0%	37.8%	3.3%
9/30/2002	100%	100%	0.0%
9/30/2003	88.9%	91.9%	-3.0%
9/30/2004	92.2%	96.9%	-4.7%
9/30/2005	40.2%	42.3%	-2.2%
Min	25.4%	28.5%	-4.7%
Average	82.3%	83.0%	-0.7%
Max	100%	100%	4.4%

3.2 Total Water Supply Available

Total water supply available (TWSA) is a combined measure of the available water in streams and reservoirs. It is calculated as the sum of the reservoir storage and the forecast of irrigation return flows and runoff below the reservoirs. Only a portion of the TWSA is available to meet irrigation and M&I demands in given year.

TWSA in the USBR model was slightly higher than in the FWIPC model. Of particular interest is the TWSA at the end of the irrigation season (September 30). On average, the USBR model calculates approximately 12 kAF more TWSA than FWIPC on September 30. This is a difference of 4.0 percent. As shown in Figure 4, this predicted end of season TWSA difference is most pronounced in dry years.

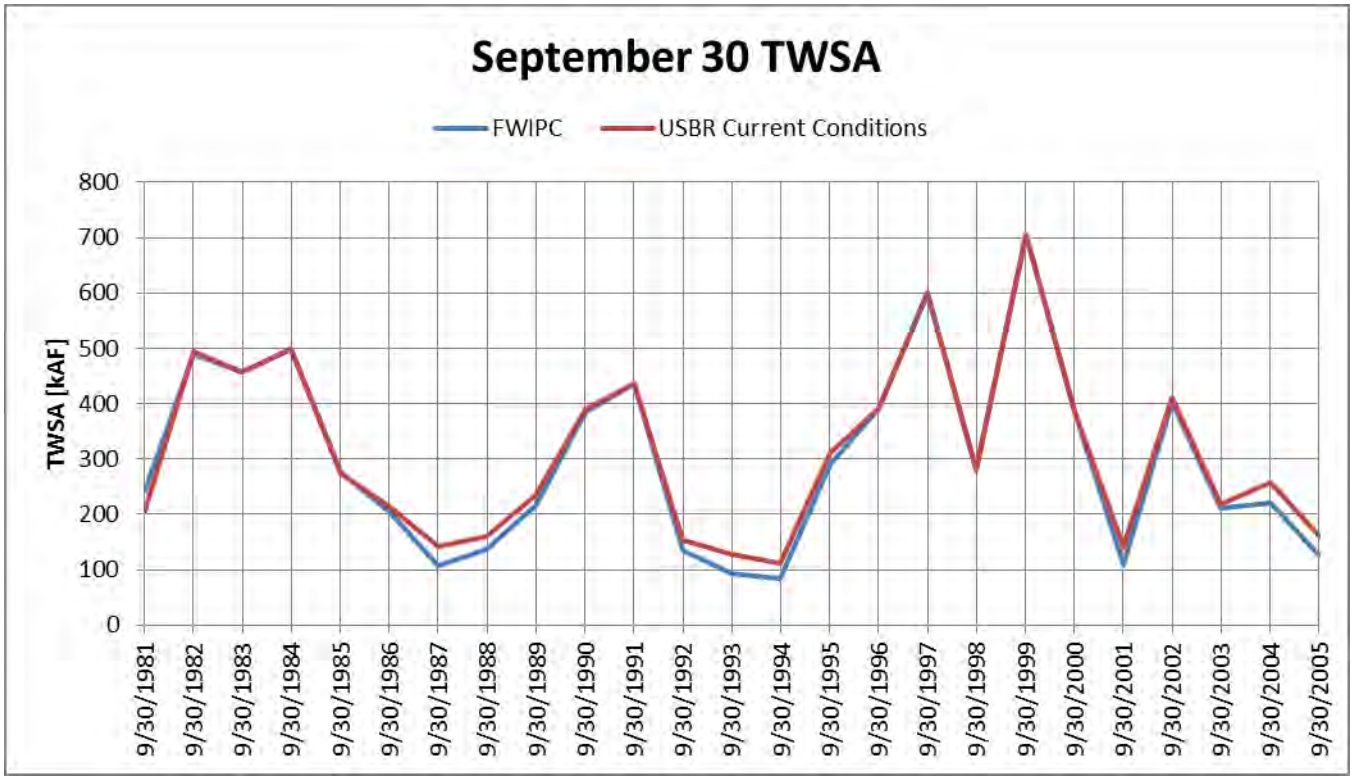


Figure 4. USBR and FWIPC End of Season TWSA

3.3 Major Deliveries

The project team compared major deliveries against USBR results for both the 2010 FWIP model and the FWIPC model. Deliveries were tabulated for six of the major irrigation districts: Kittitas Reclamation District (KRD), Roza Irrigation District, Wapato, Sunnyside, Tieton, and Kennewick. The USBR model consistently delivered more water to the major irrigation districts. On an average annual basis, the major irrigation districts received 124 kAF more water in the USBR model than the 2010 FWIP model. This is primarily due to the increased, future water conservation that was included in the 2010 FWIP model water demands. The total of all major irrigation deliveries are compared in Figure 5. Individual district diversions are compared in Figure 6 through Figure 11.

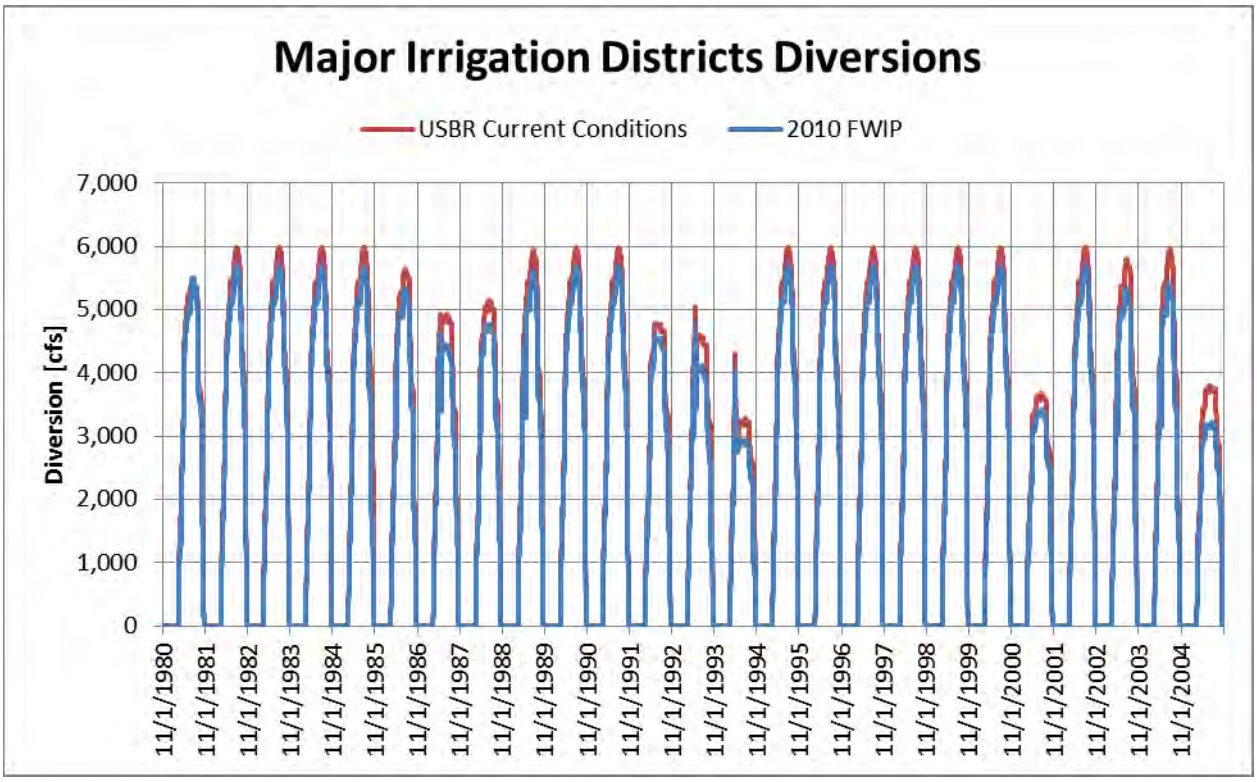


Figure 5. USBR and 2010 FWIP Total of All Major Irrigation District Diversions

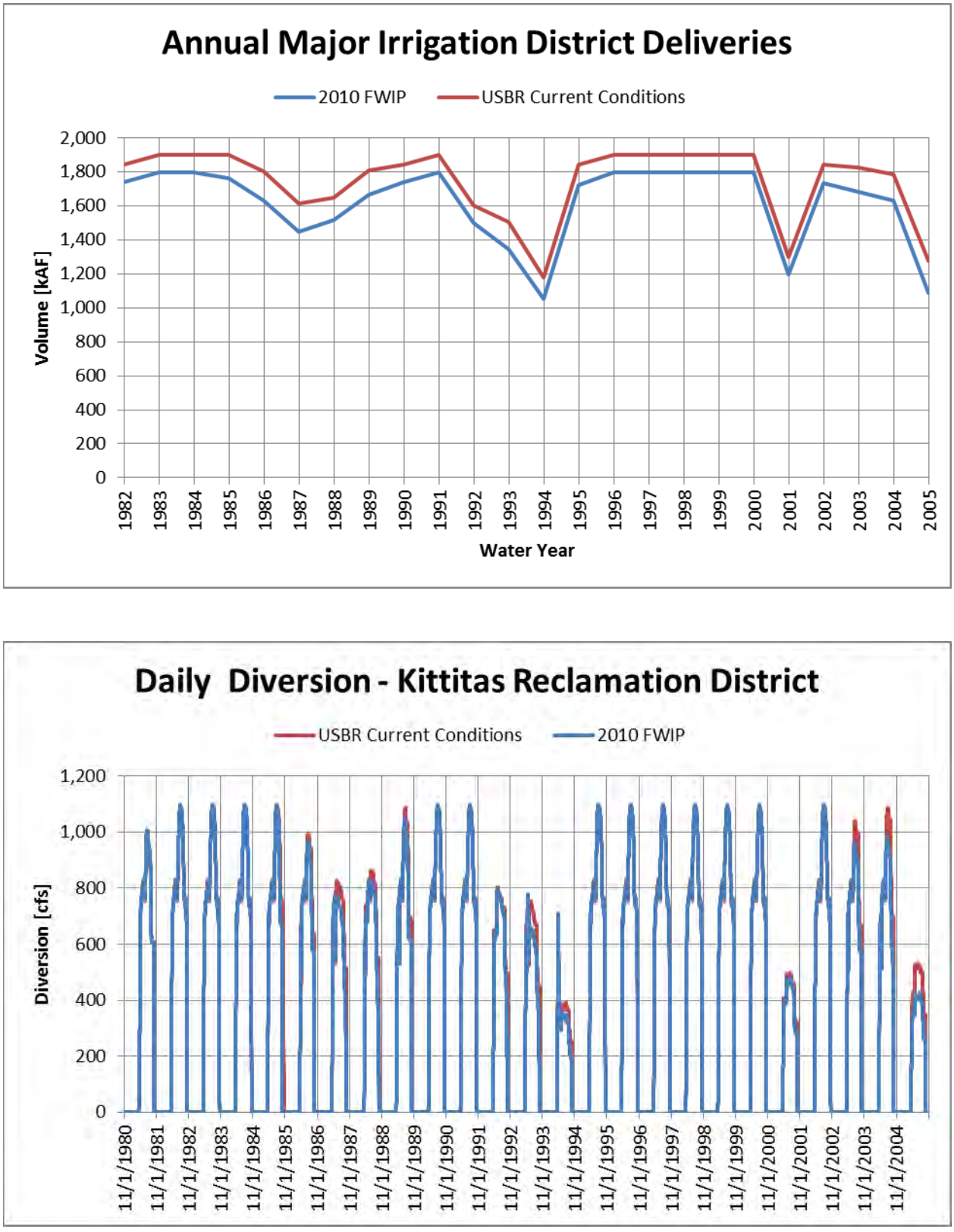


Figure 6. USBR and 2010 FWIP Daily Diversions KRD

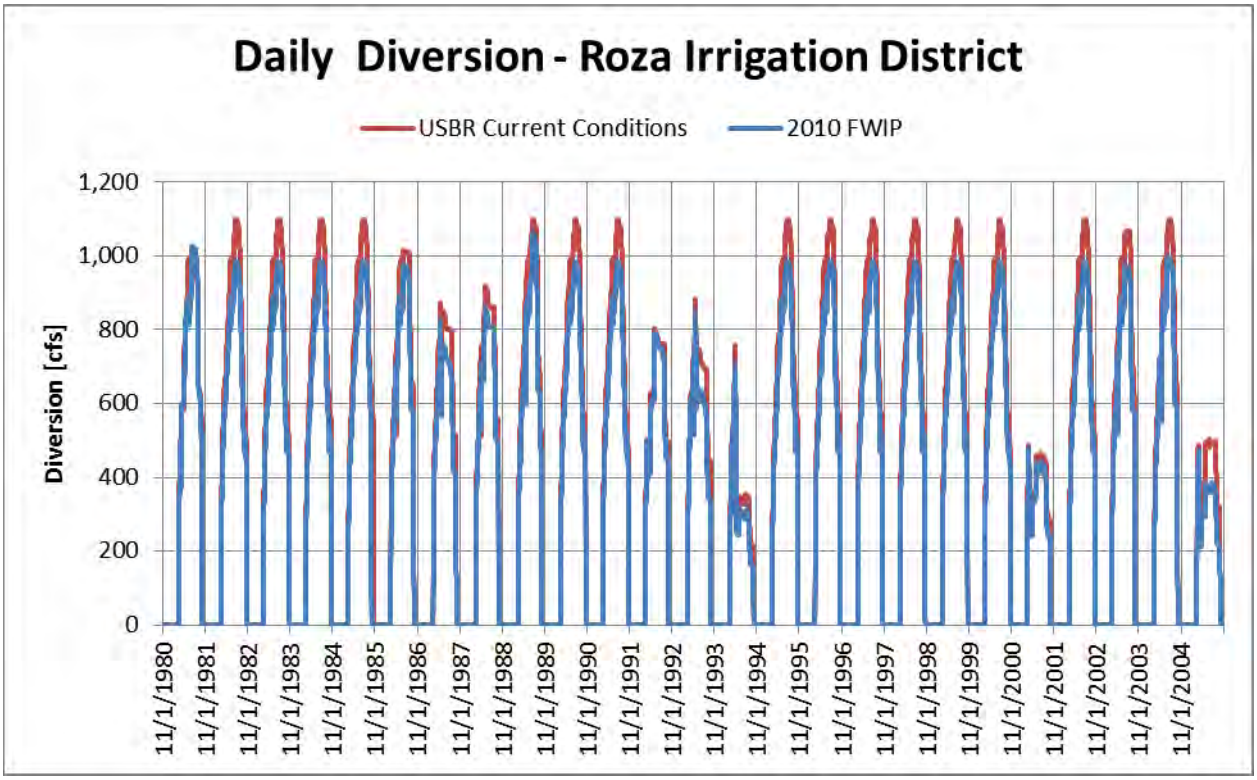


Figure 7. USBR and 2010 FWIP Daily Diversions Roza

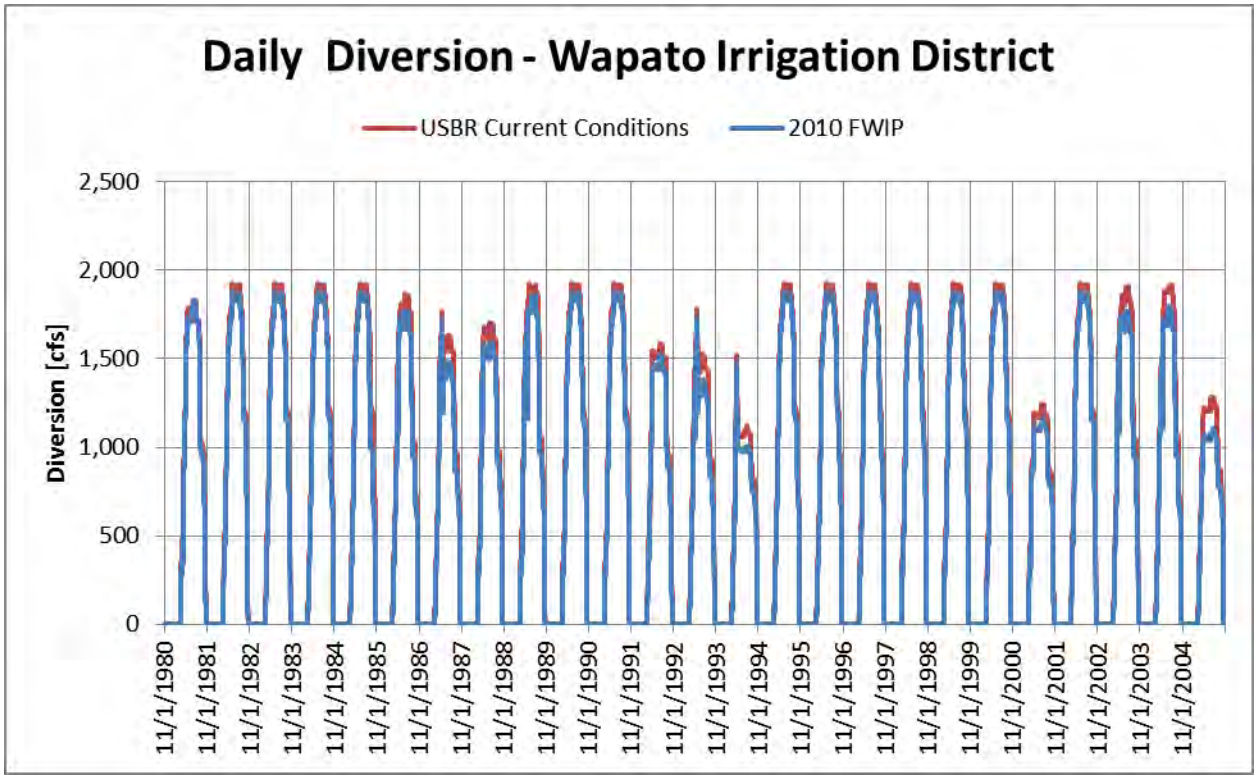


Figure 8. USBR and 2010 FWIP Daily Diversions Wapato

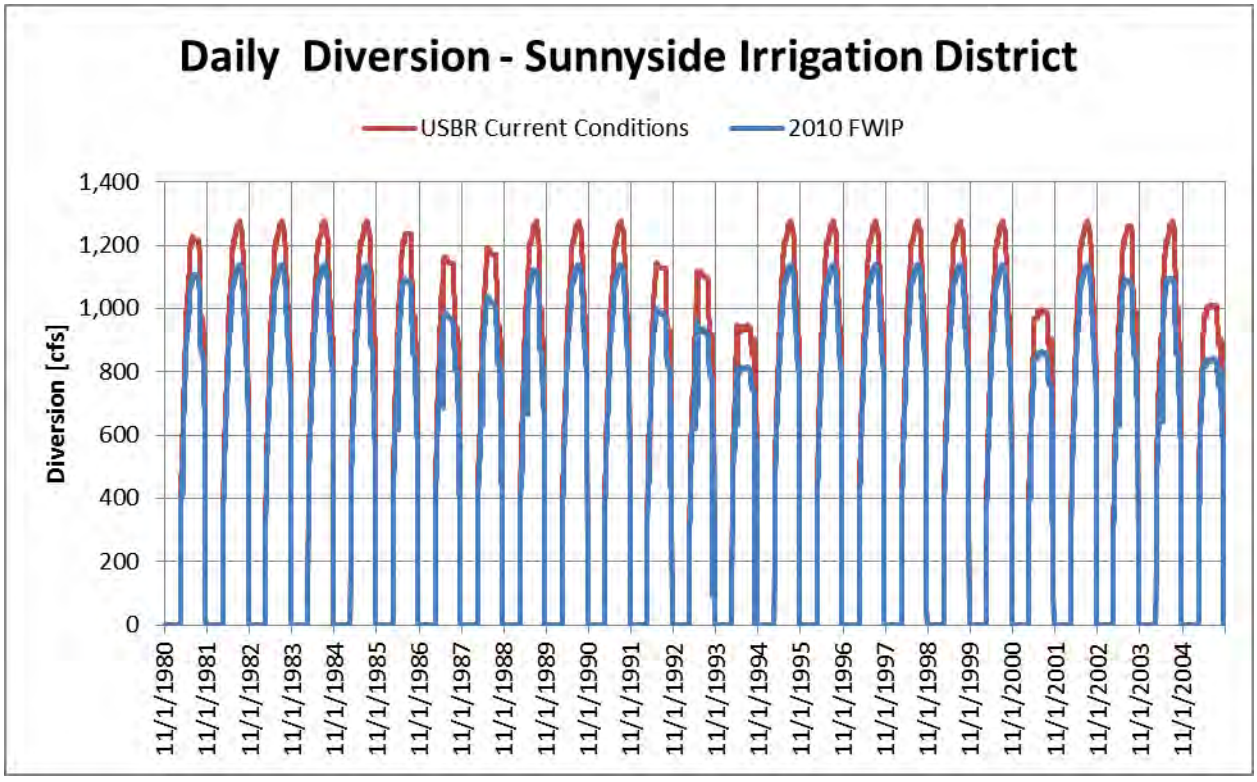


Figure 9. USBR and 2010 FWIP Daily Diversions Sunnyside

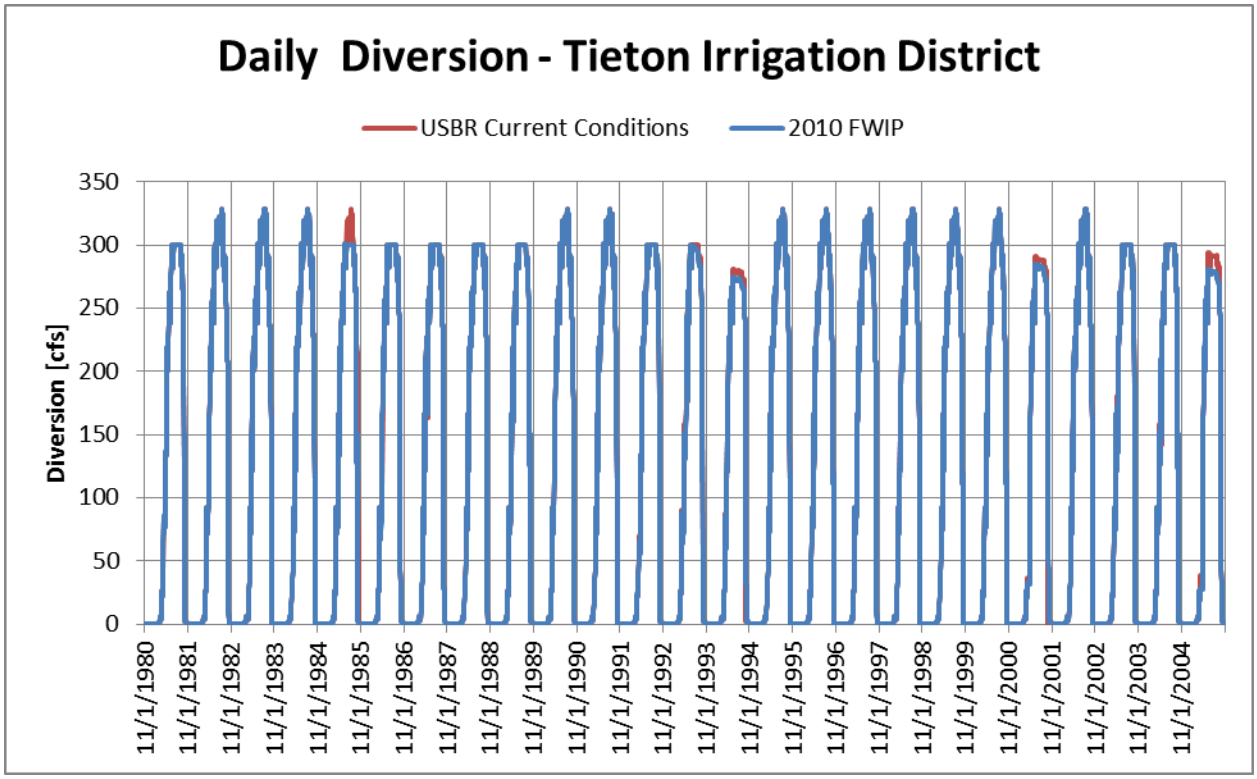


Figure 10. USBR and 2010 FWIP Daily Diversions Tieton

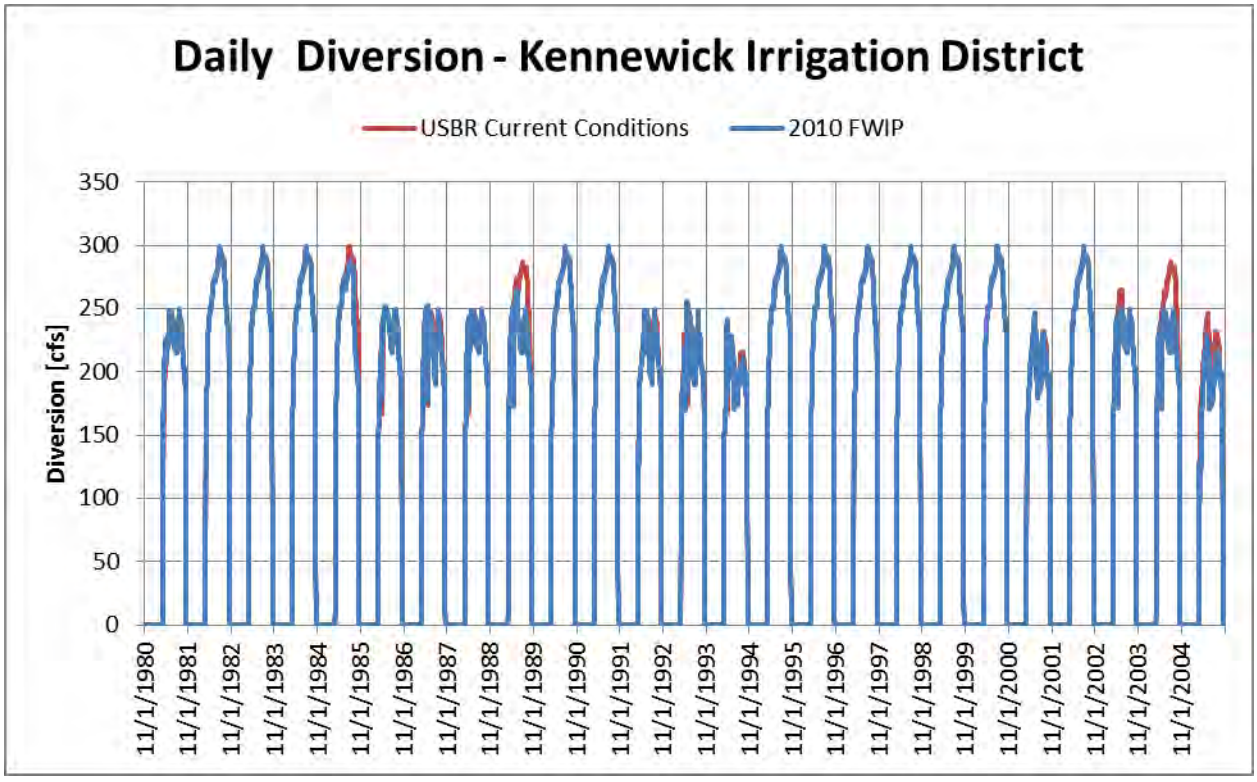


Figure 11. USBR and 2010 FWIP Daily Diversions Kennewick

Using the FWIPC Model, deliveries were again tabulated for six of the major irrigation districts: Kittitas Reclamation District (KRD), Roza Irrigation District, Wapato, Sunnyside, Tieton, and Kennewick. On an average annual basis, the major irrigation districts received 43 kAF more water in the USBR model than the FWIPC model. This is a difference of 2.4 percent. Most of the difference is because the USBR model delivered slightly more water to the Wapato and Sunnyside irrigation districts. Figures 12 through 19 display the difference between USBR and FWIPC modeled diversions.

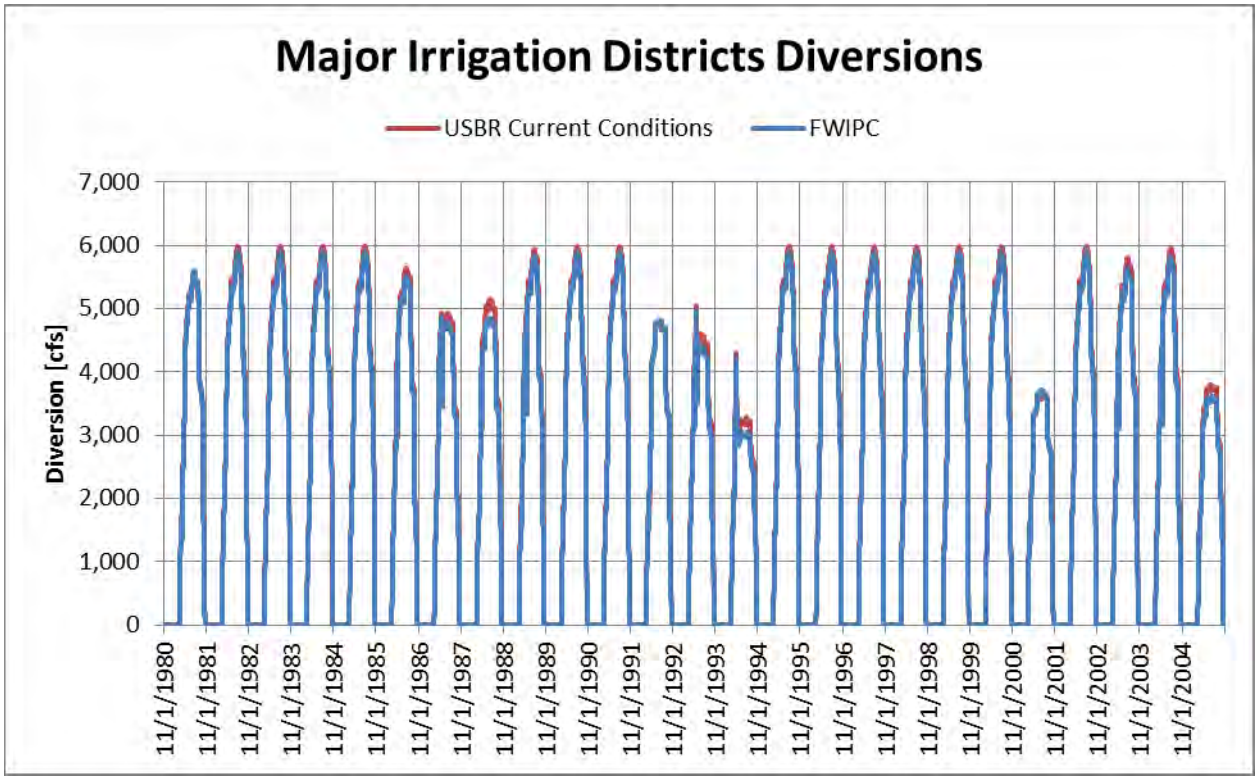


Figure 12. USBR and FWIPC Total of All Major Irrigation District Diversions

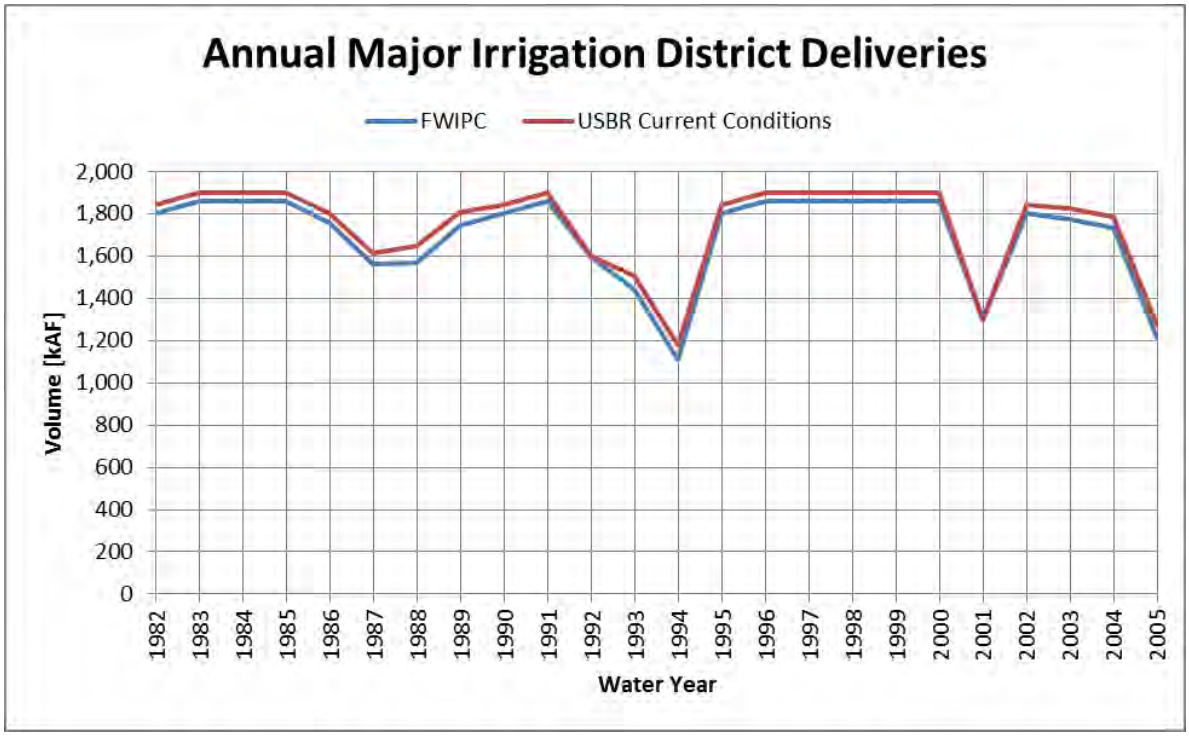


Figure 13. Annual Major Irrigation District Deliveries

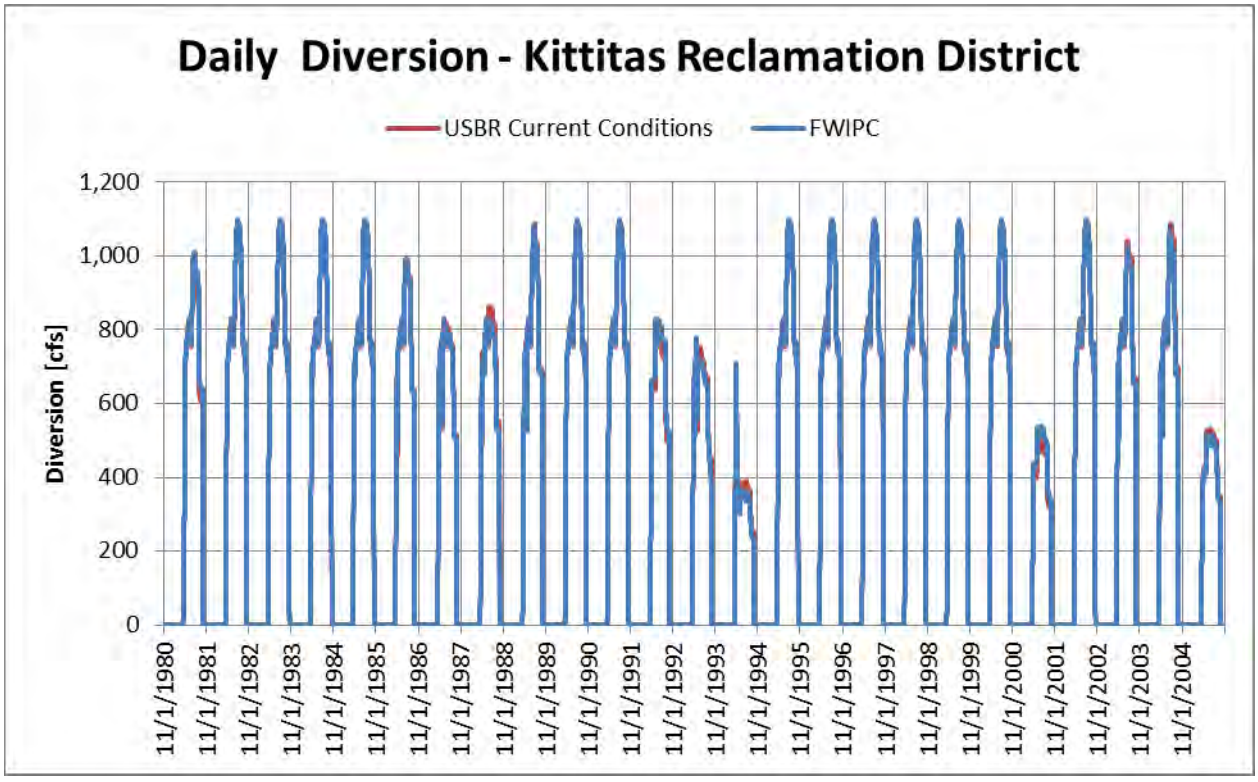


Figure 14. USBR and 2010 FWIP Daily Diversions KRD

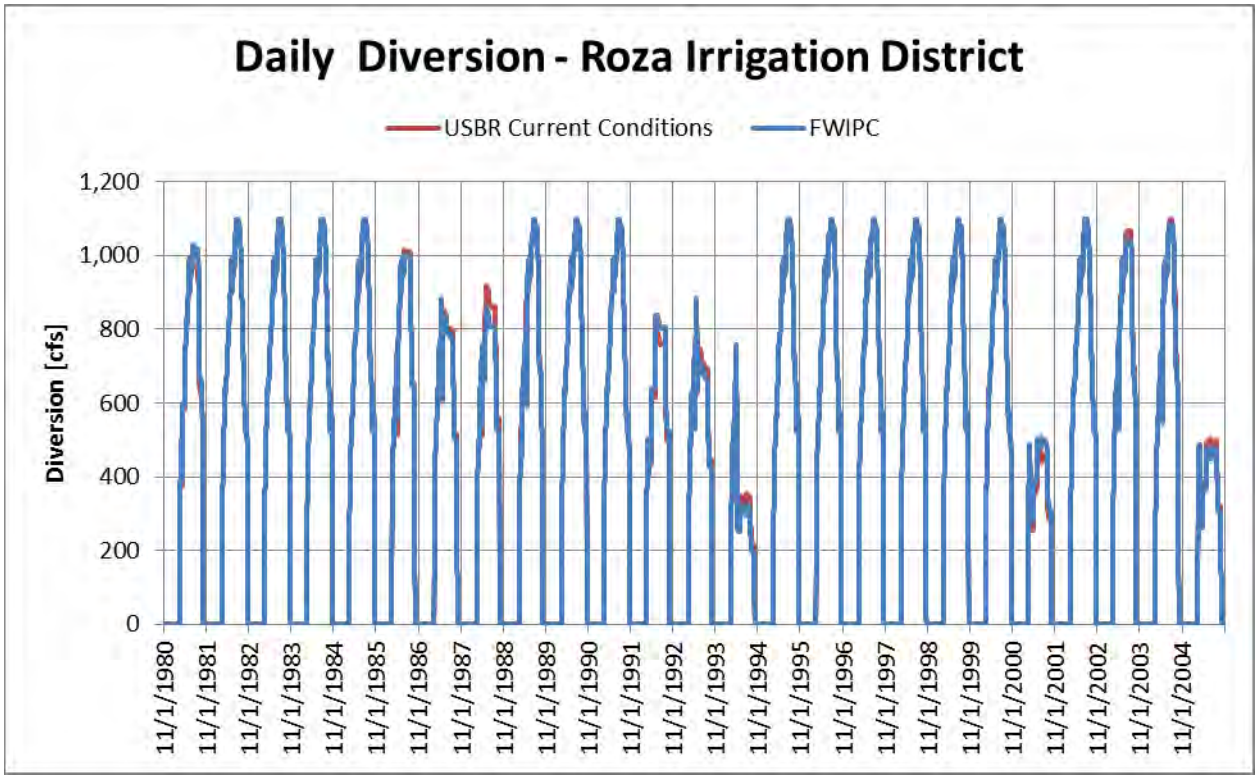


Figure 15. USBR and 2010 FWIP Daily Diversions Roza

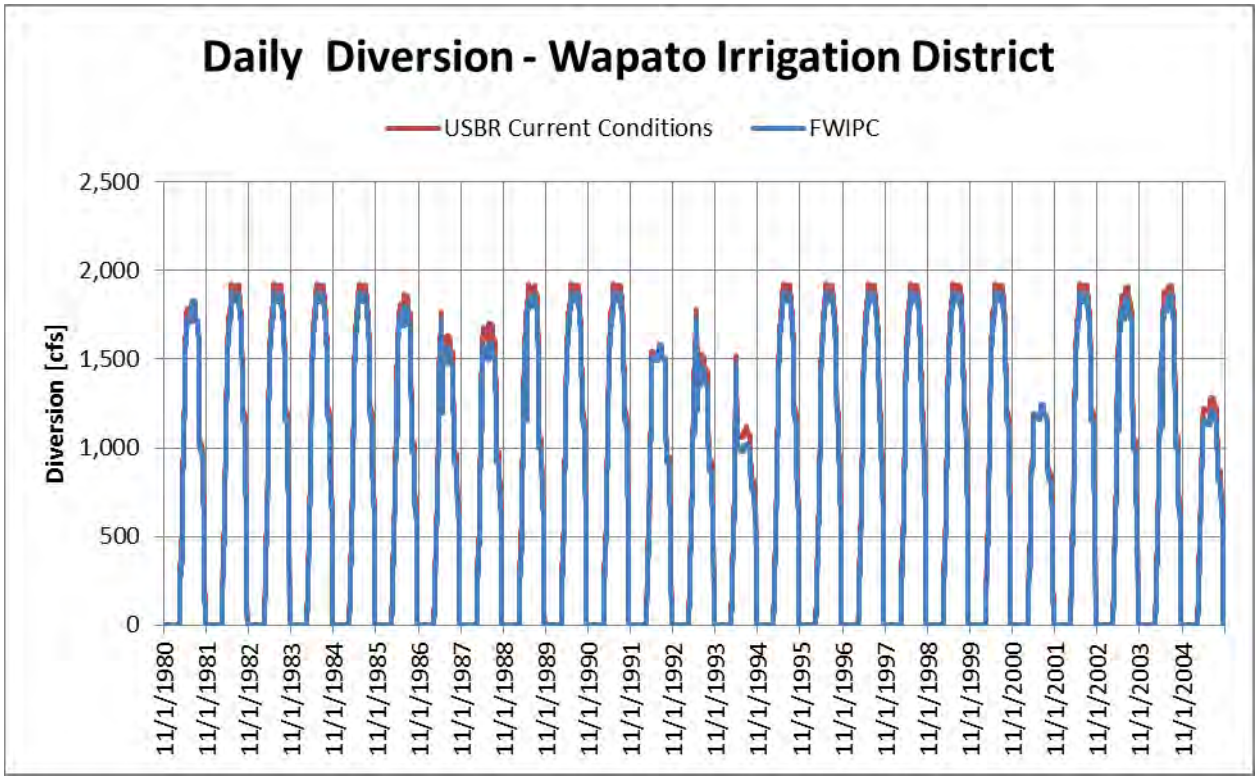


Figure 16. USBR and 2010 FWIP Daily Diversions Wapato

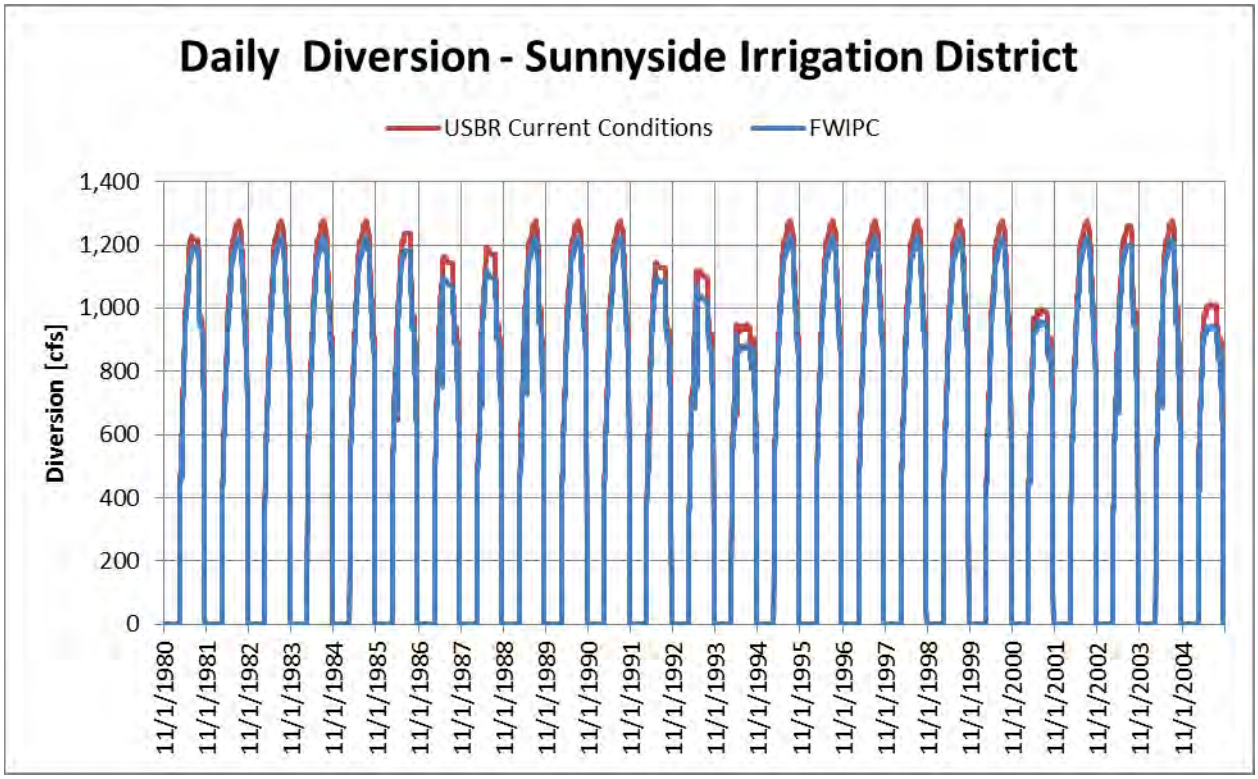


Figure 17. USBR and 2010 FWIP Daily Diversions Sunnyside

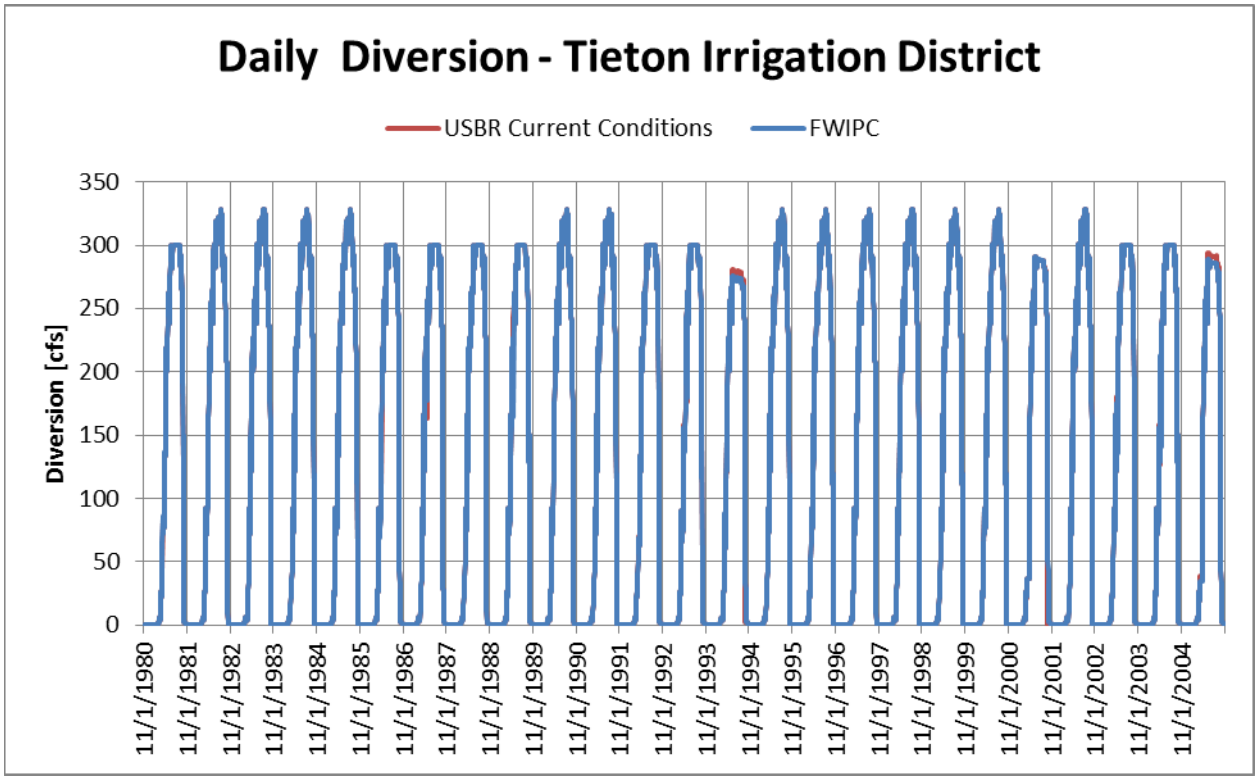


Figure 18. USBR and 2010 FWIP Daily Diversions Tieton

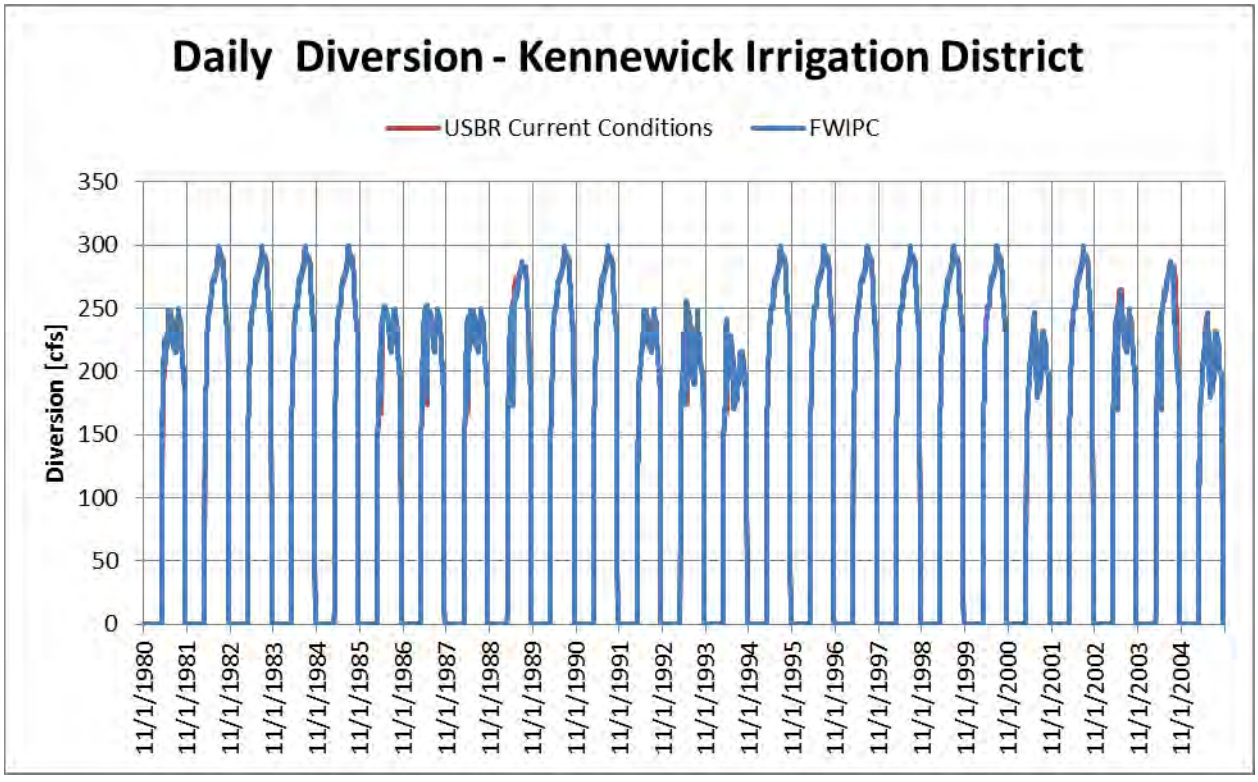


Figure 19. USBR and 2010 FWIP Daily Diversions Kennewick

3.4 Title XII Flows at Parker

The flow gage at Parker is the most downstream gage in the FWIP and USBR RiverWare models. Title XII flows refer to the target flows that have been defined in the Yakima River basin, as mandated by Congress through the Yakima River Basin Water Enhancement Project (Title XII of the Act of October 31, 1994, United States Congress [Public Law 103-434]). Target flows are defined in a manner that allows them to be increased as more conservation elements of the YRBWEP are implemented over time. Planned conservation projects used in the 2010 FWIP model are provided in Table 4. A total of 97,450 acre-feet per year of conservation projects is assumed under future conditions and full supply. Of this total, 41,820 acre-feet per year will benefit instream flows through increased flow targets at the Parker Gage. The remaining 55,630 acre-feet per year is for irrigation benefits, either through increased carry-over storage or reduced impacts on prorationing, or both.

3.4.1 Modeling of Title XII Conservation in 2010 FWIP and FWIPC

The irrigation benefit component of conservation projects is accrued proportionally as deliveries are made. The model constructs a cumulative delivery schedule for each delivery location under the assumption of full supply. A separate schedule of cumulative irrigation conservation benefits is constructed based on the cumulative deliveries schedule. When, for example, 50 percent of the supply is expected to have been delivered, then 50 percent of the annual irrigation conservation benefit is expected to have occurred. To incorporate prorationing, which will reduce deliveries and in turn conservation, the cumulative deliveries made to date (which include the proratable amounts) is divided by the cumulative to date assuming full supply. The daily irrigation conservation benefit is the difference between particular days on the cumulative irrigation benefit schedule. The model can either leave the daily irrigation conservation amount in the reservoirs or call for its release during proration to move toward full supply. Table 4 lists FWIP Conservation Projects and Figure 20 shows the FWIP simulated irrigation conservation. The total conservation varies with the prorationing level; the September 1st proration value is also plotted on this figure. The irrigation conservation decreases based on decreases in the proratable delivery. Taken further, the total irrigation conservation decreases if the irrigation project is applying the conservation credit in an attempt to achieve a full irrigation supply during prorationing.

If the instream flow conservation benefit, which is added to the Parker Gage target flows, were to accumulate in the same manner as the irrigation deliveries that are made, the result would be target flows which would tend to mimic the irrigation deliveries. As this runs counter to the desired natural flow hydrograph of the river, the model uses “paper” accounting to implement the instream flow conservation benefit. In this approach, the model applies the instream conservation benefit to the Parker target flows under a different schedule than the irrigation deliveries. Currently, the model divides the annual instream conservation amount by the number of days in the irrigation season and applies the benefit to the Parker target flows uniformly for each irrigation day. Each day’s instream conservation amount is proportionally reduced by the proratable amount for that day. At the beginning of the irrigation season, more instream flow conservation benefit is being applied than the conservation projects may be producing. At the end of the irrigation season, the conservation projects are producing more benefit than the daily instream conservation amount, with the net total instream conservation amount equal to the prorated annual target. Figure 21 shows the FWIP simulated in-stream flow conservation.

Table 4. FWIP Conservation Projects

Location	Annual Conservation At Full Supply (acre-feet per year)		
	Total	Instream	Irrigation
RZCW Roza	36,000	0	36,000
SNCW Sunnyside	54,580	36,400	18,180
BENW Benton	6,870	5,420	1,450
Total	97,450	41,820	55,630
Notes: The FWIP model incorrectly totaled Sunnyside total conservation at 54,600 acre-feet per year. This was adjusted to 54,580 acre-feet per year in the FWIPC model.			

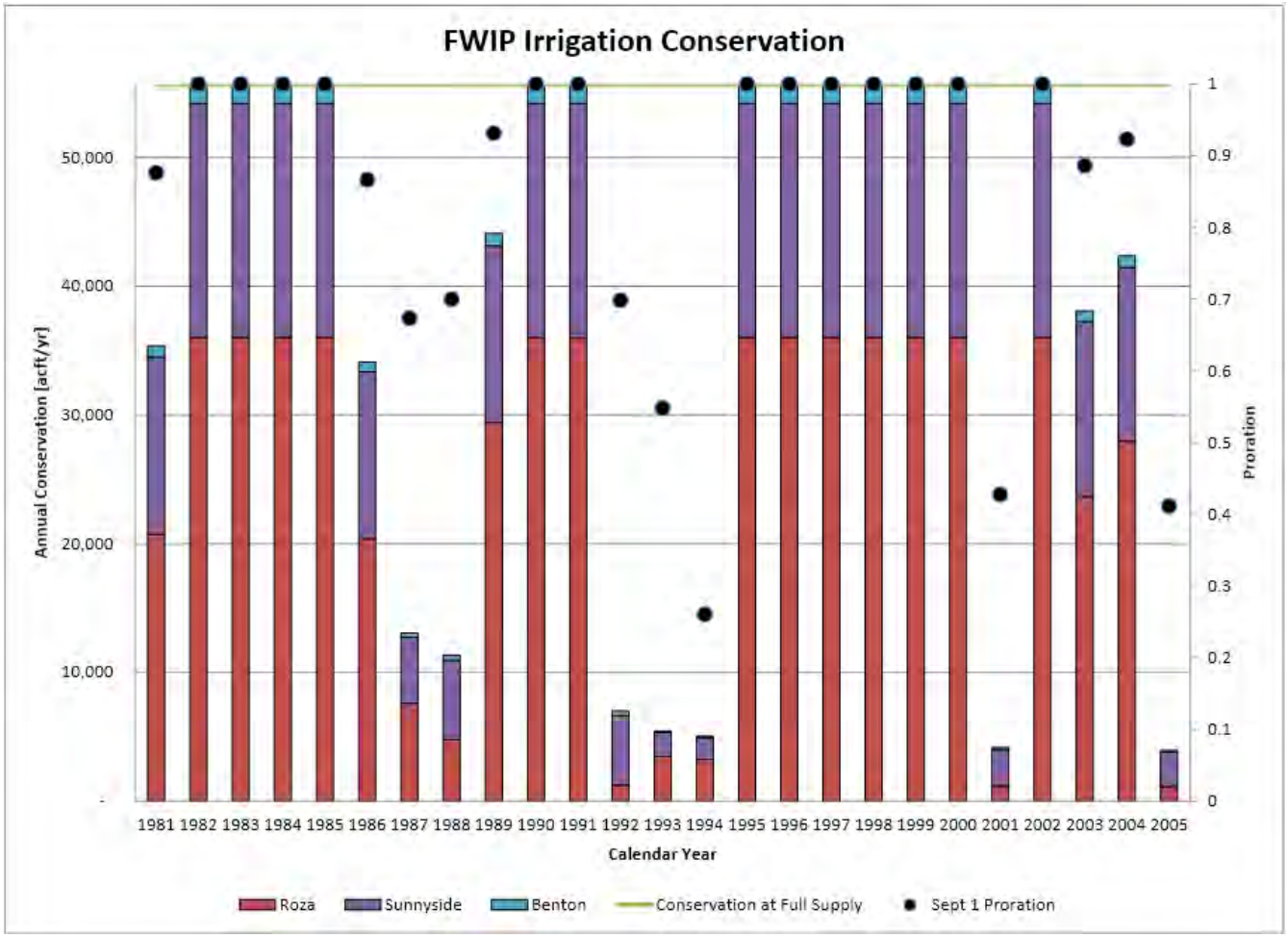


Figure 20. FWIP Simulated Irrigation Conservation

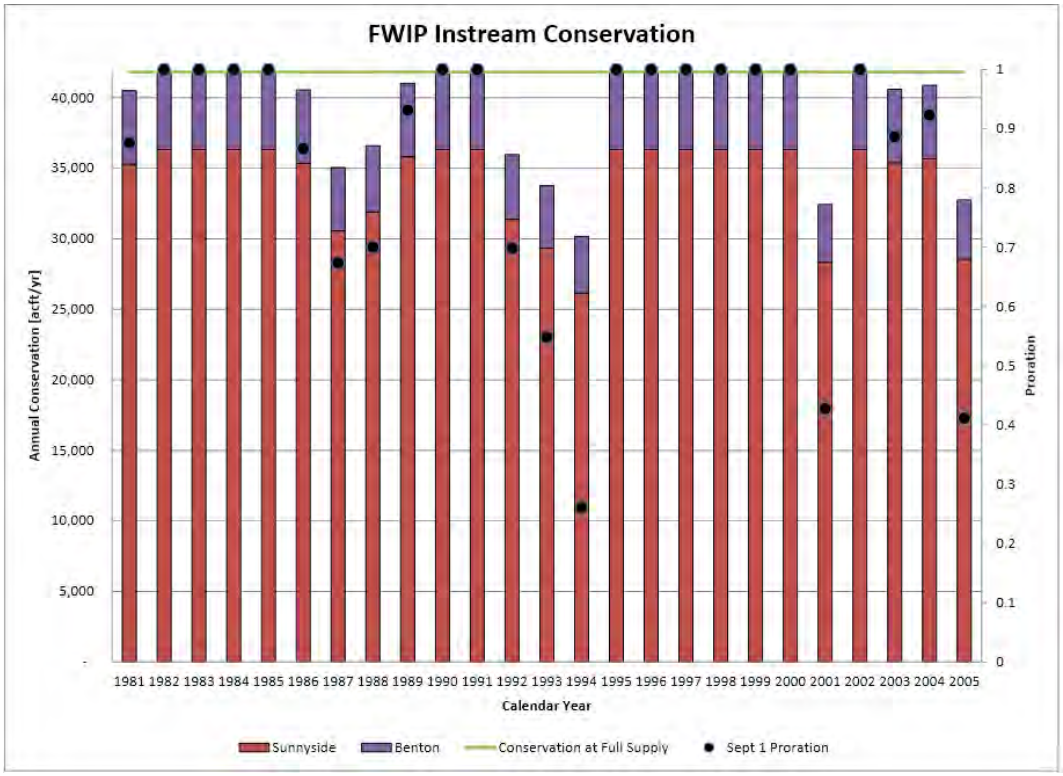


Figure 21. FWIP Instream Conservation

3.4.2 Comparison of Model Results for Flow at Parker

The project team compared both the 2010 FWIP and the FWIPC results against USBR results for flow at the Parker Gage. The flows at the Parker Gage are generally higher in the 2010 FWIP model than the USBR model. When looking at low conditions, it appears that the FWIP model has a higher instream flow target (about 550 cfs) than the USBR model (about 450 cfs). On average, approximately 94 kAF more water passes the Parker Gage in the 2010 FWIP model than in the USBR model. There is also a significant "bump" up to around 1,500 cfs at Parker in the 2010 FWIP model, between August 3 and September 15. This higher flow bump is not seen in the USBR model results. These high releases were also causing the flow at Parker to go almost to zero, by erroneously draining reservoir storage (as in 1987 and 1988, in Figure 23). As described below, this bump in flow was found to be caused by an error in one of the new operating rules included in the 2010 FWIP model. The error has now been corrected.

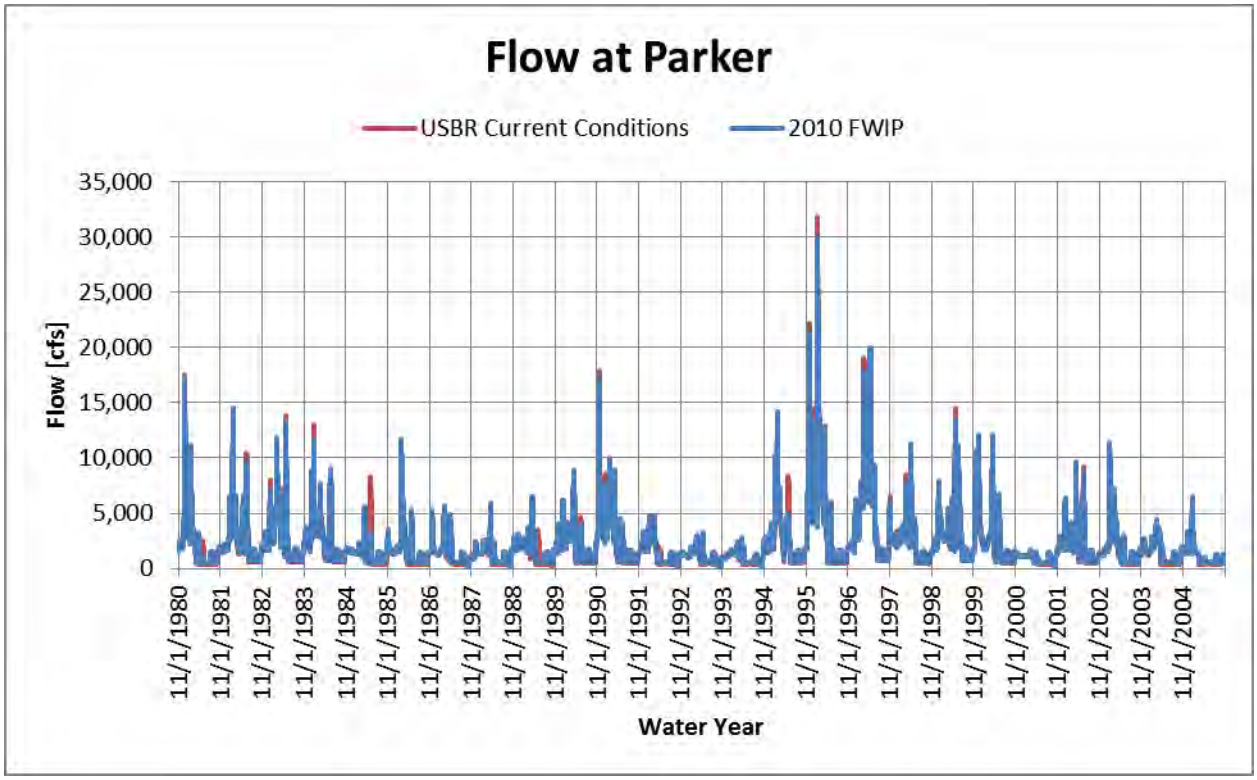


Figure 22. USBR and 2010 FWIP Flow at Parker

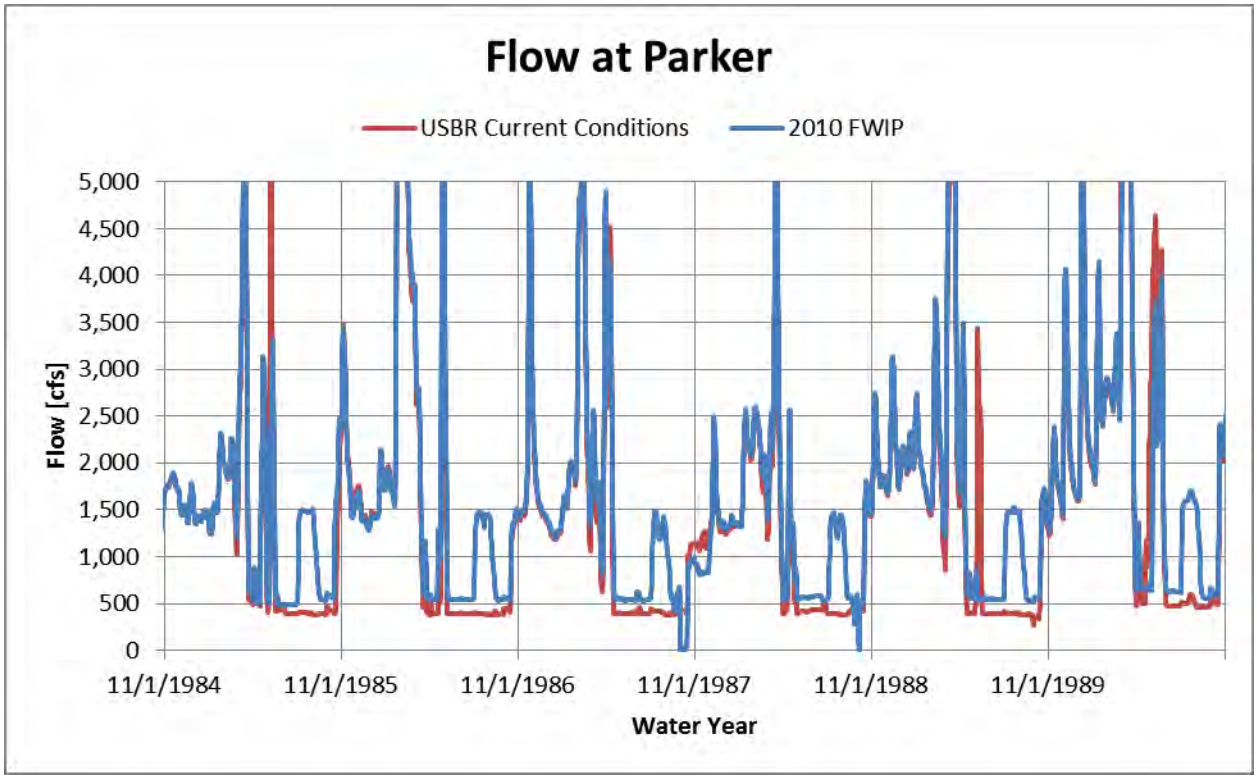


Figure 23. USBR and 2010 FWIP Flow at Parker - Detail

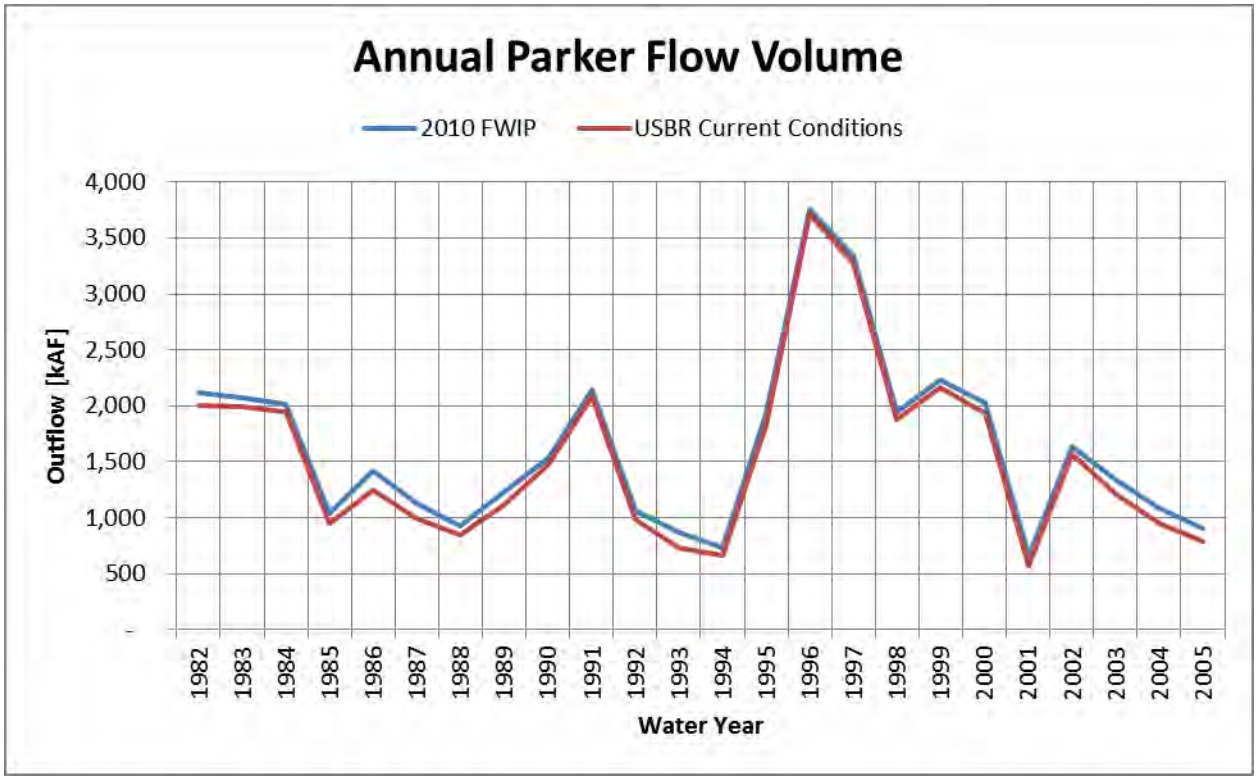


Figure 24. USBR and 2010 FWIP Volume at Parker

The 2010 FWIP was found to have a "bug" in one of the operating rules developed to simulate the Integrated Plan facilities. Specifically, although the Wymer Offstream Storage Reservoir was turned off in the 2010 FWIP model, the Wymer bypass flow of up to 1,000 cfs was still operating. Furthermore, the bypassed flows were being accounted as water above the diversion requirements of downstream water users, and thus this flow was being passed out of the Yakima System. This significantly affected the simulated flow at Parker.

After correcting this error, the flows at the Parker Gage were re-simulated with the FWIPC model. The flows at the Parker Gage are slightly higher in the FWIPC model than the USBR model. The average difference is about 170 kAF, or 1.1 percent. When looking at low conditions, it appears that the FWIPC model is hitting a slightly higher instream flow target than the USBR model. Figure 25 through Figure 28 provide a comparison of the target flows at the Parker Gage.

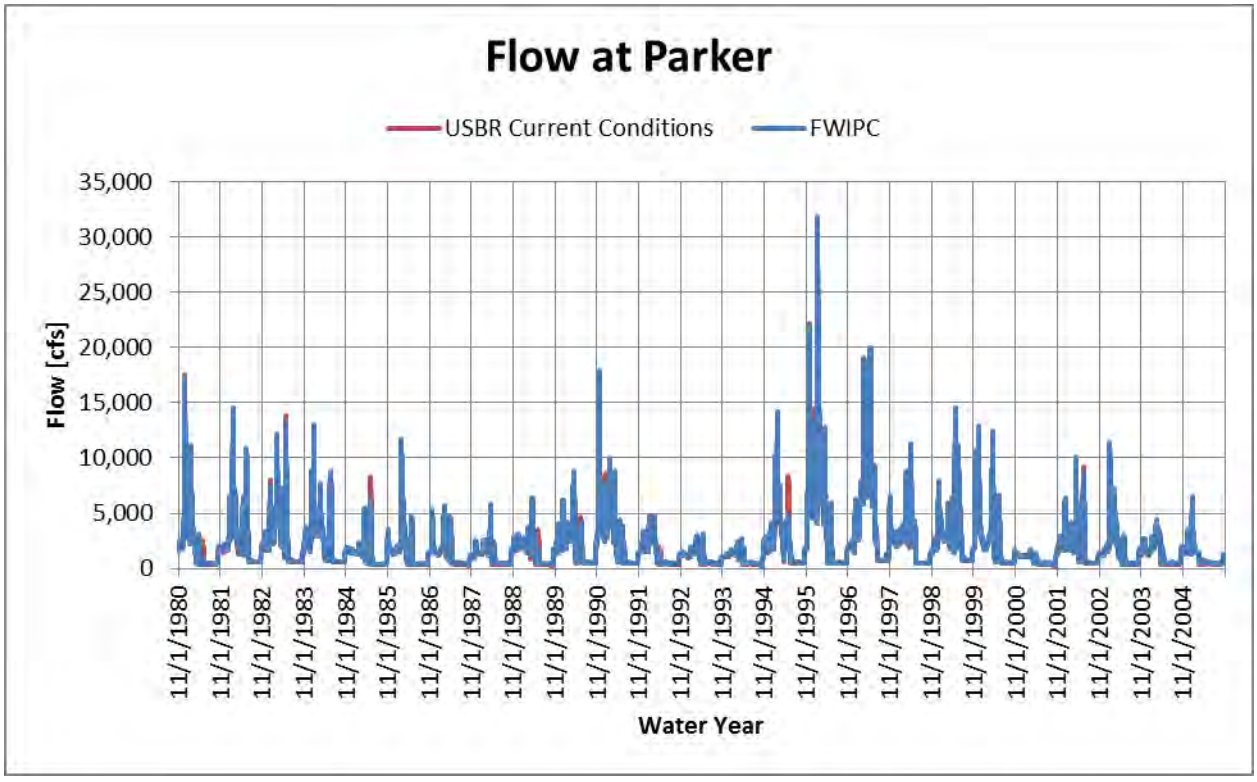


Figure 25. USBR and FWIPC Flow at Parker

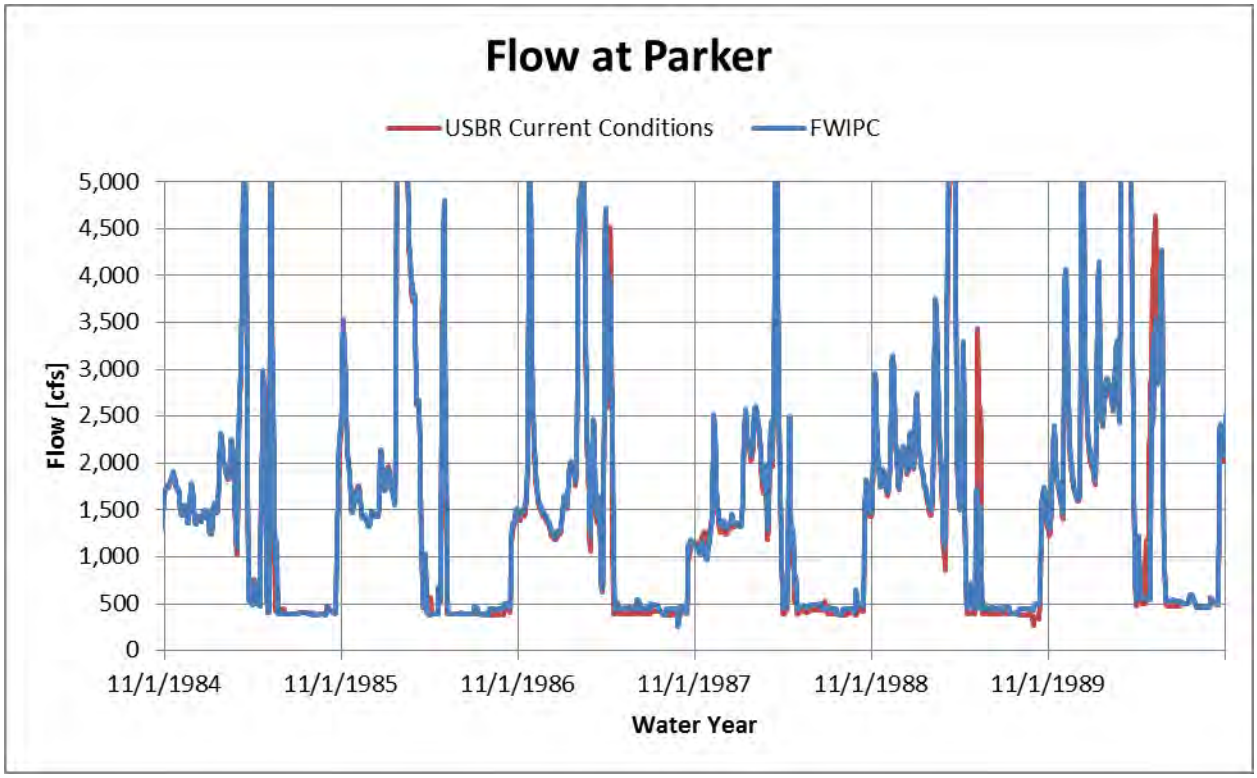


Figure 26. USBR and FWIPC Flow at Parker - Detail

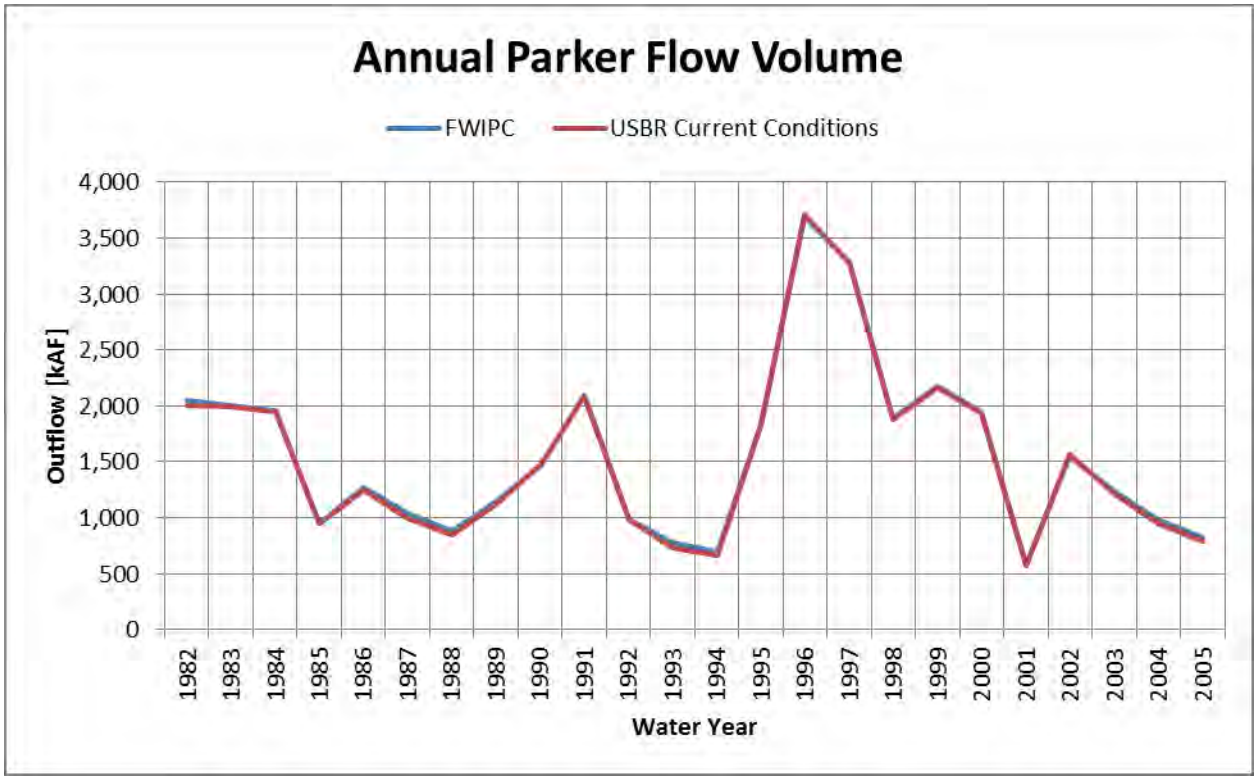


Figure 27. USBR and FWIPC Volume at Parker

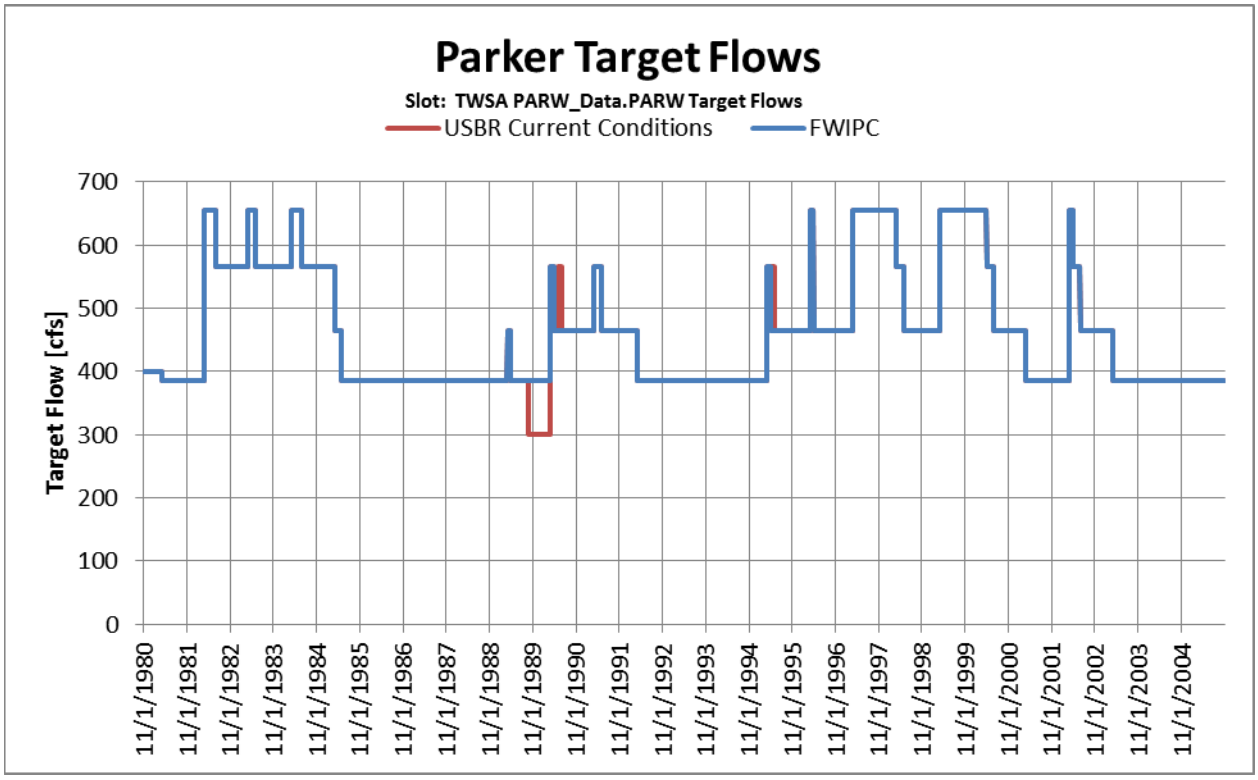


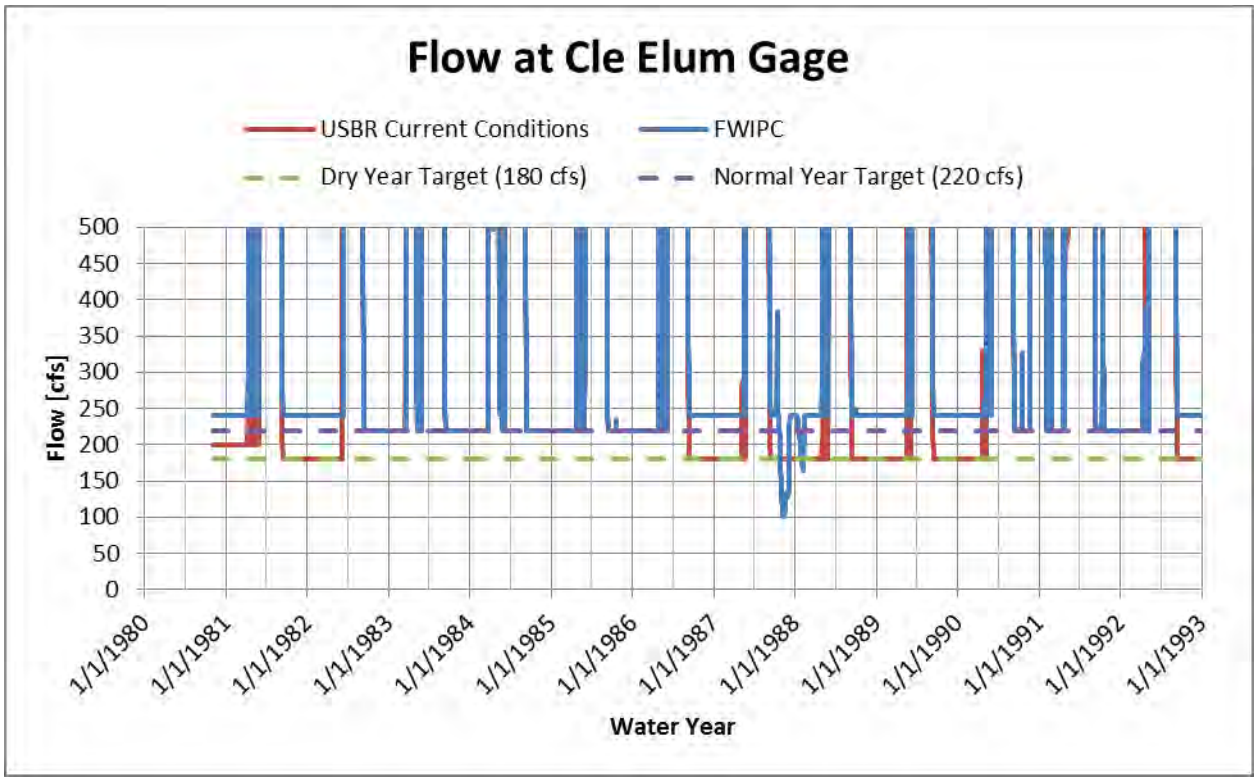
Figure 28. USBR and FWIPC Target Flow at Parker

3.5 Other Target Flows

In addition to assessing Title XII flows at the Parker Gage, flow was analyzed at three locations to determine how well the FWIPC model flow conformed to flow targets. The three locations include the Cle Elum River below Cle Elum Dam (CLEW Gage [Figure 29]), Yakima River at Easton (EASW Gage [Figure 30]) and the Tieton River below Rimrock Reservoir (TICW Gage [Figure 31]).

3.5.1 Cle Elum River

The minimum flow targets for the Cle Elum River vary from 180 to 220 cfs. The USBR model appears to hit the targets every year. In the four of the years (1987, 1988, 1993 and 1994) in the FWIP model, the Cle Elum flow fell below the 180 cfs target. Also, during years when the USBR model is hitting the 180 cfs target flow, the FWIPC model appears to be targeting a higher target of 240 cfs.



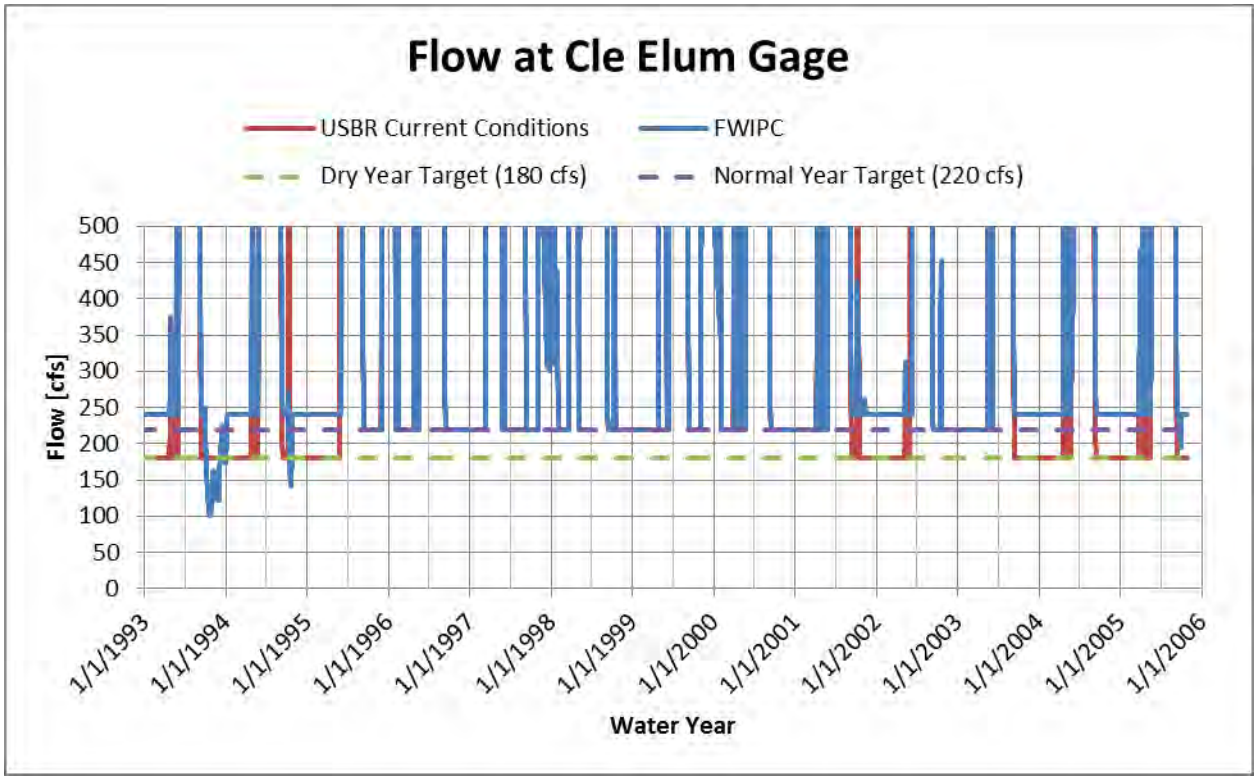


Figure 29. Flow at Cle Elum Gage

3.5.2 Yakima River at Easton

The minimum flow targets for the Cle Elum River vary from 190 to 220 cfs. Both the USBR and FWIPC models achieve the minimum flow targets the majority of time, excluding the FWIPC model in 1981 and 1987.

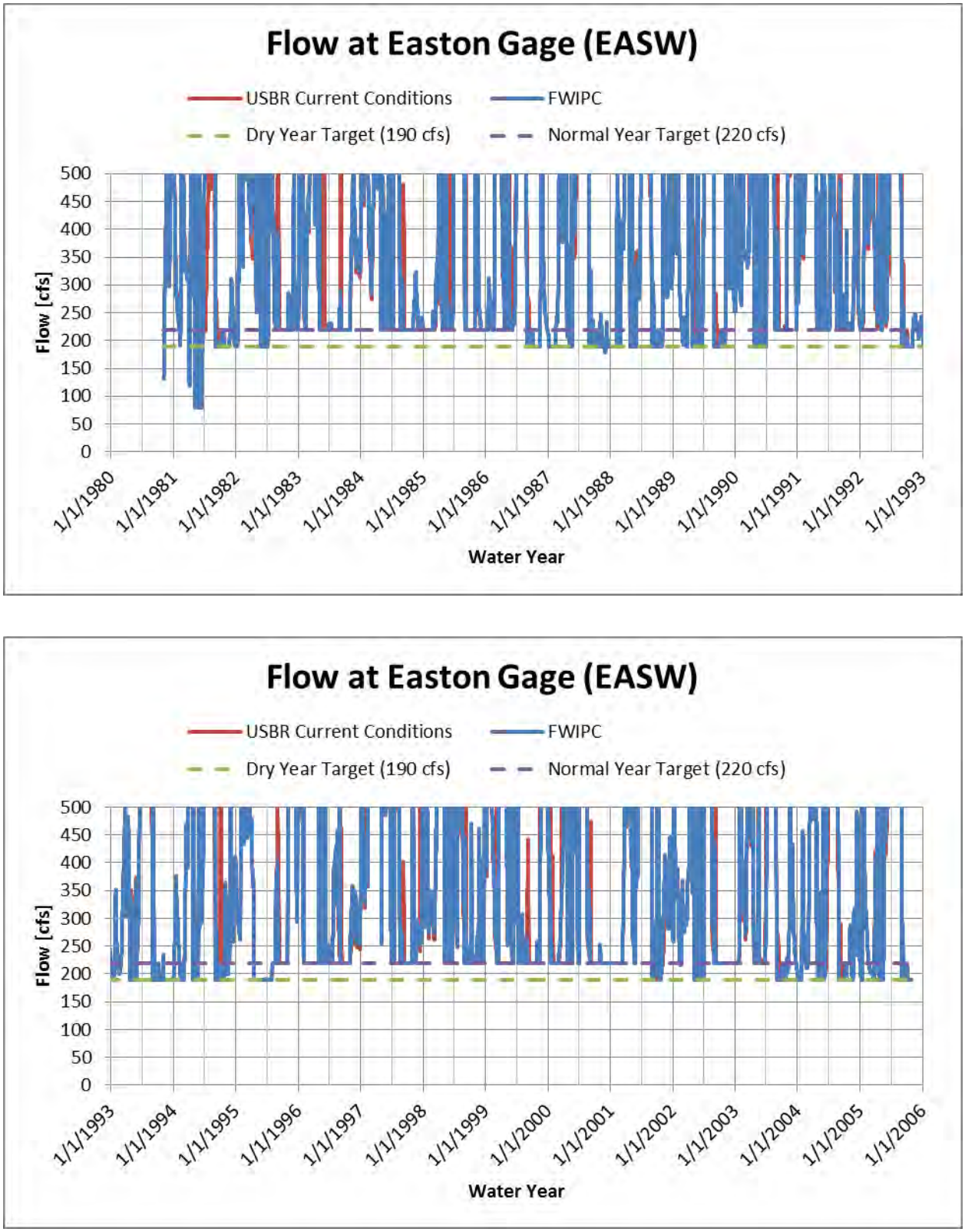
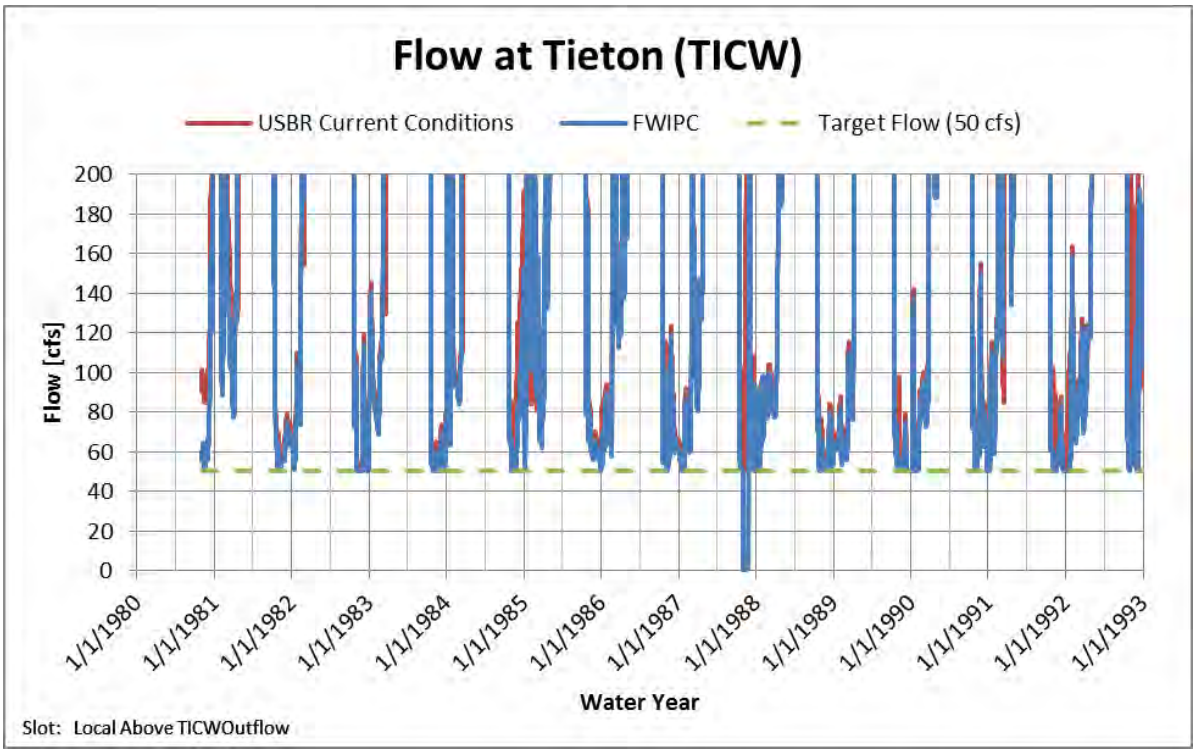


Figure 30. Flow at Easton Gage

3.5.3 Tieton River

The minimum flow target on the Tieton River at the TICW Gage is 50 cfs. The minimum flow is achieved in most years by both the FWIPC and USBR models. In 1988, 1993, and 2001 the flow in the Tieton River dropped below 50 cfs in the FWIPC. Likewise, the Tieton flow fell below 50 cfs in 1995 and 2001.



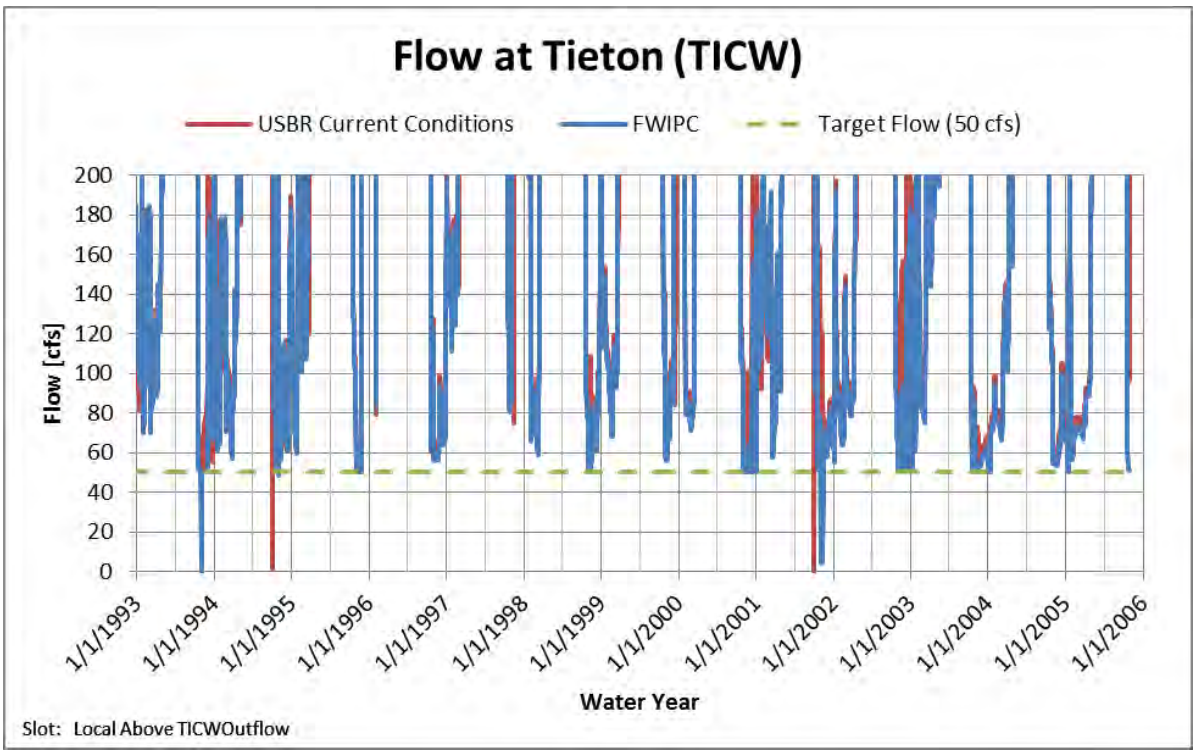


Figure 31. Flow at Tieton Gage

3.6 Reservoir Releases

The average total of releases from all reservoirs is essentially the same in the FWIPC and USBR models. It is a good sign that the sum of all the largest inflows in the models is effectively the same. In the 2010 FWIP model, however, there were some significant changes in the pattern of releases from all reservoirs, and from individual reservoirs, as shown in Figure 32 through Figure 34, below. This includes the additional release between August 3 and Sept 15, which is described above.

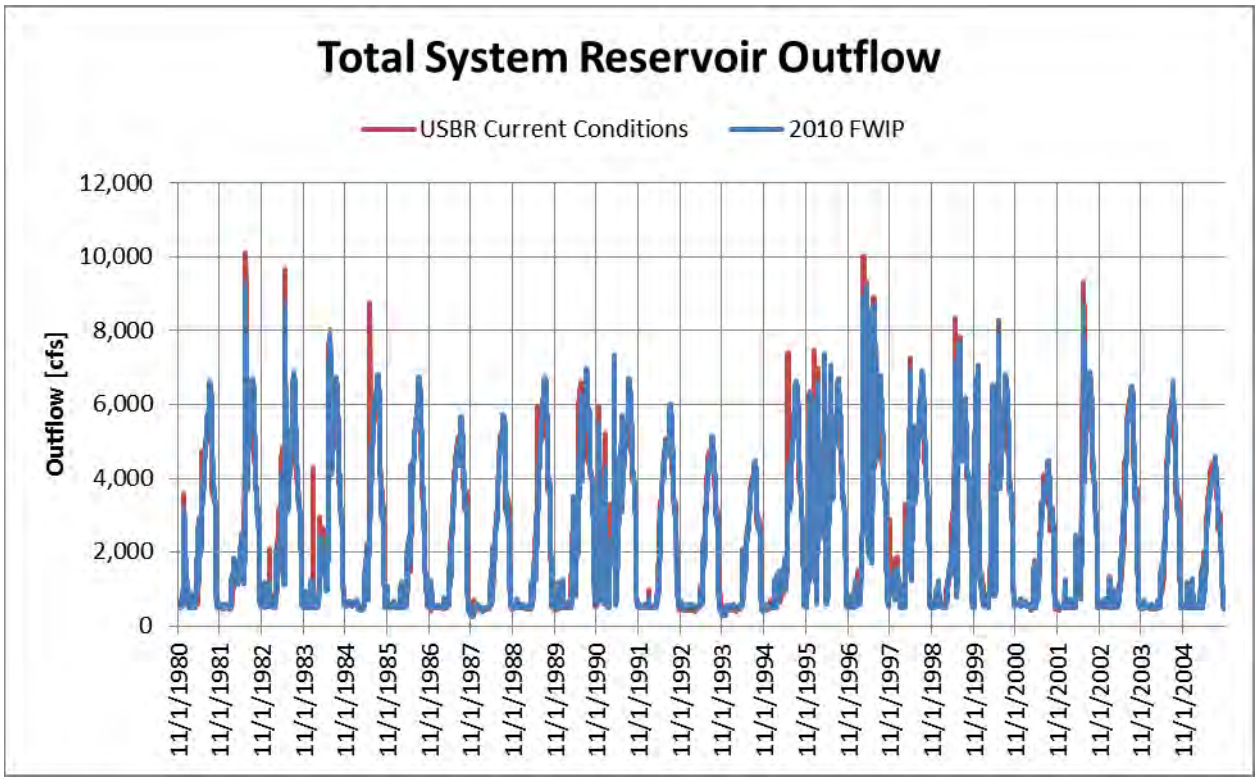


Figure 32. USBR and 2010 FWIP Total Reservoir Outflow

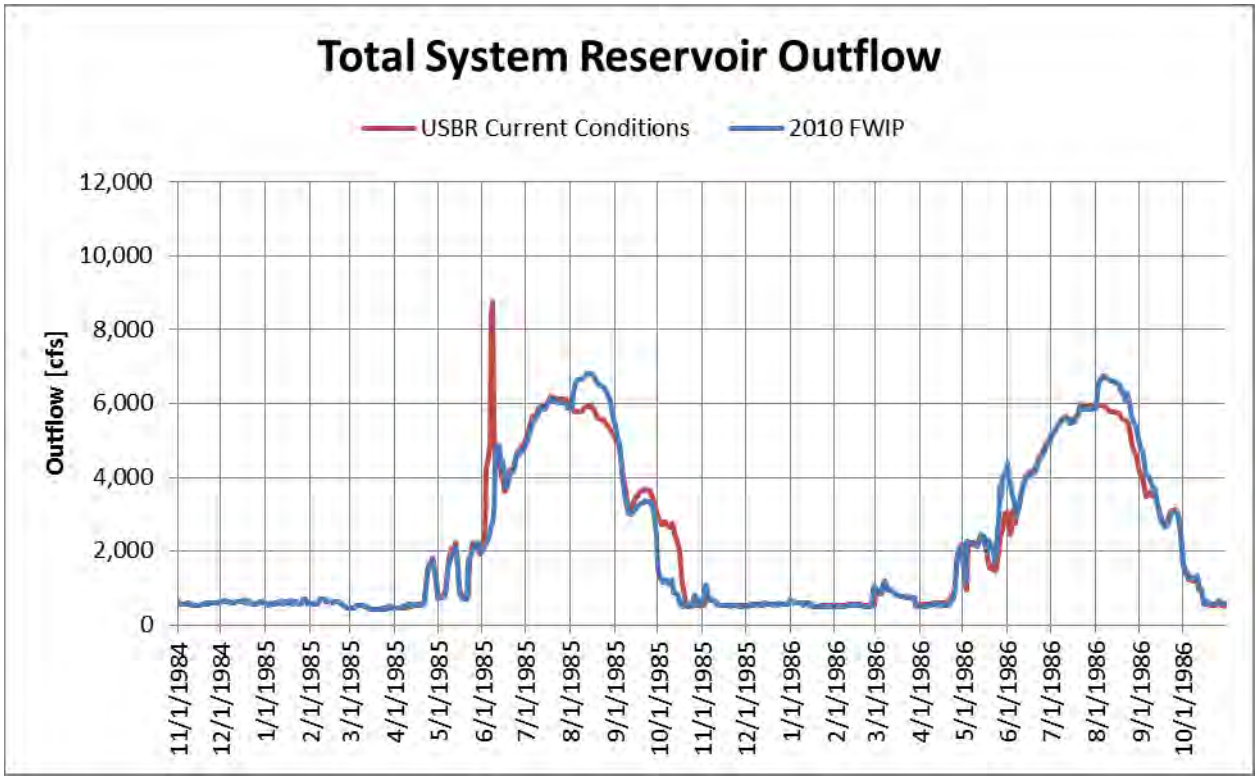


Figure 33. USBR and 2010 FWIP Total Reservoir Outflow – Detail

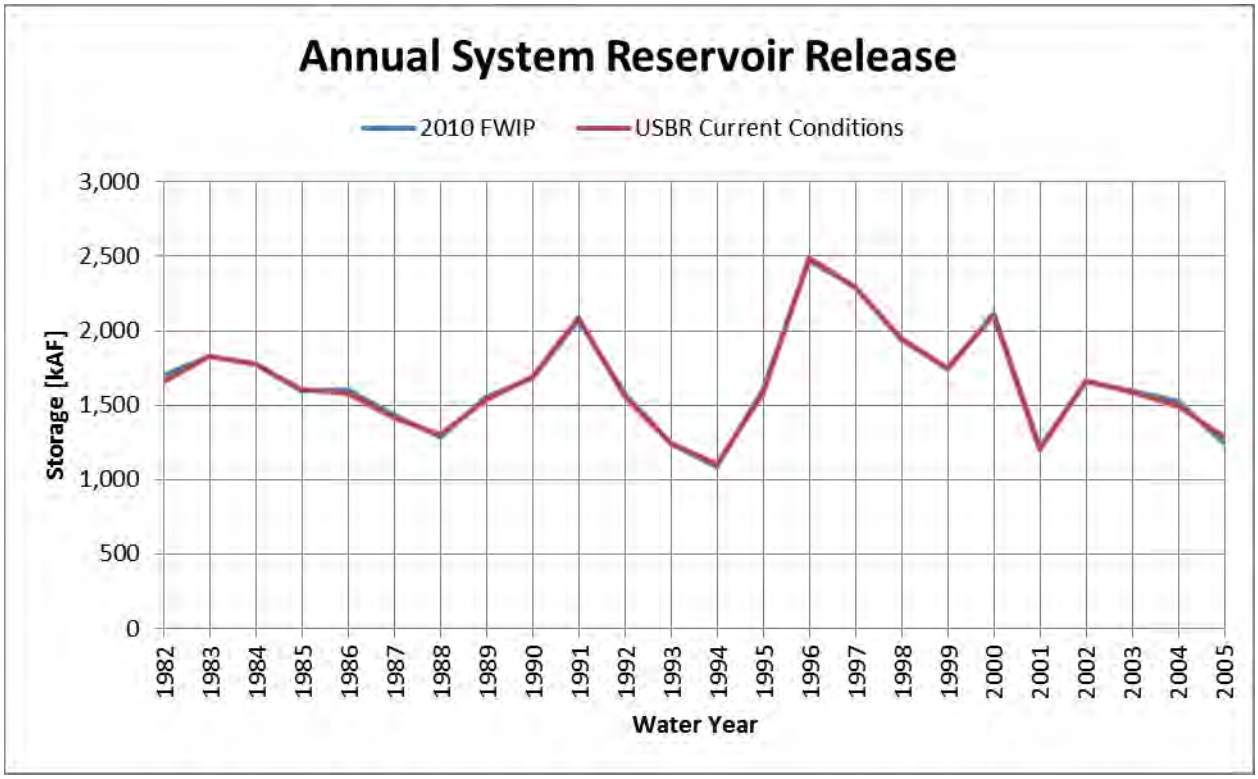


Figure 34. USBR and 2010 FWIP Total Annual Reservoir Outflow

The seasonal pattern of releases from individual reservoirs under the FWIPC model shows that the minimum target flows that the reservoirs are satisfying are somewhat different between the FWIPC and USBR models. Individual differences include the following:

- Cle Elum Reservoir: The USBR model has a low water year target of around 180 cfs, while the FWIPC target flow is about 240 cfs, as discussed in Section 3.5.1.
- Bumping Lake Reservoir: The USBR model has a target of around 175 cfs, while the FWIPC target flow is about 130 cfs. Because the target flow is set based upon reservoir storage, these differences indicate that the reservoir is not being used exactly the same in the two models.
- Keechelus Reservoir: When the USBR target flow is 90 cfs, the FWIPC model has a target flow of 100 cfs.
- Rimrock Reservoir: The USBR model has a target flow of about 50 cfs, while the FWIPC target flow is 45 cfs.

Based on initial discussions with Columbia Cascades Area Office operations staff, the project team believes that these differences correctly represent planned, future minimum flow targets.

Individual reservoir releases are compared between USBR and FWIPC in Figure 35 through Figure 47, below.

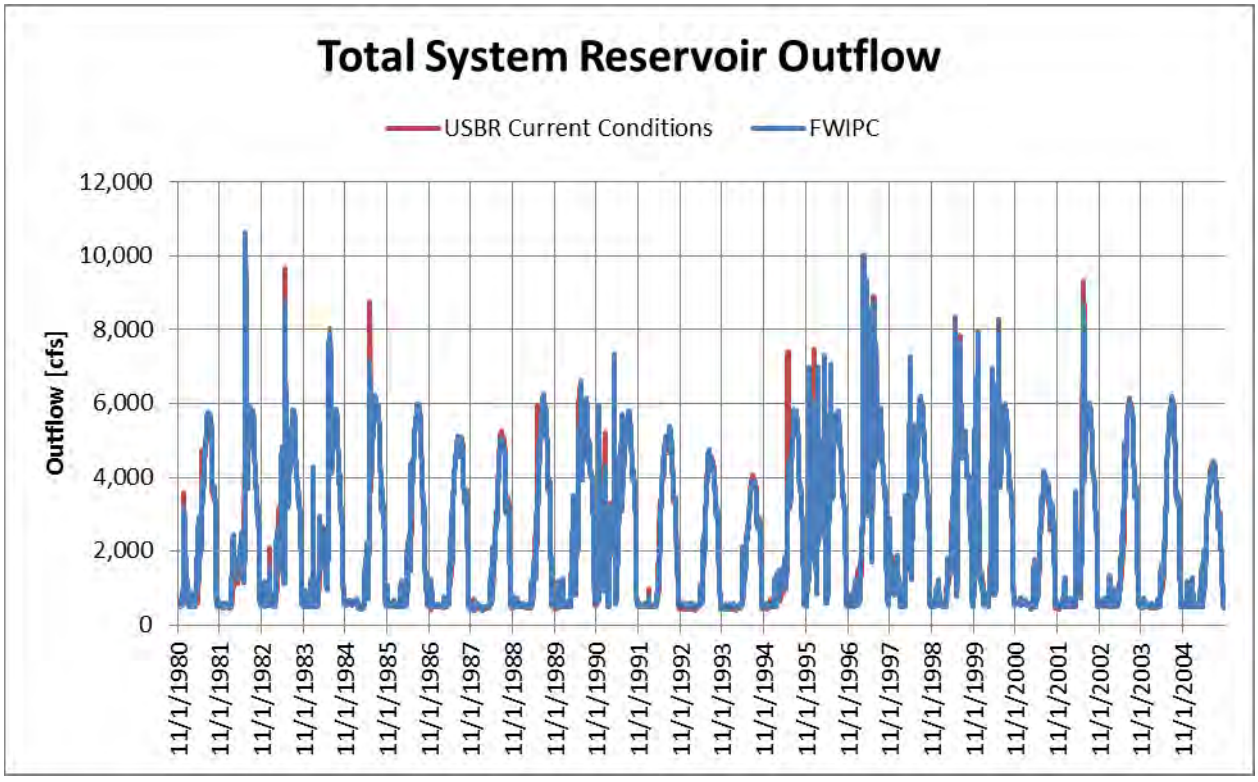


Figure 35. USBR and FWIPC Total Reservoir Outflow

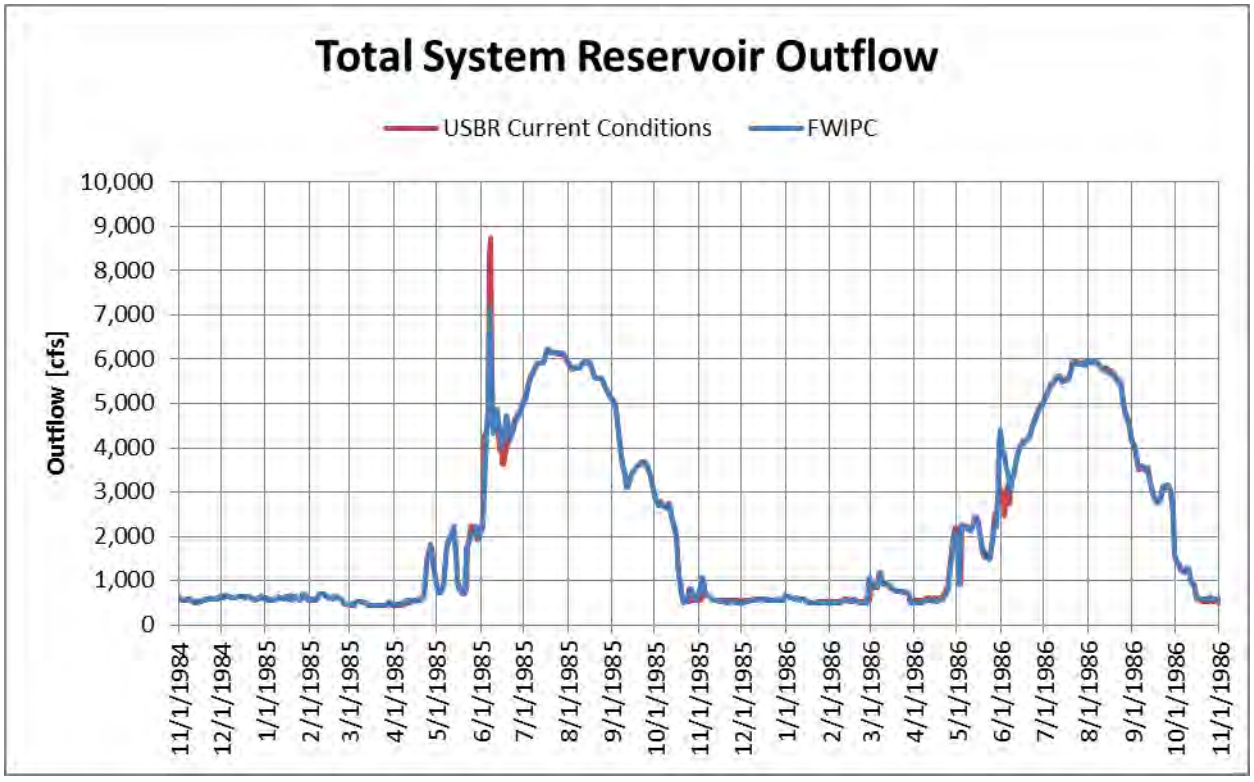


Figure 36. USBR and FWIPC Total Reservoir Outflow – Detail

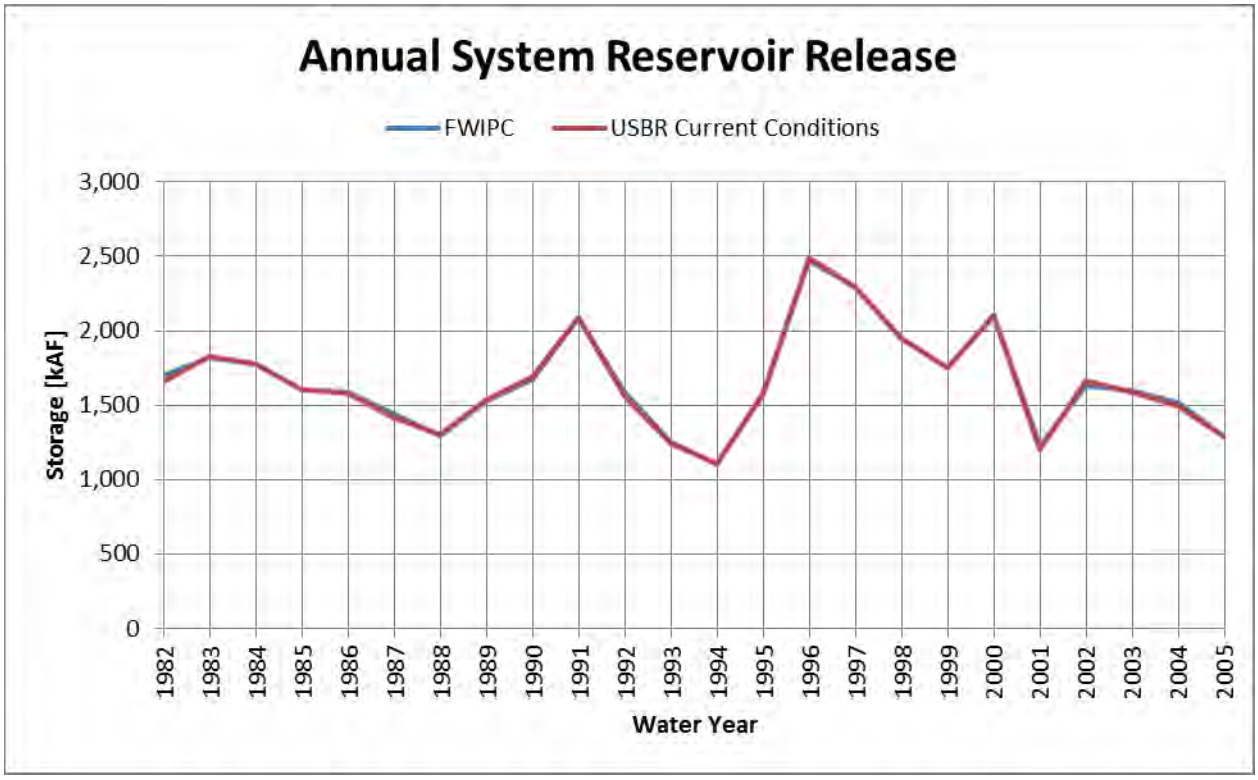


Figure 37. USBR and FWIPC Total Annual Reservoir Outflow

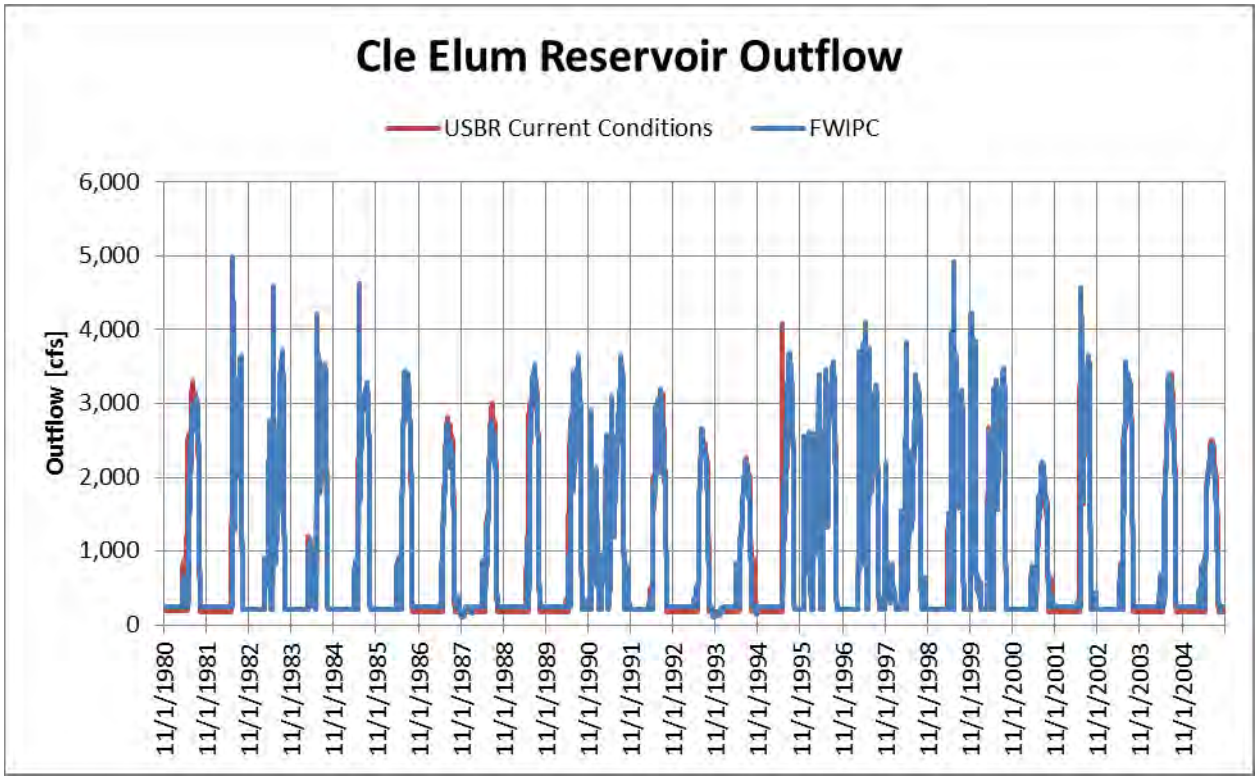


Figure 38. USBR and FWIPC Cle Elum Reservoir Outflow

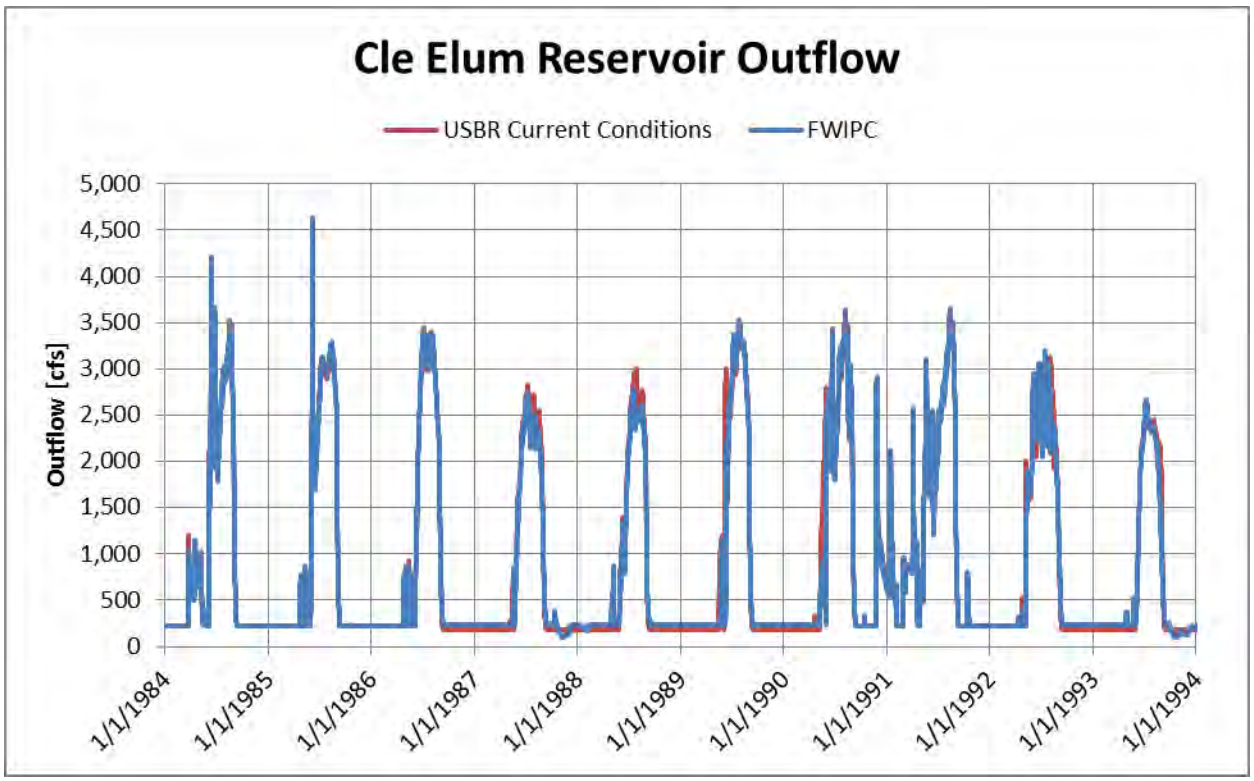


Figure 39. USBR and FWIPC Cle Elum Reservoir Outflow - Detail

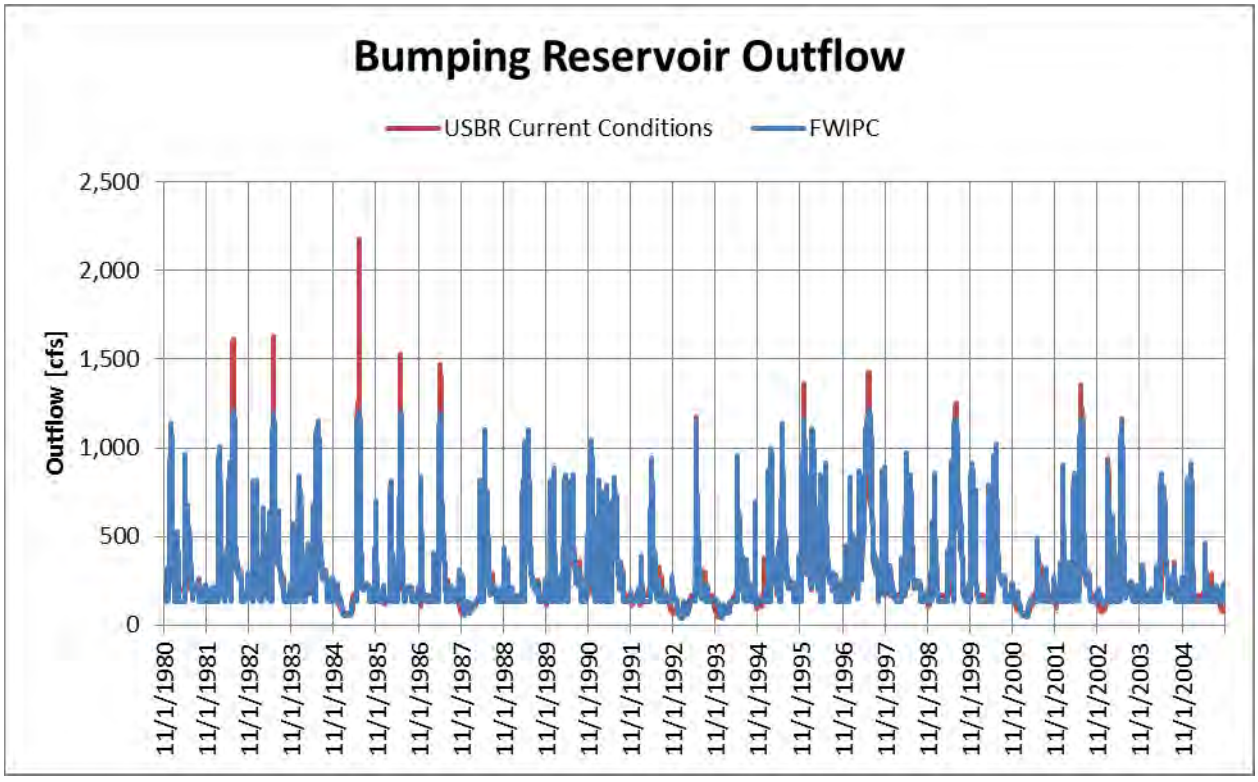


Figure 40. USBR and FWIPC Bumping Lake Reservoir Outflow

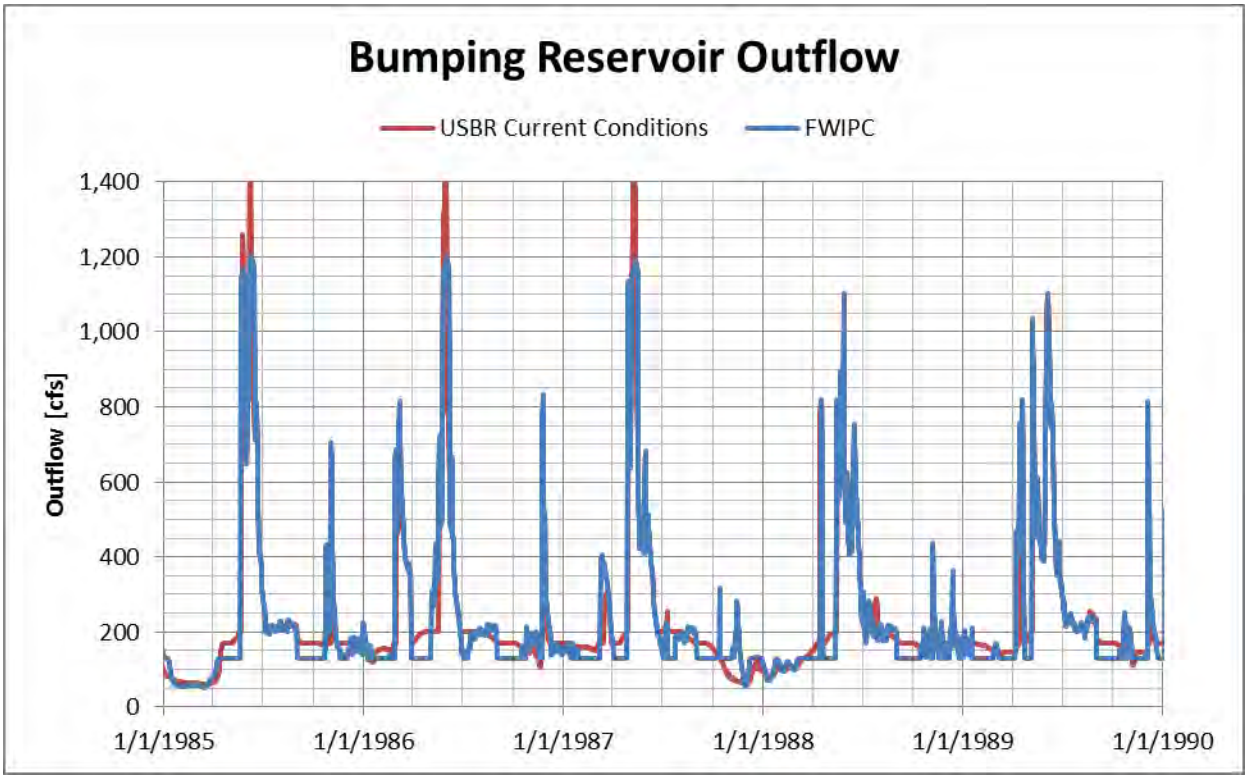


Figure 41. USBR and FWIPC Bumping Lake Reservoir Outflow - Detail

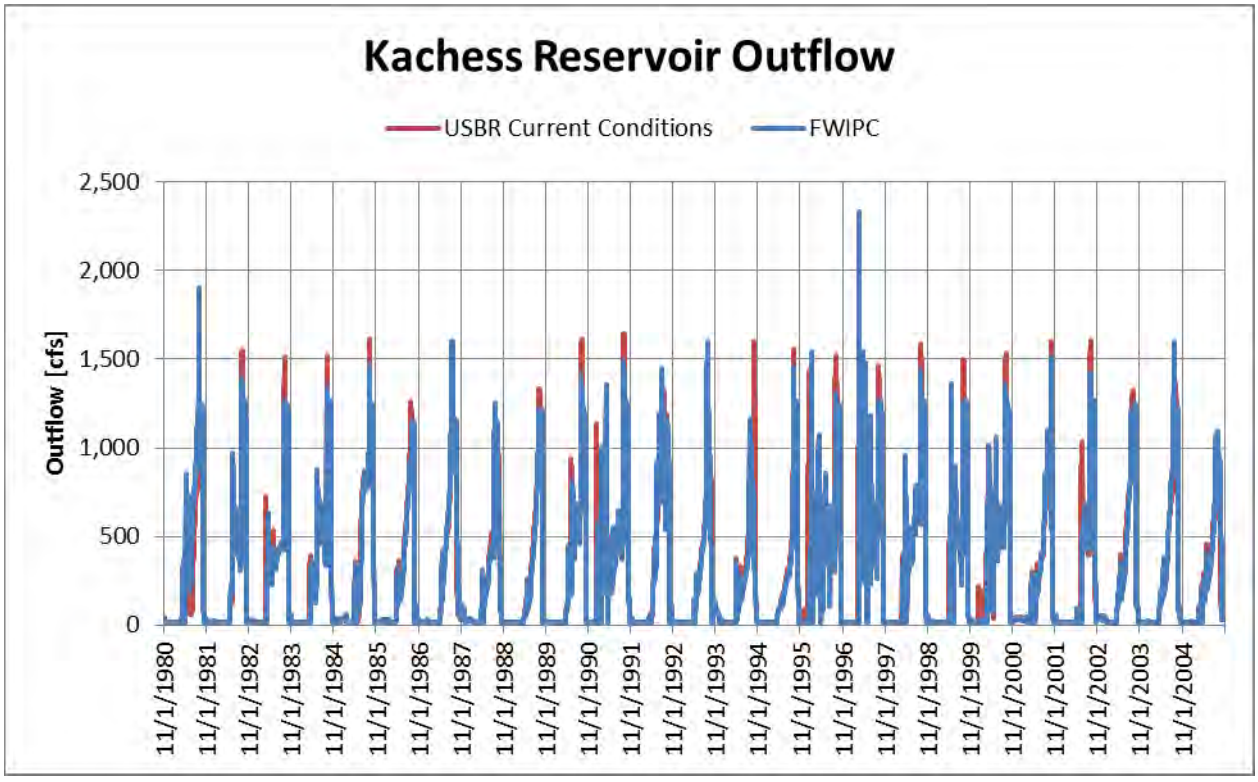


Figure 42. USBR and FWIPC Kachess Reservoir Outflow

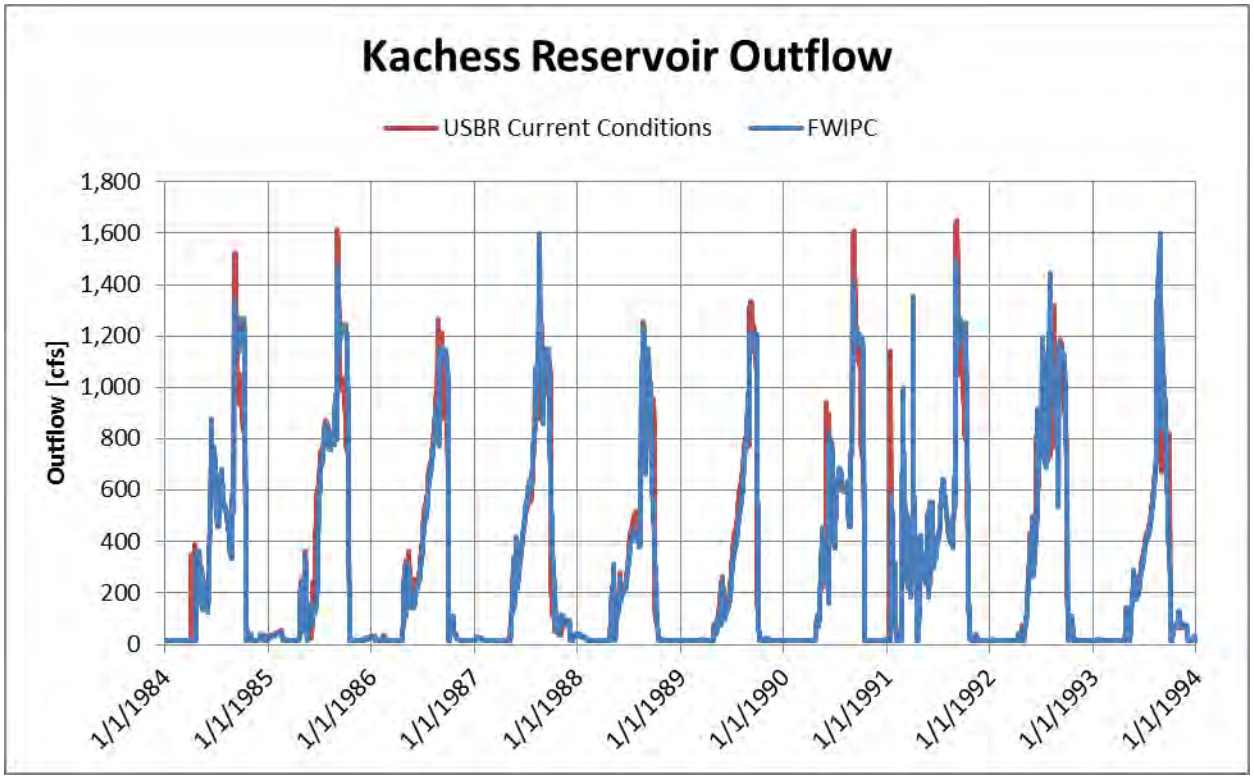


Figure 43. USBR and FWIPC Kachess Reservoir Outflow - Detail

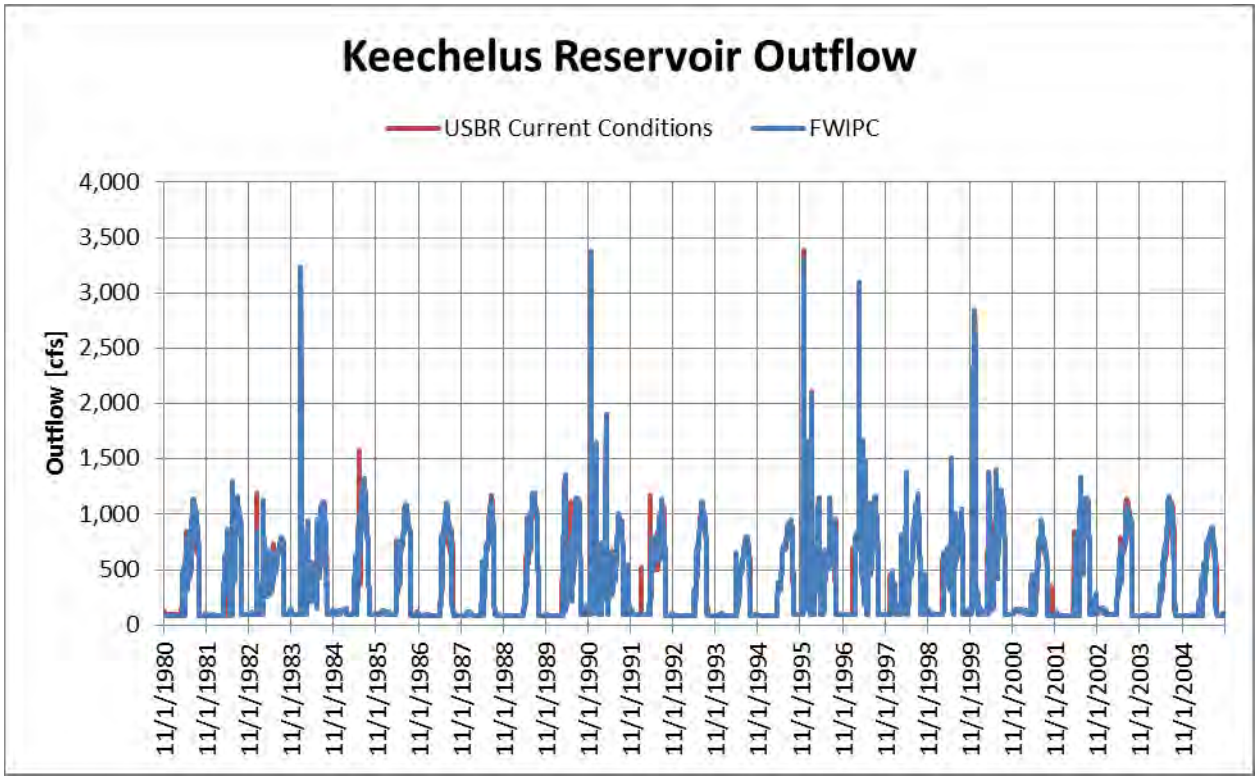


Figure 44. USBR and FWIPC Keechelus Reservoir Outflow

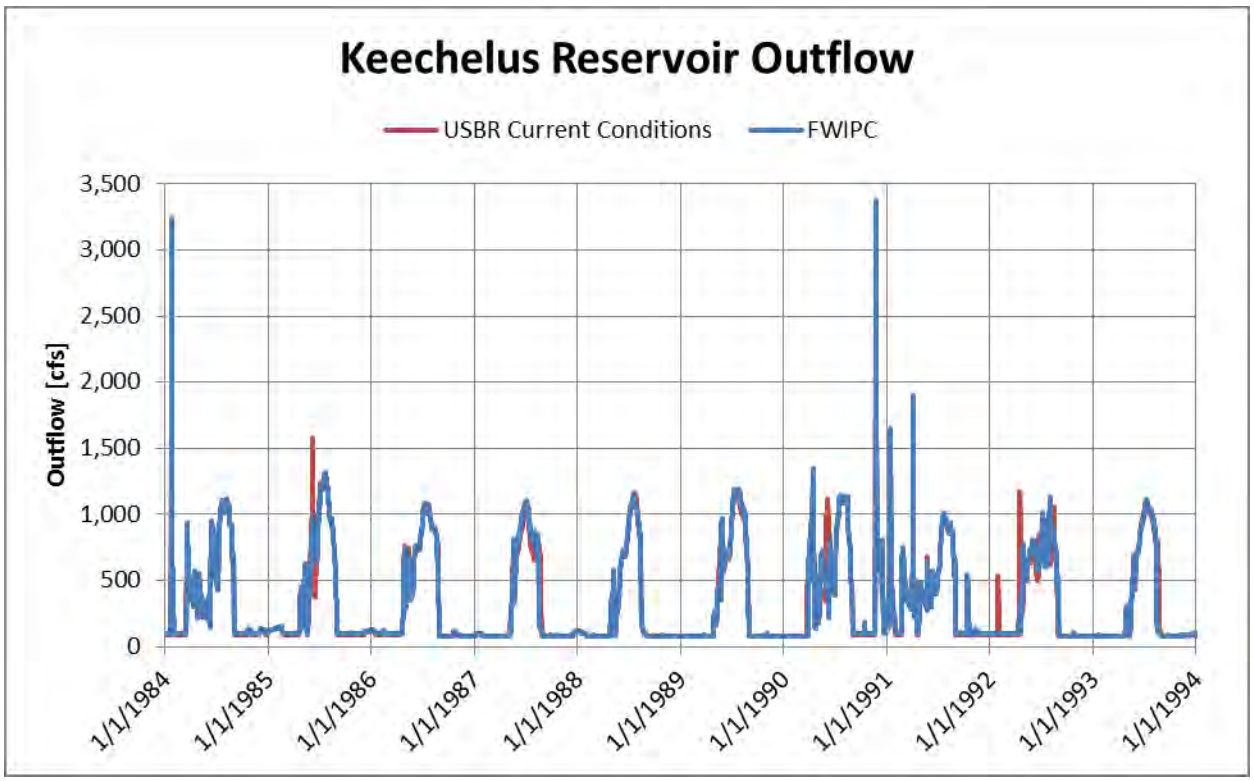


Figure 45. USBR and FWIPC Keechelus Reservoir Outflow - Detail

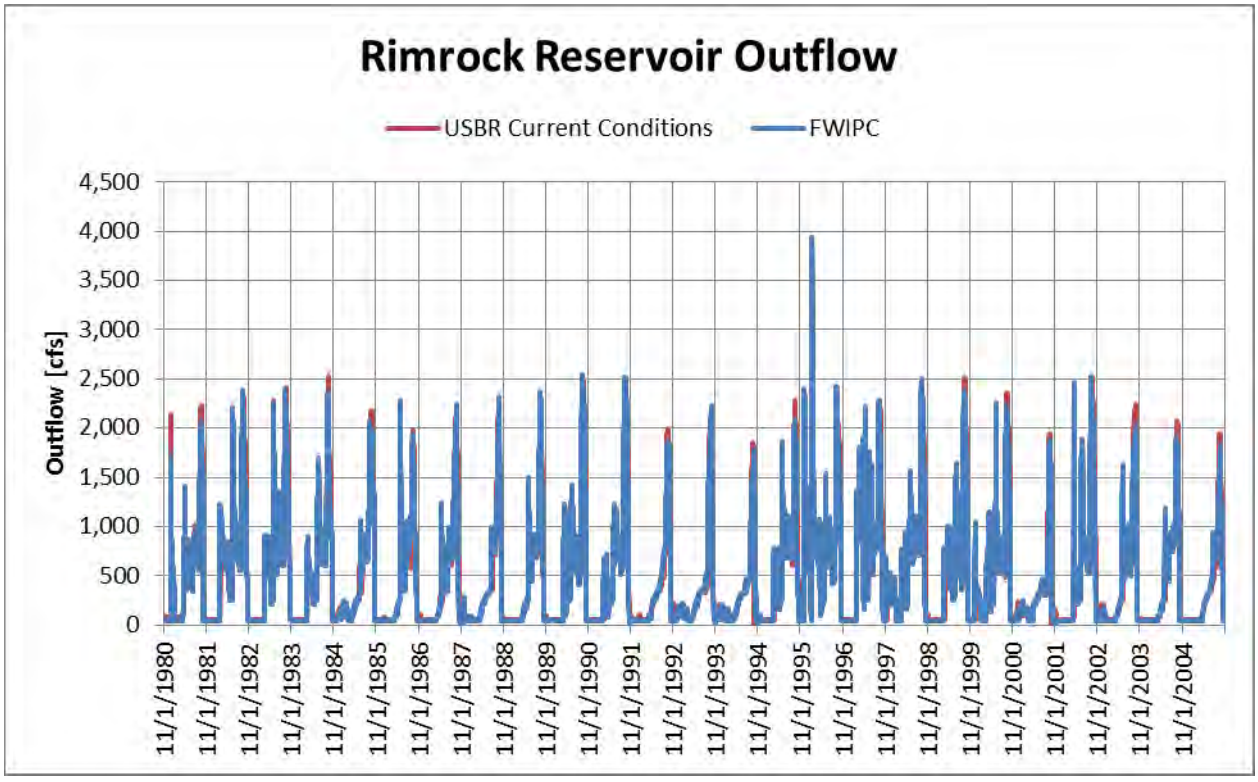


Figure 46. USBR and FWIPC Rimrock Reservoir Outflow

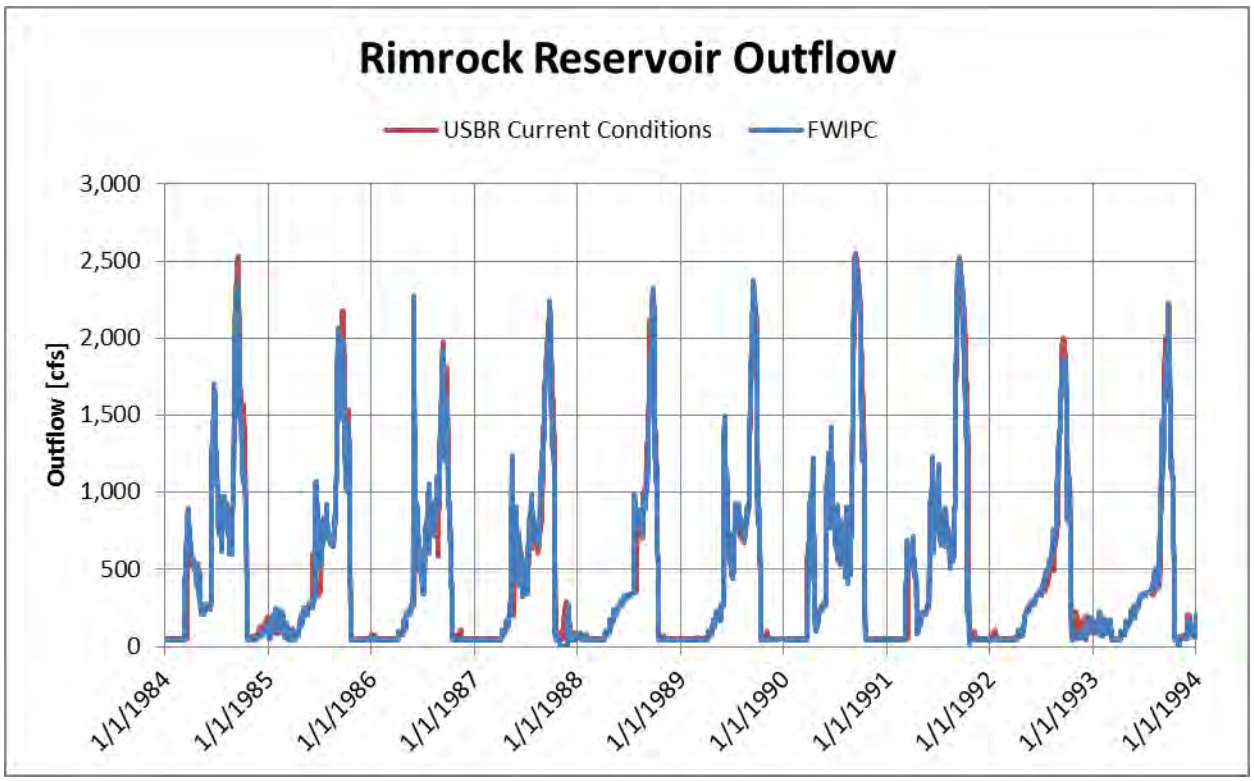


Figure 47. USBR and FWIPC Rimrock Reservoir Outflow - Detail

3.7 Reservoir Storage

The FWIPC releases more water from storage during dry years than the USBR, drawing the reservoirs down by about 20,000 to 40,000 acre-feet, and making complete refill less likely during the following snowmelt period. Individual reservoirs show the following differences:

- Cle Elum Reservoir releases more water in the FWIPC model during dry years. Overall, the FWIPC and USBR model show similar patterns and storage at the Cle Elum Reservoir.
- Bumping Lake Reservoir is drawn down more in the USBR model compared to the FWIPC model in most years. During dry years, the drawdown is similar between the two models.
- The Keechelus Reservoir storage is very similar between the USBR and FWIPC models in all years.
- The Kachess Reservoir is drawn down more in the FWIPC model, especially during the dry years. This may be a result of the increase fall target flows in the FWIPC model.

Rimrock Reservoir storage in the USBR model shows a relatively consistent underestimate of storage toward the end of the irrigation season. Typical simulated irrigation season end storages are 40,000 acre-feet or less, while Hydromet records for these years provide higher ending storages. Figure 48 shows the difference between the USBR model simulation and the Hydromet records.

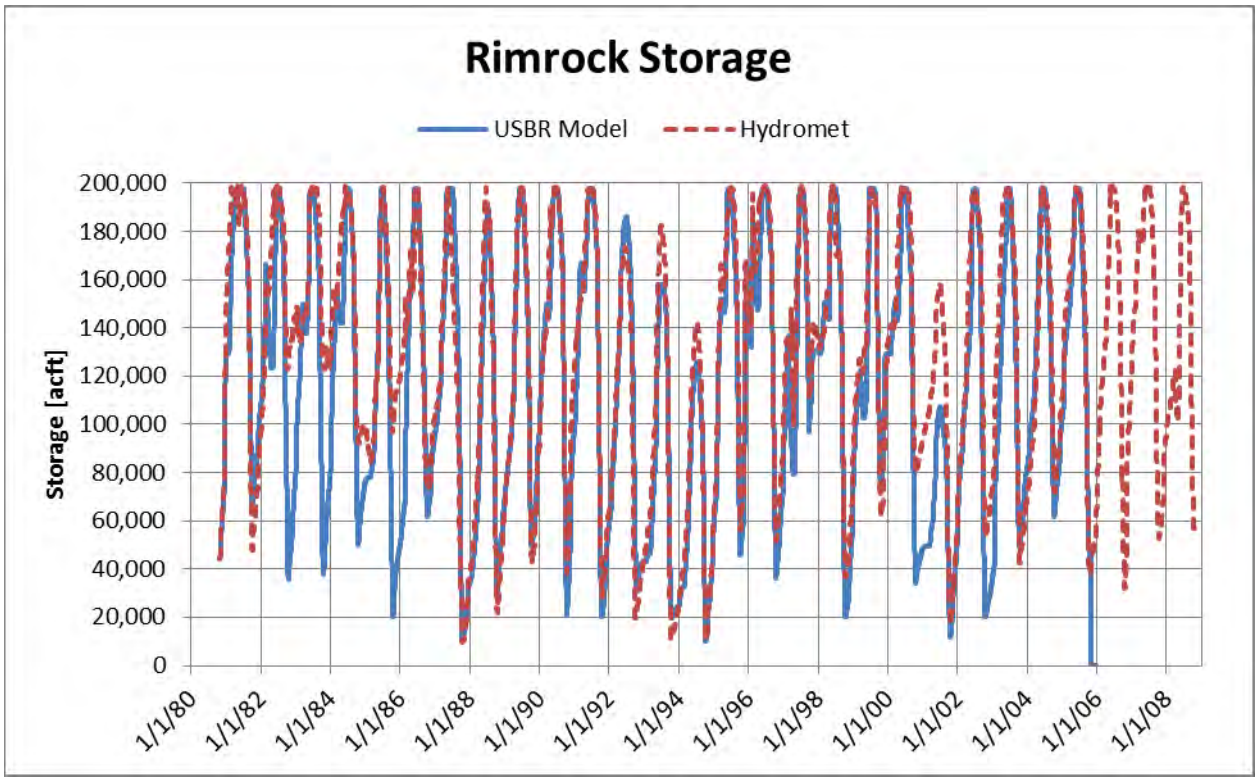


Figure 48. USBR and Measured Rimrock Reservoir Storage

Investigation of these differences revealed the following:

- No improvement was achieved by setting the major irrigation diversions using Hydromet canal flows rather than the average diversion curves, under the premise that actual diversions in certain years during the flip-flop period may have been less than simulated. While there are some

differences between these two diversion sources, they were not significant enough to change the Rimrock storage behavior.

- Fixing all reservoir outflows to those recorded in Hydromet was enlightening. This produced perfect reservoir storage behavior. The project team examined deliveries and instream flow targets to see if there were any significant or systematic differences with the USBR model. This was not the case. Additionally, there is close comparison of the total storage of all reservoirs between the USBR model and Hydromet. This would indicate that the Rimrock simulation issue is more the choice of reservoir the model uses to release flows, rather than timing or magnitude of the releases.
- The project team assessed the effect of the target carry-over storage. It is not clear that this is driving the simulation effect under question, as Rimrock target carry-over storage is set relatively high. For example, the Rimrock storage target is 105,000 acre-feet when total system storage is 160,000 acre-feet.

Some improvement was noted when the flip-flop factor was changed. Figure 49 and Figure 50 show the difference between total reservoir releases of the USBR model and Hydromet for 1982. The current flip-flop application has a sharp decline in upper Yakima reservoir releases from August 31 to September 15th. The Hydromet releases initially have this steep decline, although this decline ends when total releases are around 2,000 cfs. Bumping Lake Reservoir also has a higher contribution. This is not always consistent between years.

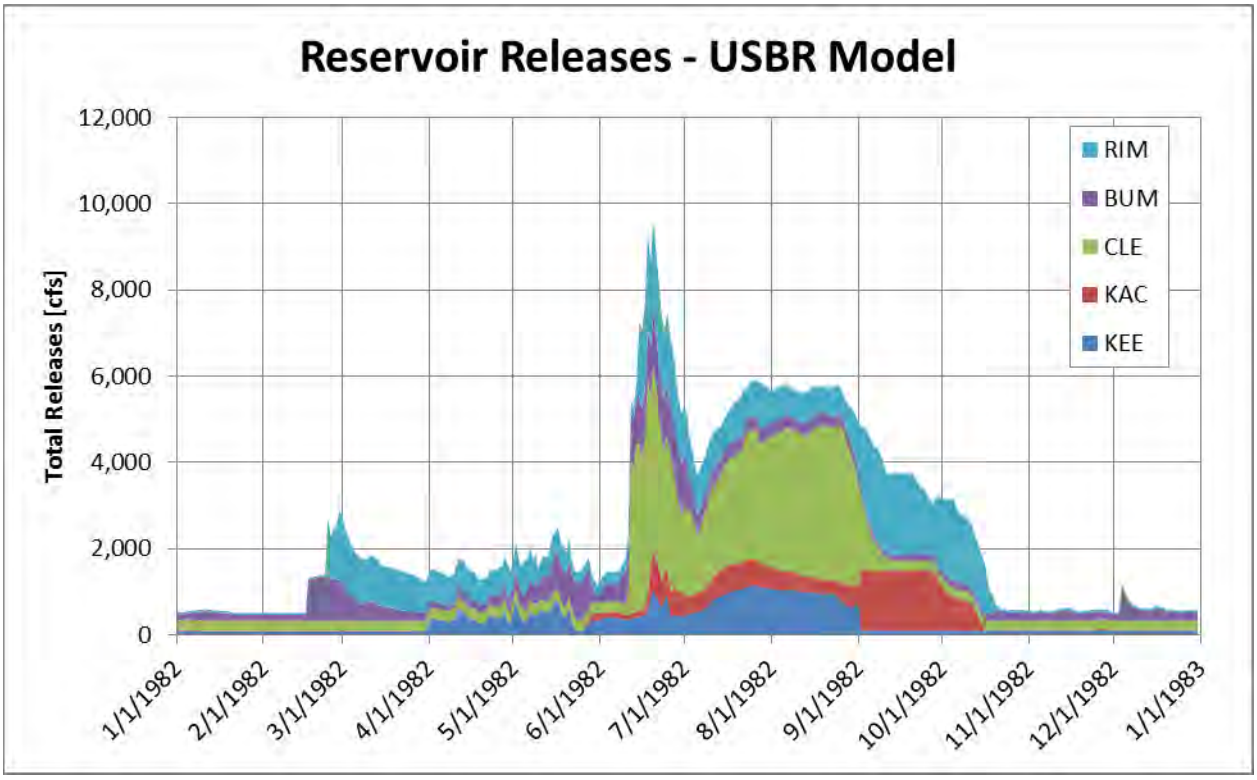


Figure 49. USBR Reservoir Release for All Reservoirs for 1982

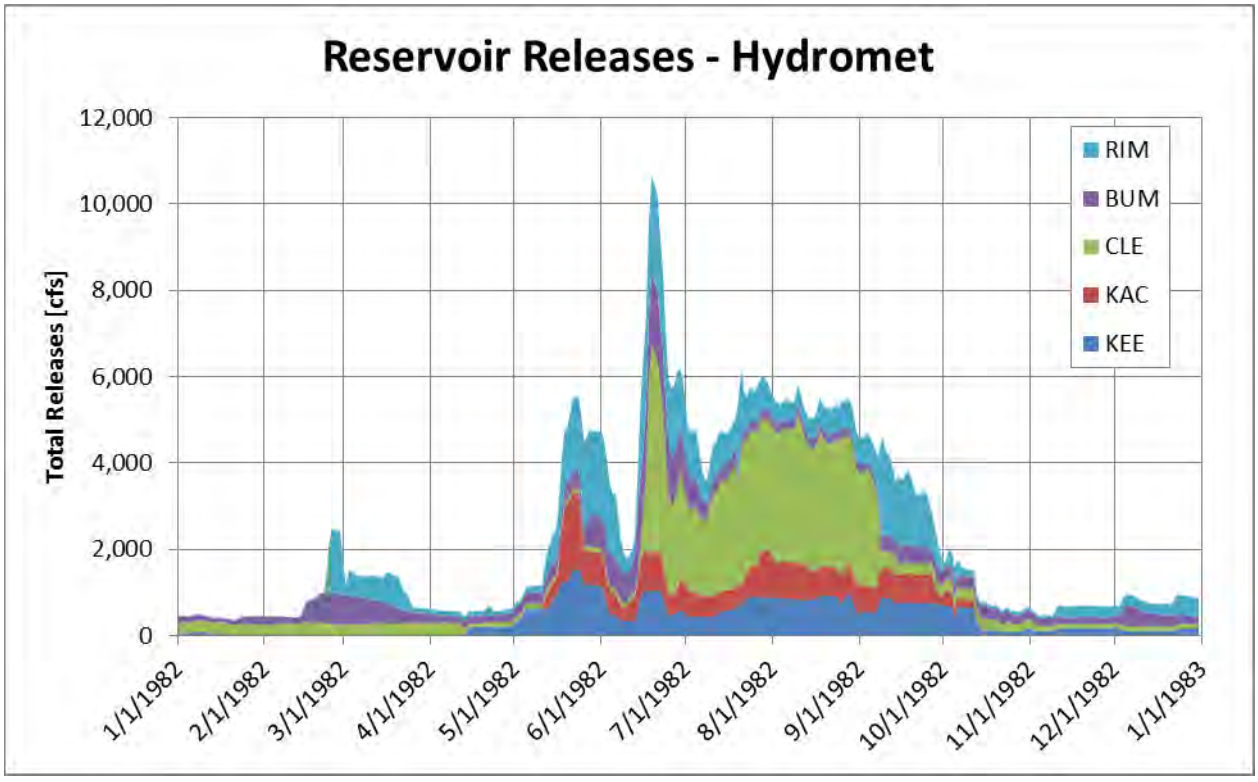


Figure 50. Hydromet Reservoir Release for All Reservoirs for 1982

The FWIPC model improves on Rimrock storage simulation, primarily by incorporating the Technical Service Center changes to Kachess fall outflow. Figure 51 shows the FWIPC model simulation of Rimrock versus Hydromet. Some earlier years in the 1980s still show less simulated storage than actual, although overall the simulated storage is more than the USBR model. Figures 52 through 64 compare USBR and FWIPC simulated reservoir storage.

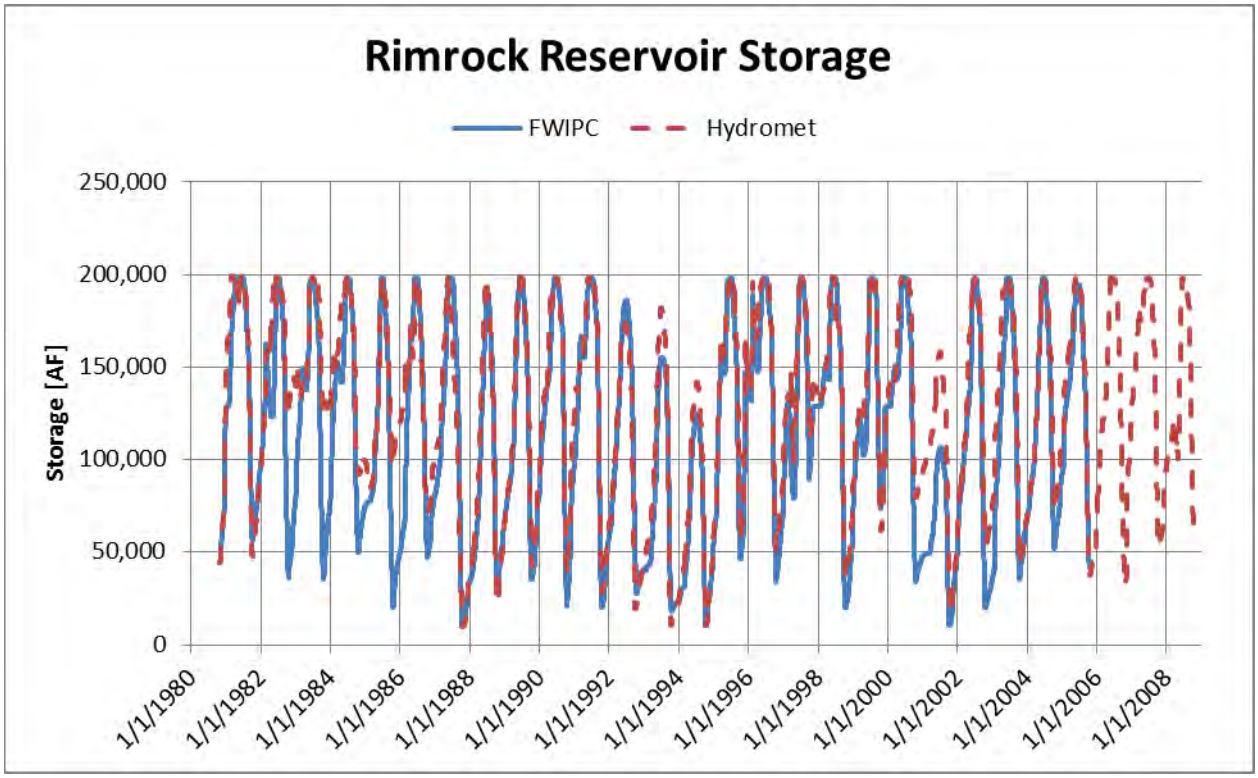


Figure 51. Hydromet and FWIPC Rimrock Reservoir Storage

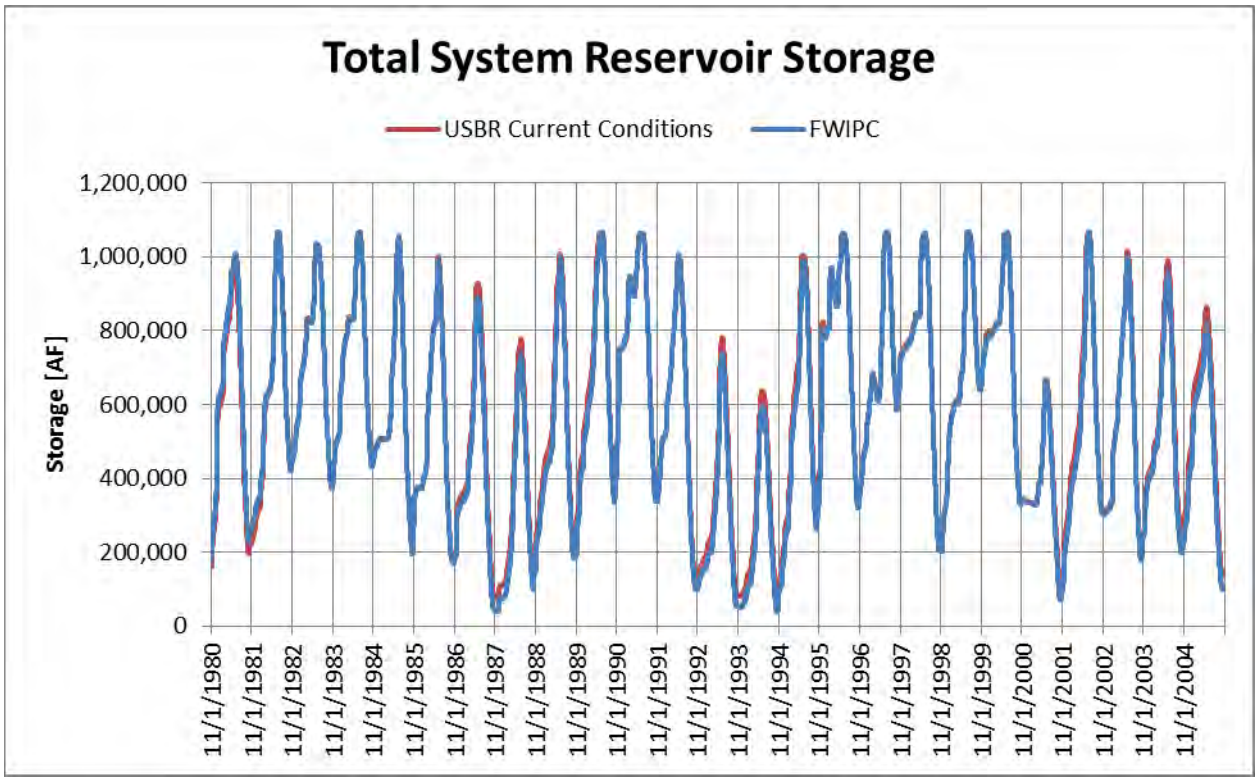


Figure 52. USBR and FWIPC Total Reservoir Storage

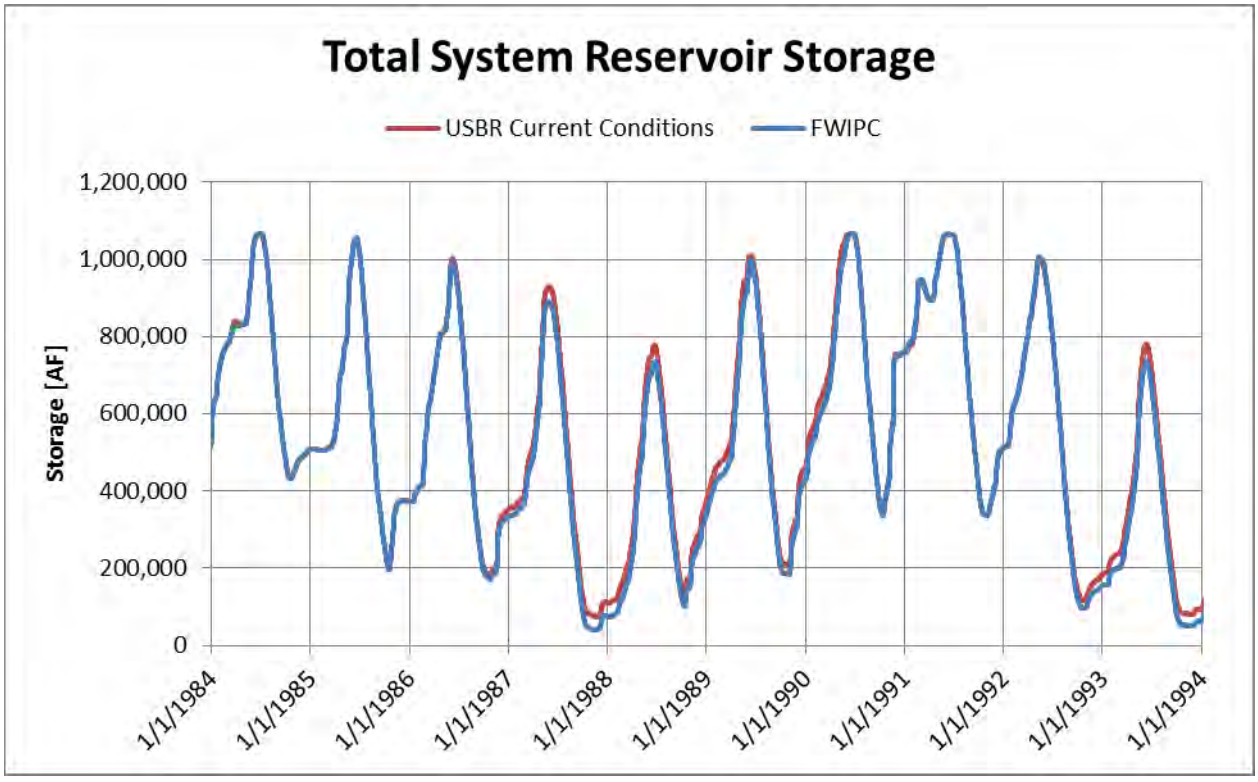


Figure 53. USBR and FWIPC Total Reservoir Storage - Detail

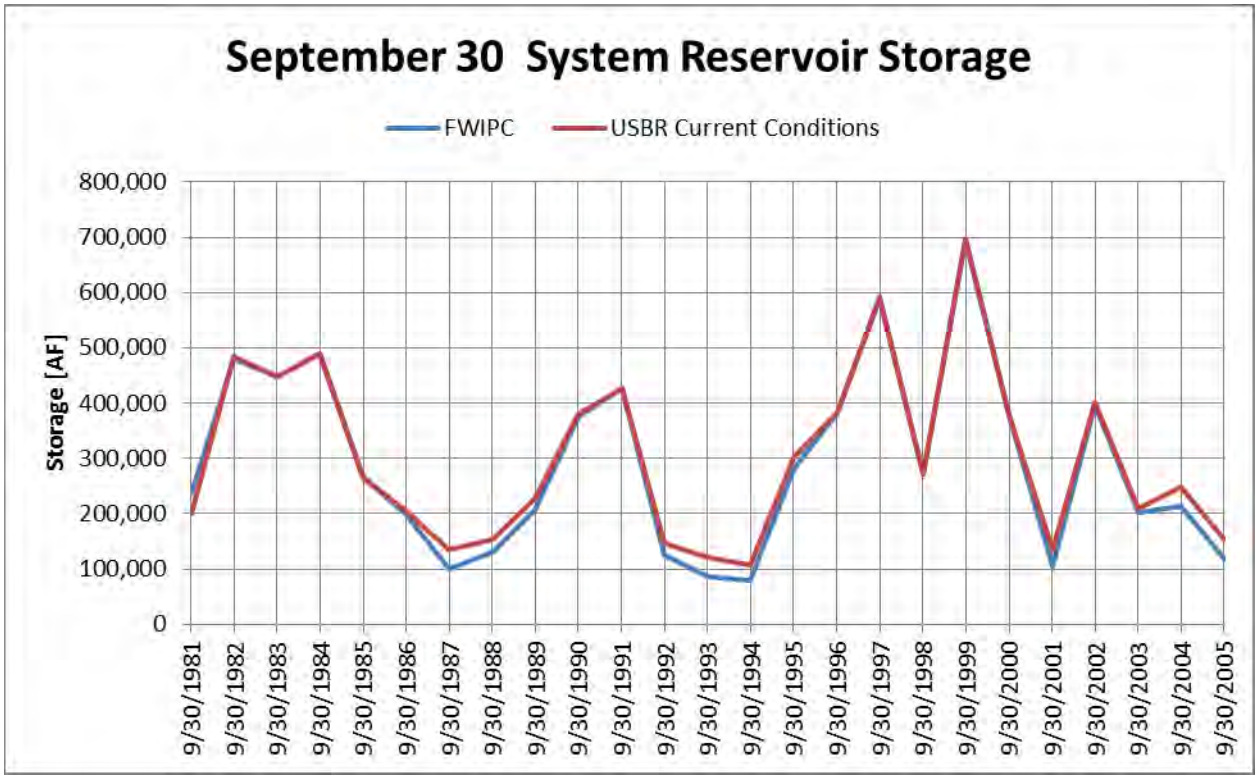


Figure 54. USBR and FWIPC Total September 30 Reservoir Storage

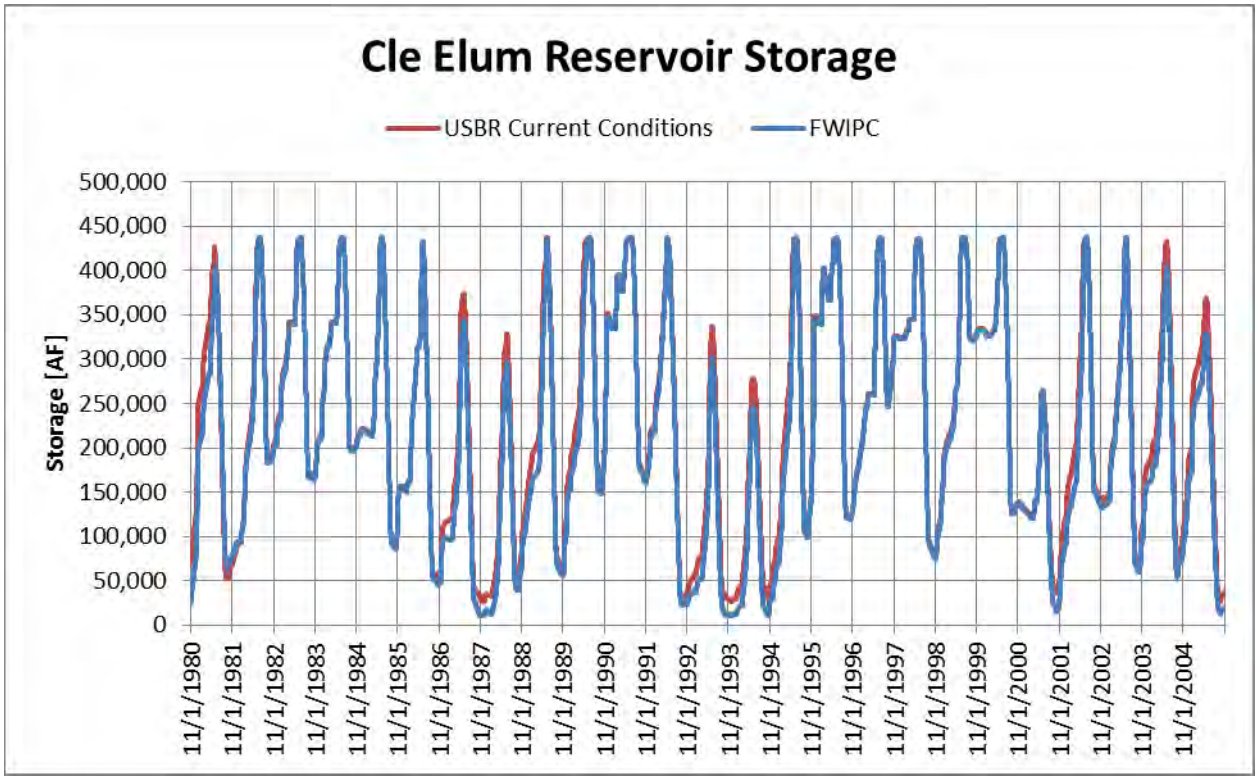


Figure 55. USBR and FWIPC Cle Elum Reservoir Storage

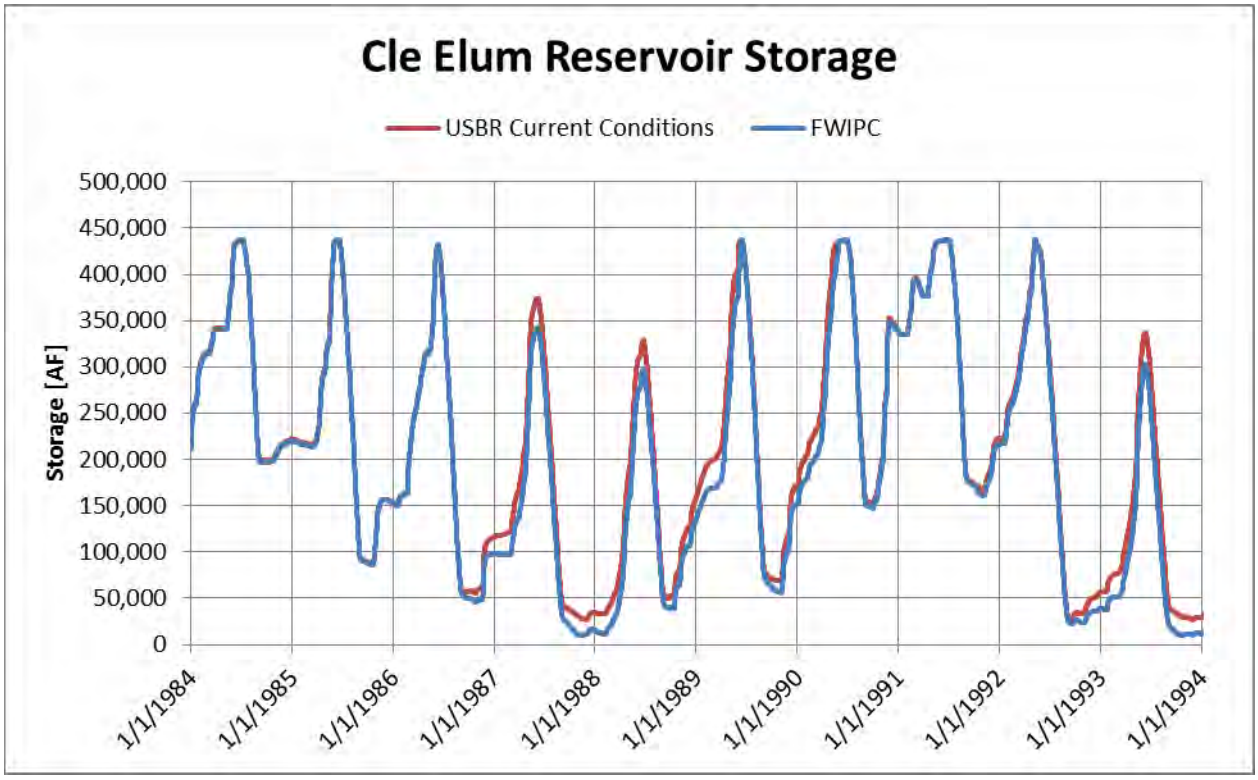


Figure 56. USBR and FWIPC Cle Elum Reservoir Storage - Detail

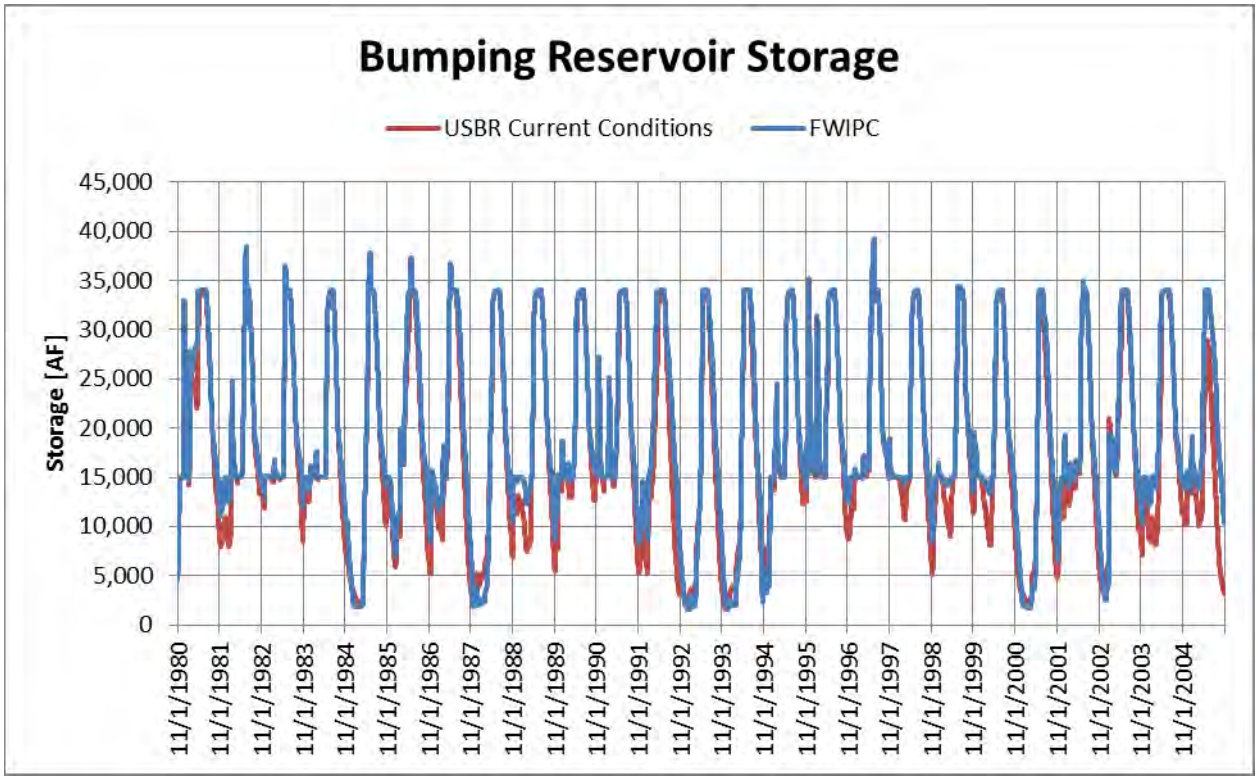


Figure 57. USBR and FWIPC Bumping Lake Reservoir Storage

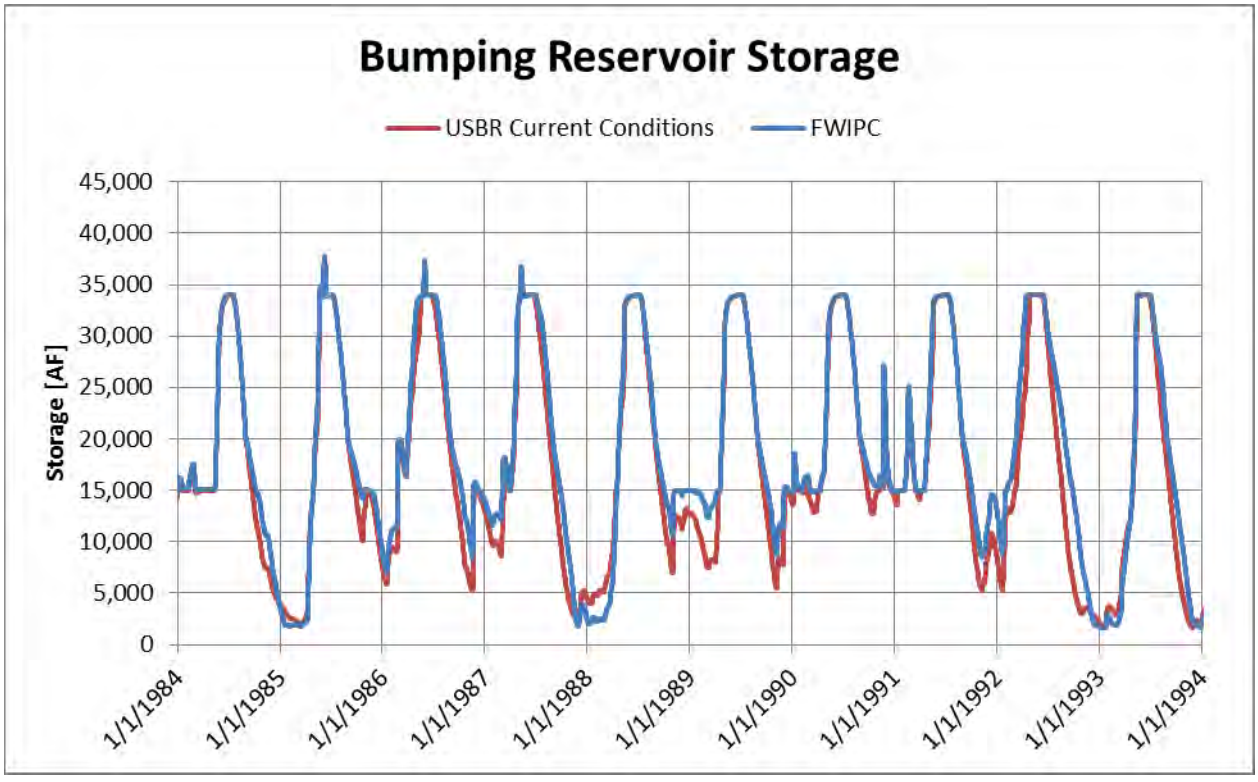


Figure 58. USBR and FWIPC Bumping Lake Reservoir Storage - Detail

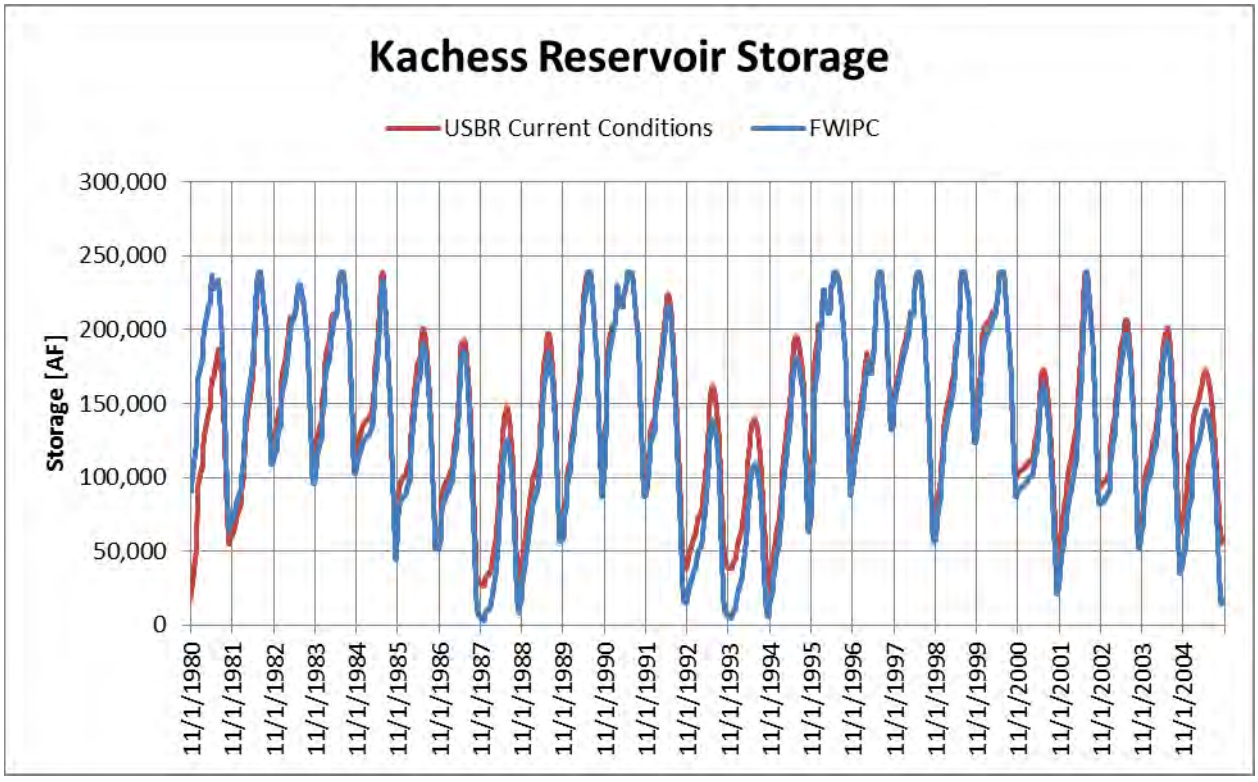


Figure 59. USBR and FWIPC Kachess Reservoir Storage

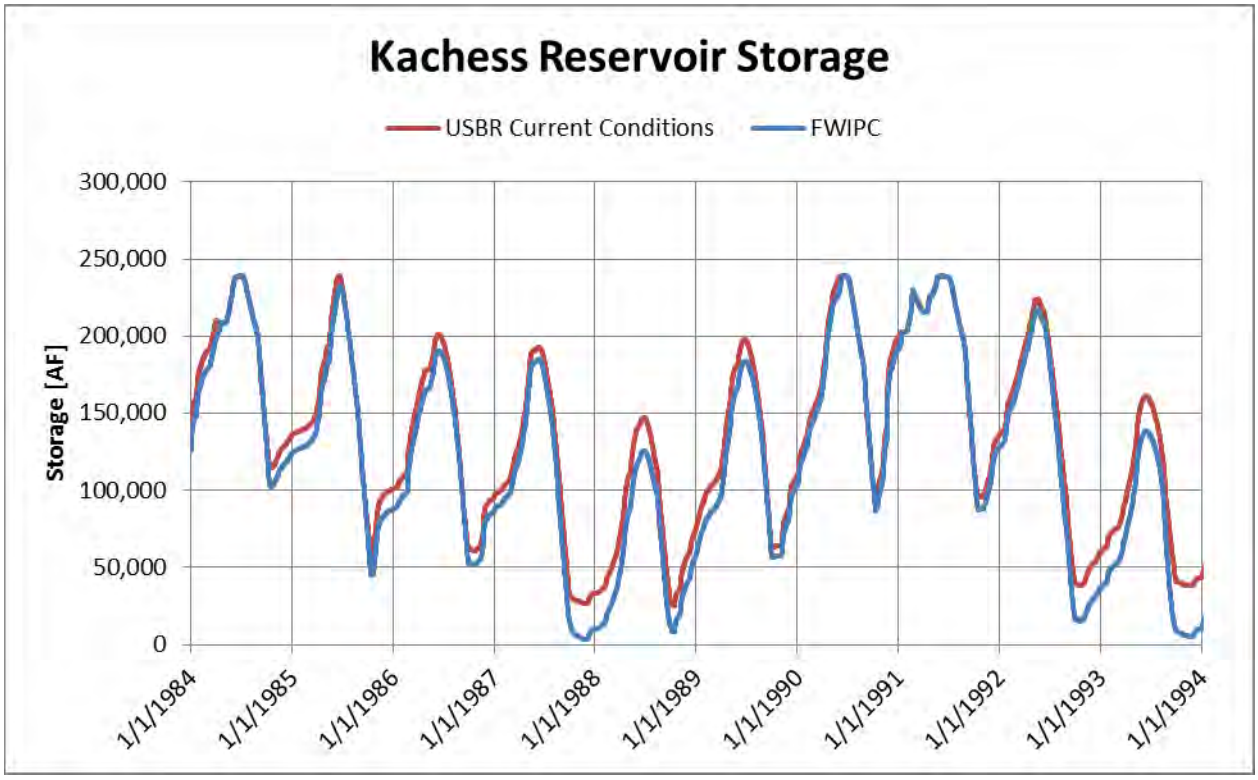


Figure 60. USBR and FWIPC Kachess Reservoir Storage - Detail

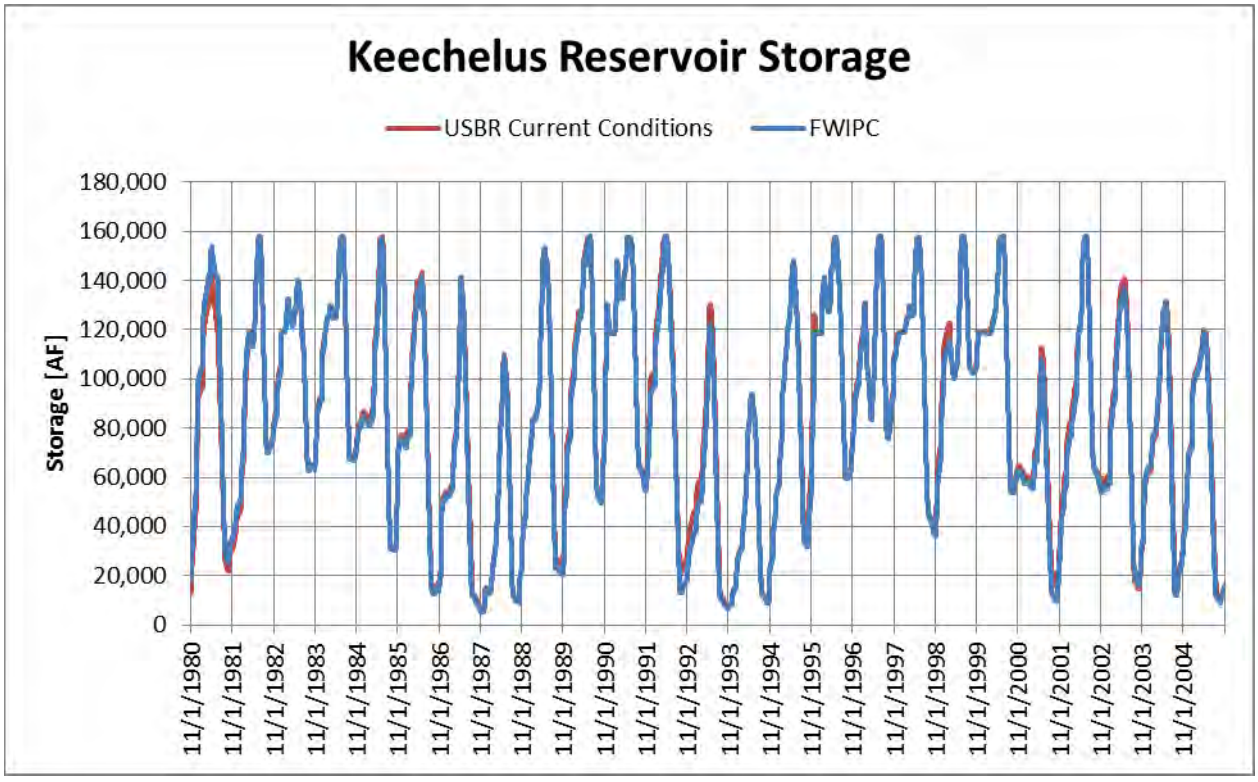


Figure 61. USBR and FWIPC Keechelus Reservoir Storage

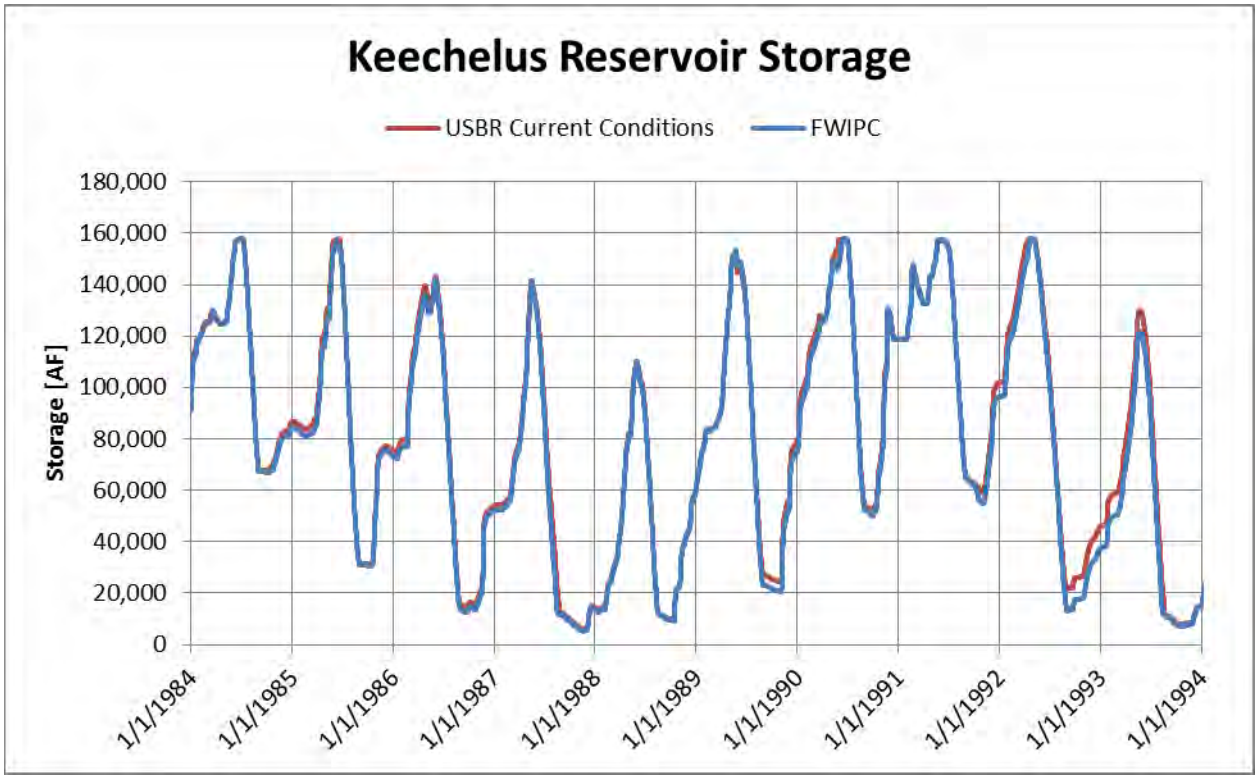


Figure 62. USBR and FWIPC Keechelus Reservoir Storage - Detail

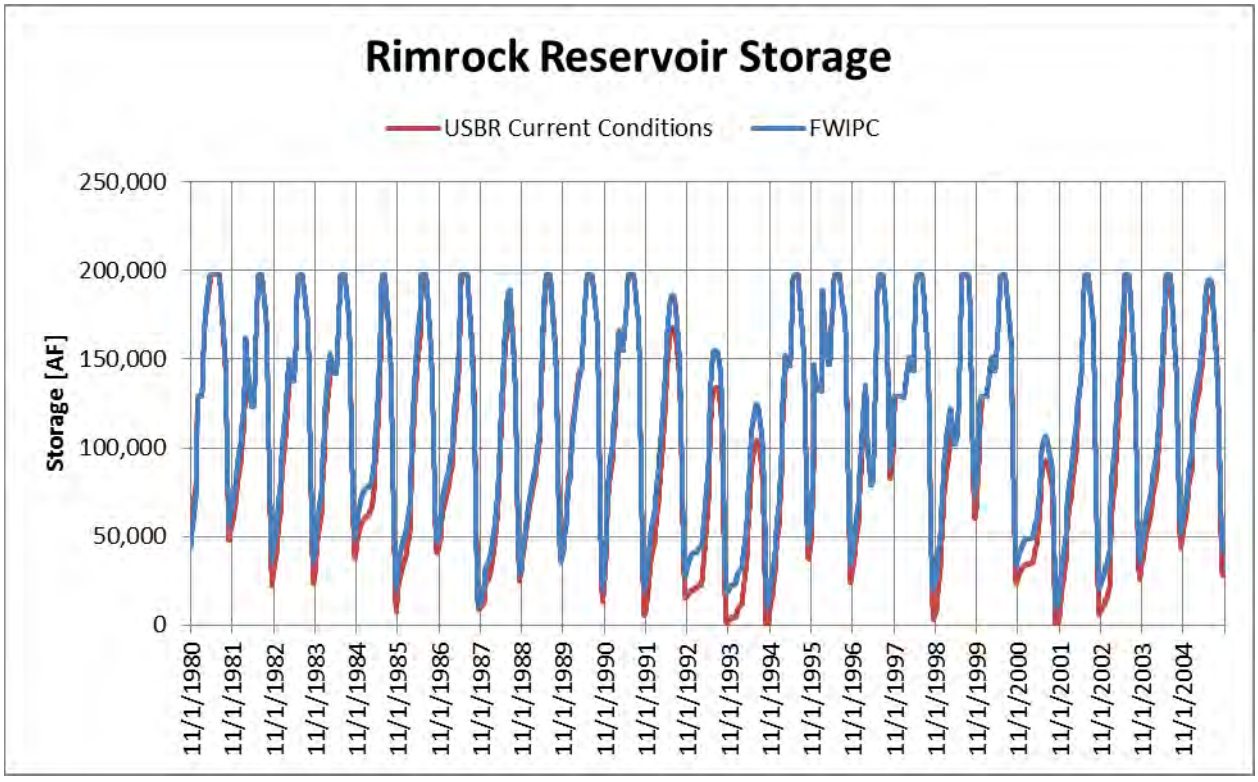


Figure 63. USBR and FWIPC Rimrock Reservoir Storage

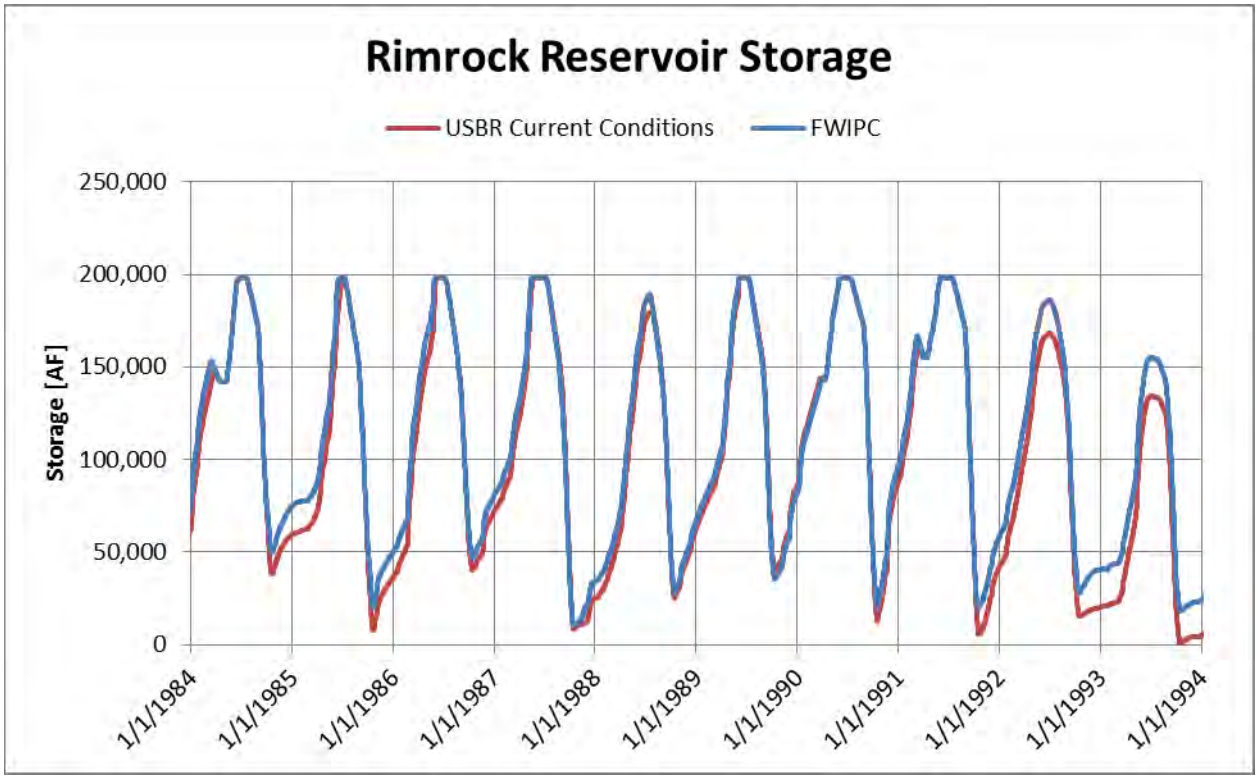


Figure 64. USBR and FWIPC Rimrock Reservoir Storage - Detail

4 Conclusions

After adjusting the 2010 FWIP model to correct an error in one operating rule (see Section 3.4.2 for explanation of error) , and turning off the future water conservation projects planned for Roza, KRD, and Sunnyside, the results produced by the FWIPC model very closely match those from the USBR model, which was the calibration goal:

- Total inflows to the model exactly match.
- Total outflows match within 4 percent.
- The difference in total outflows is equal to the sum of the difference in depletions and seepage losses.
- Irrigation prorationing is nearly the same in both models, within 0.7 percent with a maximum difference of 3.4 percent.
- Major deliveries for the five largest irrigation districts match within 2.7 percent.
- Title XII flows at Parker match closely in volume and pattern.
- Other target flows match well at locations below major reservoirs
- Reservoir releases from each reservoir match, except for minor target flow issues.
- Reservoir storage in each reservoir matches, with improved performance for Rimrock.

Where slight differences exist, there is good reason for the underlying operating rules, target flows, and assumptions to be included in the FWIP model and in the updated Integrated Plan model. The FWIP model is considered to be well-calibrated at this time.

5 List of Preparers

NAME	BACKGROUND	RESPONSIBILITY
HDR ENGINEERING, INC.		
Steve Thurin	Hydrology and Water Resources Engineering	Task Technical Lead
Ted Shannon	Hydrologic Modeling	RiverWare Model Development and Modification
David Minner	Water Resources Engineering	Calculations and Analysis
Bob King	Engineering	Task Manager
Andrew Graham	Public policy; water resource planning	Project Manager; Technical Memorandum review
ANCHOR QEA.		
Bob Montgomery	Engineering	QA/QC and System Operations
RECLAMATION		
Chris Lynch	Water Resources Operations	Review and input on modeling assumptions and RiverWare model
Joel Hubble	Yakima River Fisheries	Review and input on modeling assumptions

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Appendix A
YakRW Water Budget Calculation

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Appendix A. YakRW Water Budget Calculation

Inflow Slots:

Ahtanum 0_6 at Union Gap.Inflow	Little.Inflow	Milk.Inflow
American River.Inflow	Local above CLFW.Inflow2	Naneum Creek Runoff.Inflow
Big.Inflow	Local above EASW.Inflow2	Nile.Inflow
Bumping Lake Reservoir.Inflow	Local above ELNW.Inflow2	Oak.Inflow
Cabin.Inflow	Local above KIOW.Inflow2	Rattlesnake.Inflow
CleElumReservoir.Inflow	Local above NACW.Inflow2	RimrockReservoir.Inflow
Coleman Creek Runoff.Inflow	Local above RBDW.Inflow2	Rock.Inflow
Columbia River at Priest Rapids Gage.Inflow*	Local above TICW.Inflow2	Satus.Inflow
Cooke Creek Runoff.Inflow	Local above UMTW.Inflow2	Swamp.Inflow
Cowiche North Fork.Inflow	Local above YGVW.Inflow	Swauk.Inflow
Cowiche South Fork.Inflow	Local above YRGW.Inflow2	Taneum.Inflow
Devil.Inflow	Local above YRPW.Inflow2	Teanaway.Inflow
Gold.Inflow	Local above YRTW.Inflow2	Tieton Local between Oak C and Naches R.Inflow
KachessReservoir.Inflow	Local above YUMW.Inflow2	Toppenish.Inflow
KeechelusReservoir.Inflow	Lost.Inflow	Wenas.Inflow
Little Naches River.Inflow	Manastash.Inflow	Wilson Creek Runoff.Inflow

Notes:

* = Columbia River inflows are subtracted from both Inflows and Outflows to provide Yakima Basin effects only.

Change in Storage Slots:

BumpingLakeReservoir.Storage	GW from Taneum to Ellensburg.Storage	GW Roza 5.Storage
Chandler Seepage.Storage	GW from Teanaway to Swauk.Storage	GW Roza 6.Storage
CleElumReservoir.Storage	GW from Wilson to Umtanum.Storage	GW Selah Moxee 1.Storage
Easton Diversion Dam	GW Fruitvale.Storage	GW Selah Moxee 2.Storage

202_5.Storage		
GW Anderson.Storage	GW Future M and D Lower Yakima.Storage	GW Sinclair.Storage
GW Benton.Storage	GW Gleed.Storage	GW South Naches.Storage
GW Birchfield.Storage	GW Grandview to Prosser.Storage	GW Stanfield.Storage
GW Blue Slough.Storage	GW Hubbard 2.Storage	GW Stevens.Storage
GW Boise Cascade.Storage	GW Kelly Lowry.Storage	GW Sunnyside 3.Storage
GW Bull.Storage	GW Kennewick 1.Storage	GW Sunnyside 4.Storage
GW Carmack Parker.Storage	GW Kennewick 2.Storage	GW Sunnyside 5.Storage
GW Cascade 1.Storage	GW Kennewick 3.Storage	GW Sunnyside 6.Storage
GW Cascade 2.Storage	GW Kiona.Storage	GW Taneum Ditch 1.Storage
GW Cascade 3.Storage	GW Knoke.Storage	GW Taylor.Storage
GW Cascade 4.Storage	GW KRD North 1.Storage	GW Tenant.Storage
GW Cascade Gravity above Slide.Storage	GW KRD North 2.Storage	GW Tieton 1.Storage
GW Chapman Nelson.Storage	GW KRD North 3.Storage	GW Tieton2.Storage
GW Cherry old.Storage	GW KRD North 4.Storage	GW Tjossem.Storage
GW City of Cle Elum M and I.Storage	GW KRD South 1.Storage	GW Town 1.Storage
GW City of Ellensburg M and I.Storage	GW KRD South 2.Storage	GW Town 2.Storage
GW City of Yakima Irrigation.Storage	GW KRD South 3.Storage	GW Town 3.Storage
GW City of Yakima M and I.Storage	GW Mills and Son.Storage	GW Town 4.Storage
GW Clark.Storage	GW Morrissey.Storage	GW Union Gap 3.Storage
GW Cobb Upper.Storage	GW Moxee 2.Storage	GW Vertrees 1.Storage
GW Columbia 1.Storage	GW Naches Cowiche.Storage	GW Vertrees 2.Storage
GW Columbia 2.Storage	GW Naches Selah.Storage	GW Wapatox Headworks.Storage
GW Congdon.Storage	GW Nile Valley.Storage	GW Wapatox Irrigation.Storage
GW Dry.Storage	GW OConner.Storage	GW Westside 1.Storage
GW Ellensburg Mill and Feed.Storage	GW Old Union.Storage	GW Westside 2.Storage

GW Ellensburg Power 2.Storage	GW Prosser to Kiona.Storage	GW Westside 3.Storage
GW Ellensburg Power 3.Storage	GW Reecer.Storage	GW Wilson.Storage
GW Emerick.Storage	GW Reservation 1.Storage	GW Woldale.Storage
GW Fogarty Dyer.Storage	GW Reservation 2.Storage	GW Younger.Storage
GW Foster Naches.Storage	GW Richartz.Storage	KachessReservoir.Storage
GW Fredricks Hunting.Storage	GW Richland 1.Storage	KeechelusReservoir.Storage
GW from Cle Elum Gage to Teanaway.Storage	GW Richland 2.Storage	Proposed Thorp GW Recharge.Storage
GW from Cle Elum to Cle Elum Gage.Storage	GW Roza 1.Storage	Proposed WIP GW Recharge.Storage
GW from Ellensburg to Manastash.Storage	GW Roza 2.Storage	RimrockReservoir.Storage
GW from Manastash to Wilson.Storage	GW Roza 3.Storage	Wymer Reservoir.Storage
GW from Swauk to Taneum.Storage	GW Roza 4.Storage	

Losses: Depletion Slots:

FutureBentonMI.Depletion	USE Gleed:GLEW Naches 9_4 LDB.Depletion	USE Roza 6:Subarea.Depletion
FutureKittitasMI.Depletion	USE Hubbard 2:Subarea.Depletion	USE Selah Moxee 1:Subarea.Depletion
FutureYakimaMI.Depletion	USE Kelly Lowry:KLYW Naches 13_7 LDB.Depletion	USE Selah Moxee 2:Subarea.Depletion
USE Anderson:ANSW Naches 38_6 LDB.Depletion	USE Kennewick 1:Kennewick 1.Depletion	USE Sinclair:SINW Tieton 2_3 LDB.Depletion
USE Benton:Subarea.Depletion	USE Kennewick 2:Kennewick 2.Depletion	USE South Naches:SOUW Naches 14_0 RDB.Depletion
USE Blue Slough:BLEW Yakima 112_0 LDB.Depletion	USE Kennewick 3:Subarea.Depletion	USE Stanfield:SADW Yakima 149_9 LDB.Depletion
USE Boise Cascade:BOCW Yakima 115_8 RDB.Depletion	USE Kiona:Subarea.Depletion	USE Stevens:STCW Naches 26_6 LDB.Depletion
USE Bull:BUCW Yakima 153_3 LDB.Depletion	USE Knoke:KNOW Yakima 166_2 RDB.Depletion	USE Sunnyside 3:Subarea.Depletion
USE Carmack Parker:CAPW Naches 27_6 RDB.Depletion	USE KRD North 1:Subarea.Depletion	USE Sunnyside 4:Subarea.Depletion

USE Cascade 1:Subarea.Depletion	USE KRD North 2:Subarea.Depletion	USE Sunnyside 5:Subarea.Depletion
USE Cascade 2:Subarea.Depletion	USE KRD North 3:Subarea.Depletion	USE Sunnyside 6:Subarea.Depletion
USE Cascade 3:Subarea.Depletion	USE KRD North 4:Subarea.Depletion	USE Taneum Ditch 1:Subarea.Depletion
USE Cascade 4:Subarea.Depletion	USE KRD South 1:Subarea.Depletion	USE Taylor:TORW Yakima 122_1 RDB.Depletion
USE Cascade Gravity above Slide:CUSZ Yakima 168_5 LDB.Depletion	USE KRD South 2:Subarea.Depletion	USE Tenant:TITW Tieton 0_2 RDB.Depletion
USE Chapman Nelson:CHFW Naches 6_1 LDB.Depletion	USE KRD South 3:Subarea.Depletion	USE Tieton 1:Tieton 1.Depletion
USE City of Cle Elum M and I:CCEW Yakima 183_1 RDB.Depletion	USE Mills and Son:MISW Yakima 163_7 RDB.Depletion	USE Tieton2:Tieton2.Depletion
USE City of Ellensburg M and I:CELW Yakima 161_2 LDB.Depletion	USE Morrissey:MOEW Naches 9_2 LDB.Depletion	USE Tjossem:TOEW Yakima 152_2 LDB.Depletion
USE City of Yakima Irrigation:CYIW Naches 3_6 RDB.Depletion	USE Moxee 2:Subarea.Depletion	USE Town 1:Subarea.Depletion
USE City of Yakima M and I:CYDW Naches 9_7 LDB.Depletion	USE Naches Cowiche:NCOW Naches 3_6 RDB.Depletion	USE Town 2:Subarea.Depletion
USE Clark:CLCW Naches 14_9 LDB.Depletion	USE Naches Selah:NSCW Naches 18_4 LDB.Depletion	USE Town 3:Subarea.Depletion
USE Cobb Upper:COBW Tieton 3_0 LDB.Depletion	USE Nile Valley:NIVW Naches 31_0 RDB.Depletion	USE Town 4:Subarea.Depletion
USE Columbia 1:Columbia 1.Depletion	USE OConner:OCCW Yakima 178_9 LDB.Depletion	USE Union Gap 3:Subarea.Depletion
USE Columbia 2:Columbia 2.Depletion	USE Old Union:OLDW Naches 2_5 RDB.Depletion	USE Vertrees 1:VETW Yakima 151_7 RDB.Depletion
USE Congdon:CODW Naches 8_5 RDB.Depletion	USE Reservation 1:Reservation1.Depletion	USE Vertrees 2:VESW Yakima 152_4 RDB.Depletion
USE Ellensburg Mill and Feed:ELFW Yakima 158_0 LDB.Depletion	USE Reservation 2:Subarea.Depletion	USE Wapatox Headworks:WOPW Naches 17_1 LDB Irrigation.Depletion
USE Ellensburg Power	USE Richartz:RIZW Yakima 114_6	USE Wapatox Irrigation:WOIW

2:Subarea.Depletion	LDB.Depletion	Naches 8_1 RDB.Depletion
USE Ellensburg Power 3:Subarea.Depletion	USE Richland 1:Richland 1.Depletion	USE Westside 1:Subarea.Depletion
USE Emerick:EMKW Naches 36_5 LDB.Depletion	USE Richland 2:Richland 2.Depletion	USE Westside 2:Subarea.Depletion
USE Fogarty Dyer:FOGW Yakima 153_0 RDB.Depletion	USE Roza 1:Subarea.Depletion	USE Westside 3:Subarea.Depletion
USE Foster Naches:FOTW Naches 15_0 RDB.Depletion	USE Roza 2:Subarea.Depletion	USE Woldale:WOLW Yakima 161_3 LDB.Depletion
USE Fredricks Hunting:FAHW Naches 27_4 LDB.Depletion	USE Roza 3:Subarea.Depletion	USE Younger:YOUW Yakima 181_9 LDB.Depletion
USE Fruitvale:FRUW Naches 2_7 RDB.Depletion	USE Roza 4:Subarea.Depletion	
USE Future M and D Lower Yakima:Subarea.Depletion	USE Roza 5:Subarea.Depletion	

Losses: Deep Aquifer Seepage Slots:

Chandler Seepage.Percolation	GW from Wilson to Umtanum.Percolation	GW Roza 6.Percolation
GW Anderson.Percolation	GW Fruitvale.Percolation	GW Selah Moxee 1.Percolation
GW Benton.Percolation	GW Future M and D Lower Yakima.Percolation	GW Selah Moxee 2.Percolation
GW Birchfield.Percolation	GW Gleed.Percolation	GW Sinclair.Percolation
GW Blue Slough.Percolation	GW Grandview to Prosser.Percolation	GW South Naches.Percolation
GW Boise Cascade.Percolation	GW Hubbard 2.Percolation	GW Stanfield.Percolation
GW Bull.Percolation	GW Kelly Lowry.Percolation	GW Stevens.Percolation
GW Carmack Parker.Percolation	GW Kennewick 1.Percolation	GW Sunnyside 3.Percolation
GW Cascade 1.Percolation	GW Kennewick 2.Percolation	GW Sunnyside 4.Percolation
GW Cascade 2.Percolation	GW Kennewick 3.Percolation	GW Sunnyside 5.Percolation
GW Cascade 3.Percolation	GW Kiona.Percolation	GW Sunnyside 6.Percolation
GW Cascade 4.Percolation	GW Knoke.Percolation	GW Taneum Ditch 1.Percolation
GW Cascade Gravity above Slide.Percolation	GW KRD North 1.Percolation	GW Taylor.Percolation
GW Chapman Nelson.Percolation	GW KRD North 2.Percolation	GW Tenant.Percolation

GW Cherry old.Percolation	GW KRD North 3.Percolation	GW Tieton 1.Percolation
GW City of Cle Elum M and I.Percolation	GW KRD North 4.Percolation	GW Tieton2.Percolation
GW City of Ellensburg M and I.Percolation	GW KRD South 1.Percolation	GW Tjossem.Percolation
GW City of Yakima Irrigation.Percolation	GW KRD South 2.Percolation	GW Town 1.Percolation
GW City of Yakima M and I.Percolation	GW KRD South 3.Percolation	GW Town 2.Percolation
GW Clark.Percolation	GW Mills and Son.Percolation	GW Town 3.Percolation
GW Cobb Upper.Percolation	GW Morrissey.Percolation	GW Town 4.Percolation
GW Columbia 1.Percolation	GW Moxee 2.Percolation	GW Union Gap 3.Percolation
GW Columbia 2.Percolation	GW Naches Cowiche.Percolation	GW Vertrees 1.Percolation
GW Congdon.Percolation	GW Naches Selah.Percolation	GW Vertrees 2.Percolation
GW Dry.Percolation	GW Nile Valley.Percolation	GW Wapatox Headworks.Percolation
GW Ellensburg Mill and Feed.Percolation	GW OConner.Percolation	GW Wapatox Irrigation.Percolation
GW Ellensburg Power 2.Percolation	GW Old Union.Percolation	GW Westside 1.Percolation
GW Ellensburg Power 3.Percolation	GW Prosser to Kiona.Percolation	GW Westside 2.Percolation
GW Emerick.Percolation	GW Reecer.Percolation	GW Westside 3.Percolation
GW Fogarty Dyer.Percolation	GW Reservation 1.Percolation	GW Wilson.Percolation
GW Foster Naches.Percolation	GW Reservation 2.Percolation	GW Woldale.Percolation
GW Fredricks Hunting.Percolation	GW Richartz.Percolation	GW Younger.Percolation
GW from Cle Elum Gage to Teanaway.Percolation	GW Richland 1.Percolation	GW KRD South 2.Outflow*
GW from Cle Elum to Cle Elum Gage.Percolation	GW Richland 2.Percolation	GW KRD South 3.Outflow*
GW from Ellensburg to Manastash.Percolation	GW Roza 1.Percolation	GW Prosser to Kiona.Outflow*
GW from Manastash to Wilson.Percolation	GW Roza 2.Percolation	GW Sunnyside 6.Outflow*
GW from Swauk to Taneum.Percolation	GW Roza 3.Percolation	GW Westside 3.Outflow*

GW from Taneum to Ellensburg.Percolation	GW Roza 4.Percolation	
GW from Teanaway to Swauk.Percolation	GW Roza 5.Percolation	

Notes: *=These outflow slots are not connected to a surface water object. As such, the seepage is not recovered and lost. The format differs from other groundwater objects where Outflow is connected to a surface water object and the Percolation slot is used to represent unrecovered seepage losses.

Outflows:

- Columbia River from Yakima to Snake.Outflow

  Notes: The Columbia River at Priest Rapids Gage. Inflow values are subtracted from the outflows to represent Yakima Basin operations.

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Appendix B
Operating Rules Technical Memorandum

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Technical Memorandum

To:	Andrew Graham		
From:	Steven M. Thurin	Project:	Yakima Basin RiverWare Model
CC:	Bob King (HDR)		
Date:	March 18, 2015	Job No.	218857
RE:	Summary of Existing and Proposed Operating Rules used in Hydrologic Modeling		

The RiverWare model of the Yakima River system (YAKRW) is being used to estimate the specific effects of proposed new water resources projects (individual and combined projects of the Integrated Plan) on water supply and instream flow conditions. It is also being used to estimate the effects of potential climate change on future water supplies, facilities, and instream flows.

The purpose of this memo is to present a brief summary of the existing operating rules programmed into YAKRW and the proposed operating rules that simulate the operation of each project comprising the Integrated Plan[1]. What follows is an outline of how the model simulates the Existing and Baseline System, the five major proposed structural projects included in the Integrated Plan, and the proposed operating rules for the proposed new projects. This information is presented to provide an easy to understand summary of how each project is assumed to operate, for review and confirmation by Reclamation.

Existing System: Features, Goals and Operating Rules

System Features:

1. The system features are shown on Figure 1 (attached) and the system is comprised of the Yakima River, the five (5) existing water storage reservoirs[2]; seventeen (17) specific river reaches[3]; multiple water users, including six (6) major water diverters, and these six major points of water diversion.

System Goals:

1. Store as much reservoir inflow as possible for subsequent use in satisfying in-stream target flows and out-of-stream water supply demands.
2. Release water from reservoir storage to meet in-stream flow targets.
3. Release water from reservoir storage to meet out-of-stream water supply demands.
4. Carryover reservoir storage from one year to the next to provide supply in following years.

[1] Wymer Dam and Reservoir and Bumping Reservoir Enlargement projects' operations will be developed and refined in Phase 2 of the Hydrological Modeling Study.
[2] Reservoir capacities are summarized on Table 1.
[3] River reaches are summarized on Table 2.

System Operating Rules:

1. The system is operated on a daily time-step.
2. Reservoirs store all inflow up to their maximum conservation pool, subject to flood control limitations.
3. Reservoirs release storage to satisfy specific downstream in-stream target flows[4], until the reservoir elevation reaches the inactive pool elevation; at which point only the flows entering the reservoir are released up to a maximum of the minimum downstream in-stream target flow.
4. Reservoirs experience unregulated release of inflows (reservoirs spill water) whenever the elevation of the water in storage exceeds the maximum pool level elevation (i.e. the spillway crest elevation).
5. The five existing reservoirs are operated in a balanced fashion to satisfy water supply demands and to achieve the target flows[5] established for the Parker Gage on the Yakima River.
6. Total Water Supply Available (TWSA) is first calculated on April 1 each year, and equals the total water in reservoir storage, plus the expected runoff through the remainder of water year, plus the expected return flows from diversions.
7. TWSA is updated throughout the irrigation season and used to determine the Parker Gage flow target as shown on Table 4.
8. Water Supply Available for Irrigation (WSAI) is used to determine the required level of prorationing supply to prorationed water users[6] during drought years. WSAI equals the calculated TWSA minus the forecast of all flow past the Parker Gage during the TWSA period (which includes spill of excess water prior to storage control, plus minimum Parker Gage target flows during the storage control period), minus a target of system-wide reservoir storage carryover. The model currently targets preserving at least 85,000 acre-feet of total system storage on September 30. [The level of carryover may need to be reevaluated when simulating IP projects.]

[4] In-stream target flows by Reach are summarized on Table 3.

[5] Parker Gage target flows are summarized on Table 4. The balancing currently involves "flip-flop" and "mini-flip-flop" factors to balance reservoir demand releases between the Upper Yakima and Naches river systems and Keechelus and Kachess reservoirs, respectively. One concern is these factors and balancing may need re-evaluation during critical dry years. In these year(s) storage in each reservoir will be depleted at various times over the year. Since the instantaneous system demand, especially in August and September, can not be solely met by any single reservoir due to outlet capacity restrictions (and also habitat impacts to specific reaches) the best use of system storage requires planning to preserve the storage of multiple reservoirs over the critically dry months.

[6] Prorationing is the method of shortage-sharing in the Yakima River Basin project. Irrigation systems water rights have been identified as non-proratable or proratable. Non-proratable shares are senior rights that predate the Yakima Storage project and are considered to be within the firm yield of the system and have always been supplied in every year. The proratable shares have a junior right with a priority date of May 5, 1905, and are above the firm yield and may be subject to proportional curtailment. A proration ratio is calculated based on the ratio of Water Supply Available for Irrigation in excess of the non-proratable shares divided by the total proratable shares but is capped at 1.0. A proration ratio of 1.0 indicates a full supply where all shares are fully satisfied. A lower ratio means that all proratable shares are curtailed by a given amount. For example, a proration ratio of 0.70 indicates that proratable shares will receive 70 percent of their nominal supply entitlement. The model will assign a district's diversion amount based on the district's calculated prorated supply or the district's median accepted diversion for a non-drought (wet) year, whichever is less. Table 5 lists the water conservation assumptions included in Baseline and Integrated Plan scenarios.

9. Subject to limitations imposed by reservoir balancing and "flip-flop" operations, reservoir storage is released to meet downstream demands to both prorationed and non-prorationed water users.

   Flip-Flop Operations

   During early spring through mid-summer, Yakima River mainstem demands are primarily met through storage releases from the three upper Yakima River reservoirs (Keechelus, Kachess, and Cle Elum). The two Naches River system reservoirs (Rimrock and Bumping) release flows to meet Naches system demands, with Bumping Reservoir releasing storage to meet upper Naches demands, and Rimrock Reservoir releasing storage for Tieton and lower Naches demands. Beginning in late August and through the end of the irrigation season, the lower Yakima River mainstem demands will "flip-flop" from the upper Yakima reservoirs to the Naches system reservoirs. Demand releases from upper Yakima reservoirs are reduced to just meet KRD system demands and upper Yakima River instream flow targets. Rimrock releases are increased to meet Lower Yakima River mainstem demands and the instream flow target at Parker. Cle Elum Reservoir releases are similarly decreased. Flip-flop operations are designed and performed to avoid dewatering spring Chinook spawning redds in the Cle Elum reach and the Easton reach when flows drop after the irrigation season. The goal is to keep upper Yakima River flows and water levels during the spawning period at roughly the same levels that will occur during the winter. Chinook salmon and other anadromous species construct their nests below the river's water surface. The eggs will suffer higher mortality if the river stage falls and dries up the nests after spawning has occurred.

Mini Flip-flop

Mini flip-flop operations are similar to flip-flop operations, but are performed between Keechelus and Kachess Lakes. From June through August, irrigation releases are higher from Keechelus Lake, and lower from Kachess Lake. Then in September and October, irrigation releases from Keechelus Lake are decreased and deliveries from Kachess Lake are correspondingly increased, to protect spawning redds from dewatering in the Keechelus reach.

10. Releases, gains, and return flows contribute to stream flows in reaches downstream of the reservoirs.
11. Releases, gains, and return flows are diverted to satisfy demands of prorationed and non-prorationed water users.

TABLE 1. RESERVOIR STORAGE (acre-feet)

Reservoir	Existing	Added by IP	Total with IP
Keechelus	157,800	0	157,800
Kachess	239,000	200,000	439,000
Cle Elum	436,900	14,600	451,500
Bumping 1	34,000	156,000	190,000
Rimrock	198,000	0	198,000
Wymer 1	0	162,500	162,500
TOTALS	1,065,700	533,100	1,598,800

NOTE 1: The added reservoir capacity for Bumping Reservoir Expansion and for the new Wymer Dam and Reservoir is under study at this time and thus, the additional volume shown here is preliminary and subject to change.

TABLE 2. RIVER REACHES			
Reach #	**Reach Name**	**River**	**Reach Description**
R1	Keechelus	Yakima	Yakima River from Keechelus Dam to Lake Easton
R2	Easton	Yakima	Yakima River from Lake Easton to Cle Elum River
R3	Teanaway	Yakima	Yakima River from Cle Elum River to Teanaway River
R4	Kittitas	Yakima	Yakima River from Teanaway River to top of Canyon
R5	Canyon	Yakima	Yakima River from top of Canyon to Roza Dam
R6	Selah	Yakima	Yakima River from Roza Dam to Naches River
R7	Union Gap	Yakima	Yakima River from Naches River to Sunnyside Diversion Dam
R8	Wapato	Yakima	Yakima River from Sunnyside Diversion Dam to Toppenish Creek
R9	Mabton	Yakima	Yakima River from Toppenish Creek to Prosser Dam
R10	Chandler	Yakima	Yakima River from Prosser Dam to Chandler Power Plant
R11	Lower Yakima	Yakima	Yakima River from Chandler Power Plant to Columbia River
R12	Kachess River	Kachess	Kachess River from Kachess Dam to Yakima River
R13	Cle Elum River	Cle Elum	Cle Elum River from Cle Elum Dam to Yakima River
R14	Bumping River	Bumping	Bumping River from Bumping Dam to Little Naches River
R15	Upper Naches	Naches	Upper Naches River from Bumping River to Tieton River
R16	Tieton River	Tieton	Tieton River from Tieton Dam to Naches River
R17	Lower Naches	Naches	Lower Naches River from Tieton River to Yakima River

TABLE 3. INSTREAM FLOW TARGETS		
Reach	**Existing**	**Integrated Plan[1]**
	Range of Instream Flow Targets (cubic feet per second)	**Range of Instream Flow Targets (cubic feet per second)**
R1. Keechelus	80 in dry year, 100 in all other years[2]	120; reverts to existing when prorationing is 70% or less
R2. Easton	190 to 220[2]	250, decreasing to 220 cfs from September to December; reverts to existing when prorationing is 70% or less
R9. Mabton (Parker[4])	300 to 600	Increases as TWSA increases under Integrated Plan
R12. Kachess River	15 (subject to confirmation)	15 (unchanged)
R13. Cle Elum River	180 to 220[2]	300 or more; reverts to existing when prorationing is 70% or less
R14 Bumping River[3]	0 to 130, with 600 to 900 cfs peak flows in summer	0 to 130 with additional targets and peaks in spring and summer
R16. Tieton River	50	125; reverts to existing when prorationing is 70% or less

[1]Integrated Plan flow targets are assumed to be implemented when Wymer Dam and Reservoir Project is included in the projects being simulated.
[2] Minimum target flows are set based on the El Niño–Southern Oscillation (ENSO) climate index and TWSA. Historic ENSO is El Nino, La Nina, or neutral. A TWSA target threshold is set based on ENSO. A year is wet, normal, or dry if TWSA exceeds the ENSO target, is within a fixed amount of the ENSO target, or is below the ENSO target, respectively.
[3]Bumping Reservoir instream flow target varies depending on Bumping storage and month of the year.
[4] Parker Gage instream flow target varies with TWSA index, as shown in Table 4.

TABLE 4. EXISTING YAKIMA RIVER AT PARKER GAGE – INSTREAM FLOW TARGETS	
If TWSA (acre-feet) equals or exceeds	Then Parker Instream Flow Target (cfs) equals
Month of April	
3,200,000	600
2,900,000	500
2,650,000	400
0	300
Month of May	
2,900,000	600
2,650,000	500
2,400,000	400
0	300
Month of June	
2,400,000	600
2,200,000	500
2,000,000	400
0	300
Months of July to September	
1,900,000	600
1,700,000	500
1,500,000	400
0	300
All other Months	
For all values of TWSA	400

Baseline System and Operating Rules

Baseline Goals:

1. Same as Existing Operations
2. Utilize conserved water to improve instream flow targets

Baseline Operating Rules:
The Baseline modeling operations are very similar to Existing operations, except that the YAKRW model incorporates future, non-Integrated Plan water conservation measures that have been planned as part of the YRBWEP. It also includes certain M&I water demand changes anticipated to occur in the basin over the next 30 years. The Baseline scenario also incorporates certain point of diversion facility changes. Other than these changes, the YAKRW Baseline scenario model is the same as documented in the draft Hydrologic Modeling

Calibration Technical Memorandum, and the operating rules are the same as above under Existing Operations.

The Baseline scenario does not include flow requirements associated with upcoming ESA negotiations, nor are these included within the alternative scenario analyses. If/when new flow requirements are established, additional analysis will be required.

The following future changes are incorporated in the Baseline scenario:

- Roza: 36,000 acre-feet/year conservation for irrigation benefits
- Sunnyside: 54,580 acre-feet/year total: 36,400 acre-feet/year for instream and 18,180 acre-feet/year for irrigation
- Benton: 5,420 acre-feet/year for instream benefits, 1,450 acre-feet/year for irrigation
- Point of diversion changes at the Benton and Reservation diversions.
- Future municipal and industrial (M&I) demands for the Kittitas, Yakima, and Benton water users. City of Yakima is anticipated to incorporate aquifer storage and recovery (ASR), thereby shifting some diversions from summer to winter. The ASR project is assumed to allow for 95% recovery of stored water.

Integrated Plan General Operating Rules

Integrated Plan Increased Water Conservation Operating Goals:

1. Same as Baseline Operations
2. Utilize integrated plan increased conserved water to improve instream flow targets without reducing water supply

Integrated Plan Increased Water Conservation Operating Rules:

1. Under the Water Conservation Scenario, demands are adjusted to include Integrated Plan water conservation projects totaling an additional 137,000 acre-feet and shown in Table 5. This will have an effect on Parker target[7] flows because a portion of the water conservation is dedicated to instream flow. During the irrigation season (March to October), and at full supply, the increase is 95.6 cfs.
2. The increased instream flow targets listed in Table 3 require additional water storage to achieve. These are assumed to apply in the model only when projects being considered incorporate the Wymer Dam and Reservoir project.

[7] Parker Gage target flows summarized in Table 4

Table 5. Conservation Included in Baseline and Integrated Plan Scenarios

Diversion	Total Conservation	Instream Conservation	Irrigation Conservation	Conservation On?			Conservation added in Baseline	Conservation added in IP Scenarios
				Existing	Baseline	IP Scenarios		
0: KTCW Kittitas	40,735	0	40,735	No	No	Yes	0	40,735
1: RZCW Roza	36,000	0	36,000	No	Yes	Yes	36,000	0
2: RZCW Roza	23,900	0	23,900	No	No	Yes	0	23,900
3: SNCW Sunnyside	54,600	36,400	18,180	No	Yes	Yes	54,600	0
4: BENW Benton	6,870	5,420	1,450	No	Yes	Yes	6,870	0
5: KTCW Kittitas	2,000	0	2,000	No	No	Yes	0	2,000
6: WESW Westside	600	0	600	No	No	Yes	0	600
7: WESW Westside	2,618	0	2,618	No	No	Yes	0	2,618
8: ELTW Ellensburg Town	3,026	0	3,026	No	No	Yes	0	3,026
9: CADW Cascade Pumps below Slide	2,088	0	2,088	No	No	Yes	0	2,088
10: CADW Cascade Pumps below Slide	2,579	0	2,579	No	No	Yes	0	2,579
11: BUCW Bull	639	0	639	No	No	Yes	0	639
12: BUCW Bull	429	0	429	No	No	Yes	0	429
13: UNGW Union Gap	200	0	200	No	No	Yes	0	200
14: RSCW Reservation New	26,300	0	26,300	No	No	No	0	0
15: RSCW Reservation New	10,500	0	10,500	No	No	No	0	0
16: RSCW Reservation New	11,375	0	11,375	No	No	No	0	0
17: SNCW Sunnyside	4,265	0	4,265	No	No	Yes	0	4,265
18: SOUW South Naches	9,733	0	9,733	No	No	Yes	0	9,733
19: NSCW Naches Selah	16,675	0	16,675	No	No	Yes	0	16,675
20: KNCW Kennewick	28,200	0	28,200	No	No	Yes	0	28,200
Totals	**283,332**	**41,820**	**241,492**				**97,470**	**137,687**

OPERATING RULES FOR INTEGRATED PLAN PROJECTS

The Integrated Plan (IP) Projects that are proposed for addition to and or modification of the existing Yakima River system features includes the following five (5) projects. Operating rules for each of these five projects, either alone, or in combination (IP1A, IP2/2A, IP3A/3A, IP4, IP5, and IP6) have been developed and are presented here below. These five projects are envisioned to be constructed in the sequence listed here immediately below. The A designator denotes the proposed IP Project Alone.

INTEGRATED PLAN – INDIVIDUAL PROJECTS & PURPOSES	
INTEGRATED PLAN PROJECT NAME	**PRIMARY PURPOSE**
IP1A = Keechelus to Kachess Conveyance (KKC) Alone	Improve Fish Habitat in R1, the Keechelus Reach of the Yakima River; Provide for more efficient refill of Kachess Reservoir
IP2A = Kachess Drought Relief Pumping Plant (KDRPP) Alone	Provide additional water supply during drought years
IP3A = Cle Elum Pool Raise (CEPR) Alone	Provide additional instream flow and fish passage benefits
IP4 = Wymer Dam and	Improve Fish Habitat in R1, the Keechelus Reach of the

Reservoir (WDR) with KKC, KDRPP, and CEPR	Yakima River. Provide for more efficient refill of Kachess Reservoir. Provide additional water supply during all years and particularly during drought years. Provide additional supply to meet increased instream flow targets.
IP5 = Bumping Reservoir Enlargement (BRE) with KKC, KDRPP, and CEPR	Provide additional water supply during all years and particularly during drought years. Provide additional supply to meet increased spring flushing flow in Bumping River.
IP6 = Full Integrated Plan, including KKC, KDRPP, CEPR, WDR, and BRE	Improve Fish Habitat in R1, the Keechelus Reach of the Yakima River. Provide for more efficient refill of Kachess Reservoir. Provide additional water supply during all years and particularly during drought years. Provide additional supply to meet increased instream flow targets. Provide additional supply to meet increased spring flushing flow in Bumping River.

After the first proposed project is constructed, the KKC project, when the next proposed project in sequence is constructed, a different designator has been developed to identify the combined proposed Projects. The list of combined IP projects is presented here immediately below. The operating rules for the combined projects have been modified from the individual project operating rules whenever it has been determined to be appropriate and beneficial to achieving the goals of the combined projects. Operating rules for the proposed combined projects are presented under each combined project text provided below. Please note that the proposed individual project IP1A – KKC Alone is identical to the proposed combined project IP1, as there is no other project combined with the proposed individual project.

INTEGRATED PLAN – COMBINED PROJECTS
INTEGRATED PLAN PROJECT NAME
IP1 = KKC (same as IP1A above)
IP2 = KKC + KDRPP
IP3 = KKC + KDRPP + CEPR
IP4 = KKC + KDRPP + CEPR + WDR; additional instream flow targets (Table 3)
IP5 = KKC + KDRPP + CEPR + BRE
IP6 = KKC + KDRPP + CEPR + WDR + BRE; additional instream flow targets (Table 6)

IP1A = Keechelus to Kachess Conveyance (KKC) Alone (Note, IP1A = IP1)

Goals:

1. Reduce high flows in the Keechelus Reach during July through October.
2. Increase TWSA and WSAI by reducing spill from Keechelus Reservoir by diverting inflow into Kachess Reservoir prior to the water level in Keechelus Reservoir reaching the spillway crest elevation.
3. Increase the rate of refill of Kachess Reservoir by diverting flows into Kachess Reservoir whenever Kachess has sufficient storage space available.

Items Varied:

1. Hydraulic capacity of the conveyance system (300, 400, 500, 600 and 700 cfs).
2. Minimum target pool in Keechelus Reservoir at which inflow into Keechelus should be diverted into Kachess Reservoir.

Operating Rules:

1. <u>October 1 through March 31</u>
    a. Release minimum target flow into Keechelus Reach first (100 cfs in normal water years; 80 cfs in drought years).
    b. If Keechelus Reservoir elevation is less than the Keechelus minimum target pool[8], store inflows.
    c. If Keechelus Reservoir elevation is greater than the minimum target pool and Kachess Reservoir elevation is less than the Kachess storage limit, then release additional flow and divert into KKC for storage in Kachess Reservoir, up to the KKC capacity.
    d. If Keechelus Reservoir is full, release inflow and divert into KKC for storage in Kachess Reservoir (as long as Kachess has remaining available conservation storage[9]) or for release from Kachess Reservoir, up to the KKC capacity.
2. <u>April 1 through June 30</u>
    a. Release minimum target flow into Keechelus Reach first (100 cfs in normal water years; 80 cfs in drought years).
    b. If the sum of downstream flow targets plus irrigation diversions satisfied by Keechelus Reservoir is greater than the minimum target flow in the Keechelus Reach, then release downstream flow targets plus irrigation diversions into the Keechelus Reach.
    c. If Keechelus Reservoir elevation is greater than the minimum target pool and Kachess Reservoir elevation is less than the Kachess storage limit, then release additional flow (above the flows described in 2b) and divert into KKC for storage in Kachess Reservoir, up to the KKC capacity.
3. <u>July 1 through July 31</u>
    a. Release minimum target flow into Keechelus Reach first (100 cfs in normal water years; 80 cfs in drought years).
    b. If the sum of downstream flow targets plus irrigation diversions satisfied by Keechelus Reservoir is greater than the minimum target flow in the Keechelus Reach, then release

[8] Keechelus minimum target pool evaluated between 20,000 acre-feet and 80,000 acre-feet, and optimized at 80,000 acre-feet.

[9] Kachess is considered to be full if storage is greater than 450,000 acre-feet in the winter flood control season or greater than the variable flood control guide curve in the spring; or if it is at the top of conservation pool (487,000 acre-feet).

downstream flow targets plus irrigation diversions into the Keechelus Reach, up to 500 cfs, maximum

c. If Keechelus Reservoir elevation is greater than the minimum target pool and Kachess Reservoir elevation is less than the Kachess storage limit, then release additional flow and divert into KKC for storage in Kachess Reservoir, up to the KKC capacity.
d. Divert remaining Keechelus release greater than 500 cfs into KKC up to KKC hydraulic capacity.
e. Release the additional flows diverted through KKC from Kachess Reservoir into the to Kachess Reach for downstream use. This rule may be suspended if Kachess can not, on its own, meet KRD/Easton diversion dam diversion needs.
f. If Keechelus Reservoir elevation is greater than the minimum target pool and Kachess Reservoir elevation is less than the Kachess storage limit, then release additional flow and divert into KKC for storage in Kachess Reservoir, up to the KKC capacity.

4. <u>August 1 through September 30</u>
   a. Release minimum target flow into Keechelus Reach first (100 cfs in normal water years; 80 cfs in drought years)
   b. If the sum of downstream flow targets plus irrigation diversions satisfied by Keechelus Reservoir is greater than 120 cfs then release downstream flow targets plus irrigation diversions and divert into KKC, up to the KKC capacity. This rule may be suspended if Kachess can not, on its own, meet KRD/Easton diversion dam diversion needs.
   c. Release the flows diverted through KKC from Kachess Reservoir into the Kachess Reach for downstream use.

IP2A = Kachess Drought Relief Pumping Plant (KDRPP) Alone

Goals:

1. Limit prorationing to 70% of full supply during drought years.

Items Varied:

1. Date when the "flip-flop" factor (from 1 to 0) first switches from drawing on storage from reservoirs in the upper Yakima River Basin, to drawing on storage from Reservoirs in the Naches River Basin. (Currently the switch initiation date is August 28 and the switch is fully completed by no later than September 15 each year).
2. Date when the "mini-flip-flop" factor (from 1 to 0) first switches from drawing primarily on Keechelus to drawing on Kachess. The duration of the time period over which Kachess is called on for drought relief.
   [At present, and in general (not always, but in general), up until August 25, 85% of upper Yakima River storage releases is drawn from Keechelus; and by September 1, 0% is drawn from Keechelus.]
3. Hydraulic capacity of KDRPP evaluated at 800, 1,000, 1,200 and 1,400 cfs.

Operating Rules:

1. The additional water made available by the KDRPP Project (that water in Kachess Reservoir that is below the elevation of the existing gravity outlet works) is not accessed unless prorationing would cause proratable water supplies to be reduced to less than 70% of full supply. If prorationing would cause proratable water supplies to be reduced to less than 70% of full supply, then KDRPP will be used to the extent needed to achieve 70% of full supply.
2. The additional storage provided by KDRPP in the worse year (1994) results in Kachess being the only active reservoir in the summer. This potentially leads to water being inaccessible in Kachess. Reservoir balancing rules were revised in critical years by not performing flip flop (flip flop factor set to 1.0 throughout the year) and ending mini flop-flop after June 1st (mini flop-flop factor set to 0.0) to account for KDRPP implementation. A third use factor, the Cle Elum to Kachess use factor, relies in part on the flip flop factor and was also affected. Modifying the flip flop factors implements a strategy of using KDRPP sooner in the year and with a more predominate role. This in turn conserves water in the other reservoirs with the goal of maintaining outflows during the year.
3. If Kachess is below inactive storage level, operate KDRPP at capacity[10]
    a. Pump to satisfy the minimum prorationing target. Maximum use of the Kachess inactive storage is generally obtained when the minimum prorationing target is set to nearly full supply goals
    b. Limit use of Kachess inactive storage in certain years[11]
4. In the year following use of inactive storage (when full supply can be met without use of KDRPP), unless Kachess refills completely, the total amount of water stored in Kachess since the end of the previous irrigation season is counted as TWSA. This may cause prorationing to be less than full supply in order to refill depleted Kachess inactive storage (The intent is to prevent supply following a drought year from being worse than it would have been without the KDRPP. Kachess can be drafted to the minimum level in the previous season, but no deeper, than it was drafted the year before unless it is a severe drought year (sub 70% prorationing).
5. If Kachess storage is below the gravity outlet, provide pumping during winter to meet the minimum instream flow requirement in the Kachess reach (R12).

IP2 = KKC + KDRPP Combined

Goals:

1. Reduce high flows in the Keechelus Reach during July through October.
2. Increase TWSA and WSAI by reducing spill from Keechelus Reservoir by diverting inflow into Kachess Reservoir prior to the water level in Keechelus Reservoir reaching the spillway crest elevation.
3. Increase the rate of refill of Kachess Reservoir by diverting flows into Kachess Reservoir whenever Kachess has sufficient storage space available.
4. Limit prorationing to a maximum of 70% in drought years.

[10] KDRPP capacities evaluated in 200 cfs increments from 600 cfs to 2,400 cfs

[11] Limits on inactive storage use to be evaluated. Other system operations may be adjusted to enhance Kachess refill like using less water than normal out of the Keechelus and Kachess system.

Items Varied:

1. Hydraulic capacity of KKC system evaluated at 400, 500 and 600 cfs.
2. Date when Kachess Reservoir is first drawn upon to meet out-of-stream water demands.
3. Hydraulic capacity of KDRPP evaluated at 800, 1,000, 1,200 and 1,400 cfs.

Operating Rules:

1. Operating rules are the same as for KKC and KDRPP alone.
2. Refill Kachess storage immediately through use of KKC. Reducing high flows in the Keechelus reach (Goal 1, above) still has priority for use of the KKC.

IP3A = Cle Elum Pool Raise (CEPR) Alone

Goals:

1. Increase winter instream flow in Cle Elum River.

Items Varied:

1. Cle Elum top of dam height (3 feet increase)

Operating Rules:

1. Cle Elum capacity increased by 14,600 acre-feet (3-foot dam raise).
2. TWSA and prorationing include this additional storage when prorationing falls below 70 percent.
3. No other operational changes were made to Cle Elum.
4. Title XII (Parker) flows will not consider the expanded pool storage.

IP3 = KKC + KDRPP + CEPR Combined

Goals:

1. Same as IP2 and IP3A

Items Varied:

1. Same as IP2, with additional storage in Cle Elum

Operating Rules:

1. Same as IP2 and IP3A

IP4 = Wymer Dam and Reservoir (WDR)

Goals:

1. Same as IP3.
2. Increase TWSA and WSAI by storing natural or incidental flows occurring in the Yakima River that are in excess of flows needed to refill other reservoirs, meet instream flow requirements, and/or meet water supply demands.
3. Increase winter instream flow in Cle Elum and upper Yakima rivers without reducing TWSA by recapturing water released from upstream storage.
4. Provide additional TWSA storage to meet increased instream flow targets shown in Table 6.
5. Limit prorationing to a maximum of 70% in drought years.

Items Varied:

1. WDR fill system hydraulic capacity evaluated at 300, 400, 500, 700, and 1,000.
2. WDR storage capacity evaluated at 162,500 acre-feet and 120,000 acre-feet.
3. WDR fill constraint (the flow below Roza Diversion Dam when natural or incidental flow can be diverted to refill Wymer) is evaluated in three ways, described below.

Operating Rules:

1. Wymer Reservoir (WR) would be filled during periods of the fall, winter and spring, ending at or before the Yakima system goes on storage control.
2. Throughout the WR fill period, freshet guidelines would be followed[12].
3. WR would be filled from:
    a. **Natural or incidental Flows** occurring in the Yakima River that are in excess of flows needed to refill other reservoirs, meet instream flow requirements, and/or meet water supply demands; and
    b. **Released from Storage Flows** from Reclamation's three upper Yakima River Basin storage reservoir projects (Keechelus, Kachess and Cle Elum). In this case reservoir releases would be designed specifically to increase instream flows in the upper Yakima and Cle Elum Rivers during the low flow periods in the fall, winter and spring.
4. Water to fill WR would be diverted from the Yakima River at the proposed new intake location on the left bank of the river (Figure 2).
5. Water to fill WR would be diverted from the Yakima River whenever the flow in the river at the point of diversion is greater than the flows needed to meet Wymer Diversion Constraints (WDC) (see below) and out-of-stream water supply demands. Water could only be diverted up to the maximum hydraulic capacity of the constructed reservoir fill system.

[12] These guidelines limit the amount of water that can be diverted during periods of a freshet. When a freshet is occurring and identified, all diversions from the river would not be allowed to increase for the following two days. After two days of freshet flow, diversions are then allowed to increase. Diversions can be reduced when a freshet is occurring. Joel Hubble will provide some operational "rules" to HDR for use in the model to simulate the practice of following the "freshet guidelines".

6. Diverted water would be pumped uphill and released into WR where it would remain in storage until needed for TWSA, System operations and or drought relief purposes.
7. WR water storage capacity would initially be allocated equally (50-50) between a:
    a. **Prorationed Pool**, providing drought relief for proratable IP water supply users, and a
    b. **TWSA Pool**, providing water for fish and other TWSA and system operations purposes.
8. Pool capacities were adjusted after initial analysis, based on the relative volume of fill from each source (TWSA pool set at 50,000 acre-feet and Prorationed Pool set to the remainder).
9. WR water storage would be managed conjunctively with Reclamation's five other water storage reservoirs in the basin (Keechelus, Kachess, Cle Elum, Bumping and Rimrock) to meet instream flow targets and out-of-stream supply demands in the Yakima River Basin. This means, water stored in WR as TWSA Pool water could be released anytime throughout the year as long as the volume allocated to this Pool is accounted for and the water is used to meet diversion needs and instream flow targets. Prorationed Pool water however, could only be used for drought relief benefitting prorationed users in years when prorationing is less than 70 percent.

WDR Features sized in the Analysis:

1. Two WDR project features were evaluated and sized using the RiverWare model while simulating the entire 1926-2009 extended period of record (EPOR). These two features are:
    1) Fill system hydraulic capacity (flow rate) in cubic feet per second (cfs), and
    2) Reservoir storage volume in acre-feet (AF).

The WDR fill system hydraulic capacity was evaluated between 300 and 1,000 cfs. The Reservoir Storage Volume was evaluated at 162,500 AF and 120,000 AF.

Wymer Diversion Constraints:

1. Diversion of water from the Yakima River into WDR will be limited by "Wymer Diversion Constraints." One of these is based on flow needs identified below Roza Dam. Three versions of the WDC below Roza Dam (WDC-R) are shown below:

    A. WDC $-R_1$ Diversion of natural flows (as defined in Section I) from the Yakima River into the WDR Intake will only be allowed when the following conditions are met:
    - 500 cfs at RBDW Gage from October 22 to March 31.
    - 1,200 cfs at RBDW Gage from April 1 to June 15 (or Storage Control).

    B. WDC $-R_2$: Diversion of natural flows (as defined in Section I) from the Yakima River into the WDR Intake will only be allowed when the following conditions are met:
    - 500 cfs at RBDW Gage from October 22 to March 31.
    - No natural flow can be diverted from April 1 to October 21.

    C. WDC $-R_3$ Diversion of natural flows (as defined in Section I) from the Yakima River into the WDR Intake will only be allowed when the following conditions are met:
    - 500 cfs at RBDW Gage from October 22 to March 31.
    - 1,000 cfs at RBDW Gage from April 1 to June 15 (or Storage Control).

- Under WDC-R_3, the potential ESA target flow goals of 500 cfs from October 22 – March 31, and 1,300 cfs from April 1 – May 31 will be met by subordinating Roza Power Diversions.
- Divert additional surplus natural flow in late October and early November associated with Roza maintenance shutdown.

2. Water intentionally transferred from storage in an upstream reservoir to Wymer will not be subject to the WDC-R constraints listed above.
3. Flow arriving at the WDR intake would be measured at the UMTW Gage located 7 miles upstream of the intake (Figure 2). Achievement of WDC-R would be measured at the RBDW Gage located 11 miles downstream of the intake. The RBDW Gage is located immediately below the Roza Irrigation District diversion dam (Figure 2).
4. **Roza Hydroelectric Project Flows**
   Because diversions into the Roza Irrigation District Canal and Roza Hydroelectric Project are taken out of the Yakima River above the RBDW gage location, impacts to hydroelectric project flows should be minor.

Allocation of Water Diverted for Refill of Wymer Reservoir:

1. Water diverted to fill and refill WDR will be allocated evenly between the Prorationed Pool and the TWSA Pool. Model output will be examined to determine whether this refill approach achieves reasonable results for prorationed and non-prorationed users and whether it causes unintended problems for TWSA or other key metrics.
2. Whenever the Prorationed Pool goes unused in a given year because no drought relief was required, then the entire volume of the Prorationed Pool would remain fully available for use the following year. Whenever this occurred, the Prorationed Pool would not require refilling during the subsequent refill period. It is assumed that the natural precipitation and inflows to the reservoir would be sufficient to offset any minor Prorationed Pool losses including evaporation and seepage.

Releases from Wymer Reservoir:

1. The regulated release of water stored in the TWSA Pool and the Prorationed Pool comprising Wymer Reservoir would be returned to the Yakima River through Wymer Dam's outlet works that release directly into Lmuma Creek. Lmuma then runs about 1,000 feet to its confluence with the Yakima River.
2. Water from the TWSA Pool in Wymer Reservoir would be used to meet instream flow targets and water supply needs in place of releases from the three existing upper Yakima River reservoirs (Keechelus, Kachess and Cle Elum) and/or to improve system operations[13]. These releases would therefore lower the summer flows experienced in the upper Yakima River upstream of WDR and result in more normative flows in the Yakima River, i.e. lower summer flows and higher winter flows, as compared to what is currently experienced in the Yakima River. TWSA water can also be used for fish enhancement operations such as offsetting the

[13] Adjustments to system operations made possible by WDR could include moderation of flip-flop; moderation of KDRPP drawdown and other issues.

impact of spring pulse flows or for improving water supply and IP Recommended Flows. The TWSA Pool in Wymer Reservoir would be included in and used as part of TWSA. The net impact to TWSA in a given year is intended to be neutral or positive.

3. Under WDC-R_3 Scenario runs only: During <70% prorationing years, use a supplied dataset to control when to release existing target flows from Rimrock (rather than increased IP target flows), while holding water in Rimrock storage for TWSA use.
4. Water from the Prorationed Pool in Wymer will not be included in TWSA and will only be available to prorated users for drought relief and only if their prorationing is below 70%. In the model, Prorationed Pool water will be used to help increase the proratable water supply up to 70%. The Prorationed Pool will be available to those proratable users participating in the construction of Wymer.

5. Releases from Wymer Reservoir will be modeled as described here.
   - In combination with releases from other system reservoirs, TWSA Pool water will be released from WDR as needed to meet instream flow targets and water supply needs, while preserving upstream reservoir storage, with the goal of improving the attainment of normative flows.
   - Prorationed Pool water will be released only in years when prorationed users would otherwise receive less than the 70% prorationing goal.

Priority of Use of KDRPP Water and WDR Project Prorationed Pool Water:

1. In these scenario runs WDR water will be evaluated as being the first priority, ahead of the use of KDRPP water.

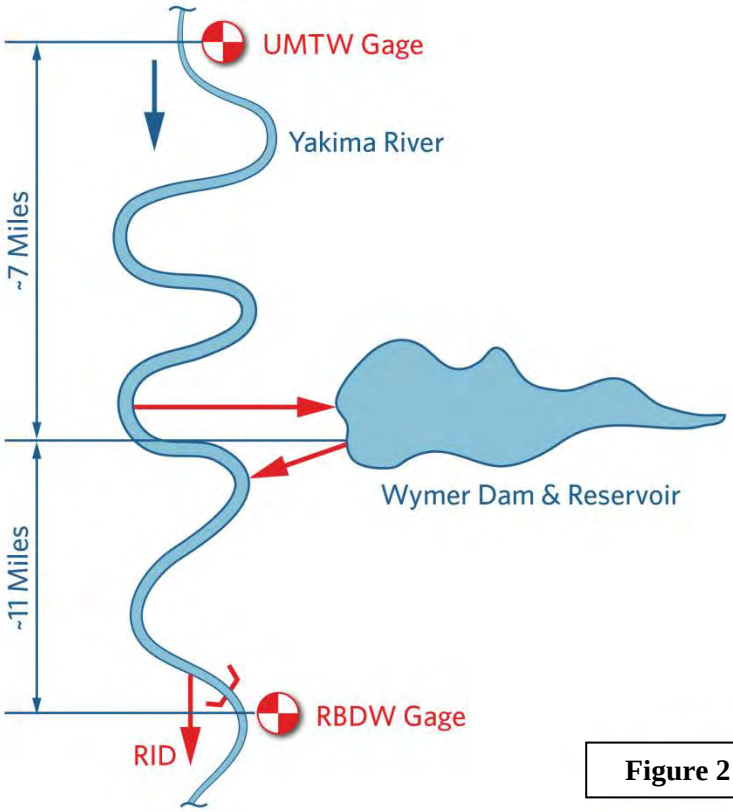


Figure 2

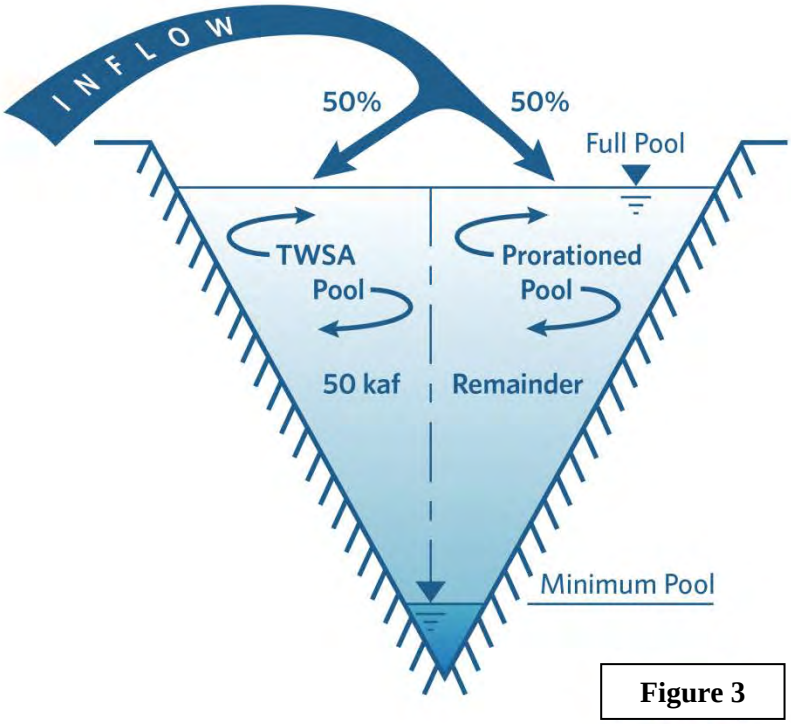


Figure 3

IP5 = Bumping Reservoir Enlargement (BRE)

Goals:

1. Increase spring outflows from the Bumping River to match a more "normative" pattern.
2. Limit prorationing to a maximum of 70% in drought years.

Items Varied:

1. Scenario IP5.1 - Increased BRE storage will be released to meet the more normative spring flows for fish as shown in Figure 5 and Option 2 in Table 7. A small amount of BRE storage (8 kAF) will be reserved from releases to meet the normative flow patterns, so that minimum instream flows can be satisfied.
2. Scenario IP5.2 - Increased BRE Pool will be used as in Scenario IP5.1 above, and also used to meet the water supply demands by participating, prorated water users in less than 70 percent prorationing years.

Operating Rules:

1. 156,000 acre-feet (the proposed additional volume of the enlarged reservoir) will be called the BRE Pool; the remainder of the reservoir (34,000 acre-feet) will be called the Existing Pool (including the existing flood control pool). The volume of the flood control pool will be a maximum of 20,000 acre-feet. This flood control space (which may be required to be held empty from November 1 to June 30, is part of the basin wide flood control space of 300 KAF from November - February 15, and a variable amount from February 16 to June 30 of up to 845 Kaf on April 6 that is distributed in all five Yakima reservoirs). The 20,000 acre-feet of maximum flood control will be maintained with the enlarged storage, and will be placed on top of the BRE Pool. The BRE Pool will be located above the Existing Pool, which varies from 0.0 to 34,000 acre-feet, depending upon storage and flood control requirements. See Figure 4 for the current and proposed location and volumes of these pools of water.
2. The Existing Pool and existing flood control pool will continue to be operated in the essentially the same way that they are currently except that the Existing Pool will be used somewhat more aggressively and up to 20,000 af will be used for the flood control pool. (Note: This is the modeling assumption. The flood control pool may be operated more efficiently in the future, as real-time forecasting improves.)
3. Under scenario IP5.2, prorationing will only make use of BRE Pool water in years when prorationing falls below 70%. The existing pool will be used for TWSA purposes as it currently is.
4. Title XII flows will not consider the expanded Bumping storage.
5. Non-prorated water supply demands will not make use of BRE Pool water, except to the extent that the more normative releases may contribute to downstream water supply needs.
6. Instream flow targets at Bumping River below Bumping Dam used in the RiverWare model will be modified to match the targets shown in Table 7, below. A maximum release target of 200 cfs will be imposed in September and early October to avoid impacts to spawning.
7. BRE will be filled during periods of the fall, winter, and spring and filling will terminate on or before the date when the Yakima system goes onto storage control, typically in late June. BRE Pool will only be refilled after the Existing Pool is filled.

8. BRE Pool will be refilled from natural flows occurring at the dam site that are in excess of flows needed to refill other reservoirs, meet instream flow requirements, and/or meet water supply demands; or that are unavailable to refill other reservoirs or supply instream flow requirements or water supply demands due to location.
9. BRE water storage will be released to meet the target outflow hydrograph shown in Figure 5. Depending upon the scenario being evaluated, BRE storage may also be released to meet participating users' demands in years when prorationing is less than 70 percent (see section IV).

Allocation of Water in BRE:

1. BRE Pool water will only be directly used in <70 percent prorationing years to meet water supply demands of participating, prorated water users, and will be used to meet enhanced instream flow targets in the Bumping River in all years.
2. Additional water in BRE Pool will not contribute to increasing the Parker minimum low flow target but will be used to provide more normative outmigration flows in the spring, as shown in Table 7, Option 2.

Priority of Use of BRE, KDRPP, and WDR Project Water:

1. Because BRE does not need to be pumped to refill, it is reasonable that it be the first source (after the existing system) used to satisfy the water supply demands and Bumping River instream flow needs described above. This is the default priority assumption.

Table 6 - Enhanced Instream Flow Targets with Wymer Dam and Reservoir

R1: Keechelus *(Yakima River Below Keechelus Dam)*					
Flow Season (Date)	Winter	Spring	Summer		Fall
			July	August	
Existing Target Flow	80 to 100	80 to 100	up to 1300 cfs	as high as 1300 cfs[2]	80 to 100
Enhanced Target Flow	>=120	>=120	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=120

R2: Easton *(Yakima 202 at Easton EASW)*				
Flow Season (Date)	Winter	Spring	Summer	Fall
				September 1 - October 31
Existing Target Flow	>= 190 to 220	>= 190 to 220	>= 190 or 220	>= 190 to 220
Enhanced Target Flow	>= 250	>= 250	>= 250	>= 250	>= 250

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*					
Flow Season (Date)	Winter	Spring	Summer		Fall
				August	
Target Flow (cfs)	>= 180 to 220	>= 180 to 220	>= 180 to 220	Decrease flow by 1,000 cfs	>= 180 to 220
Enhanced Target Flow	>= 300	>= 300	>= 300	No Change	>= 300

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*					
Flow Season (Date)	Winter	Spring	Summer		Fall
	November 1 to April 1				
Target Flow (cfs)	>= 45 to 75 cfs		45 to 75 cfs		NA
Enhanced Target Flow	125 cfs	125 cfs	125 cfs	125 cfs	125 cfs
R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*					
Flow Season (Date)	Winter	Spring	Summer		Fall
Target Flow (cfs)	300 to 450 (Wapotox water right) cfs		300 to 450 (Wapotox water right) cfs		300 to 450 (Wapotox water right) cfs
Enhanced Target Flow	No Change	No Change	>= 550 cfs (Jun 1 to Nov 1)		>= 550 cfs (Jun 1 to Nov 1)

Total Bumping Storage (ac-ft):	0	2,000	4,000	6,000	8,000	10,000	12,000	20,000	25,000	190,000
Period	**Option 1 - Minimum Release Requirement in cfs**									
January	0	60	80	120	145	160	170	180	200	200
February	0	60	80	120	145	160	170	180	200	200
March	0	60	80	120	145	160	170	180	200	200
April	0	60	90	125	145	160	170	180	200	200
May	0	60	100	130	150	170	170	180	200	200
June	0	60	100	130	150	170	170	180	200	200
July	0	60	100	130	150	170	170	180	200	200
August	0	60	90	120	130	150	170	180	200	200
September	0	60	80	120	140	160	170	180	200	200
October	0	60	80	120	145	160	170	180	200	200
November	0	60	80	120	145	160	170	180	200	200
December	0	60	80	120	145	160	170	180	200	200
Period	**Option 2 - Minimum Release Requirement in cfs**									
January	0	60	80	120	130	130	130	130	130	130
February	0	60	80	120	130	130	130	130	130	130
March	0	60	80	120	130	130	130	130	130	130
April 01	0	60	80	120	130	130	130	130	130	130
April 15	0	60	80	120	130	130	130	130	365	365
April 28	0	60	80	120	130	130	130	130	365	365
April 29	0	60	90	125	145	160	170	180	600	600
May 20	0	60	90	125	145	160	170	180	600	600
May 21	0	60	90	125	145	160	170	180	365	365
June 03	0	60	90	125	145	160	170	180	365	365
September	0	60	80	120	130	130	130	130	130	130
October	0	60	80	120	130	130	130	130	130	130
November	0	60	80	120	130	130	130	130	130	130
December	0	60	80	120	130	130	130	130	130	130

Table 7. Bumping Reservoir Enlargement – More Normative Minimum Reservoir Release Requirements to be Evaluated

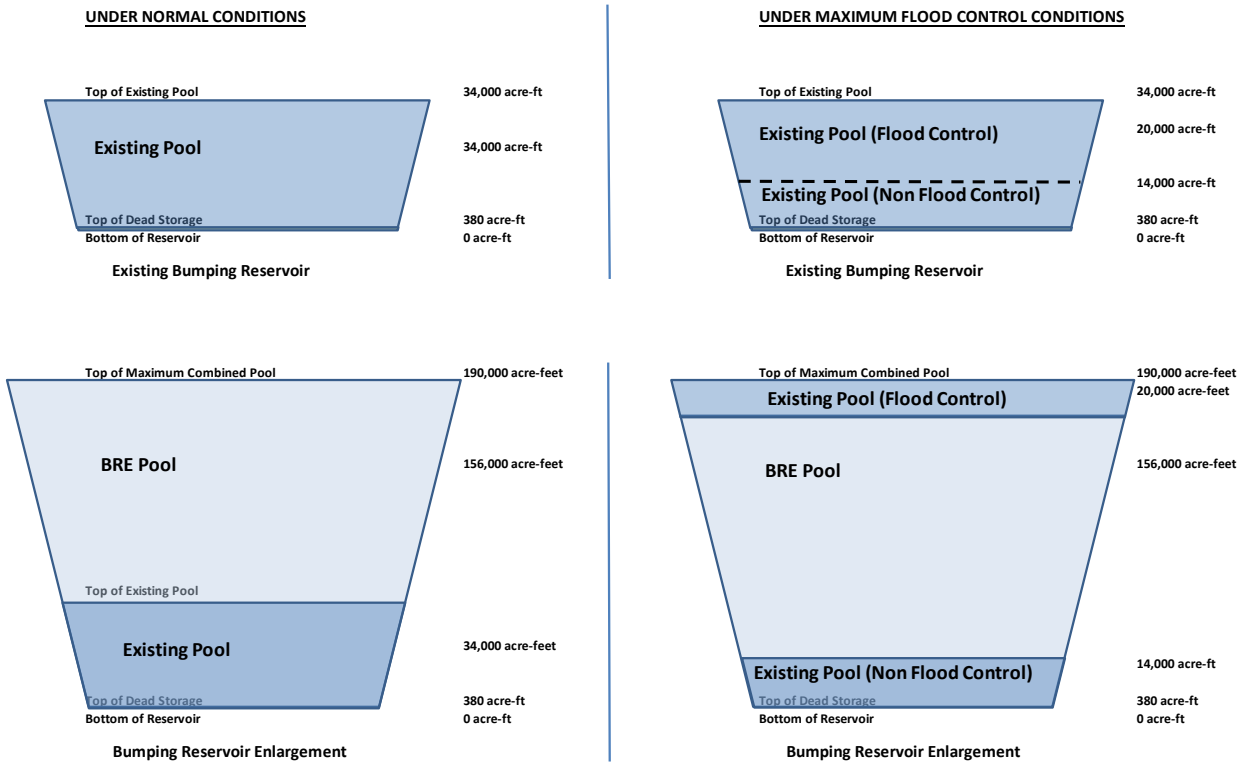


Figure 4 - Schematic Diagram of Existing and Enlarged Bumping Reservoir Storage Pools under Normal and Maximum Flood Control Conditions

Figure 5. Bumping Reservoir Enlargement – Hydrograph of More Normative Minimum Reservoir Release Requirements

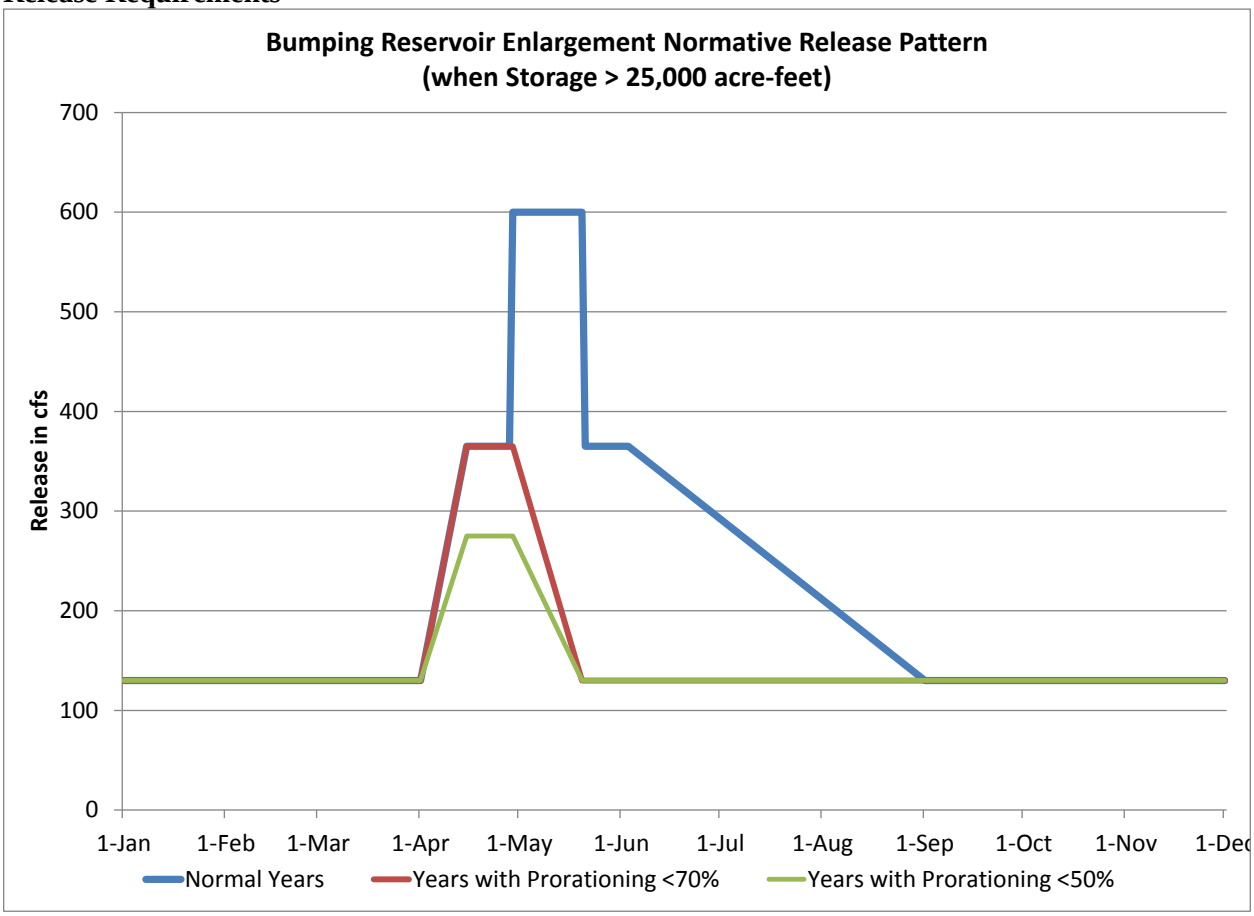


Table 8 - Enhanced Instream Flow Targets Included with Bumping Reservoir Enlargements

R15: Bumping River *(Bumping River Below Bumping Dam)*				
Flow Season (Date)	Winter	Spring	Summer	Fall
			August 1 to October 31	
Target Flow (cfs)	Varies with Bumping Storage, from 0 to 200 cfs		Reduce flows by 70-100 cfs	
Enhanced Target Flow	130 cfs, but varies with Bumping Storage, from 0 to 200 cfs. Plus test Normative Increased Minimum Release Requirements up to 600 cfs			

Appendix C
Model Scenario Results Summary Tables Under Existing Climate Conditions

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Appendix C-1 Baseline Scenario

Appendix C-2 Scenario IP0 (Baseline with IP Conservation)

Appendix C-3 Scenario IP1A (KKC Only)

Appendix C-4 Scenario IP2A (KDRPP Only)

Appendix C-5 Scenario IP2 (KKC and KDRPP)

Appendix C-6 Scenario IP3A (CEPR Only)

Appendix C-7 Scenario IP3 (KKC, KDRPP, and CEPR)

Appendix C-8 Scenario IP4 Small (KKC, KDRPP, CEPR, and WDR at 120 kaf)

Appendix C-9 Scenario IP4 Large (KKC, KDRPP, CEPR, and WDR at 162.5 kaf)

Appendix C-10 Scenario IP5.1 (KKC, KDRPP, CEPR, and BRE)

Appendix C-11 Scenario IP5.2 (KKC, KDRPP, CEPR, and BRE)

Appendix C-12 Scenario IP6 (KKC, KDRPP, CEPR, WDR, and BRE)

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Appendix C-1
Baseline Scenario

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: Baseline (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	3,030	714	1,580	1,521	88.2%	333	87	87.9%	294	70	57	13
Avg. WY 1982 to 2009	2,907	623	1,576	1,476	87.3%	311	84	87.2%	270	65	109	39
1941 (Dry Year)	1,646	235	923	842	18.6%	96	8	19.5%	116	15	0	0
1994 (Dry Year)	1,770	254	1,036	886	25.7%	91	20	26.3%	53	9	0	0
2001 (Dry Year)	1,841	195	1,156	989	39.1%	111	46	39.6%	80	26	0	0
2005 (Dry Year)	1,877	175	1,201	1,019	42.4%	136	29	45.0%	119	28	15	15

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,880	226	1,178	972	39.4%	90	11	40.1%	88	14	547	0
1927	3,103	659	1,675	1,600	100.0%	362	89	100.0%	383	75	0	0
1928	3,050	688	1,675	1,494	100.0%	278	90	100.0%	252	64	0	0
1929	2,090	219	1,366	1,107	58.6%	115	19	56.3%	80	13	91	0
1930	1,886	262	1,138	941	34.1%	92	7	34.5%	58	5	26	0
1931	1,889	274	1,141	957	37.7%	85	8	37.8%	55	6	0	0
1932	3,079	641	1,675	1,589	100.0%	353	99	100.0%	277	68	0	0
1933	3,839	1,143	1,675	2,009	100.0%	611	151	100.0%	559	127	0	0
1934	2,933	735	1,605	1,342	90.2%	184	46	89.4%	146	41	0	0
1935	3,159	675	1,675	1,633	100.0%	401	116	100.0%	327	85	0	0
1936	3,300	916	1,634	1,527	95.1%	333	102	94.1%	302	97	0	0
1937	2,935	497	1,651	1,603	100.0%	377	105	99.2%	341	99	0	0
1938	3,373	997	1,675	1,521	100.0%	292	94	100.0%	224	63	0	0
1939	2,477	319	1,564	1,356	91.7%	185	51	90.2%	153	48	99	0
1940	2,214	300	1,415	1,127	63.8%	105	12	61.7%	77	10	0	0
1941	1,646	235	923	842	18.6%	96	8	19.5%	116	15	0	0
1942	2,167	285	1,385	1,092	59.2%	99	10	57.1%	60	6	0	0
1943	3,447	965	1,675	1,708	100.0%	400	92	100.0%	323	61	0	0
1944	1,905	197	1,204	1,024	43.1%	114	17	43.1%	96	15	0	0
1945	2,331	280	1,477	1,229	71.3%	173	31	69.7%	139	24	0	0
1946	3,451	923	1,675	1,715	100.0%	443	119	100.0%	359	88	0	0
1947	3,071	680	1,675	1,540	100.0%	309	96	100.0%	285	73	0	0
1948	3,888	1,340	1,675	1,730	100.0%	464	132	100.0%	437	109	0	0
1949	4,002	1,429	1,675	1,746	100.0%	492	154	100.0%	446	131	0	0
1950	4,296	1,600	1,675	2,068	100.0%	615	147	100.0%	601	128	0	0
1951	3,794	1,323	1,675	1,627	100.0%	389	115	100.0%	359	92	0	0
1952	2,866	493	1,675	1,517	100.0%	290	95	100.0%	213	62	0	0
1953	3,054	555	1,675	1,717	100.0%	413	101	100.0%	351	74	791	0
1954	3,971	1,236	1,675	2,099	100.0%	654	148	100.0%	594	121	0	0
1955	3,425	832	1,675	1,829	100.0%	505	155	100.0%	482	138	0	0
1956	4,865	2,229	1,675	1,939	100.0%	556	137	100.0%	495	111	0	0
1957	3,203	892	1,675	1,443	100.0%	229	70	100.0%	165	40	0	0
1958	2,824	608	1,622	1,381	100.0%	193	39	99.4%	217	45	162	0
1959	3,508	886	1,675	1,797	100.0%	538	141	100.0%	558	131	0	0
1960	3,159	733	1,675	1,576	100.0%	344	109	100.0%	275	80	0	0
1961	3,580	1,114	1,675	1,620	100.0%	388	116	100.0%	341	93	0	0
1962	2,968	502	1,675	1,617	100.0%	382	113	100.0%	349	89	0	0
1963	2,670	367	1,638	1,439	95.2%	259	73	93.4%	228	69	0	0
1964	3,348	725	1,675	1,910	100.0%	542	166	100.0%	511	142	0	0
1965	3,406	934	1,675	1,628	100.0%	393	116	100.0%	328	87	0	0
1966	2,766	423	1,675	1,482	100.0%	265	81	100.0%	192	51	0	0
1967	3,037	690	1,626	1,510	94.3%	304	95	91.0%	301	97	0	0
1968	2,857	390	1,675	1,621	100.0%	387	108	100.0%	343	84	0	0
1969	3,573	1,171	1,675	1,553	100.0%	323	97	100.0%	289	72	0	0
1970	2,844	560	1,618	1,406	90.5%	244	62	89.8%	227	60	0	0
1971	3,902	1,178	1,675	2,020	100.0%	639	153	100.0%	568	126	0	0
1972	4,811	2,041	1,675	2,108	100.0%	693	153	100.0%	643	128	0	0
1973	2,279	180	1,513	1,267	75.6%	179	29	74.7%	152	24	0	0
1974	4,602	1,817	1,675	2,210	100.0%	704	150	100.0%	631	122	0	0
1975	3,884	1,253	1,675	1,929	100.0%	551	139	100.0%	487	113	0	0
1976	3,843	1,100	1,675	2,007	100.0%	664	142	100.0%	598	112	0	0
1977	1,887	181	1,205	1,022	43.2%	112	19	43.6%	91	20	0	0
1978	3,125	601	1,675	1,679	100.0%	440	110	100.0%	381	80	0	0
1979	2,380	254	1,532	1,285	77.8%	181	48	76.5%	137	36	0	0
1980	2,742	507	1,614	1,388	94.8%	216	54	94.1%	194	52	0	0
1981	2,517	271	1,592	1,384	87.1%	235	62	86.4%	256	65	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: Baseline (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,472	900	1,675	1,768	100.0%	494	137	100.0%	438	113	89	89
1983	3,410	871	1,675	1,714	100.0%	459	124	100.0%	392	97	0	0
1984	3,287	706	1,675	1,780	100.0%	499	133	100.0%	446	105	0	0
1985	2,812	443	1,675	1,498	100.0%	287	81	100.0%	223	51	0	0
1986	2,543	321	1,595	1,362	87.6%	213	54	87.1%	192	54	0	0
1987	2,345	346	1,498	1,174	70.1%	117	30	69.2%	72	17	97	97
1988	2,393	338	1,505	1,214	73.6%	142	17	72.9%	117	12	262	0
1989	2,762	485	1,638	1,407	95.2%	231	66	94.5%	210	64	0	0
1990	3,172	706	1,675	1,618	100.0%	391	111	100.0%	352	91	0	0
1991	3,045	532	1,675	1,673	100.0%	438	125	100.0%	359	94	216	216
1992	2,171	220	1,447	1,159	66.9%	131	19	67.2%	106	16	0	0
1993	2,145	280	1,381	1,101	60.8%	95	12	58.6%	65	9	0	0
1994	1,770	254	1,036	886	25.7%	91	20	26.3%	53	9	0	0
1995	2,971	592	1,675	1,532	100.0%	299	82	100.0%	302	65	1,749	667
1996	3,237	778	1,675	1,619	100.0%	396	118	100.0%	334	90	0	0
1997	4,575	1,894	1,675	1,914	100.0%	599	145	100.0%	637	134	0	0
1998	3,178	819	1,675	1,505	100.0%	287	92	100.0%	225	63	0	0
1999	4,016	1,248	1,675	2,112	100.0%	703	152	100.0%	654	124	0	0
2000	3,319	851	1,675	1,617	100.0%	391	115	100.0%	345	90	0	0
2001	1,841	195	1,156	989	39.1%	111	46	39.6%	80	26	0	0
2002	3,317	826	1,675	1,646	100.0%	410	117	100.0%	337	87	632	0
2003	2,614	388	1,601	1,370	89.5%	220	60	89.8%	197	57	0	0
2004	2,578	295	1,631	1,449	97.9%	269	66	97.3%	256	65	0	0
2005	1,877	175	1,201	1,019	42.4%	136	29	45.0%	119	28	15	15
2006	3,173	817	1,675	1,491	100.0%	274	78	100.0%	199	46	0	0
2007	2,997	642	1,675	1,493	100.0%	278	92	100.0%	223	64	0	0
2008	3,153	663	1,675	1,675	100.0%	407	113	100.0%	343	86	0	0
2009	3,230	849	1,634	1,532	96.1%	340	108	94.8%	NA	NA	0	0
Average	3,030	714	1,580	1,521	88.2%	333	87	87.9%	294	70	57	13

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: Baseline (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	28.6%	61.4%	97.6%	87.9%	17.1%
	0 -10% Above Target[1]	39.0%	21.4%	1.4%	0.3%	51.1%
	0-10% Below Target	1.7%	0.2%	0.8%	0.5%	2.3%
	> 10% Below Target	30.7%	17.0%	0.2%	11.3%	29.5%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	56.1%	73.2%	68.0%	12.1%
	0 -10% Above Target	8.2%	3.1%	4.4%	57.4%
	0-10% Below Target	7.0%	2.2%	4.3%	6.6%
	> 10% Below Target	28.7%	21.5%	23.3%	23.9%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			0.1%	
	0 -10% Above Target			2.8%	
	0-10% Below Target			3.6%	
	> 10% Below Target			93.5%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				6.3%	
	0 -10% Above Target				12.0%	
	0-10% Below Target				33.4%	
	> 10% Below Target				48.3%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				100.0%	
	0 -10% Above Target				0.0%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	12.4%	29.2%		5.9%
	0 -10% Above Target	1.1%	2.5%		1.9%
	0-10% Below Target	7.6%	3.0%		21.7%
	> 10% Below Target	78.9%	65.3%		70.5%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			41.8%	19.9%	17.4%
	0 -10% Above Target			20.0%	6.8%	1.9%
	0-10% Below Target			10.6%	5.3%	3.6%
	> 10% Below Target			27.6%	68.0%	77.1%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.6%	93.2%	87.8%
	0 -10% Above Target			0.2%	2.8%	4.3%
	0-10% Below Target			0.2%	1.7%	3.5%
	> 10% Below Target			0.0%	2.3%	4.4%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			57.8%	
	0 -10% Above Target			4.5%	
	0-10% Below Target			3.9%	
	> 10% Below Target			33.8%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.7%	93.2%	88.2%
	0 -10% Above Target			0.5%	2.4%	4.0%
	0-10% Below Target			0.8%	2.0%	2.8%
	> 10% Below Target			0.0%	2.4%	5.0%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: Baseline (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	14.9%	39.5%	96.1%		18.7%
	0 -10% Above Target	50.7%	32.9%	2.8%		51.4%
	0-10% Below Target	0.0%	0.3%	0.0%		0.6%
	> 10% Below Target	34.4%	27.3%	1.1%		29.3%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	13.5%			
	0 -10% Above Target	1.1%			
	0-10% Below Target	1.1%			
	> 10% Below Target	84.3%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	68.5%			
	0 -10% Above Target	3.9%			
	0-10% Below Target	4.2%			
	> 10% Below Target	23.4%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: Baseline

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	36.8	2.1	0.9	0.9	0.8	0.9	4.0	23.6	21.9	49.6	63.0	43.0	247.6
1927	3.9	0.9	0.9	0.9	0.8	0.9	1.4	7.1	8.1	17.9	22.8	72.7	138.4
1928	25.1	0.9	0.9	0.9	0.9	0.9	5.0	30.1	23.6	35.3	43.4	75.8	242.8
1929	32.4	2.0	2.3	2.3	1.5	1.1	13.5	13.1	13.4	27.0	53.1	51.0	212.6
1930	8.6	5.9	3.5	1.1	0.8	0.9	2.0	12.6	11.0	18.9	44.8	33.8	143.9
1931	3.8	1.9	2.7	2.0	0.8	0.9	3.5	7.2	12.0	21.6	53.8	38.7	149.0
1932	5.0	1.4	1.0	0.9	1.0	0.9	1.2	6.2	4.6	21.2	30.5	74.9	148.7
1933	34.4	0.9	0.9	0.9	0.8	0.9	7.6	25.8	26.2	34.6	23.2	73.6	229.8
1934	28.6	0.9	50.2	35.2	1.8	49.6	26.9	25.5	25.7	54.1	54.8	69.1	422.4
1935	6.2	0.9	0.9	0.9	0.8	0.9	0.9	8.5	16.9	33.5	30.8	74.9	176.3
1936	35.0	1.9	2.4	0.9	0.9	1.3	2.4	1.6	26.0	40.1	38.1	70.8	221.3
1937	8.4	2.8	1.7	1.4	0.9	0.9	2.7	11.1	10.7	28.4	33.7	70.8	173.5
1938	6.6	1.0	0.9	0.9	0.8	0.9	0.9	15.1	26.3	36.4	39.4	71.8	201.2
1939	34.4	0.9	0.9	0.9	0.8	0.9	1.8	9.2	13.9	34.8	56.8	67.4	222.8
1940	5.4	1.5	0.9	1.2	0.9	0.9	2.8	11.3	18.9	34.9	68.7	45.5	192.8
1941	5.0	2.0	1.0	1.3	1.0	0.9	2.4	11.2	8.9	14.0	40.3	27.8	115.9
1942	2.0	1.0	0.9	0.9	0.8	1.0	4.1	20.7	10.6	16.0	47.3	44.4	149.7
1943	4.4	1.1	0.9	0.9	0.8	0.9	1.3	8.9	7.4	15.1	20.8	73.0	135.6
1944	33.1	1.5	1.2	1.2	0.9	1.4	6.5	16.5	12.9	22.3	50.0	47.3	194.8
1945	6.3	1.9	1.3	0.9	0.8	1.0	4.6	9.9	12.7	21.9	36.5	60.0	157.9
1946	8.5	0.9	1.2	0.9	0.8	0.9	0.9	2.3	1.5	25.0	30.6	70.2	143.8
1947	34.5	1.5	0.9	0.9	0.8	0.9	5.0	25.7	24.4	36.3	39.3	70.9	241.2
1948	29.4	0.9	0.9	0.9	0.9	0.9	1.0	26.7	30.1	34.2	25.5	68.3	219.6
1949	29.2	1.2	0.9	0.9	0.8	0.9	3.1	32.9	36.0	23.1	17.1	69.2	215.5
1950	29.5	0.9	0.9	0.9	3.7	44.0	22.2	30.1	26.8	35.1	23.7	70.7	288.6
1951	28.1	0.9	0.9	8.1	18.5	29.2	28.0	21.8	27.5	33.5	30.5	68.3	295.7
1952	29.0	1.0	1.3	1.3	0.9	0.9	1.1	10.6	12.1	21.0	40.2	73.4	192.9
1953	35.0	2.9	3.0	1.1	0.8	0.9	5.4	9.5	11.7	24.7	29.5	73.6	198.3
1954	30.6	1.8	0.9	0.9	0.8	0.9	1.0	17.8	25.2	40.2	27.2	71.7	218.9
1955	29.9	1.1	1.0	0.9	0.8	1.0	3.2	10.9	33.6	30.8	21.2	71.0	205.5
1956	24.5	0.9	7.5	10.1	12.7	44.0	27.6	39.6	21.0	34.4	28.2	70.2	320.8
1957	29.3	1.0	0.9	0.9	0.8	0.9	21.8	27.2	29.4	46.6	46.6	69.8	275.4
1958	32.9	2.0	1.0	0.9	0.8	0.9	1.7	10.5	12.5	26.8	47.5	67.7	205.3
1959	2.9	0.9	0.9	0.9	0.8	0.9	5.6	17.1	32.1	34.1	30.2	69.9	196.4
1960	22.3	0.9	26.0	8.4	1.1	15.7	27.1	15.9	30.3	36.0	34.2	69.7	287.6
1961	33.3	1.0	1.4	1.0	0.8	0.9	11.1	19.7	35.4	31.3	33.1	70.9	239.9
1962	28.3	1.5	1.1	0.9	0.8	0.9	1.4	17.4	16.0	32.1	30.1	69.5	200.2
1963	29.5	1.2	0.9	0.9	0.8	0.9	2.1	14.4	15.1	35.3	43.6	69.0	213.9
1964	5.4	1.5	1.4	0.9	0.9	0.9	4.6	10.3	2.7	28.1	18.4	69.0	144.1
1965	30.9	1.4	0.9	0.9	0.8	25.6	31.8	12.4	30.5	30.5	32.2	71.1	269.2
1966	31.6	2.1	2.0	1.5	1.5	0.9	3.0	11.2	12.9	24.6	31.8	67.5	190.6
1967	33.0	1.5	0.9	0.9	0.8	0.9	7.6	10.2	4.3	17.9	39.5	68.0	185.6
1968	2.2	0.9	0.9	0.9	0.9	15.7	19.0	22.5	20.2	32.1	37.9	70.2	223.5
1969	28.2	0.9	0.9	0.9	1.1	0.9	0.9	14.2	37.1	39.9	40.1	69.9	235.0
1970	30.2	2.2	2.2	1.4	0.8	0.9	7.8	9.8	4.5	24.2	45.4	69.7	199.1
1971	4.3	1.7	1.9	0.9	0.8	0.9	0.9	9.5	21.1	33.4	27.8	65.8	169.1
1972	30.0	0.9	0.9	0.9	10.7	71.0	25.0	40.5	19.7	34.8	23.6	69.2	327.2
1973	29.3	1.0	1.0	0.9	0.8	2.4	12.1	29.0	23.2	40.4	61.9	62.7	264.8
1974	8.4	1.7	1.0	0.9	0.8	0.9	0.9	2.2	24.5	38.0	29.8	71.7	181.0
1975	30.8	1.6	1.0	0.9	0.8	1.6	20.0	30.7	28.7	39.6	27.2	67.5	250.3
1976	28.4	0.9	9.1	28.8	1.5	24.8	24.7	23.8	23.2	31.3	26.7	71.9	295.2
1977	31.7	1.6	1.3	0.9	0.8	3.6	9.4	35.5	18.2	48.9	51.5	40.3	243.9
1978	2.1	0.9	0.9	0.9	0.8	0.9	1.6	9.5	9.8	24.3	25.3	66.7	143.7
1979	31.7	2.8	1.8	1.8	1.4	0.9	4.8	12.1	17.3	29.7	42.5	65.2	212.2
1980	13.2	2.1	1.0	0.9	0.9	0.9	0.9	10.6	12.3	17.7	39.6	66.1	166.2
1981	5.1	1.2	0.9	0.9	0.8	0.9	3.9	11.9	8.9	37.4	62.3	70.1	204.4
1982	3.4	1.2	0.9	1.1	0.8	0.9	0.9	2.4	28.8	32.4	22.6	71.8	167.4
1983	29.1	1.0	0.9	0.9	0.8	0.9	18.7	18.9	21.4	25.7	28.7	70.0	217.2
1984	29.8	0.9	0.9	0.9	0.9	0.9	7.4	12.6	33.8	34.0	27.3	71.0	220.4
1985	31.7	1.0	1.5	2.0	2.1	0.9	3.7	7.8	11.5	46.3	46.5	72.3	227.2
1986	31.2	0.9	1.3	1.3	1.1	0.9	3.0	13.1	13.5	32.2	57.0	66.7	222.3
1987	3.6	1.0	0.9	1.4	0.9	0.9	0.9	8.7	19.5	38.5	65.6	54.5	196.4
1988	14.9	5.8	2.1	2.0	1.0	0.9	1.5	8.5	13.8	26.1	42.6	59.0	178.2
1989	7.9	0.9	0.9	0.9	0.8	0.9	1.2	7.9	9.1	23.3	39.8	69.0	162.8
1990	3.7	0.9	0.9	0.9	0.8	0.9	1.8	13.7	35.1	36.3	36.3	72.5	203.9
1991	28.6	0.9	0.9	11.7	8.1	25.0	19.8	20.7	23.7	32.4	26.5	72.0	270.3
1992	35.0	1.2	0.9	0.9	0.9	0.9	1.4	16.5	33.0	62.9	66.2	53.4	273.4
1993	5.5	0.9	0.9	1.0	0.8	0.9	1.5	9.0	15.7	29.3	61.1	45.2	171.9
1994	5.2	3.1	1.4	0.9	0.8	1.0	2.4	9.1	10.3	17.2	36.0	44.7	132.1
1995	12.4	0.9	0.9	0.9	0.8	0.9	2.1	7.0	10.3	18.8	26.5	73.8	155.4
1996	29.2	0.9	0.9	7.6	22.5	30.4	20.4	23.8	27.2	30.1	37.5	70.1	300.7
1997	30.1	0.9	0.9	0.9	0.8	27.9	31.9	36.9	31.1	37.0	25.7	71.8	296.0
1998	22.4	0.9	0.9	0.9	0.8	0.9	22.9	17.3	24.3	35.6	40.0	73.6	240.5
1999	34.8	1.3	1.0	0.9	0.8	0.9	0.9	25.1	22.3	36.3	25.4	71.9	221.6
2000	33.4	1.0	0.9	1.0	1.8	1.3	26.6	19.8	32.9	37.2	32.8	72.1	260.8
2001	31.3	1.7	2.3	2.2	1.8	1.3	7.1	8.5	15.4	28.0	52.0	48.6	200.0
2002	23.2	1.2	0.9	0.9	0.8	0.9	0.9	2.1	8.8	36.5	30.4	73.8	180.4
2003	33.8	2.6	2.6	1.8	0.8	0.9	2.9	13.2	13.9	31.5	52.1	70.6	226.8
2004	7.1	0.9	0.9	1.2	0.9	0.9	3.0	13.3	14.6	32.0	47.4	70.4	192.6
2005	5.5	0.9	0.9	1.0	0.8	1.7	7.1	19.2	17.9	31.8	55.1	49.1	191.1
2006	5.0	0.9	1.5	0.9	0.8	0.9	1.5	8.2	10.8	22.4	25.8	69.8	148.6
2007	36.6	0.9	1.2	0.9	0.8	0.9	2.4	11.1	20.0	36.3	39.4	72.7	223.4
2008	36.4	1.4	1.7	1.6	0.9	1.2	8.3	5.6	8.1	26.3	32.4	71.6	195.4
2009	33.4	0.9	1.0	0.9	0.8	0.9	1.0	6.5	31.4	37.3	37.1	67.6	219.0
Average	21.3	1.4	2.3	2.3	1.8	5.7	7.7	15.4	19.2	31.5	38.2	65.5	212.4

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	19,317	-	-	-	-	-	9,875	33,802	34,229	38,418	37,505	12,451	185,597
1927	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1928	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1929	19,317	-	-	-	-	-	9,792	46,209	46,651	53,256	50,276	15,508	241,010
1930	23	-	-	-	-	-	10,865	31,596	30,173	33,448	33,118	11,330	150,554
1931	23	-	-	-	-	-	7,837	33,215	32,971	37,048	35,746	11,998	158,838
1932	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1933	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1934	19,317	-	-	-	-	-	10,865	45,433	46,056	60,390	58,475	39,801	280,337
1935	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1936	19,317	-	-	-	-	-	8,311	46,379	47,545	61,985	61,470	41,627	286,634
1937	23	-	-	-	-	-	10,865	46,379	47,545	62,399	64,257	43,614	275,082
1938	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1939	19,317	-	-	-	-	-	10,723	38,349	45,746	60,798	59,050	40,124	274,106
1940	23	-	-	-	-	-	10,865	39,166	47,513	57,195	53,697	15,756	224,216
1941	23	-	-	-	-	-	5,212	17,879	17,859	19,402	20,282	7,751	88,409
1942	23	-	-	-	-	-	10,807	45,782	46,514	53,709	50,844	15,766	223,445
1943	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1944	19,317	-	-	-	-	-	8,581	36,465	37,031	41,986	39,447	12,375	195,202
1945	23	-	-	-	-	-	7,437	43,956	47,545	50,590	46,879	26,314	222,745
1946	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1947	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1948	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1949	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1950	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1951	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1952	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1953	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1954	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1955	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1956	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1957	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1958	19,317	-	-	-	-	-	10,865	46,379	42,723	62,399	64,116	43,642	289,441
1959	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1960	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1961	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1962	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1963	19,317	-	-	-	-	-	10,865	46,379	47,545	61,982	61,309	41,366	288,762
1964	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1965	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1966	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1967	19,317	-	-	-	-	-	10,865	46,379	47,545	61,234	59,802	40,426	285,568
1968	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1969	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1970	19,317	-	-	-	-	-	10,865	46,379	47,545	60,544	58,700	39,931	283,281
1971	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1972	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1973	19,317	-	-	-	-	-	7,203	44,585	47,545	53,405	49,763	33,999	255,817
1974	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1975	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1976	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1977	19,317	-	-	-	-	-	7,652	35,968	36,980	42,244	40,314	13,128	195,602
1978	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1979	19,317	-	-	-	-	-	7,611	45,670	47,545	54,662	50,908	34,722	260,434
1980	23	-	-	-	-	-	10,865	45,498	45,166	61,876	61,234	41,650	266,313
1981	23	-	-	-	-	-	8,235	46,379	47,545	59,239	56,673	38,567	256,661
1982	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1983	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1984	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1985	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1986	19,317	-	-	-	-	-	10,069	45,525	47,545	59,510	57,085	38,892	277,943
1987	23	-	-	-	-	-	10,862	43,943	47,545	60,682	60,190	18,738	241,983
1988	23	-	-	-	-	-	10,865	43,461	47,545	52,061	48,392	33,148	235,497
1989	23	-	-	-	-	-	10,865	46,363	47,545	62,000	61,570	41,770	270,136
1990	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1991	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1992	19,317	-	-	-	-	-	6,720	46,078	47,545	59,637	57,215	16,683	253,195
1993	23	-	-	-	-	-	9,370	43,733	47,062	54,857	52,022	16,062	223,129
1994	23	-	-	-	-	-	10,769	25,475	23,453	25,631	26,405	9,397	121,154
1995	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
1996	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1997	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1998	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
1999	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
2000	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
2001	19,317	-	-	-	-	-	7,206	33,150	33,879	38,382	37,092	12,313	181,339
2002	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
2003	19,317	-	-	-	-	-	10,865	43,730	47,545	60,232	58,521	39,927	280,137
2004	23	-	-	-	-	-	10,227	43,940	47,545	62,342	63,356	42,908	270,342
2005	23	-	-	-	-	-	7,595	35,506	36,405	41,651	40,457	13,368	175,004
2006	23	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	279,411
2007	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
2008	19,317	-	-	-	-	-	10,865	46,379	47,545	62,399	65,046	47,154	298,704
2009	19,317	-	-	-	-	-	8,433	46,379	47,545	62,152	61,947	41,905	287,677
Average	11,737	-	-	-	-	-	10,288	44,339	45,666	58,420	59,409	39,341	269,200

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	20,218	-	-	-	-	9,614	31,139	24,791	28,230	28,696	28,628	18,446	189,762
1927	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1928	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1929	20,218	-	-	-	-	9,614	23,656	33,957	41,336	41,410	39,779	25,762	235,731
1930	986	-	-	-	-	9,614	32,940	23,055	24,404	24,518	24,801	15,905	156,225
1931	986	-	-	-	-	9,614	21,381	22,709	27,034	27,520	27,089	17,393	153,727
1932	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1933	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1934	20,218	-	-	-	-	9,614	32,940	45,279	50,303	58,851	58,166	37,664	313,036
1935	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1936	20,218	-	-	-	-	9,614	33,023	45,494	51,245	58,682	57,936	38,134	314,345
1937	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,409	295,277
1938	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1939	20,218	-	-	-	-	9,614	32,925	40,744	50,270	58,792	58,106	37,755	308,423
1940	986	-	-	-	-	9,614	32,962	42,128	43,862	45,049	43,493	28,296	246,390
1941	986	-	-	-	-	9,614	25,009	11,062	13,371	13,186	14,204	9,074	96,507
1942	986	-	-	-	-	9,614	32,620	34,337	41,230	41,826	40,269	26,174	227,056
1943	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1944	20,218	-	-	-	-	9,614	18,270	24,990	30,824	31,741	30,833	19,775	186,266
1945	986	-	-	-	-	9,614	30,476	42,732	50,938	50,501	48,795	31,841	265,885
1946	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1947	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1948	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1949	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1950	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1951	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1952	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1953	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1954	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1955	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1956	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1957	20,218	-	-	-	-	9,614	32,955	45,487	51,245	58,682	57,914	38,362	314,476
1958	20,218	-	-	-	-	9,614	32,877	45,487	48,129	58,682	57,914	38,416	311,337
1959	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1960	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1961	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1962	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1963	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,942	38,084	314,212
1964	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1965	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1966	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1967	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,744	58,032	37,837	314,118
1968	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1969	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1970	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,829	58,141	37,699	314,174
1971	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1972	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1973	20,218	-	-	-	-	9,614	29,357	43,463	51,554	53,708	52,129	33,752	293,795
1974	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1975	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1976	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1977	20,218	-	-	-	-	9,614	17,744	24,834	30,844	31,947	31,080	20,027	186,309
1978	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1979	20,218	-	-	-	-	9,614	31,025	44,311	51,409	55,175	53,453	34,393	299,597
1980	986	-	-	-	-	9,614	31,794	45,206	49,365	58,686	57,939	38,140	291,730
1981	986	-	-	-	-	9,614	32,537	45,558	51,245	59,059	58,252	37,146	294,397
1982	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1983	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1984	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1985	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1986	20,218	-	-	-	-	9,614	32,781	45,049	51,245	59,016	58,261	37,312	313,496
1987	986	-	-	-	-	9,614	32,985	43,263	50,165	49,757	48,431	31,690	266,891
1988	986	-	-	-	-	9,614	32,744	42,529	51,563	52,157	50,682	33,081	273,356
1989	986	-	-	-	-	9,614	32,527	45,489	51,245	58,682	57,933	38,161	294,637
1990	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1991	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1992	20,218	-	-	-	-	9,614	26,747	38,042	47,995	47,533	46,632	30,662	267,444
1993	986	-	-	-	-	9,614	32,143	35,461	42,327	42,874	41,299	26,863	231,568
1994	986	-	-	-	-	9,614	32,372	18,260	18,384	18,205	19,244	12,186	129,251
1995	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
1996	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1997	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1998	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
1999	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
2000	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
2001	20,218	-	-	-	-	9,614	17,222	22,598	27,897	28,648	28,267	18,136	172,599
2002	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
2003	20,218	-	-	-	-	9,614	32,940	44,055	51,245	58,886	58,161	37,685	312,805
2004	986	-	-	-	-	9,614	32,996	44,769	51,245	58,682	57,914	38,350	294,558
2005	986	-	-	-	-	9,614	17,621	24,469	30,296	31,439	31,231	20,594	166,251
2006	986	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	295,230
2007	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,362	314,462
2008	20,218	-	-	-	-	9,614	32,940	45,487	51,245	58,682	57,914	38,361	314,462
2009	20,218	-	-	-	-	9,539	32,748	45,129	50,842	58,220	57,474	37,963	312,134
Average	12,663	-	-	-	-	9,613	31,635	42,209	47,944	53,942	53,168	35,011	286,184

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	25,229	-	-	-	-	6,232	45,413	70,185	67,788	73,466	69,990	48,839	407,143
1927	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1928	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1929	25,229	-	-	-	-	6,232	46,213	84,942	80,752	87,769	81,201	52,394	464,732
1930	21,815	-	-	-	-	6,232	51,572	68,948	64,005	68,767	66,142	47,605	395,086
1931	21,815	-	-	-	-	6,232	40,016	70,450	66,605	72,145	68,444	48,327	394,034
1932	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1933	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1934	25,229	-	-	-	-	6,232	51,572	99,257	101,832	113,072	103,594	59,668	560,457
1935	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1936	25,229	-	-	-	-	6,232	50,547	101,401	107,540	113,658	106,292	60,692	571,591
1937	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,711	61,806	574,081
1938	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1939	25,229	-	-	-	-	6,232	50,349	83,373	101,454	113,375	104,146	59,850	544,008
1940	21,815	-	-	-	-	6,232	51,321	85,116	83,248	91,862	84,930	53,628	478,152
1941	21,815	-	-	-	-	6,232	40,508	55,445	53,092	56,027	55,481	44,285	332,886
1942	21,815	-	-	-	-	6,232	50,350	84,303	80,651	88,237	81,690	52,595	465,874
1943	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1944	25,229	-	-	-	-	6,232	44,150	73,378	70,354	76,895	72,208	49,486	417,932
1945	21,815	-	-	-	-	6,232	48,652	95,823	90,524	97,993	90,262	55,348	506,650
1946	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1947	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1948	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1949	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1950	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1951	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1952	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1953	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1954	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1955	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1956	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1957	25,229	-	-	-	-	6,232	51,443	101,401	109,844	113,698	108,774	74,355	590,978
1958	25,229	-	-	-	-	6,232	50,172	101,401	98,093	113,698	107,710	61,879	564,415
1959	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1960	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1961	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1962	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1963	25,229	-	-	-	-	6,232	51,572	101,401	107,434	113,657	106,172	60,546	572,244
1964	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1965	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1966	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1967	25,229	-	-	-	-	6,232	51,572	101,401	108,947	113,507	104,837	60,018	571,743
1968	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1969	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1970	25,229	-	-	-	-	6,232	51,572	101,401	106,515	113,240	103,822	59,741	567,752
1971	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1972	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1973	25,229	-	-	-	-	6,232	48,249	96,795	93,398	101,600	93,612	56,413	521,528
1974	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1975	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1976	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1977	25,229	-	-	-	-	6,232	44,256	73,176	70,373	77,126	72,453	49,608	418,454
1978	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1979	25,229	-	-	-	-	6,232	48,749	98,222	94,934	103,295	94,945	56,819	528,426
1980	21,815	-	-	-	-	6,232	48,810	99,397	101,643	113,633	106,064	60,705	558,299
1981	21,815	-	-	-	-	6,232	49,412	101,316	101,871	110,722	101,643	58,975	551,986
1982	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1983	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1984	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1985	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1986	25,229	-	-	-	-	6,232	49,165	99,529	102,231	111,224	102,122	59,157	554,889
1987	21,815	-	-	-	-	6,232	50,838	95,396	89,624	97,156	89,892	55,276	506,229
1988	21,815	-	-	-	-	6,232	50,518	93,893	92,204	99,855	92,156	56,015	512,689
1989	21,815	-	-	-	-	6,232	50,469	101,366	107,945	113,659	106,362	60,771	568,619
1990	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1991	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1992	25,229	-	-	-	-	6,232	45,596	90,165	87,335	94,654	88,079	54,773	492,063
1993	21,815	-	-	-	-	6,232	45,025	82,644	81,736	89,416	82,725	52,930	462,523
1994	21,815	-	-	-	-	6,232	48,211	63,059	58,050	61,672	60,555	45,799	365,392
1995	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1996	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1997	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1998	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1999	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2000	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2001	25,229	-	-	-	-	6,232	43,367	70,298	67,458	73,414	69,628	48,687	404,314
2002	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2003	25,229	-	-	-	-	6,232	51,572	95,531	104,277	112,769	103,635	59,736	558,981
2004	21,815	-	-	-	-	6,232	50,014	95,944	108,654	113,698	107,312	61,410	565,080
2005	21,815	-	-	-	-	6,232	44,278	72,708	69,832	76,554	72,591	49,882	413,892
2006	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2007	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2008	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2009	25,229	-	-	-	-	6,232	50,687	101,401	108,497	113,681	106,659	60,848	573,235
Average	23,888	-	-	-	-	6,232	50,295	96,197	101,559	106,787	101,235	66,694	552,888

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	33,525	-	-	-	-	10,336	38,320	54,556	57,144	59,028	58,589	50,084	361,583
1927	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1928	33,525	-	-	-	-	10,336	41,916	58,487	65,846	70,909	71,222	59,701	411,941
1929	33,543	-	-	-	-	10,336	40,785	58,093	62,819	64,192	63,229	52,094	385,091
1930	24,332	-	-	-	-	10,336	42,377	54,664	55,542	57,280	56,996	49,387	350,913
1931	24,332	-	-	-	-	10,336	37,485	56,134	56,641	58,524	57,949	49,795	351,195
1932	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1933	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1934	33,525	-	-	-	-	10,336	42,377	58,839	64,489	70,423	69,968	55,860	405,816
1935	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1936	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,907	70,828	56,238	407,659
1937	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	70,979	56,654	399,034
1938	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1939	33,525	-	-	-	-	10,336	41,738	50,841	64,125	70,659	70,196	55,933	397,352
1940	24,332	-	-	-	-	10,336	42,144	52,123	63,633	65,732	64,773	52,791	375,863
1941	24,332	-	-	-	-	10,336	39,572	51,935	50,921	52,452	52,635	47,510	329,692
1942	24,332	-	-	-	-	10,336	41,349	57,572	62,752	64,368	63,432	52,207	376,349
1943	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1944	33,525	-	-	-	-	10,336	40,778	56,850	58,228	60,333	59,507	50,450	370,006
1945	24,332	-	-	-	-	10,336	40,873	58,487	64,744	68,035	66,980	53,733	387,519
1946	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1947	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1948	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1949	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1950	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1951	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1952	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1953	33,218	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,210
1954	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1955	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1956	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1957	33,525	-	-	-	-	10,336	42,228	58,487	65,846	70,909	71,222	59,701	412,253
1958	33,549	-	-	-	-	10,336	41,376	59,733	61,081	70,909	70,983	56,684	404,651
1959	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1960	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1961	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1962	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1963	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,907	70,807	56,186	407,586
1964	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1965	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1966	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1967	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,844	70,450	55,994	406,974
1968	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1969	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1970	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,509	70,057	55,890	406,142
1971	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1972	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1973	33,525	-	-	-	-	10,336	40,848	58,487	64,966	69,063	68,353	54,306	399,884
1974	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1975	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1976	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1977	33,525	-	-	-	-	10,336	40,919	56,819	58,236	60,395	59,609	50,519	370,357
1978	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1979	33,525	-	-	-	-	10,336	40,729	58,487	65,321	69,402	68,804	54,519	401,122
1980	24,332	-	-	-	-	10,336	39,968	58,794	63,166	70,907	70,793	56,243	394,538
1981	24,332	-	-	-	-	10,336	40,639	58,487	65,846	69,862	69,513	55,558	394,573
1982	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1983	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1984	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1985	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1986	33,525	-	-	-	-	10,336	41,242	57,706	65,846	69,949	69,592	55,637	403,832
1987	24,332	-	-	-	-	10,336	41,843	57,823	64,689	67,724	66,828	53,694	387,267
1988	24,332	-	-	-	-	10,336	41,499	57,495	64,847	68,605	67,765	54,097	388,974
1989	24,332	-	-	-	-	10,336	41,382	58,841	65,846	70,907	70,838	56,265	398,748
1990	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
1991	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1992	33,525	-	-	-	-	10,336	39,517	58,486	64,469	66,783	66,078	53,419	392,612
1993	24,332	-	-	-	-	10,336	38,824	55,495	63,150	64,812	63,861	52,397	373,205
1994	24,332	-	-	-	-	10,336	40,222	53,101	53,021	54,612	54,684	48,365	338,673
1995	23,249	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	401,242
1996	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1997	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1998	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
1999	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
2000	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
2001	33,525	-	-	-	-	10,336	40,580	56,279	57,002	59,015	58,439	49,999	365,174
2002	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
2003	33,525	-	-	-	-	10,336	42,377	56,028	65,846	70,324	69,985	55,887	404,307
2004	24,332	-	-	-	-	10,336	41,672	56,661	65,846	70,909	70,941	56,497	397,192
2005	24,332	-	-	-	-	10,336	41,016	56,724	58,007	60,182	59,668	50,674	360,938
2006	24,332	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	402,324
2007	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
2008	33,525	-	-	-	-	10,336	41,492	58,487	65,846	70,909	71,222	59,701	411,518
2009	33,525	-	-	-	-	10,298	41,341	58,273	65,606	70,649	70,620	56,214	406,525
Average	29,897	-	-	-	-	10,335	41,274	57,864	64,469	68,995	68,998	57,224	399,056

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	3,644	-	-	-	-	421	4,165	12,686	16,399	17,807	17,794	15,383	88,297
1927	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1928	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1929	3,644	-	-	-	-	421	3,322	13,084	16,423	18,347	18,395	15,547	89,183
1930	798	-	-	-	-	421	4,768	12,850	16,327	17,476	17,473	15,253	85,366
1931	798	-	-	-	-	421	2,862	13,084	16,384	17,713	17,667	15,334	84,263
1932	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1933	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1934	3,644	-	-	-	-	421	4,768	12,780	15,964	18,347	18,395	15,598	89,916
1935	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1936	3,644	-	-	-	-	421	4,375	13,084	16,423	18,347	18,395	15,605	90,294
1937	798	-	-	-	-	421	4,768	13,084	16,425	18,706	18,395	15,613	88,210
1938	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1939	3,644	-	-	-	-	421	4,672	10,736	15,840	18,347	18,395	15,599	87,653
1940	798	-	-	-	-	421	4,739	10,971	16,423	18,347	18,395	15,555	85,649
1941	798	-	-	-	-	421	3,391	13,084	15,796	16,518	16,585	14,836	81,429
1942	798	-	-	-	-	421	4,689	12,972	16,423	18,347	18,395	15,548	87,594
1943	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1944	3,644	-	-	-	-	421	2,708	13,084	16,418	18,035	17,975	15,435	87,719
1945	798	-	-	-	-	421	4,063	13,084	16,423	18,347	18,395	15,567	87,099
1946	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1947	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1948	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1949	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1950	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1951	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1952	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1953	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1954	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1955	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1956	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1957	3,644	-	-	-	-	421	4,761	13,084	16,425	18,950	19,461	15,860	92,606
1958	3,644	-	-	-	-	421	4,634	13,084	14,634	18,590	18,395	15,613	89,014
1959	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1960	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1961	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1962	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1963	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,604	90,686
1964	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1965	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1966	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1967	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,600	90,685
1968	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1969	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1970	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,598	90,681
1971	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1972	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1973	3,644	-	-	-	-	421	3,929	13,084	16,423	18,347	18,395	15,575	89,818
1974	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1975	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1976	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1977	3,644	-	-	-	-	421	2,694	13,084	16,418	18,046	17,995	15,443	87,745
1978	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1979	3,644	-	-	-	-	421	4,120	13,084	16,423	18,347	18,395	15,578	90,012
1980	798	-	-	-	-	421	4,523	12,803	15,651	18,347	18,395	15,605	86,543
1981	798	-	-	-	-	421	4,295	13,084	16,423	18,347	18,395	15,593	87,356
1982	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1983	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1984	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1985	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1986	3,644	-	-	-	-	421	4,576	12,908	16,423	18,347	18,395	15,594	90,308
1987	798	-	-	-	-	421	4,721	12,630	16,423	18,347	18,395	15,567	87,302
1988	798	-	-	-	-	421	4,697	12,771	16,423	18,347	18,395	15,572	87,425
1989	798	-	-	-	-	421	4,700	13,080	16,423	18,347	18,395	15,605	87,769
1990	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1991	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1992	3,644	-	-	-	-	421	3,568	13,084	16,423	18,347	18,395	15,564	89,446
1993	798	-	-	-	-	421	4,213	12,405	16,423	18,347	18,395	15,550	86,552
1994	798	-	-	-	-	421	4,475	12,916	16,063	16,947	17,002	15,036	83,658
1995	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1996	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1997	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1998	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1999	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2000	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2001	3,644	-	-	-	-	421	2,531	13,084	16,396	17,805	17,764	15,369	87,013
2002	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2003	3,644	-	-	-	-	421	4,768	12,350	16,423	18,347	18,395	15,598	89,947
2004	798	-	-	-	-	421	4,610	12,444	16,423	18,347	18,395	15,610	87,048
2005	798	-	-	-	-	421	2,676	13,084	16,416	18,015	18,007	15,460	84,876
2006	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2007	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2008	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2009	3,644	-	-	-	-	421	4,399	13,084	16,423	18,347	18,395	15,606	90,319
Average	2,526	-	-	-	-	421	4,525	12,977	16,367	18,633	18,943	15,717	90,109

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	7,393	-	-	-	-	20	10,461	13,142	13,121	11,427	13,468	12,611	81,642
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1929	7,393	-	-	-	-	20	10,523	13,571	14,230	13,127	14,194	12,849	85,906
1930	5,536	-	-	-	-	20	11,828	13,196	12,155	11,155	13,468	12,415	79,772
1931	5,536	-	-	-	-	20	9,535	13,395	13,121	11,427	13,468	12,611	79,112
1932	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	15,230	14,410	14,065	14,735	13,329	91,009
1935	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1936	7,393	-	-	-	-	20	11,360	14,763	15,644	17,070	17,346	15,376	98,971
1937	5,536	-	-	-	-	20	11,828	15,543	16,253	17,433	17,346	15,376	99,334
1938	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1939	7,393	-	-	-	-	20	11,556	12,850	14,293	14,065	14,735	13,329	88,241
1940	5,536	-	-	-	-	20	11,763	13,133	14,230	13,127	14,194	12,849	84,851
1941	5,536	-	-	-	-	20	10,114	12,454	11,508	10,903	11,990	11,798	74,324
1942	5,536	-	-	-	-	20	11,477	13,509	14,230	13,127	14,194	12,849	84,941
1943	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1944	7,393	-	-	-	-	20	10,261	13,395	13,121	12,363	13,468	12,611	82,631
1945	5,536	-	-	-	-	20	10,735	13,791	14,527	14,065	14,735	13,329	86,739
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1947	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1948	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1953	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,792	15,543	16,253	17,629	17,780	15,757	102,166
1958	7,393	-	-	-	-	20	11,440	15,543	14,554	17,362	17,346	15,376	99,032
1959	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1960	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1961	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1962	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1963	7,393	-	-	-	-	20	11,828	15,543	15,668	17,070	17,346	15,376	100,242
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1966	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1967	7,393	-	-	-	-	20	11,828	15,543	16,021	14,380	14,735	13,329	93,248
1968	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1969	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1970	7,393	-	-	-	-	20	11,828	15,438	15,174	14,065	14,735	13,329	91,981
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,729	13,791	14,527	14,065	14,735	13,329	88,589
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	9,842	13,395	13,121	12,524	13,551	12,611	82,455
1978	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1979	7,393	-	-	-	-	20	10,688	13,791	14,527	14,065	14,735	13,329	88,548
1980	5,536	-	-	-	-	20	11,039	15,252	14,979	17,070	17,346	15,376	96,618
1981	5,536	-	-	-	-	20	10,978	14,202	14,527	14,065	14,735	13,329	87,392
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1986	7,393	-	-	-	-	20	11,377	14,603	14,527	14,065	14,735	13,329	90,049
1987	5,536	-	-	-	-	20	11,615	14,828	14,527	14,065	14,735	13,329	88,655
1988	5,536	-	-	-	-	20	11,510	13,879	14,527	14,065	14,735	13,329	87,601
1989	5,536	-	-	-	-	20	11,490	15,537	15,834	17,070	17,346	15,376	98,209
1990	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1991	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1992	7,393	-	-	-	-	20	10,194	13,791	14,527	14,065	14,735	13,329	88,054
1993	5,536	-	-	-	-	20	10,440	13,289	14,230	13,127	14,194	12,849	83,683
1994	5,536	-	-	-	-	20	11,000	12,974	12,155	11,120	12,579	12,125	77,509
1995	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1996	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1997	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1998	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1999	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2000	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2001	7,393	-	-	-	-	20	9,902	13,395	13,121	11,427	13,468	12,611	81,336
2002	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2003	7,393	-	-	-	-	20	11,828	14,315	14,775	14,065	14,735	13,329	90,460
2004	5,536	-	-	-	-	20	11,562	14,456	15,644	17,070	17,346	15,376	97,009
2005	5,536	-	-	-	-	20	9,865	13,395	13,121	11,427	13,662	12,845	79,871
2006	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2007	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2008	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2009	7,393	-	-	-	-	20	11,437	15,160	15,791	17,070	17,346	15,376	99,592
Average	6,663	-	-	-	-	20	11,512	14,967	15,469	16,168	16,610	14,854	96,263

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Baseline (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	47,981	50,458	79,266
1926	87,977	94,901	113,494	132,077	110,057	69,315	27,283	9,951	10,485	26,299	36,217	50,566
1927	54,589	56,974	59,929	73,424	101,704	130,320	93,819	44,939	49,533	66,397	109,013	118,796
1928	118,796	119,176	130,324	130,628	157,253	150,389	99,793	48,984	43,597	52,370	53,017	50,975
1929	46,920	43,654	48,718	41,722	70,198	73,832	24,910	8,786	6,431	4,168	3,112	6,253
1930	8,149	27,617	40,820	71,183	74,857	59,902	17,472	9,294	7,394	10,818	14,604	12,782
1931	19,147	28,642	45,504	63,013	91,497	75,296	26,939	9,747	7,589	12,058	25,998	28,522
1932	41,648	59,048	86,334	113,094	143,600	156,945	108,305	55,217	52,744	51,289	106,670	118,796
1933	118,796	120,983	113,530	109,215	123,083	157,770	146,292	94,017	97,954	128,583	118,796	120,627
1934	118,796	130,697	134,293	156,721	154,300	123,486	71,351	26,712	23,961	41,800	69,435	84,713
1935	118,796	128,738	127,008	124,503	147,052	157,770	115,517	67,157	64,037	58,174	56,481	55,982
1936	62,443	63,488	71,877	98,381	155,159	156,764	98,390	49,398	45,897	42,219	36,854	51,742
1937	50,869	52,274	58,107	72,265	99,747	131,359	93,955	45,455	41,873	41,772	76,466	93,946
1938	102,103	101,997	105,537	123,394	155,040	155,257	98,138	48,356	43,402	33,883	44,357	64,842
1939	85,405	88,753	96,778	118,481	140,750	123,412	68,863	24,255	22,340	24,118	32,452	56,102
1940	58,376	69,094	87,015	112,296	123,877	84,410	24,670	10,185	7,418	7,952	14,181	27,053
1941	28,136	29,347	42,632	58,786	58,466	43,049	12,457	9,890	16,059	29,726	44,038	59,240
1942	60,061	61,293	65,796	86,336	80,390	71,701	36,243	11,249	9,689	8,332	26,488	42,127
1943	50,093	53,135	62,042	95,377	118,237	139,420	112,421	61,453	58,001	51,303	53,438	71,547
1944	71,125	74,730	79,873	86,732	93,767	74,698	25,577	11,336	15,478	15,582	18,660	28,254
1945	55,382	69,709	74,048	80,001	117,294	101,133	47,233	11,580	15,876	25,501	41,549	52,386
1946	61,399	63,538	70,637	92,308	149,322	156,953	120,727	66,153	64,032	68,156	72,862	105,098
1947	118,796	130,947	131,160	143,044	157,521	145,937	95,802	50,900	48,750	71,948	100,363	110,465
1948	114,309	117,768	107,517	101,700	122,602	157,770	118,992	69,662	69,371	74,927	84,305	92,672
1949	94,684	99,236	102,892	106,341	146,838	157,590	130,149	76,706	74,625	86,961	118,581	118,796
1950	118,796	124,046	98,299	94,224	113,704	157,770	147,342	97,539	94,639	110,894	118,796	118,796
1951	118,796	133,981	113,224	117,253	151,412	157,252	107,716	60,437	56,717	70,645	80,902	84,852
1952	84,408	88,346	91,128	115,247	144,947	135,374	99,390	51,923	48,571	34,623	27,886	22,911
1953	62,562	85,186	90,175	99,525	122,940	126,584	96,767	49,690	45,551	44,609	56,839	90,221
1954	100,369	105,646	109,232	104,954	128,790	157,770	147,315	99,705	100,201	103,829	118,796	118,796
1955	118,796	128,757	122,073	109,582	126,005	157,770	147,605	81,539	77,298	99,585	118,796	118,796
1956	118,760	113,915	75,456	82,984	124,215	157,770	141,401	83,648	81,297	94,873	107,834	118,796
1957	118,796	120,397	125,078	127,669	157,113	139,086	79,493	36,134	31,299	24,678	26,865	40,281
1958	47,717	61,203	67,427	88,968	122,141	103,903	50,260	11,566	11,146	25,841	71,092	106,153
1959	118,796	125,109	122,621	124,089	147,570	157,770	119,545	67,561	87,372	115,225	125,926	118,796
1960	118,796	125,382	128,997	130,885	156,254	154,868	101,986	55,142	53,045	55,763	77,552	80,693
1961	99,092	125,583	116,707	116,319	149,126	156,100	111,869	63,359	60,918	67,898	76,071	91,008
1962	113,340	123,219	125,443	144,353	141,561	135,679	96,472	56,779	54,351	61,052	87,508	106,299
1963	118,036	141,403	150,035	154,344	147,915	126,273	71,579	30,762	26,438	26,648	41,060	44,014
1964	53,789	55,346	60,181	69,164	98,414	150,802	146,942	85,122	85,494	92,375	101,252	118,796
1965	118,796	133,204	123,999	128,141	154,570	153,894	108,820	63,894	59,779	61,391	68,169	71,962
1966	75,887	75,120	80,925	106,495	130,980	121,734	76,650	33,835	29,435	30,137	38,368	66,146
1967	88,769	103,374	108,562	97,067	119,650	134,072	94,115	47,098	41,772	62,373	77,639	113,647
1968	118,796	147,477	150,167	146,665	151,418	145,961	100,274	50,996	57,980	69,481	89,574	100,447
1969	114,501	113,950	116,318	116,156	154,168	151,248	93,761	48,644	48,746	52,838	54,999	54,877
1970	61,090	64,646	74,888	79,882	108,284	113,863	71,582	31,860	30,682	33,305	46,544	49,902
1971	72,985	96,287	101,480	100,261	127,367	157,770	155,342	103,508	101,067	107,663	118,796	118,796
1972	118,796	128,092	124,567	103,451	114,343	157,770	146,064	100,060	105,473	106,110	112,832	118,796
1973	118,796	119,491	122,313	122,540	114,769	100,200	63,746	26,812	25,298	28,285	34,633	46,361
1974	84,241	91,703	82,883	80,833	105,392	157,770	155,783	111,354	109,112	106,662	110,321	118,796
1975	118,796	124,086	113,239	105,910	129,612	157,770	129,936	78,942	76,518	85,366	118,796	118,796
1976	118,796	127,376	117,025	114,103	144,171	157,770	138,011	94,297	92,642	91,633	96,814	105,714
1977	118,796	127,592	127,285	132,743	94,742	71,458	30,512	9,261	11,780	15,294	57,229	110,645
1978	114,508	119,183	128,847	134,548	146,308	138,189	93,914	51,915	55,056	53,394	59,334	67,356
1979	66,496	72,227	89,922	103,674	128,542	101,945	51,270	12,751	11,799	12,251	11,067	50,222
1980	54,632	60,431	71,098	104,511	119,905	102,499	64,689	24,322	27,036	25,392	51,024	101,988
1981	110,182	136,717	145,550	157,431	141,947	128,227	74,854	31,801	27,283	35,707	41,985	50,535
1982	68,730	104,135	119,340	113,643	140,140	157,770	123,515	72,910	73,669	79,299	86,914	104,082
1983	118,796	127,673	124,773	124,542	139,943	128,991	104,000	63,333	64,317	62,579	87,079	90,538
1984	118,796	124,907	126,986	125,093	149,432	157,770	123,792	69,985	68,072	71,732	81,878	85,670
1985	83,681	82,713	87,564	119,470	154,692	147,540	83,171	37,179	36,307	57,244	80,689	78,859
1986	81,888	100,865	127,261	139,627	145,269	118,667	62,692	18,277	17,796	19,190	52,267	56,206
1987	56,950	59,934	79,921	116,764	136,807	97,629	39,150	11,531	9,210	6,528	5,606	13,741
1988	14,242	25,190	42,373	80,737	108,519	88,168	32,952	11,073	9,650	22,535	43,440	61,020
1989	79,281	84,124	90,857	132,566	144,940	130,963	73,100	28,150	26,610	25,380	57,046	79,719
1990	103,434	119,613	125,622	139,927	157,102	157,285	108,254	55,984	52,649	73,543	128,942	118,796
1991	118,796	145,179	133,317	142,970	157,547	155,065	113,937	67,131	62,982	56,633	74,321	97,697
1992	115,140	127,969	146,351	157,770	136,706	102,147	54,544	11,219	15,427	16,180	29,725	35,430
1993	45,541	48,343	65,754	92,340	117,257	87,020	26,819	9,869	7,267	6,262	7,923	14,094
1994	27,897	30,925	48,241	79,571	89,894	74,301	34,292	11,988	10,249	17,761	32,883	53,069
1995	61,284	96,280	112,281	126,812	147,471	125,342	81,994	35,577	31,760	52,198	119,252	118,796
1996	118,673	140,534	128,726	144,426	157,354	144,915	107,918	63,249	62,122	74,509	93,570	101,193
1997	118,796	121,124	96,923	94,171	135,529	157,770	134,004	79,497	80,221	103,233	115,768	118,796
1998	118,796	124,266	128,145	128,926	157,101	145,621	98,585	50,035	45,754	42,288	65,818	91,598
1999	114,833	120,175	106,360	103,458	119,413	157,770	147,505	107,070	103,266	105,121	118,796	118,796
2000	118,358	118,808	123,206	134,349	157,275	157,358	105,819	57,609	58,245	64,300	64,040	60,460
2001	59,973	58,533	67,483	79,975	106,054	84,678	39,501	10,879	8,585	19,733	44,199	55,268
2002	74,520	82,526	91,407	119,600	151,606	157,770	117,756	66,942	62,904	58,228	58,496	57,870
2003	78,492	92,395	115,552	132,665	137,761	118,318	66,436	23,412	20,931	35,436	60,926	67,405
2004	76,817	82,318	99,495	125,399	134,101	115,547	58,585	18,982	28,706	35,929	54,534	77,165
2005	103,064	108,431	113,137	122,684	108,878	72,910	26,419	11,050	10,147	14,938	28,786	39,568
2006	59,028	65,574	68,210	90,955	126,433	126,516	79,477	33,786	30,610	21,469	68,486	73,136
2007	85,341	96,117	131,459	140,815	156,249	144,590	97,382	49,242	45,141	43,908	51,095	63,070
2008	63,252	65,991	70,240	65,507	124,146	148,439	108,464	58,807	56,267	52,413	83,772	91,082
2009	118,796	119,227	121,681	124,741	155,975	150,264	93,868	50,392	46,974	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Baseline (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	78,417	82,911	109,707
1926	122,268	133,113	155,377	180,631	175,367	161,615	112,817	50,392	11,201	21,493	32,941	50,956
1927	58,645	65,641	71,738	92,788	131,528	175,398	171,819	152,558	88,676	81,951	120,332	145,095
1928	172,214	177,171	197,192	214,266	238,524	236,399	205,229	162,422	90,119	65,479	69,818	73,111
1929	75,211	77,449	88,302	90,764	122,404	141,677	122,458	69,872	19,025	11,438	7,034	10,142
1930	12,743	31,264	49,425	81,934	93,538	97,375	83,875	39,414	6,923	6,937	12,971	15,006
1931	21,632	33,252	54,093	74,910	108,222	113,969	97,609	45,658	7,767	8,580	19,969	26,418
1932	37,329	62,034	95,061	128,364	170,403	206,893	200,894	172,482	99,176	70,893	118,139	144,551
1933	168,206	175,339	182,157	194,181	207,096	238,980	232,815	216,809	151,297	150,618	177,342	203,025
1934	203,025	220,437	217,330	238,033	237,006	219,588	167,035	113,416	45,793	55,160	82,966	101,156
1935	139,195	152,289	167,134	182,972	220,078	238,980	217,434	188,716	116,140	83,339	84,975	88,609
1936	97,544	103,519	118,160	153,863	224,374	238,422	206,248	170,616	102,264	95,943	94,666	107,162
1937	111,032	117,297	127,657	145,904	179,739	218,185	202,162	172,608	104,716	98,415	126,593	147,053
1938	159,737	164,756	174,147	206,311	237,556	237,903	204,863	166,023	94,400	61,681	71,778	90,363
1939	112,250	120,666	134,764	163,009	193,708	200,328	173,457	117,053	51,395	50,197	58,022	78,261
1940	83,529	94,776	114,018	141,525	164,662	157,905	124,813	57,000	12,074	11,176	16,567	28,752
1941	33,944	37,506	53,731	74,625	80,769	79,952	67,753	29,404	8,207	18,378	32,996	50,755
1942	55,632	60,594	68,897	92,386	98,940	108,620	98,032	52,332	9,553	7,313	22,240	39,367
1943	51,259	58,499	71,165	110,896	146,647	182,571	183,686	164,388	92,243	61,075	64,922	81,429
1944	85,089	91,876	101,712	116,114	129,153	130,124	110,074	60,947	17,278	15,038	19,566	29,694
1945	56,176	71,965	81,343	93,558	131,358	140,845	122,751	86,726	30,759	30,244	45,385	57,829
1946	71,250	77,051	87,542	115,456	181,006	224,502	216,297	187,887	118,747	94,773	103,346	137,053
1947	157,901	173,668	196,891	225,587	238,771	233,193	201,886	164,420	96,198	88,546	115,866	129,486
1948	138,658	147,962	156,187	173,775	207,090	238,980	219,445	197,255	131,874	109,641	121,793	135,139
1949	140,933	151,494	162,090	191,528	232,310	238,893	234,095	221,078	153,613	137,097	167,553	189,603
1950	202,191	208,267	184,104	180,343	198,325	238,980	233,613	215,998	147,424	135,056	162,493	193,473
1951	203,025	216,491	197,882	201,601	234,242	238,653	211,369	181,786	115,483	100,487	114,193	123,233
1952	127,870	134,980	141,914	170,114	204,339	216,850	204,665	166,038	94,546	60,405	59,113	59,722
1953	93,963	120,568	131,155	148,759	180,820	203,127	197,497	171,847	100,872	74,759	85,678	117,571
1954	134,547	144,736	153,773	175,965	213,161	238,980	233,654	215,295	148,088	124,280	141,077	149,497
1955	156,129	169,364	177,060	186,320	211,998	238,980	238,607	223,431	154,791	150,047	186,886	203,025
1956	203,025	197,459	163,019	169,968	207,600	238,980	229,455	204,837	136,994	120,641	133,110	182,346
1957	189,592	196,027	205,653	211,216	238,395	229,020	185,666	139,596	70,353	40,756	45,306	60,513
1958	70,663	87,111	98,619	123,495	167,614	173,427	150,167	103,371	39,094	49,070	89,806	125,873
1959	152,329	162,206	178,176	207,910	231,111	238,980	218,945	192,464	141,229	147,761	199,171	203,025
1960	203,025	212,844	212,442	215,541	237,332	237,829	208,467	176,492	108,843	84,123	105,352	112,299
1961	132,057	160,316	179,622	200,739	231,386	238,275	215,821	184,076	115,617	96,342	105,945	122,063
1962	148,591	164,527	171,857	207,673	218,932	230,108	207,426	180,025	113,064	92,522	119,201	139,971
1963	153,908	177,631	191,406	206,347	218,375	216,350	183,731	140,530	73,229	71,319	82,851	90,749
1964	106,077	112,573	123,287	139,837	173,862	233,257	238,679	229,646	165,947	143,522	153,139	175,440
1965	197,110	218,191	207,828	211,651	237,426	237,075	213,934	185,075	116,114	88,569	96,360	102,588
1966	110,366	113,942	122,910	151,299	183,409	194,729	178,398	147,294	80,747	53,837	62,204	89,364
1967	113,775	131,404	141,819	143,577	172,785	209,390	200,252	161,836	94,799	112,883	130,076	164,910
1968	195,639	227,451	233,656	228,738	233,685	234,053	206,244	171,138	107,772	91,614	112,311	130,426
1969	147,098	151,727	160,165	187,656	235,676	235,587	202,133	163,489	97,140	72,012	75,976	80,024
1970	88,797	96,034	108,772	122,123	155,212	190,463	174,108	129,067	61,958	61,768	73,256	79,762
1971	104,740	130,066	139,847	154,547	211,157	238,980	237,740	216,100	153,481	130,598	144,392	155,346
1972	174,734	194,978	170,868	167,113	198,915	238,980	233,328	216,788	153,383	128,711	136,668	164,251
1973	181,015	185,539	192,827	197,102	195,027	187,336	150,758	90,554	29,382	25,843	34,273	47,831
1974	83,378	96,510	110,429	137,700	182,724	238,980	238,030	217,869	150,279	121,814	128,071	151,777
1975	178,668	188,906	197,896	191,130	213,298	238,980	224,425	203,906	139,016	120,554	149,271	203,025
1976	203,025	216,911	201,391	198,693	227,915	238,980	228,989	211,863	141,510	111,984	117,973	128,931
1977	143,885	154,882	162,305	174,623	156,968	152,562	105,246	56,020	18,887	22,558	57,068	113,205
1978	121,936	128,854	149,321	172,172	195,321	212,861	195,538	172,387	109,682	78,835	84,838	93,663
1979	97,872	106,784	126,373	144,011	175,268	179,019	153,404	111,196	47,831	37,153	38,530	73,936
1980	81,076	88,566	102,827	137,040	162,347	168,315	156,022	118,652	53,976	52,923	73,573	124,760
1981	139,067	163,191	175,878	196,792	207,497	218,004	187,572	128,040	61,677	67,546	74,807	85,099
1982	102,856	137,114	157,066	174,681	220,846	238,980	223,038	204,620	137,051	116,328	123,476	139,407
1983	167,672	180,757	204,749	208,329	227,033	228,032	213,681	189,106	124,170	97,465	119,306	127,416
1984	167,440	179,681	198,886	208,830	231,315	238,980	222,397	200,617	133,276	108,237	118,819	126,801
1985	129,953	132,813	142,062	175,791	214,284	232,845	194,227	149,203	80,717	66,244	90,750	94,640
1986	101,628	122,364	152,234	171,849	190,982	195,246	170,665	117,840	53,899	54,394	80,699	88,034
1987	93,482	99,746	120,395	155,739	186,154	181,637	145,528	83,280	30,343	16,175	13,060	20,023
1988	23,632	35,938	56,901	95,676	126,224	134,127	114,247	73,191	17,459	21,140	43,371	61,404
1989	81,134	90,013	99,916	139,183	168,444	185,230	168,961	132,870	65,639	64,753	87,133	109,852
1990	133,591	152,278	169,165	215,885	238,321	238,697	213,219	179,724	110,996	104,449	175,324	193,810
1991	203,025	227,068	216,429	226,257	238,795	238,176	217,966	194,417	124,697	92,299	107,658	131,484
1992	149,830	166,045	187,066	210,766	214,227	187,838	130,000	67,450	18,813	16,663	28,755	36,843
1993	46,971	52,496	69,723	95,759	134,349	133,876	113,954	56,012	12,275	8,511	9,359	14,619
1994	28,624	35,699	54,643	86,313	107,193	110,388	97,702	63,132	19,817	16,188	29,180	49,911
1995	61,579	97,121	117,456	138,457	175,270	183,240	170,192	149,108	82,314	74,884	149,829	176,019
1996	203,025	223,091	212,192	228,962	238,612	234,125	216,593	184,073	117,601	98,094	117,827	131,334
1997	150,651	169,958	174,275	180,294	218,656	238,980	226,743	206,784	144,505	145,969	162,412	172,663
1998	185,035	194,556	211,457	212,376	238,384	233,101	202,018	163,122	92,215	62,906	82,347	107,241
1999	135,956	148,421	159,466	182,385	203,594	238,980	233,882	217,649	152,166	125,358	152,431	186,960
2000	196,361	200,682	209,071	217,841	238,545	238,691	209,400	178,055	114,596	92,683	96,232	98,254
2001	101,165	103,413	115,121	131,009	158,845	159,305	134,152	89,469	46,425	33,510	56,300	70,292
2002	92,455	103,432	116,579	151,009	196,817	238,980	217,675	188,139	117,288	85,689	88,449	91,513
2003	111,505	128,902	156,227	177,691	193,706	198,381	173,714	125,915	60,275	67,856	92,685	103,784
2004	115,082	124,209	145,134	173,948	192,919	194,162	164,241	123,247	65,987	71,295	88,629	111,568
2005	138,785	148,063	156,597	168,506	164,199	151,697	123,733	73,989	28,774	30,128	42,675	54,287
2006	77,129	87,215	93,912	118,872	162,069	185,267	169,207	144,500	78,000	45,190	90,427	101,470
2007	118,200	133,213	174,310	200,197	229,082	232,431	201,037	162,681	92,409	66,540	75,036	91,419
2008	97,332	104,891	114,206	118,876	179,125	215,860	206,868	178,798	113,246	86,160	114,172	125,193
2009	158,513	163,358	171,221	192,242	237,344	235,019	202,427	168,247	107,820	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Baseline (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	113,799	113,229	158,699
1926	177,388	187,186	233,903	317,121	334,975	247,059	129,867	28,691	19,919	51,361	73,218	108,281
1927	116,783	119,701	124,768	176,340	305,352	436,950	354,504	165,655	154,823	198,933	273,487	310,998
1928	314,194	319,501	349,487	351,642	435,244	429,815	297,228	114,902	91,787	107,016	108,926	107,491
1929	102,769	97,381	109,420	112,838	232,325	302,269	187,835	51,608	34,463	29,775	24,073	22,501
1930	18,240	43,909	78,880	178,901	236,578	234,229	130,031	27,136	15,732	18,936	24,572	22,795
1931	31,978	51,770	83,910	134,591	259,956	253,734	140,946	28,701	18,629	21,428	45,459	49,115
1932	71,289	131,269	214,637	298,665	430,750	436,950	339,241	158,587	138,284	134,737	233,523	284,536
1933	310,998	312,775	314,282	314,282	325,757	436,950	422,350	288,970	282,672	357,224	344,672	376,763
1934	352,788	372,796	382,845	433,526	436,792	355,179	209,275	60,461	44,236	68,259	142,024	169,964
1935	248,244	282,882	305,843	329,530	430,064	436,950	352,272	166,703	149,972	140,521	135,084	130,060
1936	132,188	129,735	144,765	245,760	428,478	434,737	313,603	130,518	109,762	103,411	94,773	103,015
1937	99,511	98,356	108,883	145,312	284,637	436,950	343,943	165,060	144,065	142,760	186,127	219,365
1938	236,173	237,576	248,079	325,853	431,856	436,950	318,929	131,902	102,964	89,109	96,603	120,652
1939	151,906	158,047	180,271	262,014	393,176	381,351	228,593	70,991	50,660	50,542	66,070	109,675
1940	116,162	129,608	166,876	248,117	365,373	317,111	167,660	38,293	20,036	25,179	31,036	52,001
1941	55,680	57,115	96,675	169,425	213,507	186,507	87,274	18,896	28,012	55,088	88,876	130,204
1942	133,818	135,988	145,249	214,485	278,094	294,289	159,398	35,865	23,623	17,021	34,846	59,998
1943	79,544	87,746	107,419	215,014	342,910	436,950	382,160	208,046	185,146	172,697	171,427	197,153
1944	195,076	198,193	212,302	247,679	316,874	304,726	171,167	42,556	40,576	44,003	50,866	69,854
1945	120,933	151,233	162,374	183,526	333,678	355,346	208,136	56,858	52,017	60,610	82,847	96,284
1946	112,930	116,474	128,020	199,590	414,313	436,950	373,315	205,433	185,217	190,616	198,117	254,501
1947	280,589	310,096	351,332	390,400	436,109	422,458	291,185	116,868	101,062	154,074	207,866	230,523
1948	238,779	245,213	252,388	257,174	346,197	436,950	367,413	209,427	189,181	200,129	211,817	225,500
1949	224,424	231,301	247,199	270,759	413,350	436,148	376,180	206,496	190,768	210,040	288,925	310,998
1950	310,998	317,470	304,379	289,626	294,547	436,950	422,798	303,886	287,743	320,594	322,915	322,915
1951	322,915	380,148	335,933	333,939	427,021	436,950	341,330	161,200	140,807	167,590	190,749	201,461
1952	201,245	205,904	210,956	286,668	420,017	422,563	295,603	119,134	95,728	73,767	66,002	60,789
1953	110,860	163,508	178,356	214,043	349,170	436,950	373,945	218,778	199,216	196,227	213,435	261,628
1954	281,264	290,801	299,350	299,325	350,219	436,950	421,937	315,145	307,529	314,007	314,162	314,162
1955	314,162	329,380	331,115	292,030	373,443	392,907	366,309	213,610	199,804	231,775	310,998	310,998
1956	310,998	311,082	263,340	257,772	332,746	436,950	411,025	275,170	259,325	284,157	306,804	318,931
1957	318,490	321,344	334,030	339,666	434,793	404,151	259,988	97,775	75,487	64,723	66,115	79,615
1958	87,159	105,165	128,887	176,706	378,416	427,484	260,682	85,340	73,236	96,452	172,730	250,524
1959	300,144	315,681	330,619	332,340	429,727	436,950	369,341	188,747	207,377	274,265	349,554	348,490
1960	330,024	336,820	344,803	359,583	435,982	434,809	318,208	136,521	116,661	116,282	143,791	148,446
1961	179,156	228,273	265,524	302,995	413,729	435,806	337,528	152,461	138,123	149,875	158,521	175,632
1962	233,082	261,156	268,112	361,338	427,451	436,950	335,008	159,295	137,775	149,867	214,318	250,809
1963	271,780	321,715	345,805	375,452	436,950	401,154	256,332	95,944	76,453	74,560	88,717	97,561
1964	117,231	120,949	127,781	156,966	262,681	393,823	357,559	226,126	216,318	228,915	236,827	272,525
1965	302,709	337,230	349,070	347,056	433,743	429,906	325,851	154,752	135,766	136,585	153,414	160,116
1966	163,725	162,204	172,072	241,459	374,645	404,883	290,729	111,738	88,372	89,486	98,221	150,264
1967	181,660	206,553	215,583	207,823	323,281	364,981	271,182	108,945	91,334	136,434	181,871	247,158
1968	310,998	371,016	409,110	411,912	436,950	418,443	280,777	133,911	130,637	150,503	192,513	215,099
1969	246,181	247,964	257,312	302,470	425,278	424,101	299,906	122,268	103,166	113,402	121,488	122,988
1970	127,787	131,698	146,319	165,511	288,539	352,178	233,516	77,816	66,602	67,720	81,264	89,145
1971	125,360	178,121	191,915	226,066	342,583	436,950	434,871	306,028	293,330	300,238	310,998	310,998
1972	310,998	348,582	311,861	276,495	316,300	436,950	424,610	316,120	312,151	317,516	317,779	317,439
1973	317,439	321,235	326,187	337,739	373,861	324,119	177,086	47,244	36,312	43,799	59,318	79,440
1974	149,023	166,721	187,670	190,717	267,694	436,950	436,950	334,437	326,900	321,744	319,894	319,821
1975	319,821	328,697	325,688	313,081	346,056	436,950	389,786	272,981	258,295	270,089	310,998	349,291
1976	344,182	361,952	341,974	334,024	407,392	436,950	416,564	330,191	319,750	319,616	319,515	319,373
1977	319,138	334,347	334,435	357,820	315,887	255,303	140,948	36,397	34,822	38,721	99,835	218,499
1978	228,536	236,265	282,306	342,314	435,206	436,950	333,240	168,113	165,627	163,933	179,055	183,689
1979	180,980	183,206	218,466	251,352	385,519	351,104	210,561	63,253	49,875	49,121	50,032	128,814
1980	136,485	144,543	169,206	256,551	379,437	398,976	232,948	71,326	57,934	57,708	98,173	223,801
1981	257,555	303,436	328,807	373,497	422,903	358,014	220,716	77,861	69,019	82,580	97,386	107,091
1982	127,166	193,379	229,206	264,860	386,588	436,950	376,363	204,072	191,342	202,501	209,539	238,936
1983	290,014	309,558	342,598	342,598	431,001	436,950	353,948	185,217	176,897	172,474	213,424	219,876
1984	304,040	323,328	342,947	342,947	412,202	436,950	381,244	215,330	202,492	207,834	220,900	225,844
1985	222,345	220,333	227,143	302,082	429,708	418,058	281,287	110,100	93,331	118,377	161,329	157,830
1986	165,031	204,925	270,431	318,500	399,970	389,535	231,316	72,629	58,096	59,087	106,076	117,363
1987	119,541	122,939	166,767	251,558	376,712	322,029	182,563	46,148	28,986	21,494	16,609	23,833
1988	22,570	34,053	67,314	171,920	289,777	310,215	200,851	62,071	48,829	75,947	121,286	154,359
1989	183,520	195,241	207,360	303,640	400,996	405,429	258,003	90,929	70,787	68,490	118,029	171,504
1990	201,989	225,158	253,743	381,456	435,642	436,950	339,884	174,686	156,527	196,121	356,790	339,971
1991	334,998	395,621	377,133	405,418	436,193	436,950	365,890	197,985	178,389	167,439	188,137	223,004
1992	247,921	277,945	333,682	403,973	420,934	303,095	160,780	36,162	29,284	29,719	45,168	52,349
1993	64,183	71,719	100,112	154,074	313,228	293,238	160,684	37,469	20,591	15,491	13,176	15,072
1994	27,048	31,799	69,161	160,237	264,576	247,798	150,121	39,828	28,392	28,481	45,351	77,900
1995	92,374	181,506	224,725	276,018	434,439	434,928	312,491	133,425	113,445	151,948	344,492	343,248
1996	340,550	399,320	370,857	395,668	435,961	429,852	312,782	143,933	128,431	135,715	169,330	187,195
1997	215,864	249,993	266,348	266,138	360,726	436,950	401,873	265,385	264,718	320,891	329,626	326,295
1998	325,843	334,561	346,546	346,546	434,754	421,609	288,732	115,105	89,031	82,221	108,540	146,055
1999	199,920	212,565	224,625	261,445	312,990	436,950	435,549	340,795	326,755	331,237	337,180	336,829
2000	327,529	327,749	334,114	360,932	435,316	436,830	331,307	143,381	129,534	139,708	138,040	132,383
2001	128,993	124,167	138,300	165,910	261,333	233,327	131,874	38,819	25,816	30,818	85,320	106,586
2002	150,442	167,312	186,935	263,767	396,682	436,950	360,445	175,443	154,051	144,695	145,943	146,591
2003	176,536	211,292	259,264	314,657	401,912	409,111	244,203	84,505	69,892	104,095	158,306	179,877
2004	192,442	206,829	250,837	331,698	427,346	389,844	226,833	80,824	91,078	104,006	144,616	198,401
2005	273,702	292,372	308,699	340,158	365,376	268,697	139,622	34,169	20,858	30,915	47,965	70,429
2006	110,866	123,535	130,245	187,793	360,004	436,950	315,428	134,020	108,659	89,701	201,539	214,358
2007	239,688	263,624	351,909	383,244	436,374	414,064	285,115	114,894	89,166	89,198	101,022	137,809
2008	140,225	143,684	153,369	157,335	344,221	436,950	347,747	188,850	167,272	164,123	236,605	251,975
2009	310,998	314,223	319,052	330,377	431,113	423,401	299,780	123,588	104,468	NA	NA	NA

Baseline (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,976	2,060	7,874
1926	11,266	11,666	15,597	33,968	33,970	31,589	26,641	18,928	13,741	14,862	15,000	15,000
1927	14,993	15,244	14,222	15,701	27,188	33,970	31,248	20,637	16,859	14,978	15,222	15,000
1928	15,126	14,446	15,000	15,000	36,004	33,970	29,848	20,482	17,068	13,484	10,807	6,647
1929	2,063	1,715	2,133	3,517	32,688	33,970	30,178	20,606	14,942	8,937	2,626	2,246
1930	1,465	8,242	8,517	29,484	33,970	33,970	29,200	18,086	12,615	5,991	2,110	1,591
1931	5,268	7,501	9,832	20,304	33,970	33,970	29,369	18,769	12,379	6,877	7,324	4,904
1932	4,749	10,116	15,000	15,000	32,049	33,970	31,457	20,764	17,141	11,280	15,887	14,949
1933	14,981	13,221	11,075	15,000	15,858	34,845	33,907	21,323	17,539	15,910	15,026	30,521
1934	17,174	19,238	18,845	32,908	33,929	33,970	29,848	20,335	15,619	16,548	15,782	15,000
1935	15,267	18,999	15,008	15,000	31,837	33,970	30,431	20,693	17,246	12,696	7,978	3,168
1936	1,882	1,891	2,121	15,000	32,559	33,970	30,039	20,522	17,168	11,998	6,094	3,730
1937	1,654	1,705	2,070	7,108	28,604	34,373	31,667	20,677	15,572	11,016	15,191	15,161
1938	15,085	14,315	12,440	16,779	35,599	33,970	30,039	20,379	14,984	10,393	5,854	6,504
1939	6,703	3,711	4,281	21,402	34,001	33,970	29,848	20,525	15,845	9,166	3,971	13,034
1940	14,423	17,184	21,730	33,491	33,964	33,970	29,848	20,335	14,102	9,176	6,941	9,904
1941	7,456	4,986	7,008	20,373	33,970	33,754	26,054	13,151	8,107	4,539	8,076	15,000
1942	13,823	8,466	5,051	17,948	33,964	33,970	29,848	20,484	16,225	9,986	15,000	15,000
1943	14,959	13,874	14,457	16,269	23,426	34,049	32,698	20,937	16,716	11,096	6,838	10,339
1944	5,323	3,092	3,680	8,957	32,281	33,970	29,618	19,476	13,978	7,975	2,988	2,134
1945	11,402	17,880	14,706	14,910	34,193	33,970	29,848	20,468	17,176	11,452	10,374	10,674
1946	14,431	10,364	8,036	15,000	26,962	33,970	32,698	21,031	15,819	14,590	15,000	15,244
1947	15,000	18,298	15,000	22,334	33,708	33,970	29,848	20,561	16,874	16,119	15,139	15,000
1948	13,614	14,041	14,791	15,000	27,909	33,970	31,457	20,722	17,107	13,027	11,956	11,900
1949	7,075	4,450	8,197	15,000	29,806	33,970	30,431	20,562	16,870	15,000	21,003	15,000
1950	15,000	15,057	15,000	15,000	16,965	36,010	33,907	21,863	17,850	15,603	15,995	17,754
1951	15,338	16,118	14,560	15,028	30,895	33,970	30,835	20,664	16,014	15,178	15,000	14,441
1952	10,297	10,301	7,480	15,953	33,457	33,970	29,848	20,367	15,224	8,947	3,055	1,711
1953	15,153	18,566	13,369	15,000	31,053	33,970	33,079	21,043	15,993	11,497	11,398	15,000
1954	15,000	14,312	14,954	15,000	20,233	33,970	33,970	22,316	18,003	15,081	15,000	14,935
1955	13,043	10,281	6,026	3,139	15,000	33,970	29,848	20,538	17,333	15,740	15,562	15,448
1956	15,000	13,483	11,325	15,224	35,188	35,796	33,907	21,264	17,333	15,015	14,965	15,237
1957	12,360	10,631	13,389	15,066	33,462	33,970	29,848	20,420	15,259	10,603	6,459	5,766
1958	7,498	10,215	11,309	15,000	42,875	33,970	29,848	20,432	15,680	10,859	15,268	16,050
1959	15,444	15,289	14,290	15,809	31,733	33,970	31,457	20,672	17,627	15,671	17,332	15,394
1960	15,000	16,778	15,000	17,161	33,669	33,970	29,848	20,459	15,573	10,842	15,000	14,780
1961	15,000	16,330	15,030	15,030	26,781	33,970	30,039	20,615	16,481	13,424	11,052	15,000
1962	14,977	15,326	13,046	22,047	33,673	33,970	30,431	20,542	16,208	14,112	16,758	15,197
1963	14,396	23,611	23,288	27,379	33,970	33,970	29,848	20,434	15,248	9,917	9,898	11,335
1964	15,000	12,718	8,936	9,427	16,019	33,970	29,848	20,645	17,048	13,728	14,286	15,640
1965	15,427	17,243	14,923	17,336	32,975	33,970	29,848	20,459	16,008	11,174	8,935	6,469
1966	3,214	1,947	2,373	15,661	33,638	33,970	29,848	20,436	15,866	10,350	9,083	15,000
1967	15,000	16,001	14,241	12,978	26,496	35,285	29,848	20,426	15,937	15,509	15,000	15,000
1968	15,107	24,551	24,036	27,540	33,969	33,970	29,848	20,666	17,300	15,205	15,418	14,674
1969	14,565	11,819	9,474	15,000	30,763	33,970	29,848	20,393	16,931	13,643	12,266	7,927
1970	11,090	11,047	12,407	14,785	31,316	33,970	29,848	20,394	15,649	10,233	10,783	14,360
1971	15,000	15,629	14,671	15,000	21,526	33,970	33,970	22,373	17,850	14,835	14,597	12,453
1972	12,217	16,435	16,126	15,201	27,994	34,595	33,964	22,324	18,263	13,674	13,069	16,310
1973	15,020	13,726	10,894	13,903	33,970	33,970	29,848	20,370	15,233	9,858	15,000	15,000
1974	16,852	14,835	15,000	15,000	16,788	45,682	33,970	24,065	18,883	14,159	12,380	15,000
1975	15,000	15,000	14,586	14,091	18,220	33,970	33,079	21,218	17,311	15,000	15,000	15,863
1976	15,488	15,529	13,337	15,000	28,976	33,970	33,727	22,632	18,332	13,378	7,554	2,987
1977	2,469	2,305	1,961	8,970	18,857	28,180	24,446	15,000	11,878	7,592	15,513	15,289
1978	14,107	12,627	15,000	16,450	33,428	33,970	30,632	20,668	17,331	13,142	8,828	3,970
1979	1,828	2,168	7,123	9,779	33,957	33,970	29,848	20,526	15,724	11,400	6,005	15,625
1980	15,032	18,401	14,716	23,379	33,680	33,970	29,848	20,511	16,932	11,879	15,000	32,975
1981	15,255	26,651	27,904	33,899	33,970	33,970	29,848	20,457	16,613	12,664	12,204	14,999
1982	13,330	20,225	15,091	15,000	23,271	35,701	31,248	20,622	17,333	15,091	13,137	15,025
1983	15,056	16,238	15,200	15,000	36,217	33,970	29,848	20,519	17,333	12,147	14,951	14,633
1984	15,243	17,420	15,053	15,048	30,552	33,970	31,877	20,743	15,987	11,886	8,673	3,873
1985	1,824	1,864	2,098	14,939	33,748	33,970	29,848	20,363	16,772	15,035	14,654	9,282
1986	10,581	19,923	18,420	32,068	36,661	33,970	29,848	20,388	16,600	11,849	15,726	14,070
1987	11,642	12,247	15,102	33,011	33,945	33,970	29,848	20,343	14,765	8,687	2,318	2,712
1988	2,506	2,349	5,871	23,041	33,790	33,970	29,848	20,352	15,476	10,913	14,961	15,000
1989	14,812	13,091	13,671	22,747	33,746	33,970	29,848	20,438	15,991	10,141	11,559	14,857
1990	15,115	16,361	15,000	19,623	33,563	33,970	30,431	20,617	16,919	15,401	24,332	15,000
1991	15,000	22,689	14,938	19,904	33,734	33,970	31,041	20,720	15,990	10,010	11,480	13,576
1992	14,184	17,518	27,436	33,965	33,970	31,215	26,079	20,335	14,916	8,165	3,803	1,759
1993	2,872	1,866	7,096	15,048	33,948	33,970	28,456	20,372	14,799	8,629	2,338	1,675
1994	2,232	2,060	6,198	23,702	33,970	33,970	29,475	19,160	13,584	7,140	5,850	15,000
1995	15,303	20,675	15,362	15,065	33,226	33,970	29,848	20,455	16,276	14,936	34,054	15,694
1996	15,428	19,439	15,309	21,904	33,662	33,970	29,848	20,588	16,762	12,917	15,000	15,000
1997	15,149	15,149	16,698	16,005	32,311	33,970	33,079	21,011	17,585	18,893	15,369	15,016
1998	15,000	14,813	15,000	15,386	33,288	33,970	29,848	20,435	15,643	10,984	15,000	16,495
1999	15,000	14,647	14,549	15,000	19,705	33,970	33,970	23,781	18,883	13,971	17,527	15,204
2000	14,457	14,294	13,299	16,511	33,463	33,970	30,234	20,545	17,230	13,382	7,870	2,932
2001	1,794	1,702	3,466	7,719	33,970	33,970	29,848	20,467	14,666	8,300	14,284	14,797
2002	15,000	16,119	14,934	16,098	27,793	33,970	31,041	20,652	15,833	10,702	5,286	2,519
2003	17,523	19,089	15,572	26,169	34,037	33,970	29,848	20,435	15,334	13,484	15,000	13,542
2004	14,015	14,459	16,511	33,238	33,953	33,970	29,848	20,549	17,268	14,455	14,795	15,034
2005	16,276	15,193	14,844	24,181	33,970	32,282	28,172	20,369	15,308	10,308	9,229	15,000
2006	15,451	16,021	13,717	15,066	29,883	33,970	30,431	20,539	16,479	11,869	15,759	15,000
2007	14,837	16,902	18,085	21,011	33,790	33,970	29,848	20,410	15,541	12,517	14,289	15,000
2008	13,669	11,242	8,946	8,564	27,612	34,147	32,086	20,765	16,869	13,347	15,030	14,317
2009	15,000	13,564	11,652	15,000	33,492	33,970	29,848	20,434	16,449	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Baseline (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	26,619	28,542	48,794
1926	59,795	72,474	92,369	127,655	150,995	157,022	143,321	115,846	34,423	23,201	36,626	59,215
1927	71,643	85,118	99,262	124,196	165,184	198,000	187,881	161,325	51,995	64,348	96,207	122,131
1928	129,025	140,735	151,989	149,231	197,064	198,000	180,272	152,177	35,825	23,756	32,149	38,947
1929	43,438	43,944	50,153	59,927	100,515	140,841	153,547	124,207	40,136	18,645	20,028	22,056
1930	24,093	42,416	61,215	100,409	127,377	146,206	147,037	122,484	49,073	24,976	28,800	29,570
1931	35,117	44,340	56,879	85,543	136,464	153,207	144,225	119,833	38,996	17,556	24,284	30,991
1932	40,850	56,579	90,174	120,735	171,404	198,000	189,459	168,947	45,471	24,501	64,655	87,023
1933	103,356	111,851	121,480	113,884	136,509	198,000	197,764	172,787	61,717	45,983	73,022	167,867
1934	137,690	162,795	157,458	196,124	197,929	198,000	178,671	141,835	54,566	44,672	88,367	111,025
1935	129,025	150,213	146,494	139,460	182,853	198,000	188,738	168,867	53,968	21,990	22,579	27,398
1936	32,534	33,828	43,620	81,999	155,508	198,000	184,315	159,932	58,301	40,490	43,653	45,956
1937	47,981	48,065	54,430	74,824	120,122	190,813	189,823	169,296	70,346	50,246	72,701	99,170
1938	125,373	137,024	134,574	137,160	195,209	198,000	181,475	156,271	36,622	22,568	30,520	45,267
1939	56,598	64,200	78,132	110,252	153,986	174,543	178,549	144,401	44,655	25,076	30,577	49,192
1940	60,716	76,170	100,370	131,113	174,974	189,643	175,158	126,016	50,894	30,925	37,355	52,584
1941	61,088	67,550	82,328	108,609	128,025	135,520	128,929	92,223	35,179	26,695	40,692	70,599
1942	80,955	88,099	97,308	124,357	154,001	178,325	175,072	130,030	39,781	15,192	35,248	57,994
1943	74,595	87,230	103,417	127,977	165,719	198,000	194,171	169,319	48,347	24,332	33,761	47,115
1944	53,419	60,532	72,505	87,463	109,663	124,254	117,325	91,685	26,419	12,718	21,304	27,677
1945	47,242	66,857	76,559	89,443	136,053	164,046	165,773	140,590	56,878	38,627	49,336	60,791
1946	76,149	84,616	99,382	114,084	174,964	198,000	194,171	169,472	58,809	28,024	49,920	99,860
1947	117,837	140,488	153,313	166,576	197,538	198,000	180,286	154,299	46,581	48,356	75,760	94,047
1948	110,087	126,188	116,544	102,759	140,413	198,000	191,036	169,282	56,656	38,131	51,096	62,785
1949	70,786	80,614	96,063	106,989	177,394	198,000	188,738	168,736	56,017	26,468	57,630	79,195
1950	95,075	113,043	103,629	92,452	120,016	198,000	197,798	177,867	67,818	61,555	99,314	129,025
1951	129,025	159,719	125,250	126,295	191,712	198,000	189,615	169,018	59,546	48,482	64,070	81,150
1952	91,153	105,468	117,767	154,714	197,094	198,000	180,280	157,362	35,965	22,392	27,498	28,945
1953	61,858	91,289	105,237	125,888	172,582	198,000	195,233	169,786	51,197	23,314	35,216	63,665
1954	81,598	95,474	113,880	109,640	147,071	198,000	198,000	183,472	80,372	49,706	67,981	80,608
1955	91,543	102,486	111,136	120,174	142,602	198,000	187,532	168,646	56,186	49,527	89,968	129,025
1956	129,025	129,078	69,783	65,551	137,620	198,000	197,764	170,210	61,332	28,733	42,963	76,088
1957	87,466	98,406	118,146	144,724	196,817	198,000	180,268	149,268	37,057	24,973	33,514	46,743
1958	60,482	78,485	96,473	123,514	196,532	198,000	178,648	138,879	53,699	54,232	94,395	129,025
1959	129,025	146,661	139,598	138,389	171,080	198,000	191,036	169,008	84,891	98,521	129,025	129,251
1960	129,251	147,039	150,485	162,772	197,469	198,000	183,789	161,445	49,954	26,084	45,846	57,881
1961	80,653	117,114	130,305	127,166	170,414	198,000	187,920	169,096	56,512	24,125	35,158	51,652
1962	80,386	96,886	108,310	152,500	177,735	198,000	188,536	168,212	60,917	48,332	88,693	127,373
1963	129,025	169,775	187,532	197,667	198,000	198,000	180,236	150,780	67,469	54,671	66,204	79,375
1964	96,300	108,006	118,471	119,196	137,145	198,000	187,532	168,829	56,791	35,721	45,412	78,165
1965	109,478	141,663	141,859	145,558	190,770	198,000	187,532	168,529	65,613	33,630	45,623	54,624
1966	61,231	62,656	70,114	100,562	151,036	181,128	180,251	150,140	50,854	26,059	37,135	62,027
1967	81,185	99,556	112,685	122,861	168,876	198,000	180,282	151,537	59,677	65,297	88,540	112,879
1968	129,025	176,546	184,743	196,575	198,000	198,000	183,789	161,138	73,067	52,310	86,565	103,682
1969	129,025	139,941	130,028	125,280	191,607	198,000	180,233	153,037	56,638	34,035	44,874	53,770
1970	71,811	85,066	104,070	123,171	175,940	198,000	178,629	150,413	69,548	59,299	71,440	86,224
1971	110,101	145,619	114,587	100,481	144,163	198,000	198,000	182,463	73,604	30,108	40,597	51,409
1972	67,155	95,537	88,774	70,781	122,465	198,000	197,977	184,315	103,846	74,420	87,377	120,936
1973	129,025	140,325	151,810	166,356	192,275	198,000	178,595	146,994	72,308	55,904	76,374	98,494
1974	129,025	136,875	82,237	67,687	105,311	198,000	198,000	195,918	98,617	55,483	66,360	84,911
1975	120,043	138,678	125,015	111,056	143,940	198,000	195,233	170,439	59,531	27,678	50,099	125,588
1976	129,025	150,533	130,969	124,587	174,306	198,000	197,474	186,292	92,060	56,798	65,721	70,924
1977	76,290	77,815	79,761	93,242	100,898	114,383	101,095	85,101	34,404	16,818	39,033	129,025
1978	129,025	141,379	149,124	155,932	193,660	198,000	189,017	169,399	91,951	64,088	73,435	80,897
1979	83,228	89,315	106,835	120,891	167,121	188,025	178,642	143,959	55,356	33,506	39,593	63,716
1980	76,870	88,864	111,519	157,965	197,489	198,000	178,592	144,871	59,941	44,186	64,097	129,025
1981	129,025	166,141	189,093	197,876	198,000	198,000	179,122	150,702	60,517	64,494	75,924	94,221
1982	113,183	161,537	134,718	123,448	164,107	198,000	190,549	169,008	74,466	44,564	56,257	78,165
1983	112,179	133,813	144,022	139,191	194,741	198,000	187,532	170,098	76,351	40,879	64,492	76,688
1984	123,628	146,565	146,828	141,814	174,206	198,000	192,048	169,526	79,426	55,433	68,339	76,040
1985	78,667	79,621	87,838	118,104	163,712	198,000	180,271	150,376	59,809	30,403	45,231	52,520
1986	63,461	92,078	138,981	168,250	197,964	198,000	178,553	146,881	66,993	52,382	70,645	80,643
1987	89,170	100,277	130,497	164,548	197,958	198,000	177,085	131,249	33,380	11,753	20,501	33,977
1988	39,935	51,666	70,792	111,720	157,285	184,606	177,197	140,315	50,391	35,351	52,651	68,163
1989	80,766	89,947	106,262	151,525	193,108	198,000	180,276	151,107	51,925	40,794	57,261	82,483
1990	112,887	127,777	143,226	163,518	196,516	198,000	188,738	169,220	53,580	31,035	76,020	97,137
1991	119,317	158,078	156,524	166,060	197,237	198,000	190,075	169,294	55,634	22,810	40,552	57,499
1992	72,199	92,572	118,039	150,059	179,446	185,767	173,684	137,215	53,010	36,256	43,246	45,364
1993	46,713	48,396	63,695	86,484	140,484	158,906	156,824	123,811	40,346	20,126	21,354	22,182
1994	29,300	30,528	47,279	78,212	110,994	121,998	117,442	91,284	18,596	16,421	29,504	54,131
1995	72,591	130,882	149,262	146,244	196,624	198,000	180,277	151,606	55,643	58,930	141,015	132,663
1996	131,872	169,738	149,528	168,373	197,457	198,000	186,043	168,827	71,282	42,476	57,562	74,738
1997	115,330	132,387	90,156	85,457	152,910	198,000	195,233	170,302	91,936	119,663	129,025	129,025
1998	129,025	143,117	148,558	146,948	196,796	198,000	180,321	154,583	43,946	22,855	38,901	67,946
1999	99,255	113,754	114,395	102,387	130,116	198,000	198,000	195,518	101,590	80,683	124,263	129,025
2000	129,025	143,764	143,883	155,554	197,104	198,000	184,860	167,649	70,901	42,203	47,990	52,882
2001	53,964	54,189	60,107	72,476	102,325	111,041	104,146	90,289	15,254	14,645	35,361	49,361
2002	80,128	94,579	111,241	130,447	169,146	198,000	190,075	168,576	60,368	21,810	28,064	34,218
2003	61,473	94,514	126,381	157,110	195,438	198,000	178,592	146,383	53,882	43,786	55,331	67,284
2004	78,942	90,977	112,424	146,063	192,919	198,000	178,591	148,459	65,821	58,652	71,329	90,873
2005	121,499	133,850	146,578	167,057	190,970	193,286	176,082	135,015	60,696	42,728	53,785	71,902
2006	106,377	124,852	133,491	128,022	188,302	198,000	182,128	150,838	40,621	22,592	86,960	112,330
2007	129,025	150,297	153,626	167,661	197,683	198,000	180,234	151,122	35,967	24,946	38,705	67,575
2008	78,307	88,167	100,942	115,569	179,046	198,000	192,570	169,143	53,610	22,461	53,017	65,696
2009	102,487	114,715	127,095	139,637	194,802	198,000	182,729	159,048	63,833	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Baseline (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Baseline (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	273,792	277,200	404,340
1926	458,694	499,339	610,740	791,452	805,364	666,599	439,929	223,808	89,770	137,216	194,002	284,018
1927	316,653	342,678	369,919	482,449	730,956	974,639	839,272	545,113	361,886	426,607	614,260	712,020
1928	749,354	771,030	843,992	860,767	1,064,090	1,048,573	812,370	498,967	278,395	262,105	274,717	277,172
1929	270,400	264,143	298,726	308,768	558,129	692,588	518,928	275,080	114,998	72,963	56,873	63,199
1930	64,690	153,447	238,857	461,911	566,320	571,681	407,615	216,414	91,737	67,659	83,056	81,744
1931	113,142	165,504	250,218	378,361	630,109	630,175	439,088	222,707	85,359	66,498	123,033	139,950
1932	195,865	319,046	501,205	675,858	948,206	1,032,758	869,356	575,997	352,816	292,699	538,874	649,856
1933	716,337	734,170	742,524	746,562	808,303	1,066,545	1,033,127	793,906	611,179	698,319	728,858	898,802
1934	829,473	905,963	910,770	1,057,312	1,059,957	930,223	656,181	362,759	184,175	226,440	398,574	481,857
1935	650,527	733,120	761,487	791,465	1,011,883	1,065,670	904,392	612,136	401,364	316,719	307,097	305,217
1936	326,591	332,462	380,543	595,004	996,078	1,061,893	832,595	530,986	333,392	294,060	276,040	311,606
1937	311,046	317,698	351,147	445,413	712,849	1,011,681	861,550	573,096	376,571	344,209	477,077	574,696
1938	638,471	655,667	674,779	809,497	1,055,260	1,062,080	833,444	522,931	292,371	217,635	249,113	327,628
1939	412,861	435,377	494,225	675,158	915,621	913,603	679,311	377,225	184,895	159,099	191,092	306,264
1940	333,206	386,832	490,010	666,540	862,851	783,039	522,150	251,829	104,524	84,407	106,080	170,294
1941	186,304	196,505	282,375	431,817	514,736	478,781	322,467	163,564	95,563	134,425	214,678	325,799
1942	344,288	354,441	382,301	535,512	645,389	686,905	498,593	249,960	98,871	57,845	133,822	214,486
1943	270,450	300,484	358,499	565,533	796,939	990,990	905,135	624,143	400,452	320,503	330,387	407,583
1944	410,032	428,424	470,072	546,945	681,737	667,773	453,761	226,000	113,728	95,316	113,384	157,613
1945	291,135	377,643	409,031	461,438	752,575	795,340	573,741	316,222	172,706	166,434	229,491	277,965
1946	336,158	352,044	393,618	536,438	946,567	1,050,375	937,207	649,976	442,624	396,159	439,245	611,755
1947	690,122	773,498	847,696	947,942	1,063,647	1,033,559	799,007	507,048	309,466	379,043	514,995	579,521
1948	615,447	651,173	647,427	650,408	844,210	1,065,670	928,344	666,348	464,188	435,855	480,968	527,997
1949	537,902	567,096	616,441	690,618	999,698	1,064,601	959,594	693,578	491,893	475,566	653,693	713,592
1950	742,060	777,883	705,411	671,645	743,556	1,067,710	1,035,458	817,154	615,473	643,702	719,513	781,963
1951	789,099	906,457	786,849	794,115	1,035,282	1,064,825	880,865	593,105	388,567	402,381	464,913	505,136
1952	514,973	545,000	569,246	742,696	999,854	1,006,757	809,787	514,823	290,034	200,134	183,553	174,078
1953	344,397	479,117	518,291	603,214	856,565	998,631	896,520	631,144	412,829	350,406	402,565	548,085
1954	612,778	650,969	691,188	704,884	859,475	1,065,670	1,034,876	835,933	654,193	606,903	657,016	677,999
1955	693,673	740,267	747,411	711,246	869,049	1,021,627	969,903	707,763	505,413	546,675	722,210	777,292
1956	776,808	765,016	582,923	591,499	837,370	1,067,496	1,013,551	755,128	556,280	543,419	605,677	711,398
1957	726,704	746,806	796,297	838,342	1,060,581	1,004,227	735,263	443,193	229,455	165,733	178,258	232,918
1958	273,519	342,180	402,715	527,683	907,577	936,784	669,605	359,587	192,855	236,454	443,291	627,625
1959	715,738	764,945	785,304	818,536	1,011,221	1,065,670	930,324	638,452	538,495	651,443	821,008	814,955
1960	796,095	838,863	851,727	885,942	1,060,705	1,059,476	842,298	550,058	344,076	293,094	387,542	414,099
1961	505,958	647,616	707,188	762,249	991,436	1,062,151	883,177	589,605	387,651	351,663	386,747	455,356
1962	590,378	661,113	686,768	887,912	999,353	1,034,707	857,873	584,853	382,316	365,885	526,479	639,648
1963	687,144	834,134	898,067	961,189	1,035,210	975,747	721,726	438,451	258,838	237,115	288,730	323,034
1964	388,397	409,591	438,656	494,590	688,121	1,009,852	960,561	730,367	541,598	514,261	550,916	660,566
1965	743,520	847,531	837,680	849,740	1,049,483	1,052,845	865,986	592,709	393,281	331,350	372,501	395,757
1966	414,423	415,868	448,395	615,476	873,708	936,444	755,877	463,443	265,274	209,869	245,011	382,801
1967	480,389	556,889	592,889	584,305	811,088	941,728	775,679	489,841	303,519	392,496	493,127	653,594
1968	769,566	947,042	1,001,712	1,011,430	1,054,022	1,030,427	800,932	537,849	386,757	379,112	496,381	564,327
1969	651,370	665,400	673,297	746,563	1,037,492	1,042,906	805,882	507,831	322,621	285,929	309,603	319,587
1970	360,575	388,491	446,457	505,472	759,290	888,474	687,683	409,549	244,439	232,325	283,288	319,393
1971	428,186	565,722	562,499	596,355	846,798	1,065,670	1,059,923	830,473	639,332	583,441	629,381	649,002
1972	683,900	783,625	712,196	633,042	780,017	1,066,295	1,035,942	839,607	693,116	640,431	667,725	737,731
1973	761,295	780,315	804,031	837,640	909,901	843,626	600,034	331,974	178,533	163,689	219,598	287,127
1974	462,519	506,644	478,220	491,936	677,910	1,077,382	1,062,734	883,643	703,792	619,862	637,026	690,306
1975	752,328	795,366	776,425	735,269	851,126	1,065,670	972,459	747,486	550,670	518,687	644,163	812,563
1976	810,516	872,301	804,696	786,406	982,760	1,065,670	1,014,765	845,275	664,294	593,410	607,578	627,929
1977	660,578	696,941	705,748	767,399	687,352	621,887	402,247	201,779	111,770	100,983	268,678	586,664
1978	608,111	638,307	724,598	821,416	1,003,923	1,019,970	842,340	582,482	439,647	373,392	405,490	429,575
1979	430,405	453,701	548,719	629,708	890,407	854,063	623,726	351,685	180,586	143,431	145,227	332,312
1980	364,095	400,804	469,366	679,446	892,857	901,759	662,100	379,682	215,819	192,087	301,866	612,549
1981	651,083	796,136	867,231	959,495	1,004,317	936,216	692,111	408,862	235,109	262,990	302,304	351,944
1982	425,265	616,389	655,420	691,632	934,952	1,067,401	944,713	671,232	493,862	457,783	489,323	575,616
1983	703,716	768,040	831,343	829,661	1,028,934	1,025,942	889,009	628,274	459,068	385,544	499,252	529,151
1984	729,146	791,901	830,700	833,733	997,707	1,065,670	951,358	676,200	499,253	455,122	498,608	518,229
1985	516,471	517,344	546,705	730,387	996,145	1,030,412	768,804	467,221	286,937	287,304	392,652	393,130
1986	422,590	540,155	707,327	830,296	970,846	935,417	673,074	376,015	213,384	196,901	325,414	356,316
1987	370,785	395,144	512,683	721,620	931,577	833,265	574,173	292,550	116,683	64,637	58,095	94,286
1988	102,884	149,196	243,250	483,094	715,595	751,086	555,096	307,002	141,804	165,885	275,709	359,947
1989	439,513	472,416	518,066	749,660	941,234	953,591	710,189	423,493	230,953	209,558	331,027	458,415
1990	567,016	641,187	706,756	920,409	1,061,145	1,064,902	880,527	600,231	390,671	420,549	761,407	764,714
1991	791,136	948,636	898,339	960,608	1,063,505	1,062,160	918,908	649,546	437,693	349,192	422,147	523,260
1992	599,274	682,048	812,574	956,532	985,283	810,062	545,087	272,380	131,450	106,984	150,697	171,744
1993	206,279	222,819	306,380	443,705	739,266	707,011	486,738	247,532	95,278	59,019	54,150	67,642
1994	115,102	131,010	225,522	428,034	606,627	588,455	429,031	225,392	90,639	85,990	142,768	250,012
1995	303,131	526,464	619,086	702,597	987,029	975,480	774,802	490,170	299,438	352,897	788,641	786,420
1996	809,548	952,122	876,612	959,333	1,063,047	1,040,863	853,185	580,671	396,198	363,709	453,289	509,460
1997	615,790	688,611	644,399	642,065	900,132	1,065,670	990,932	742,980	598,966	708,649	752,200	761,795
1998	773,699	811,313	849,706	850,183	1,060,324	1,032,300	799,504	503,279	286,589	221,254	310,605	429,335
1999	564,963	609,562	619,395	664,676	785,817	1,065,670	1,048,905	884,813	702,661	656,370	750,196	786,814
2000	785,730	805,297	823,574	885,187	1,061,703	1,064,849	861,619	567,240	390,507	352,276	354,171	346,911
2001	345,890	342,005	384,477	457,089	662,527	622,321	439,522	249,922	110,746	107,005	235,463	296,304
2002	412,545	463,967	521,097	680,920	942,045	1,065,670	916,991	619,753	410,444	321,125	326,238	332,711
2003	445,530	546,192	672,997	808,292	962,854	957,780	692,794	400,649	220,314	264,657	382,247	431,893
2004	477,298	518,792	624,401	810,346	981,238	931,523	658,098	392,061	268,859	284,338	373,903	493,041
2005	653,327	697,909	739,855	822,587	863,393	718,873	494,028	274,592	135,782	129,017	182,440	251,186
2006	368,851	417,198	439,574	540,707	866,691	980,703	776,671	483,684	274,369	190,821	463,171	516,294
2007	587,090	660,153	829,387	912,929	1,053,177	1,023,055	793,615	498,349	278,225	237,108	280,147	374,874
2008	392,785	413,977	447,703	465,850	854,149	1,033,395	887,734	616,364	407,264	338,505	502,596	548,265
2009	705,794	725,088	750,702	801,998	1,052,726	1,040,654	808,653	521,708	339,543	NA	NA	NA

Appendix C-2
Scenario IP0 (Baseline with IP Conservation)

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP0 (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	3,065	758	1,538	1,546	89.3%	384	103	88.8%	349	88	8	5
Avg. WY 1982 to 2009	2,941	665	1,536	1,500	88.8%	360	100	88.5%	324	84	24	15
1941 (Dry Year)	1,697	240	973	878	22.4%	117	10	22.7%	137	16	0	0
1994 (Dry Year)	1,817	258	1,080	923	30.1%	111	22	30.3%	70	12	0	0
2001 (Dry Year)	1,895	197	1,204	1,032	43.3%	137	52	43.3%	106	46	0	0
2005 (Dry Year)	1,933	176	1,253	1,065	46.8%	165	45	48.9%	148	45	15	15

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,936	230	1,232	1,016	44.5%	111	14	44.6%	110	16	0	0
1927	3,125	701	1,609	1,618	100.0%	424	107	100.0%	450	96	0	0
1928	3,067	751	1,610	1,500	100.0%	315	103	100.0%	290	79	0	0
1929	2,131	221	1,376	1,161	61.2%	161	38	58.5%	128	34	0	0
1930	1,936	273	1,182	980	38.7%	111	9	38.4%	78	6	0	0
1931	1,908	279	1,154	978	39.0%	109	10	38.5%	80	8	0	0
1932	3,101	697	1,609	1,596	100.0%	402	114	100.0%	330	86	0	0
1933	3,855	1,207	1,609	2,009	100.0%	646	159	100.0%	599	137	0	0
1934	2,933	742	1,566	1,371	91.7%	235	61	89.6%	198	56	0	0
1935	3,194	749	1,609	1,633	100.0%	446	131	100.0%	376	103	0	0
1936	3,350	1,002	1,567	1,527	91.7%	374	111	90.1%	343	106	0	0
1937	2,975	545	1,589	1,642	100.0%	448	123	97.5%	412	117	0	0
1938	3,433	1,093	1,609	1,523	100.0%	339	109	100.0%	274	81	0	0
1939	2,532	328	1,543	1,424	97.7%	272	82	95.3%	240	80	0	0
1940	2,280	310	1,446	1,192	70.4%	151	39	67.9%	124	36	0	0
1941	1,697	240	973	878	22.4%	117	10	22.7%	137	16	0	0
1942	2,192	285	1,384	1,130	60.8%	142	25	59.0%	103	20	33	0
1943	3,482	1,014	1,609	1,736	100.0%	471	121	100.0%	398	93	0	0
1944	1,987	200	1,277	1,085	52.0%	145	34	49.0%	128	33	0	0
1945	2,363	292	1,475	1,280	72.9%	216	51	70.8%	184	47	0	0
1946	3,496	996	1,609	1,730	100.0%	497	134	100.0%	417	106	0	0
1947	3,092	734	1,609	1,548	100.0%	360	114	100.0%	340	93	0	0
1948	3,918	1,409	1,609	1,730	100.0%	508	144	100.0%	485	123	0	0
1949	4,039	1,507	1,609	1,747	100.0%	536	161	100.0%	495	141	0	0
1950	4,296	1,647	1,609	2,068	100.0%	652	151	100.0%	641	133	0	0
1951	3,794	1,362	1,609	1,628	100.0%	433	127	100.0%	408	106	0	0
1952	2,916	549	1,593	1,555	100.0%	385	119	99.5%	351	116	0	0
1953	3,198	678	1,609	1,784	100.0%	517	139	100.0%	459	114	0	0
1954	4,031	1,345	1,609	2,099	100.0%	689	156	100.0%	633	131	0	0
1955	3,457	912	1,609	1,830	100.0%	541	161	100.0%	522	146	0	0
1956	4,865	2,276	1,609	1,939	100.0%	593	145	100.0%	536	121	0	0
1957	3,219	940	1,610	1,452	100.0%	281	91	100.0%	220	65	0	0
1958	2,883	627	1,609	1,426	100.0%	258	73	100.0%	247	59	0	0
1959	3,518	936	1,609	1,797	100.0%	583	157	100.0%	606	149	0	0
1960	3,159	768	1,609	1,580	100.0%	392	118	100.0%	328	92	0	0
1961	3,614	1,185	1,609	1,621	100.0%	434	127	100.0%	392	106	0	0
1962	3,019	561	1,609	1,647	100.0%	458	137	100.0%	428	115	0	0
1963	2,723	418	1,585	1,479	96.1%	332	97	93.8%	302	93	0	0
1964	3,422	798	1,609	1,966	100.0%	626	161	100.0%	600	139	0	0
1965	3,409	972	1,609	1,630	100.0%	442	130	100.0%	382	103	0	0
1966	2,820	458	1,609	1,553	100.0%	366	119	100.0%	295	92	0	0
1967	3,127	758	1,580	1,573	95.8%	393	118	91.8%	391	120	0	0
1968	2,857	415	1,609	1,633	100.0%	445	122	100.0%	405	100	0	0
1969	3,605	1,238	1,609	1,556	100.0%	371	115	100.0%	342	91	0	0
1970	2,897	604	1,574	1,459	92.9%	316	89	91.0%	299	88	0	0
1971	3,944	1,271	1,609	2,020	100.0%	671	157	100.0%	604	131	0	0
1972	4,813	2,090	1,609	2,108	100.0%	729	163	100.0%	683	139	0	0
1973	2,298	186	1,496	1,310	76.4%	228	57	74.8%	203	53	0	0
1974	4,643	1,911	1,609	2,210	100.0%	734	156	100.0%	665	130	0	0
1975	3,886	1,299	1,609	1,929	100.0%	590	147	100.0%	530	123	0	0
1976	3,843	1,145	1,609	2,007	100.0%	703	150	100.0%	640	122	0	0
1977	1,922	183	1,237	1,054	45.7%	140	22	45.8%	120	23	0	0
1978	3,127	624	1,609	1,696	100.0%	502	126	100.0%	448	98	0	0
1979	2,452	260	1,531	1,375	82.5%	265	74	80.9%	219	62	0	0
1980	2,806	540	1,583	1,442	99.5%	293	80	97.2%	272	79	0	0
1981	2,563	310	1,552	1,427	87.2%	299	86	85.7%	320	90	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP0 (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,504	972	1,609	1,768	100.0%	537	145	100.0%	486	123	89	89
1983	3,421	907	1,609	1,727	100.0%	517	147	100.0%	454	121	0	0
1984	3,299	760	1,609	1,780	100.0%	542	144	100.0%	493	118	0	0
1985	2,859	534	1,589	1,506	99.0%	347	95	97.8%	325	94	0	0
1986	2,642	381	1,568	1,429	90.8%	297	82	89.7%	276	81	0	0
1987	2,408	379	1,493	1,232	74.6%	168	50	73.1%	124	38	97	97
1988	2,447	347	1,509	1,284	77.9%	200	46	76.8%	174	40	248	0
1989	2,822	532	1,609	1,459	100.0%	289	92	100.0%	228	66	0	0
1990	3,160	731	1,609	1,619	100.0%	437	122	100.0%	403	104	0	0
1991	3,045	568	1,609	1,676	100.0%	485	138	100.0%	411	109	216	216
1992	2,218	249	1,433	1,197	68.0%	178	40	67.5%	151	37	0	0
1993	2,195	283	1,399	1,156	64.7%	138	33	62.1%	108	29	0	0
1994	1,817	258	1,080	923	30.1%	111	22	30.3%	70	12	0	0
1995	2,976	615	1,609	1,552	100.0%	365	104	100.0%	372	89	0	0
1996	3,237	807	1,609	1,627	100.0%	450	130	100.0%	393	104	0	0
1997	4,597	1,959	1,609	1,914	100.0%	638	150	100.0%	681	142	0	0
1998	3,179	852	1,609	1,513	100.0%	338	109	100.0%	280	83	0	0
1999	4,049	1,330	1,609	2,112	100.0%	737	159	100.0%	693	133	0	0
2000	3,320	891	1,609	1,618	100.0%	436	124	100.0%	394	101	0	0
2001	1,895	197	1,204	1,032	43.3%	137	52	43.3%	106	46	0	0
2002	3,343	891	1,609	1,646	100.0%	455	132	100.0%	386	104	0	0
2003	2,664	431	1,559	1,411	90.6%	286	83	90.3%	263	80	0	0
2004	2,623	325	1,589	1,491	99.7%	345	90	98.1%	332	90	0	0
2005	1,933	176	1,253	1,065	46.8%	165	45	48.9%	148	45	15	15
2006	3,197	861	1,609	1,523	100.0%	337	102	100.0%	263	74	0	0
2007	3,026	714	1,609	1,502	100.0%	317	105	100.0%	264	80	0	0
2008	3,193	734	1,593	1,707	100.0%	479	135	99.5%	457	135	0	0
2009	3,284	937	1,601	1,539	100.0%	360	123	100.0%	NA	NA	0	0
Average	3,065	758	1,538	1,546	89.3%	384	103	88.8%	349	88	8	5

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP0 (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	34.5%	61.4%	93.0%	90.8%	18.4%
	0 -10% Above Target[1]	44.6%	25.9%	3.6%	0.1%	60.9%
	0-10% Below Target	1.0%	0.2%	2.1%	0.2%	1.5%
	> 10% Below Target	19.9%	12.5%	1.3%	8.9%	19.2%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	57.6%	76.6%	74.1%	7.0%
	0 -10% Above Target	8.0%	3.1%	4.1%	73.7%
	0-10% Below Target	7.3%	2.3%	3.7%	3.4%
	> 10% Below Target	27.1%	18.0%	18.1%	15.9%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			0.0%	
	0 -10% Above Target			3.1%	
	0-10% Below Target			3.6%	
	> 10% Below Target			93.3%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				16.4%	
	0 -10% Above Target				28.7%	
	0-10% Below Target				37.9%	
	> 10% Below Target				17.0%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				100.0%	
	0 -10% Above Target				0.0%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	13.2%	31.9%		6.0%
	0 -10% Above Target	1.1%	2.9%		1.6%
	0-10% Below Target	7.5%	3.1%		21.0%
	> 10% Below Target	78.2%	62.1%		71.4%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			44.5%	20.4%	17.8%
	0 -10% Above Target			23.1%	6.1%	1.9%
	0-10% Below Target			9.6%	6.5%	3.7%
	> 10% Below Target			22.8%	67.0%	76.6%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.8%	94.1%	89.3%
	0 -10% Above Target			0.1%	2.5%	4.0%
	0-10% Below Target			0.1%	1.7%	2.8%
	> 10% Below Target			0.0%	1.7%	3.9%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			59.1%	
	0 -10% Above Target			3.9%	
	0-10% Below Target			3.8%	
	> 10% Below Target			33.2%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.9%	94.2%	89.4%
	0 -10% Above Target			0.8%	1.8%	4.0%
	0-10% Below Target			0.3%	1.7%	2.3%
	> 10% Below Target			0.0%	2.3%	4.3%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP0 (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	16.7%	40.5%	96.7%		17.8%
	0 -10% Above Target	60.8%	40.9%	2.7%		62.4%
	0-10% Below Target	0.0%	0.2%	0.0%		0.3%
	> 10% Below Target	22.5%	18.4%	0.6%		19.5%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	16.0%			
	0 -10% Above Target	1.1%			
	0-10% Below Target	1.1%			
	> 10% Below Target	81.8%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	71.3%			
	0 -10% Above Target	3.8%			
	0-10% Below Target	4.3%			
	> 10% Below Target	20.6%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP0

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	33.6	2.0	0.9	0.9	0.8	0.9	3.4	25.0	25.3	56.0	61.3	46.9	257.2
1927	4.8	0.9	0.9	0.9	0.8	0.9	0.9	4.7	6.0	14.3	17.2	70.6	123.1
1928	22.1	0.9	0.9	0.9	0.9	5.9	21.4	30.1	22.5	31.2	39.3	72.5	248.7
1929	29.5	2.0	2.3	2.3	1.5	1.1	13.3	10.5	11.8	28.8	51.3	51.8	206.0
1930	7.1	3.6	3.2	1.1	0.8	0.9	1.6	14.6	13.1	23.0	52.0	40.2	161.2
1931	4.3	1.9	2.7	2.0	0.8	0.9	3.3	7.4	12.2	21.7	48.0	43.4	148.6
1932	5.6	1.4	1.0	0.9	1.0	0.9	0.9	4.2	2.3	19.6	27.0	71.3	136.0
1933	31.3	0.9	0.9	0.9	0.8	2.9	23.6	25.8	26.2	33.1	20.2	70.4	237.2
1934	26.7	0.9	59.6	35.2	1.8	49.6	26.9	24.5	27.2	44.2	49.7	68.4	414.7
1935	6.2	0.9	0.9	0.9	0.8	0.9	0.9	7.7	32.9	30.3	22.3	71.7	176.7
1936	31.1	1.9	2.4	0.9	0.9	1.2	2.2	8.4	38.0	36.3	33.2	70.6	227.0
1937	8.4	2.8	1.7	1.4	0.9	0.9	2.0	7.9	8.5	29.8	30.2	69.9	164.5
1938	6.6	1.0	0.9	0.9	0.8	0.9	18.2	16.1	25.9	33.4	30.7	69.0	204.4
1939	30.8	0.9	0.9	0.9	0.8	0.9	1.3	7.1	12.1	39.5	44.0	67.4	206.8
1940	4.9	1.8	0.9	1.4	0.9	0.9	2.4	12.7	19.9	39.1	63.5	48.8	197.1
1941	6.0	2.2	1.0	1.4	1.0	0.9	3.7	14.0	10.6	19.3	46.1	35.0	141.1
1942	2.2	1.0	0.9	0.9	0.8	1.0	3.5	18.2	8.7	12.3	33.3	52.6	135.4
1943	7.0	1.1	0.9	0.9	0.8	0.9	1.1	6.9	5.6	12.1	15.8	69.6	122.8
1944	29.8	1.5	1.2	1.2	0.9	1.3	6.9	19.1	14.9	27.4	53.8	48.5	206.4
1945	5.2	1.8	1.3	0.9	0.8	1.0	4.4	8.7	11.2	22.6	30.5	65.7	154.3
1946	5.6	0.9	1.2	0.9	0.8	0.9	0.9	1.2	11.8	32.7	24.1	68.2	149.2
1947	30.3	1.5	0.9	0.9	0.8	2.9	22.0	26.2	22.8	33.0	28.5	68.5	238.3
1948	27.5	0.9	0.9	0.9	0.9	0.9	7.2	40.5	30.1	31.1	18.7	65.9	225.6
1949	26.4	1.2	0.9	0.9	0.8	0.9	18.1	32.6	36.2	20.7	14.0	67.0	220.0
1950	26.9	0.9	0.9	10.3	4.6	44.0	22.2	30.1	26.8	33.5	23.3	68.5	292.2
1951	26.3	0.9	0.9	14.1	18.5	29.2	28.0	20.2	28.9	30.0	24.9	65.8	287.8
1952	27.1	1.0	1.3	1.3	0.9	0.9	1.0	7.1	10.6	23.5	36.9	68.7	180.3
1953	4.0	3.1	3.2	1.2	0.8	0.9	4.3	16.6	25.1	33.4	23.3	69.2	185.1
1954	27.0	1.7	0.9	0.9	0.8	1.8	26.7	31.9	25.7	38.9	22.4	69.6	248.4
1955	28.0	1.1	1.0	0.9	0.8	0.9	3.4	19.8	34.7	30.7	17.4	68.6	207.4
1956	22.4	0.9	16.0	10.1	12.7	44.0	27.6	39.6	21.0	32.6	24.4	67.7	319.0
1957	27.4	1.0	0.9	0.9	0.8	6.6	26.2	27.2	27.6	41.9	35.4	67.3	263.2
1958	28.5	2.0	1.0	0.9	0.8	0.9	1.4	7.7	11.9	27.0	41.9	67.9	192.0
1959	22.7	0.9	0.9	0.9	0.8	0.9	19.4	14.7	34.5	30.0	21.1	67.2	214.0
1960	20.4	14.8	29.9	8.4	1.1	15.7	25.9	15.7	31.1	33.3	30.3	67.7	294.3
1961	28.7	1.0	1.4	1.0	0.8	0.9	24.9	18.7	36.1	28.1	27.7	68.5	237.9
1962	26.4	1.5	1.1	0.9	0.8	0.9	1.3	16.2	22.0	31.1	19.2	66.5	188.0
1963	27.3	1.2	0.9	0.9	0.8	0.9	1.9	19.7	20.7	36.2	34.3	68.5	213.4
1964	5.4	1.4	1.4	0.9	0.9	0.9	3.5	7.8	24.6	40.4	19.4	66.7	173.3
1965	29.0	1.3	0.9	0.9	0.8	22.4	31.8	11.8	30.7	26.2	25.4	68.4	249.6
1966	29.7	2.1	2.0	1.5	1.5	0.9	2.2	8.7	10.4	18.4	24.3	65.0	166.9
1967	28.1	1.5	0.9	0.9	0.8	0.9	7.7	9.4	18.4	19.3	44.3	68.2	200.4
1968	2.2	0.9	0.9	16.7	6.4	17.6	17.5	18.9	23.4	25.3	35.3	67.8	232.9
1969	26.3	0.9	0.9	0.9	1.1	0.9	3.6	27.1	36.4	35.9	30.2	66.9	231.2
1970	28.3	2.2	2.2	1.4	0.8	0.9	6.6	6.7	4.9	22.4	43.1	70.2	189.7
1971	3.6	2.0	2.2	1.0	0.8	0.9	0.9	36.6	21.1	32.9	25.8	65.3	193.1
1972	28.1	0.9	0.9	0.9	14.3	72.3	25.0	40.5	19.7	33.2	19.6	65.1	320.6
1973	27.4	1.0	0.9	0.9	0.8	2.4	12.9	28.0	19.8	32.4	57.3	63.3	247.1
1974	7.4	1.8	1.0	0.9	0.8	0.9	0.9	22.6	32.5	37.3	26.2	70.1	202.5
1975	28.9	1.5	1.0	0.9	0.8	9.5	20.0	30.7	28.7	37.3	22.5	66.7	248.6
1976	26.5	0.9	18.6	28.8	1.5	24.8	24.7	22.2	24.8	29.0	22.5	70.2	294.6
1977	29.8	1.6	1.3	0.9	0.8	3.6	9.9	37.8	19.3	51.0	52.6	40.7	249.4
1978	2.1	0.9	0.9	0.9	0.8	0.9	1.3	7.0	6.6	21.8	21.1	65.7	130.2
1979	29.9	2.8	1.8	1.8	1.4	0.9	4.6	8.6	13.7	28.7	41.3	66.4	201.8
1980	13.7	2.3	1.0	0.9	0.9	0.9	0.9	8.8	11.8	18.5	41.4	65.8	166.9
1981	4.6	1.2	0.9	0.9	0.8	0.9	3.5	13.9	13.7	34.9	59.5	71.1	206.1
1982	2.8	1.4	1.0	1.1	0.8	0.9	1.9	23.2	31.6	31.0	18.0	69.7	183.6
1983	27.3	1.0	0.9	0.9	0.8	7.0	22.5	16.2	19.5	21.5	16.6	68.6	202.9
1984	27.9	0.9	0.9	0.9	0.9	13.5	19.0	8.7	37.8	31.3	20.9	69.0	231.7
1985	29.9	1.0	1.5	2.0	2.1	0.9	3.0	4.3	26.5	43.5	39.4	69.8	223.8
1986	2.6	0.9	1.4	1.3	1.1	0.9	2.7	10.6	25.8	47.6	47.2	66.9	209.1
1987	4.0	1.1	0.9	1.6	1.0	0.9	0.9	7.7	22.1	44.4	52.8	67.6	204.9
1988	13.7	2.3	2.0	2.1	1.0	0.9	1.2	7.1	12.4	27.8	33.2	64.8	168.5
1989	9.5	0.9	0.9	0.9	0.8	0.9	1.1	5.2	7.4	29.3	37.8	70.0	164.9
1990	30.4	1.0	0.9	0.9	0.8	0.9	1.5	13.8	35.3	33.0	31.1	69.8	219.3
1991	26.8	0.9	4.9	21.0	8.1	25.0	19.1	21.4	23.1	29.8	19.1	69.4	268.5
1992	31.5	1.2	0.9	0.9	0.9	0.9	1.4	19.3	32.8	52.9	67.8	55.1	265.7
1993	5.6	0.9	0.9	1.0	0.8	0.9	1.4	7.0	14.7	31.3	57.9	49.4	171.9
1994	6.8	3.1	1.4	0.9	0.8	1.0	2.0	10.8	12.3	20.7	45.5	45.9	151.3
1995	10.8	0.9	0.9	0.9	0.8	0.9	1.8	4.9	7.6	14.8	19.6	71.7	135.7
1996	26.7	0.9	0.9	31.5	22.5	30.4	20.4	23.7	25.6	26.6	32.5	68.1	310.0
1997	28.2	0.9	0.9	0.9	0.8	41.9	31.9	36.9	31.1	35.3	22.5	70.7	302.2
1998	20.1	0.9	0.9	0.9	0.8	9.0	23.1	17.3	22.7	30.9	31.4	71.3	229.4
1999	31.7	1.3	1.0	0.9	0.8	0.9	14.6	31.6	22.3	34.4	21.8	70.9	232.3
2000	31.5	1.0	0.9	2.7	2.1	7.7	26.2	20.1	32.7	33.9	28.6	69.9	257.3
2001	29.4	1.6	2.3	2.1	1.8	1.3	7.0	10.0	17.0	30.3	52.5	49.3	204.7
2002	8.5	1.2	0.9	0.9	0.8	0.9	0.9	1.4	29.4	32.7	21.9	71.4	170.9
2003	31.5	2.6	2.6	1.9	0.8	0.9	2.3	10.9	12.7	36.8	45.2	70.5	218.8
2004	7.6	0.9	0.9	1.4	0.9	0.9	2.9	13.4	14.8	35.8	41.9	70.0	191.4
2005	4.9	0.9	0.9	1.0	0.8	1.5	7.4	22.1	20.3	36.4	52.7	50.0	199.0
2006	4.0	0.9	1.6	0.9	0.8	0.9	1.1	6.2	9.2	22.5	24.4	67.6	140.3
2007	32.4	0.9	1.2	0.9	0.8	0.9	4.6	27.8	28.1	32.3	34.8	70.2	234.9
2008	33.0	1.4	1.7	1.6	0.9	1.2	7.0	3.6	4.4	37.6	26.9	67.5	186.8
2009	5.0	0.9	1.0	6.2	1.0	7.6	22.4	22.8	30.5	33.3	27.6	67.3	225.5
Average	19.2	1.5	2.7	3.2	1.9	6.6	9.9	16.8	21.0	31.0	33.6	64.9	212.3

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	16,553	-	-	-	-	-	9,245	37,080	38,081	42,930	41,260	13,341	198,491
1927	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1928	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1929	16,553	-	-	-	-	-	9,171	39,750	40,744	53,255	52,281	16,037	227,789
1930	23	-	-	-	-	-	9,311	34,182	33,733	37,502	36,357	12,127	163,235
1931	23	-	-	-	-	-	8,026	34,233	33,918	38,010	36,442	12,139	162,791
1932	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1933	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1934	16,553	-	-	-	-	-	9,311	39,841	40,559	53,700	56,429	39,726	256,119
1935	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1936	16,553	-	-	-	-	-	7,949	39,743	40,743	53,688	56,419	39,816	254,912
1937	23	-	-	-	-	-	9,311	39,743	40,743	53,475	55,939	40,632	239,866
1938	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1939	16,553	-	-	-	-	-	9,328	36,735	40,322	53,493	56,125	40,493	253,049
1940	23	-	-	-	-	-	9,311	38,655	40,743	53,844	54,104	16,882	213,562
1941	23	-	-	-	-	-	7,810	21,752	20,945	22,652	23,182	8,546	104,910
1942	23	-	-	-	-	-	9,317	39,584	40,785	53,198	52,280	16,098	211,286
1943	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1944	16,553	-	-	-	-	-	9,274	40,308	40,659	47,506	44,091	13,446	211,837
1945	23	-	-	-	-	-	7,379	39,976	40,743	50,517	47,611	32,483	218,733
1946	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1947	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1948	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1949	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1950	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1951	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1952	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,805	40,679	256,306
1953	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1954	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1955	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1956	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1957	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1958	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1959	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1960	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1961	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1962	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1963	16,553	-	-	-	-	-	9,311	39,743	40,743	53,512	56,200	40,351	256,413
1964	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1965	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1966	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1967	16,553	-	-	-	-	-	9,311	39,743	40,743	53,588	56,324	40,142	256,404
1968	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1969	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1970	16,553	-	-	-	-	-	9,311	39,743	40,743	53,633	56,372	40,003	256,358
1971	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1972	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1973	16,553	-	-	-	-	-	7,103	39,937	40,743	51,991	50,031	34,080	240,438
1974	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1975	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1976	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1977	16,553	-	-	-	-	-	7,989	37,930	38,860	44,400	42,086	13,556	201,375
1978	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1979	16,553	-	-	-	-	-	7,676	39,752	40,743	53,805	53,690	36,453	248,673
1980	23	-	-	-	-	-	9,311	39,679	40,364	53,476	55,963	40,627	239,442
1981	23	-	-	-	-	-	8,039	39,743	40,743	53,923	56,153	38,320	236,945
1982	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1983	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1984	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1985	16,553	-	-	-	-	-	9,311	39,743	40,743	53,476	55,947	40,646	256,420
1986	23	-	-	-	-	-	9,311	39,743	40,743	53,728	56,448	39,735	239,731
1987	23	-	-	-	-	-	9,311	39,402	40,743	51,298	48,941	33,438	223,156
1988	23	-	-	-	-	-	9,311	39,408	40,743	52,416	50,813	34,779	227,493
1989	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1990	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1991	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1992	16,553	-	-	-	-	-	6,769	39,852	40,743	53,793	54,126	16,746	228,582
1993	23	-	-	-	-	-	9,323	38,826	40,743	53,625	54,274	16,755	213,570
1994	23	-	-	-	-	-	9,309	28,276	26,972	29,643	29,813	10,360	134,396
1995	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1996	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1997	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1998	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1999	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2000	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2001	16,553	-	-	-	-	-	7,747	36,284	37,082	42,055	40,108	13,040	192,869
2002	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2003	16,553	-	-	-	-	-	9,311	38,845	40,743	53,732	56,445	39,845	255,474
2004	23	-	-	-	-	-	9,311	39,743	40,743	53,473	55,893	40,648	239,835
2005	23	-	-	-	-	-	8,144	38,622	39,396	45,458	43,641	14,136	189,421
2006	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2007	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2008	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,796	40,678	256,296
2009	23	-	-	-	-	-	9,203	39,284	40,273	52,855	55,096	39,941	236,675
Average	9,863	-	-	-	-	-	9,095	39,081	40,047	51,842	53,378	35,556	238,861

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	18,681	-	-	-	-	8,883	29,971	27,349	31,890	32,516	31,901	20,515	201,708
1927	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1928	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1929	18,681	-	-	-	-	8,883	24,686	35,741	43,856	43,268	41,515	26,803	243,432
1930	986	-	-	-	-	8,883	30,437	25,122	27,758	27,924	27,622	17,687	166,420
1931	986	-	-	-	-	8,883	21,580	23,520	27,935	28,336	27,693	17,716	156,649
1932	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1933	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1934	18,681	-	-	-	-	8,883	30,437	42,162	47,217	54,404	53,849	35,672	291,305
1935	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1936	18,681	-	-	-	-	8,883	30,617	42,080	47,350	54,387	53,806	35,695	291,500
1937	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,651	273,072
1938	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1939	18,681	-	-	-	-	8,883	30,554	39,728	47,126	54,222	53,528	35,714	288,437
1940	986	-	-	-	-	8,883	30,445	41,681	48,464	49,728	47,945	31,034	259,167
1941	986	-	-	-	-	8,883	28,740	14,634	16,137	15,805	16,590	10,574	112,350
1942	986	-	-	-	-	8,883	30,556	35,529	42,812	43,022	41,526	27,021	230,337
1943	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1944	18,681	-	-	-	-	8,883	20,415	28,739	35,483	36,565	34,954	22,472	206,193
1945	986	-	-	-	-	8,883	30,363	41,819	48,145	51,573	49,642	31,956	263,369
1946	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1947	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1948	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1949	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1950	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1951	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1952	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,599	290,715
1953	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1954	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1955	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1956	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1957	18,681	-	-	-	-	8,883	30,442	42,030	47,350	54,222	53,512	35,446	290,567
1958	18,681	-	-	-	-	8,883	30,636	42,030	47,350	54,222	53,512	35,446	290,761
1959	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1960	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1961	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1962	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1963	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,550	35,750	290,903
1964	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1965	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1966	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1967	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,266	53,619	35,751	291,017
1968	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1969	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1970	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,319	53,704	35,729	291,133
1971	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1972	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1973	18,681	-	-	-	-	8,883	29,215	42,116	47,761	53,956	52,432	33,280	286,324
1974	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1975	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1976	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1977	18,681	-	-	-	-	8,883	18,675	26,391	32,717	33,789	32,626	21,022	192,785
1978	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1979	18,681	-	-	-	-	8,883	30,664	42,480	47,353	55,392	54,720	34,759	292,932
1980	986	-	-	-	-	8,883	30,437	42,043	46,995	54,222	53,513	35,657	272,735
1981	986	-	-	-	-	8,883	30,532	42,085	47,350	54,843	54,297	35,384	274,362
1982	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1983	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1984	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1985	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,641	290,757
1986	986	-	-	-	-	8,883	30,437	42,030	47,350	54,451	53,872	35,670	273,680
1987	986	-	-	-	-	8,883	30,525	41,532	47,953	52,753	51,179	32,779	266,590
1988	986	-	-	-	-	8,883	30,595	42,022	47,572	54,680	53,389	33,814	271,943
1989	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1990	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1991	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1992	18,681	-	-	-	-	8,883	27,434	39,725	48,316	48,159	47,071	30,746	269,016
1993	986	-	-	-	-	8,883	30,957	37,698	46,012	45,619	43,821	28,472	242,448
1994	986	-	-	-	-	8,883	30,624	20,316	21,537	21,442	22,051	14,005	139,844
1995	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1996	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1997	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1998	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1999	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2000	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2001	18,681	-	-	-	-	8,883	18,546	25,085	30,940	31,784	30,896	19,827	184,643
2002	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2003	18,681	-	-	-	-	8,883	30,437	41,408	47,350	54,458	53,840	35,697	290,756
2004	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,634	273,055
2005	986	-	-	-	-	8,883	19,104	26,944	33,352	34,692	34,008	22,380	180,350
2006	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2007	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2008	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,600	290,716
2009	986	-	-	-	-	8,758	30,006	41,434	46,680	53,454	52,754	34,944	269,015
Average	11,519	-	-	-	-	8,882	29,668	39,846	45,266	51,027	50,257	33,137	269,602

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	25,229	-	-	-	-	6,232	45,732	73,512	71,407	77,765	73,282	49,847	423,007
1927	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1928	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1929	25,229	-	-	-	-	6,232	46,600	87,239	83,240	89,859	82,947	52,901	474,248
1930	21,815	-	-	-	-	6,232	51,572	71,897	67,321	72,599	68,980	48,472	408,888
1931	21,815	-	-	-	-	6,232	40,278	71,494	67,496	73,063	69,052	48,486	397,917
1932	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1933	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1934	25,229	-	-	-	-	6,232	51,572	99,848	104,037	113,381	104,060	59,720	564,078
1935	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1936	25,229	-	-	-	-	6,232	50,520	101,401	105,820	113,424	104,295	59,816	566,738
1937	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,426	61,450	573,439
1938	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1939	25,229	-	-	-	-	6,232	50,533	83,722	104,731	113,698	106,880	60,998	552,023
1940	21,815	-	-	-	-	6,232	51,512	87,059	89,905	97,124	89,408	55,006	498,062
1941	21,815	-	-	-	-	6,232	42,587	58,725	55,827	58,972	57,882	45,015	347,057
1942	21,815	-	-	-	-	6,232	50,418	85,866	82,213	89,582	82,952	53,008	472,086
1943	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1944	25,229	-	-	-	-	6,232	45,016	78,206	74,965	82,321	76,351	50,797	439,119
1945	21,815	-	-	-	-	6,232	48,891	96,784	91,751	99,234	91,116	55,564	511,388
1946	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1947	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1948	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1949	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1950	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1951	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1952	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,778	61,913	577,668
1953	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1954	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1955	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1956	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1957	25,229	-	-	-	-	6,232	51,546	101,401	109,844	113,698	108,774	74,355	591,080
1958	25,229	-	-	-	-	6,232	50,277	101,401	109,844	113,698	108,774	74,355	589,812
1959	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1960	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1961	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1962	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1963	25,229	-	-	-	-	6,232	51,572	101,401	108,126	113,674	106,471	60,638	573,343
1964	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1965	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1966	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1967	25,229	-	-	-	-	6,232	51,572	101,401	109,378	113,585	105,361	60,205	572,963
1968	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1969	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1970	25,229	-	-	-	-	6,232	51,572	101,401	108,157	113,511	104,863	60,018	570,984
1971	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1972	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1973	25,229	-	-	-	-	6,232	48,367	97,328	94,044	102,141	93,927	56,460	523,728
1974	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1975	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1976	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1977	25,229	-	-	-	-	6,232	44,640	75,182	72,226	79,198	74,007	50,092	426,807
1978	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1979	25,229	-	-	-	-	6,232	49,188	100,061	98,267	107,049	98,182	57,791	541,999
1980	21,815	-	-	-	-	6,232	51,572	99,859	107,786	113,698	107,376	61,402	569,741
1981	21,815	-	-	-	-	6,232	50,012	101,350	102,188	110,775	101,485	58,837	552,695
1982	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1983	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1984	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1985	25,229	-	-	-	-	6,232	51,572	101,401	109,600	113,698	107,420	61,529	576,682
1986	21,815	-	-	-	-	6,232	51,572	101,401	104,717	113,298	103,922	59,738	562,695
1987	21,815	-	-	-	-	6,232	51,075	96,560	92,867	100,639	92,658	56,101	517,947
1988	21,815	-	-	-	-	6,232	50,568	95,907	95,283	103,227	95,043	56,889	524,966
1989	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1990	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1991	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1992	25,229	-	-	-	-	6,232	46,036	92,382	88,190	95,358	88,522	54,848	496,796
1993	21,815	-	-	-	-	6,232	45,388	85,650	85,381	92,503	85,261	53,713	475,944
1994	21,815	-	-	-	-	6,232	48,411	66,003	61,168	65,306	63,378	46,683	378,998
1995	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1996	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1997	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1998	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1999	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2000	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2001	25,229	-	-	-	-	6,232	44,030	73,501	70,469	76,943	72,271	49,510	418,185
2002	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2003	25,229	-	-	-	-	6,232	51,572	95,705	105,223	113,285	104,092	59,850	561,188
2004	21,815	-	-	-	-	6,232	51,572	101,401	109,816	113,698	107,574	61,599	573,707
2005	21,815	-	-	-	-	6,232	44,857	75,895	72,854	80,214	75,384	50,751	428,001
2006	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2007	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2008	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,837	61,909	577,723
2009	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
Average	23,847	-	-	-	-	6,232	50,504	96,831	102,574	107,486	101,859	66,897	556,231

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	33,266	-	-	-	-	10,226	38,344	55,032	58,676	60,651	59,951	50,653	366,801
1927	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1928	33,266	-	-	-	-	10,226	41,472	57,867	65,148	70,157	70,467	59,068	407,671
1929	33,289	-	-	-	-	10,226	40,383	57,626	63,252	64,978	63,952	52,380	386,087
1930	24,263	-	-	-	-	10,226	41,928	55,172	56,946	58,706	58,171	49,876	355,289
1931	24,263	-	-	-	-	10,226	37,298	56,031	57,019	58,889	58,200	49,884	351,811
1932	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1933	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1934	33,266	-	-	-	-	10,226	41,928	58,536	64,726	69,912	69,488	55,673	403,756
1935	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1936	33,266	-	-	-	-	10,226	41,053	57,867	65,148	69,956	69,586	55,705	402,807
1937	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,236	56,283	395,233
1938	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1939	33,266	-	-	-	-	10,226	41,447	50,842	63,566	70,157	70,179	56,119	395,802
1940	24,263	-	-	-	-	10,226	41,870	52,988	64,040	67,670	66,627	53,528	381,212
1941	24,263	-	-	-	-	10,226	37,087	52,042	52,080	53,555	53,628	47,922	330,804
1942	24,263	-	-	-	-	10,226	41,031	57,054	63,176	64,874	63,955	52,439	377,018
1943	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1944	33,266	-	-	-	-	10,226	40,407	57,195	60,391	62,143	61,222	51,191	376,041
1945	24,263	-	-	-	-	10,226	40,478	57,867	64,139	68,233	67,333	53,823	386,363
1946	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1947	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1948	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1949	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1950	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1951	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1952	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,269	56,465	404,451
1953	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1954	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1955	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1956	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1957	33,266	-	-	-	-	10,226	41,895	57,867	65,148	70,157	70,467	59,068	408,095
1958	33,312	-	-	-	-	10,226	41,106	59,101	65,148	70,157	70,467	59,068	408,585
1959	32,779	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,765
1960	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1961	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1962	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1963	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,156	70,137	55,991	403,844
1964	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1965	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1966	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1967	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,152	69,932	55,837	403,482
1968	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1969	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1970	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,101	69,780	55,773	403,214
1971	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1972	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1973	33,266	-	-	-	-	10,226	40,430	57,867	64,410	68,781	68,304	54,289	397,574
1974	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1975	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1976	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1977	33,266	-	-	-	-	10,226	40,556	56,800	59,118	61,093	60,252	50,792	372,104
1978	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1979	33,266	-	-	-	-	10,226	40,356	57,867	65,099	68,759	68,658	54,901	399,134
1980	24,263	-	-	-	-	10,226	41,124	57,929	64,280	70,157	70,232	56,266	394,476
1981	24,263	-	-	-	-	10,226	40,620	57,867	65,148	69,132	68,827	55,347	391,431
1982	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1983	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1984	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1985	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,238	56,314	404,270
1986	24,263	-	-	-	-	10,226	41,053	57,867	65,148	69,797	69,429	55,677	393,460
1987	24,263	-	-	-	-	10,226	41,598	57,571	64,208	68,587	67,938	54,106	388,497
1988	24,263	-	-	-	-	10,226	41,185	56,950	64,698	68,764	68,528	54,497	389,112
1989	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1990	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1991	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1992	33,266	-	-	-	-	10,226	39,259	57,867	63,954	67,048	66,261	53,442	391,322
1993	24,263	-	-	-	-	10,226	38,934	55,195	63,788	65,973	64,910	52,823	376,112
1994	24,263	-	-	-	-	10,226	40,077	54,028	54,342	55,991	55,852	48,865	343,645
1995	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1996	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1997	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1998	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1999	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2000	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2001	33,266	-	-	-	-	10,226	40,251	56,520	58,276	60,351	59,533	50,463	368,888
2002	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2003	33,266	-	-	-	-	10,226	41,928	55,666	65,148	69,779	69,499	55,715	401,227
2004	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,246	56,340	395,301
2005	24,263	-	-	-	-	10,226	40,630	56,911	59,406	61,425	60,824	51,165	364,850
2006	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2007	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2008	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,317	56,463	404,498
2009	24,263	-	-	-	-	10,179	40,863	57,599	64,847	69,832	70,140	59,283	397,005
Average	29,617	-	-	-	-	10,226	40,874	57,410	64,149	68,620	68,637	56,912	396,445

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	3,644	-	-	-	-	421	4,196	12,696	16,421	18,106	18,063	15,458	89,003
1927	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1928	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1929	3,644	-	-	-	-	421	3,441	13,084	16,423	18,347	18,395	15,550	89,305
1930	798	-	-	-	-	421	4,768	12,849	16,394	17,745	17,711	15,348	86,035
1931	798	-	-	-	-	421	2,904	13,084	16,396	17,781	17,717	15,350	84,450
1932	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1933	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1934	3,644	-	-	-	-	421	4,768	12,863	16,211	18,347	18,395	15,598	90,248
1935	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1936	3,644	-	-	-	-	421	4,371	13,084	16,423	18,347	18,395	15,599	90,284
1937	798	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,610	87,849
1938	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1939	3,644	-	-	-	-	421	4,686	10,784	15,841	18,347	18,395	15,607	87,724
1940	798	-	-	-	-	421	4,761	11,217	16,423	18,347	18,395	15,565	85,927
1941	798	-	-	-	-	421	3,976	12,930	15,943	16,737	16,787	14,933	82,525
1942	798	-	-	-	-	421	4,694	12,978	16,423	18,347	18,395	15,551	87,607
1943	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1944	3,644	-	-	-	-	421	2,962	13,084	16,423	18,333	18,308	15,505	88,679
1945	798	-	-	-	-	421	4,130	13,084	16,423	18,347	18,395	15,569	87,167
1946	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1947	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1948	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1949	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1950	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1951	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1952	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,446	15,613	92,352
1953	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1954	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1955	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1956	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1957	3,644	-	-	-	-	421	4,767	13,084	16,425	18,950	19,461	15,860	92,612
1958	3,644	-	-	-	-	421	4,644	13,084	16,425	18,950	19,461	15,860	92,489
1959	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1960	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1961	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1962	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1963	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,604	90,687
1964	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1965	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1966	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1967	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,601	90,686
1968	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1969	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1970	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,600	90,682
1971	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1972	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1973	3,644	-	-	-	-	421	3,972	13,084	16,423	18,347	18,395	15,575	89,861
1974	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1975	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1976	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1977	3,644	-	-	-	-	421	2,806	13,084	16,423	18,162	18,121	15,471	88,131
1978	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1979	3,644	-	-	-	-	421	4,234	13,084	16,423	18,347	18,395	15,585	90,132
1980	798	-	-	-	-	421	4,768	12,865	16,153	18,347	18,395	15,610	87,357
1981	798	-	-	-	-	421	4,358	13,084	16,423	18,347	18,395	15,592	87,418
1982	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1983	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1984	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1985	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,611	90,695
1986	798	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,598	87,835
1987	798	-	-	-	-	421	4,738	12,695	16,423	18,347	18,395	15,573	87,390
1988	798	-	-	-	-	421	4,701	12,776	16,423	18,347	18,395	15,578	87,439
1989	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1990	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1991	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1992	3,644	-	-	-	-	421	3,678	13,084	16,423	18,347	18,395	15,564	89,557
1993	798	-	-	-	-	421	4,244	12,402	16,423	18,347	18,395	15,556	86,586
1994	798	-	-	-	-	421	4,493	12,923	16,218	17,220	17,240	15,144	84,457
1995	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1996	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1997	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1998	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1999	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2000	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2001	3,644	-	-	-	-	421	2,706	13,084	16,418	18,037	17,981	15,437	87,726
2002	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2003	3,644	-	-	-	-	421	4,768	12,372	16,423	18,347	18,395	15,599	89,969
2004	798	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,611	87,850
2005	798	-	-	-	-	421	2,852	13,084	16,423	18,217	18,229	15,503	85,527
2006	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2007	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2008	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,613	92,367
2009	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
Average	2,492	-	-	-	-	421	4,562	12,992	16,403	18,664	18,990	15,725	90,248

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	7,393	-	-	-	-	20	10,527	13,324	13,270	12,210	14,194	12,762	83,699
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1929	7,393	-	-	-	-	20	10,529	13,571	14,230	13,127	14,194	12,849	85,912
1930	5,536	-	-	-	-	20	11,828	13,422	13,121	11,427	13,468	12,611	81,432
1931	5,536	-	-	-	-	20	9,552	13,399	13,121	11,427	13,468	12,611	79,133
1932	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	15,316	14,607	14,065	14,735	13,329	91,292
1935	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1936	7,393	-	-	-	-	20	11,360	14,763	15,209	14,065	14,735	13,329	90,874
1937	5,536	-	-	-	-	20	11,828	15,543	16,253	17,131	17,346	15,376	99,032
1938	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1939	7,393	-	-	-	-	20	11,597	12,901	15,196	17,070	17,346	15,376	96,898
1940	5,536	-	-	-	-	20	11,812	13,421	14,527	14,065	14,735	13,329	87,446
1941	5,536	-	-	-	-	20	10,169	12,413	11,508	10,903	11,990	11,798	74,337
1942	5,536	-	-	-	-	20	11,493	13,520	14,230	13,127	14,194	12,849	84,968
1943	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1944	7,393	-	-	-	-	20	10,539	13,571	14,230	13,127	14,194	12,849	85,922
1945	5,536	-	-	-	-	20	10,737	13,791	14,527	14,065	14,735	13,329	86,741
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1947	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1948	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,717	15,376	101,758
1953	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,822	15,543	16,253	17,629	17,780	15,757	102,196
1958	7,393	-	-	-	-	20	11,469	15,543	16,253	17,629	17,780	15,757	101,843
1959	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1960	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1961	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1962	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1963	7,393	-	-	-	-	20	11,828	15,543	15,747	17,070	17,346	15,376	100,321
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1966	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1967	7,393	-	-	-	-	20	11,828	15,543	16,092	17,070	15,047	13,329	96,321
1968	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1969	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1970	7,393	-	-	-	-	20	11,828	15,543	15,648	14,065	14,735	13,329	92,560
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,724	13,791	14,527	14,065	14,735	13,329	88,585
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,570	13,571	14,230	13,127	14,194	12,849	85,953
1978	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1979	7,393	-	-	-	-	20	10,693	13,791	14,527	14,065	14,735	13,329	88,553
1980	5,536	-	-	-	-	20	11,828	15,319	15,874	17,070	17,346	15,376	98,369
1981	5,536	-	-	-	-	20	11,220	14,745	14,527	14,065	14,735	13,329	88,178
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,828	15,543	16,070	17,070	17,346	15,376	100,645
1986	5,536	-	-	-	-	20	11,828	15,384	14,676	14,065	14,735	13,329	89,573
1987	5,536	-	-	-	-	20	11,678	14,898	14,527	14,065	14,735	13,329	88,788
1988	5,536	-	-	-	-	20	11,525	13,884	14,527	14,065	14,735	13,329	87,621
1989	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1990	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1991	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1992	7,393	-	-	-	-	20	10,209	13,791	14,527	14,065	14,735	13,329	88,070
1993	5,536	-	-	-	-	20	10,520	13,384	14,384	13,127	14,194	12,849	84,014
1994	5,536	-	-	-	-	20	11,051	12,985	12,155	11,120	12,579	12,125	77,571
1995	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1996	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1997	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1998	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1999	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2000	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2001	7,393	-	-	-	-	20	10,326	13,395	13,121	12,405	13,468	12,611	82,738
2002	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2003	7,393	-	-	-	-	20	11,828	14,342	14,843	14,065	14,735	13,329	90,554
2004	5,536	-	-	-	-	20	11,828	15,543	16,191	17,070	17,346	15,376	98,909
2005	5,536	-	-	-	-	20	10,587	13,571	14,230	13,127	14,194	12,849	84,113
2006	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2007	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2008	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,734	15,376	101,775
2009	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
Average	6,641	-	-	-	-	20	11,574	15,021	15,590	16,278	16,660	14,870	96,654

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP0 (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	59,688	62,147	90,954
1926	99,665	106,589	125,182	143,927	118,588	77,809	33,735	10,502	11,037	26,851	36,769	51,118
1927	55,141	57,526	60,481	74,763	107,242	140,618	108,348	62,272	66,788	83,652	118,796	118,796
1928	118,796	119,176	130,324	130,706	157,253	154,012	103,707	55,025	49,619	60,144	60,790	58,749
1929	54,699	51,439	56,493	50,139	82,254	89,793	39,128	9,743	7,407	5,145	3,362	6,330
1930	8,218	27,686	40,889	71,975	74,588	57,227	12,676	9,028	7,132	10,565	14,390	12,574
1931	18,943	28,439	45,309	63,163	91,391	74,908	25,947	9,620	7,461	11,947	25,890	28,414
1932	41,540	58,940	86,227	113,764	149,122	157,681	114,588	65,899	63,290	65,318	118,796	118,796
1933	118,796	120,983	113,530	109,215	123,083	157,770	148,973	100,786	104,706	135,335	118,796	120,627
1934	118,796	130,697	134,293	156,721	155,936	130,655	79,370	31,888	28,926	46,765	74,400	89,678
1935	118,796	128,468	127,008	124,532	152,336	157,770	120,802	71,908	68,676	66,553	64,870	64,389
1936	70,850	71,896	80,415	107,283	155,159	157,289	104,004	57,078	53,564	49,885	44,512	59,397
1937	58,521	59,925	65,759	80,853	111,951	148,288	114,183	65,193	61,226	61,123	95,812	113,293
1938	118,796	118,689	119,606	123,394	156,205	156,367	103,805	58,191	53,151	48,605	59,080	79,565
1939	100,127	103,475	111,500	133,943	155,620	140,362	83,814	39,529	36,161	36,623	43,444	65,864
1940	66,619	76,187	92,878	118,117	129,618	95,193	39,343	11,028	8,285	8,732	14,708	27,583
1941	28,693	29,911	43,196	57,849	55,516	38,185	11,439	9,593	15,768	29,435	43,747	58,950
1942	59,770	61,003	65,579	87,224	85,324	80,426	41,800	11,456	9,883	8,525	26,695	42,335
1943	50,301	53,342	62,249	96,093	124,036	150,285	127,146	77,069	73,554	70,020	72,137	90,227
1944	89,783	93,388	98,666	104,754	108,303	86,286	32,410	11,392	15,534	16,045	19,476	29,086
1945	56,213	70,540	74,969	81,599	121,852	111,491	56,935	14,772	18,921	28,546	44,597	55,446
1946	64,458	66,598	73,697	95,477	150,775	157,770	129,232	76,897	74,706	82,919	87,589	118,796
1947	118,796	130,947	131,160	143,604	157,521	149,053	103,983	58,792	56,594	79,792	108,207	118,309
1948	118,796	122,255	107,517	102,067	122,602	157,770	124,062	77,519	77,225	82,781	92,157	100,524
1949	102,535	107,088	102,892	106,341	147,482	157,672	134,234	82,525	80,171	93,670	118,796	118,796
1950	118,796	124,046	98,299	94,224	113,704	157,770	150,514	104,777	101,956	118,211	118,796	118,796
1951	118,796	133,981	113,224	117,253	153,576	157,650	113,674	68,895	64,850	78,779	89,033	92,970
1952	92,513	96,452	99,234	123,587	157,051	149,385	111,508	63,676	60,058	56,351	49,774	44,980
1953	84,652	107,275	112,290	121,784	145,032	157,770	131,171	80,116	75,693	76,920	89,079	118,796
1954	118,796	124,072	109,232	105,454	129,364	157,770	149,685	106,472	107,072	110,699	118,796	118,796
1955	118,796	128,757	122,098	111,626	128,985	157,770	151,366	89,466	85,359	107,646	118,796	118,796
1956	118,760	113,915	75,456	82,984	124,215	157,770	144,517	91,296	89,017	102,593	115,545	118,796
1957	118,796	120,397	125,078	127,669	157,113	142,331	88,367	45,559	40,707	37,981	40,174	53,590
1958	61,026	74,512	80,736	102,912	140,013	123,054	72,137	29,554	27,573	40,987	85,048	118,796
1959	118,796	124,038	122,621	124,089	149,323	157,770	125,171	74,803	94,476	122,328	125,926	118,796
1960	118,796	125,382	128,997	132,066	157,481	156,700	107,121	62,366	60,334	67,370	89,156	92,260
1961	110,654	134,998	116,707	116,319	150,325	156,992	117,286	68,853	66,196	73,176	81,354	96,292
1962	118,624	128,503	130,421	145,034	150,065	157,102	115,295	72,147	69,120	75,821	102,273	118,796
1963	118,796	142,106	149,892	155,973	157,770	143,051	88,920	49,315	44,679	44,888	59,296	62,242
1964	72,017	73,574	78,410	88,688	120,862	157,770	144,647	98,942	100,704	107,554	116,279	118,796
1965	118,796	133,204	123,999	128,141	156,788	154,876	115,343	69,606	65,159	66,771	73,575	77,390
1966	81,327	80,578	86,383	113,351	141,955	138,750	105,298	60,883	55,865	59,275	67,492	95,269
1967	117,892	132,498	125,845	108,384	136,025	157,770	121,988	63,451	56,178	76,779	92,044	118,796
1968	118,796	147,477	150,167	148,275	157,608	151,082	105,636	61,166	68,225	79,725	99,819	110,691
1969	118,796	118,245	116,318	116,156	154,168	152,543	100,372	58,997	58,663	62,756	64,916	64,795
1970	71,009	74,565	84,807	91,769	124,662	137,514	91,923	43,994	42,069	43,403	55,166	56,978
1971	78,778	100,970	104,932	100,261	127,387	157,770	156,619	109,101	106,717	113,313	118,796	118,796
1972	118,796	128,092	124,567	103,845	114,343	157,770	148,935	107,098	112,594	113,231	118,796	118,796
1973	118,796	119,491	122,625	124,461	122,238	110,934	67,870	27,721	26,175	29,176	35,582	47,315
1974	85,197	92,658	82,883	80,833	105,392	157,770	157,482	116,460	114,133	111,682	115,262	118,796
1975	118,796	124,086	113,239	105,910	129,612	157,770	133,625	87,406	85,039	93,887	118,796	118,796
1976	118,796	127,376	117,025	114,103	145,766	157,770	142,229	103,046	101,420	100,406	105,507	114,351
1977	118,796	127,592	127,593	133,516	95,804	72,728	31,056	9,375	11,894	15,409	57,344	110,760
1978	114,623	119,298	128,847	135,327	151,555	147,098	106,979	66,579	69,507	67,837	73,701	81,676
1979	80,768	86,487	104,181	118,099	145,927	124,879	74,202	32,331	30,025	29,160	26,226	64,084
1980	67,265	71,913	81,350	113,574	131,466	116,557	85,154	39,414	40,366	37,373	61,747	111,482
1981	118,446	143,859	151,462	157,712	148,691	144,713	88,136	41,317	36,275	43,365	48,199	55,448
1982	72,307	106,601	119,340	113,643	140,572	157,770	127,097	78,797	79,651	85,281	92,892	110,059
1983	118,796	127,673	124,773	124,542	142,716	136,754	116,469	73,169	74,018	72,285	96,785	100,244
1984	118,796	124,907	126,986	125,263	153,586	157,770	128,413	77,554	75,635	79,294	89,439	93,219
1985	91,205	90,241	95,092	127,973	157,561	150,498	90,446	47,786	46,853	67,791	91,235	89,436
1986	92,496	111,497	137,893	150,723	157,762	137,967	88,037	39,638	37,339	37,380	69,112	71,820
1987	71,030	72,749	91,506	127,160	146,166	110,749	56,642	19,770	17,376	14,209	11,333	19,149
1988	19,690	30,641	47,824	86,696	117,312	102,165	47,095	11,439	10,006	22,891	43,796	61,376
1989	79,637	84,480	91,215	133,424	153,150	142,486	89,233	48,170	45,087	40,136	70,577	92,020
1990	114,505	129,573	125,622	140,315	157,376	157,557	113,558	63,750	60,243	81,137	130,219	118,796
1991	118,796	145,179	133,317	143,665	157,547	157,513	120,053	74,643	70,472	66,947	84,633	108,008
1992	118,796	130,298	148,679	157,770	144,095	109,200	65,004	22,124	26,371	27,125	40,671	46,375
1993	56,486	59,288	76,699	103,488	131,196	102,299	38,362	10,608	7,970	6,965	8,480	14,652
1994	28,456	31,483	48,801	80,925	89,706	71,345	29,056	11,867	10,128	17,877	32,999	53,185
1995	61,399	96,396	112,397	128,162	153,462	135,500	97,369	53,390	49,436	69,873	129,453	118,796
1996	118,673	140,534	128,726	144,426	157,475	148,482	112,927	68,508	67,408	79,795	98,856	106,480
1997	118,796	121,124	96,923	94,171	135,529	157,770	137,790	87,149	87,933	110,945	118,796	118,796
1998	118,796	124,266	128,145	128,926	157,101	148,666	103,705	58,096	53,750	52,052	75,585	101,364
1999	118,796	124,139	106,360	103,458	119,413	157,770	151,091	114,723	110,929	112,780	118,796	118,796
2000	118,796	119,439	123,837	134,703	157,275	157,551	111,017	65,491	65,967	72,022	71,751	68,156
2001	67,659	66,221	75,172	87,807	111,946	87,895	40,168	10,912	8,619	19,841	44,332	55,401
2002	74,653	82,659	91,540	119,600	151,606	157,770	123,417	73,281	69,077	65,044	65,340	64,743
2003	85,382	99,284	122,442	140,479	148,723	133,691	79,423	37,202	33,177	46,430	70,730	75,979
2004	83,875	88,226	104,173	129,597	140,899	127,197	75,538	35,650	43,718	49,712	67,057	88,457
2005	113,013	117,269	121,199	130,213	114,829	78,042	32,677	11,190	10,288	15,086	28,936	39,744
2006	59,205	65,750	68,387	92,005	132,301	137,743	93,939	50,978	47,825	41,586	88,601	93,226
2007	105,431	116,207	131,459	142,621	157,603	147,748	101,673	55,836	51,764	55,298	62,477	74,430
2008	74,595	77,334	81,546	78,342	139,720	157,770	120,452	71,775	68,997	67,851	99,215	106,532
2009	118,796	119,227	121,681	124,794	155,975	151,866	101,911	60,772	56,834	NA	NA	NA

IP0 (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	94,314	98,827	125,623
1926	138,185	149,029	171,293	197,103	190,429	173,239	118,041	57,356	14,319	23,704	35,152	53,167
1927	60,856	67,852	73,949	95,420	136,525	182,529	182,523	168,901	107,149	103,374	141,754	166,518
1928	193,637	198,594	213,666	214,345	238,524	237,479	210,406	171,702	102,695	80,997	85,336	88,629
1929	90,724	92,955	103,799	106,466	140,773	161,616	140,668	89,864	38,229	32,151	30,070	33,472
1930	36,060	54,581	72,742	105,635	115,221	116,955	99,363	47,691	8,784	8,296	14,322	16,351
1931	22,973	34,593	55,440	76,472	109,581	115,139	98,665	52,577	9,987	10,278	21,665	28,115
1932	39,025	63,730	96,757	130,310	174,421	213,215	208,810	183,839	114,076	88,910	136,156	162,568
1933	186,223	193,356	198,164	194,181	207,096	238,980	234,312	221,240	158,854	160,049	186,773	203,025
1934	203,025	220,437	217,330	238,033	238,030	219,139	176,462	127,905	61,021	70,389	98,194	116,384
1935	154,424	167,517	182,362	198,206	236,098	238,980	220,680	200,386	130,992	102,072	103,698	107,314
1936	116,249	122,224	136,937	172,831	236,591	238,643	210,298	179,615	111,477	105,157	103,888	116,387
1937	120,260	126,526	136,886	155,901	192,867	233,482	216,087	189,948	122,953	116,655	144,838	165,297
1938	177,981	183,000	192,391	207,269	237,556	238,335	208,342	178,258	109,404	80,265	90,363	108,947
1939	130,834	139,250	153,348	182,098	214,910	223,297	191,654	148,026	82,378	81,681	89,233	109,472
1940	114,530	125,777	145,019	172,954	194,753	186,948	149,660	87,050	38,831	36,971	42,207	54,388
1941	59,554	63,109	79,334	98,944	102,315	99,774	82,286	38,182	9,776	19,745	34,362	52,122
1942	56,998	61,961	70,308	94,420	103,544	115,140	108,238	76,481	25,491	20,633	35,560	52,687
1943	64,578	71,819	84,485	124,406	162,179	199,929	203,987	189,724	121,024	93,220	97,085	113,611
1944	117,293	124,081	134,005	147,931	158,354	157,379	132,294	79,340	34,454	33,281	37,898	48,010
1945	74,493	90,281	99,708	112,048	151,030	161,968	143,123	113,097	51,475	53,854	68,993	81,425
1946	94,846	100,647	111,138	139,095	205,814	238,980	222,996	201,075	133,985	114,240	122,849	156,556
1947	177,404	193,171	214,438	226,092	238,771	234,857	206,842	180,189	114,314	108,537	135,857	149,477
1948	158,649	167,954	176,178	187,583	207,090	238,980	222,522	207,054	144,044	124,634	136,788	150,135
1949	155,928	166,490	177,085	191,528	232,565	238,933	236,532	226,570	161,303	147,347	177,805	199,855
1950	203,025	208,267	184,104	180,343	198,325	238,980	235,199	217,915	151,497	141,018	168,454	199,435
1951	203,025	216,491	197,882	201,601	235,843	238,896	215,191	191,218	127,415	114,304	128,012	137,066
1952	141,715	148,825	155,759	184,096	221,809	235,828	221,082	185,774	119,030	115,883	114,430	114,859
1953	149,081	175,686	186,287	205,008	230,040	238,980	224,690	205,216	138,574	115,986	126,974	158,867
1954	175,844	186,032	194,197	190,710	213,736	238,980	234,961	221,389	156,306	134,384	151,216	159,637
1955	166,268	179,503	187,227	196,314	213,105	238,980	238,684	227,303	161,113	158,519	195,358	203,025
1956	203,025	197,459	163,019	169,968	207,600	238,980	231,247	210,434	145,076	130,598	143,076	192,313
1957	199,559	205,994	209,985	211,216	238,395	230,807	192,153	157,358	90,670	65,409	69,953	85,160
1958	95,311	111,758	123,266	148,521	195,435	201,892	178,378	137,149	72,677	62,786	103,523	139,589
1959	166,045	175,922	191,892	207,910	233,501	238,980	223,067	205,637	157,150	165,521	203,025	203,025
1960	203,025	212,844	212,442	216,737	238,735	238,429	211,734	183,709	118,051	97,936	119,169	126,152
1961	145,916	174,175	193,481	200,739	232,374	238,557	219,214	192,903	126,843	109,445	119,044	135,162
1962	161,690	177,625	184,955	220,901	233,424	238,601	216,961	200,469	136,521	118,178	144,861	165,630
1963	179,567	203,290	217,066	232,230	238,980	231,325	197,804	163,927	97,125	95,216	106,752	114,658
1964	129,986	136,481	147,195	164,808	201,390	238,980	232,155	222,108	160,665	140,159	149,928	172,229
1965	193,899	214,980	207,828	211,651	238,095	237,563	218,786	196,691	130,423	104,763	112,529	118,734
1966	126,500	130,058	139,026	168,165	202,837	216,683	206,509	182,895	118,818	96,768	105,150	132,310
1967	156,721	174,349	184,764	186,465	216,457	238,980	228,470	185,228	118,008	136,092	153,285	188,119
1968	203,025	229,321	233,656	230,268	238,793	236,021	215,045	182,533	121,551	107,267	127,964	146,079
1969	162,768	167,396	175,835	200,588	235,676	236,261	206,768	178,054	114,705	91,464	95,429	99,477
1970	108,248	115,485	128,223	142,862	179,005	213,877	199,292	156,516	88,926	89,494	100,724	106,932
1971	131,870	157,196	166,978	181,678	211,177	238,980	238,322	218,625	156,522	135,524	149,319	160,273
1972	179,661	196,307	170,868	167,113	198,915	238,980	234,861	222,365	163,077	140,292	148,266	175,911
1973	192,675	197,200	204,468	207,984	206,934	202,633	174,091	118,568	56,838	54,251	62,622	76,175
1974	111,721	124,853	138,772	166,043	190,653	238,980	238,800	222,186	156,249	129,673	136,009	159,732
1975	186,623	196,861	197,896	191,130	213,298	238,980	226,675	210,817	146,687	130,099	158,816	203,025
1976	203,025	216,911	201,391	198,693	229,531	238,980	231,258	218,384	149,754	122,121	128,190	139,204
1977	154,158	165,155	172,515	184,374	164,388	158,937	109,450	59,113	21,601	25,270	59,781	115,918
1978	124,648	131,566	152,034	175,105	200,705	221,477	206,631	187,672	125,931	96,979	103,058	111,931
1979	116,188	125,113	144,701	162,625	197,379	204,791	180,132	139,080	74,470	63,329	64,541	99,927
1980	107,067	114,557	128,818	163,031	190,112	196,551	183,456	144,297	79,910	79,326	99,918	151,106
1981	165,412	189,531	202,217	223,526	232,251	238,029	210,071	153,326	85,954	92,505	99,554	109,793
1982	127,458	161,716	181,668	198,268	223,679	238,980	224,469	210,623	145,128	126,243	133,394	149,327
1983	177,593	190,678	208,543	208,329	229,774	232,716	222,626	210,117	146,559	121,724	143,565	151,675
1984	191,699	203,940	210,585	208,994	235,322	238,980	225,063	209,757	144,399	121,236	131,819	139,815
1985	142,991	145,846	155,096	189,478	231,410	234,915	199,138	161,188	95,233	109,423	133,929	137,788
1986	144,746	165,457	195,327	215,256	236,820	228,751	188,787	145,749	81,609	81,731	107,925	115,260
1987	120,511	126,663	147,312	182,656	214,065	206,960	164,990	115,541	49,551	36,570	36,958	44,022
1988	47,592	59,894	80,857	119,919	151,810	161,060	139,560	107,898	46,409	48,532	70,763	88,796
1989	108,526	117,405	127,306	166,726	198,719	217,139	194,831	160,699	92,442	64,850	87,210	109,930
1990	133,668	152,355	169,242	216,328	238,638	238,830	216,649	188,367	122,361	117,645	188,520	203,025
1991	203,025	227,068	216,429	226,968	238,795	238,823	221,155	204,974	137,861	108,956	124,317	148,143
1992	166,490	182,704	203,726	227,458	228,061	201,949	154,120	89,978	39,699	37,508	49,599	57,687
1993	67,816	73,341	90,568	116,726	157,283	157,850	135,896	81,147	33,236	27,785	28,658	33,901
1994	47,905	54,979	73,922	105,984	125,124	126,365	110,126	66,063	21,553	19,547	32,539	53,271
1995	64,938	100,480	120,815	142,125	181,022	191,721	182,705	168,502	103,741	98,821	173,766	199,955
1996	203,025	223,091	212,192	228,962	238,729	235,841	221,739	194,224	129,753	112,083	131,817	145,324
1997	164,641	183,947	174,275	180,294	218,656	238,980	228,470	211,641	150,447	154,226	170,669	180,920
1998	193,292	202,813	211,655	212,376	238,384	234,707	208,353	177,983	109,333	83,058	102,495	127,390
1999	156,105	168,571	179,615	188,867	203,594	238,980	235,703	223,030	158,574	133,658	160,792	195,322
2000	203,025	207,045	209,071	218,203	238,545	238,874	212,831	185,729	124,483	104,456	108,016	110,053
2001	112,974	115,220	126,927	142,873	169,240	168,154	140,671	95,513	51,697	53,406	76,189	90,181
2002	112,344	123,321	136,468	170,898	217,395	238,980	221,468	200,510	132,073	102,796	105,528	108,563
2003	128,539	145,936	173,260	195,228	213,513	219,430	189,449	148,632	83,059	90,227	115,056	126,155
2004	137,252	146,380	167,304	196,226	215,072	216,092	182,316	146,809	89,950	95,922	113,207	136,147
2005	163,299	172,577	181,339	192,973	185,732	170,843	138,306	90,975	44,813	47,126	59,671	71,256
2006	94,098	104,184	110,881	136,240	181,343	206,076	189,916	166,593	102,314	73,683	118,922	129,990
2007	146,720	161,733	202,830	226,581	238,847	234,087	206,660	172,871	105,190	82,698	91,203	107,607
2008	113,538	121,098	130,400	136,324	198,527	238,980	218,710	196,137	134,650	135,973	163,980	174,995
2009	203,025	207,722	208,913	208,562	237,344	235,911	207,404	182,781	122,661	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP0 (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	138,344	137,775	183,245
1926	201,934	211,731	258,449	342,482	359,581	266,945	144,632	32,885	22,799	54,241	76,098	111,161
1927	119,663	122,581	127,648	180,059	309,590	436,950	360,362	174,662	165,479	209,589	284,143	310,998
1928	314,194	319,501	349,487	351,642	435,244	431,375	306,675	121,445	98,370	115,571	117,481	116,046
1929	111,324	105,937	117,971	123,120	243,084	312,749	199,542	59,407	42,045	37,357	31,655	30,083
1930	25,822	51,491	86,462	187,031	244,439	239,448	130,291	26,645	15,409	18,613	24,249	22,472
1931	31,655	51,447	83,601	134,871	260,912	256,588	142,113	30,620	19,935	22,733	46,765	50,421
1932	72,596	132,575	215,944	300,458	430,750	436,950	346,371	175,047	155,237	156,543	255,329	306,343
1933	310,998	312,775	314,282	314,282	325,757	436,950	424,814	297,545	292,127	366,679	345,356	378,034
1934	352,854	372,862	382,844	433,526	436,823	376,124	234,239	80,721	64,014	88,038	161,803	189,743
1935	268,023	302,661	325,622	329,530	430,064	436,950	360,305	183,185	167,292	162,281	156,844	151,820
1936	153,948	151,495	166,769	268,523	428,478	435,500	321,633	140,990	120,723	114,372	105,734	113,976
1937	110,471	109,317	119,844	156,618	295,970	436,950	355,809	191,554	171,136	169,831	213,198	246,437
1938	263,244	264,647	275,151	325,853	431,856	436,950	324,940	142,345	113,752	106,435	113,929	137,978
1939	169,231	175,373	197,597	279,528	411,695	405,377	273,430	103,717	81,333	78,755	91,903	133,049
1940	137,077	148,222	183,030	262,226	377,279	331,003	184,315	48,456	28,611	33,753	39,610	60,575
1941	64,254	65,689	105,249	177,900	221,029	192,778	90,196	19,337	28,244	55,319	89,108	130,436
1942	134,050	136,220	145,610	215,644	279,962	296,638	182,160	45,914	32,373	25,771	43,603	68,754
1943	88,301	96,503	116,175	223,770	353,155	436,950	388,912	226,376	204,134	196,517	195,246	220,972
1944	218,896	222,013	236,466	272,470	339,945	322,517	182,591	50,631	48,409	52,646	60,195	79,184
1945	130,263	160,563	171,862	194,286	344,640	371,124	224,733	69,413	64,169	72,763	95,000	108,437
1946	125,082	128,627	140,172	211,743	414,313	436,950	382,514	223,391	203,800	214,729	222,229	278,613
1947	304,701	334,209	355,067	393,340	436,109	425,478	299,541	126,256	110,921	163,933	217,725	240,382
1948	248,639	255,072	262,247	264,760	346,197	436,950	373,883	223,874	204,113	215,061	226,750	240,433
1949	239,357	246,234	261,397	270,759	412,547	436,516	384,275	227,237	212,667	233,334	310,998	310,998
1950	310,998	317,470	304,379	289,626	294,547	436,950	425,182	312,848	297,568	330,418	331,947	331,947
1951	331,938	383,497	336,069	334,040	427,021	436,950	348,341	176,283	156,380	183,163	206,322	217,034
1952	216,819	221,478	226,529	302,241	435,298	427,229	316,796	143,576	123,345	113,074	105,309	100,096
1953	150,167	202,814	217,700	260,672	396,066	436,950	388,206	248,317	229,540	230,202	247,410	295,603
1954	310,998	320,535	318,778	312,088	350,219	436,950	424,488	320,004	313,672	320,150	320,215	320,174
1955	319,501	334,621	336,025	308,573	382,605	394,019	369,106	225,315	212,080	244,051	310,998	310,998
1956	310,998	311,082	263,340	258,442	332,746	436,950	413,756	285,744	270,549	295,381	310,998	318,931
1957	318,490	321,344	334,030	339,666	434,793	408,316	271,019	109,446	87,401	82,625	84,018	97,517
1958	105,061	123,068	146,789	194,609	396,318	424,678	273,023	98,143	82,436	103,193	177,090	252,425
1959	299,586	312,901	327,535	329,285	429,727	436,950	374,992	200,626	219,960	286,848	360,685	349,356
1960	330,168	336,964	344,803	361,003	435,982	436,216	328,799	150,927	131,514	136,176	163,685	168,341
1961	199,050	248,168	285,418	302,995	413,729	436,060	346,757	172,300	158,597	170,349	178,995	196,106
1962	253,556	281,630	288,586	381,928	435,997	436,950	352,673	186,620	165,678	177,770	242,221	278,712
1963	299,683	349,618	373,708	404,323	436,950	408,506	280,664	117,786	98,559	96,666	110,823	119,667
1964	139,337	143,055	149,887	181,456	289,517	436,950	408,553	286,560	275,583	288,180	296,093	310,998
1965	313,626	345,046	352,281	348,382	433,743	431,262	334,498	174,377	156,016	156,835	173,664	180,366
1966	183,975	182,454	192,322	262,603	396,905	425,739	314,463	132,418	109,161	114,978	123,713	175,756
1967	207,152	232,045	241,075	241,493	358,998	373,183	285,640	137,438	122,154	167,254	212,692	277,978
1968	310,998	371,016	409,110	414,202	436,950	423,189	295,217	149,664	147,053	166,918	208,929	231,514
1969	262,597	264,380	273,728	302,470	425,278	425,886	306,717	127,528	108,843	119,079	127,165	128,665
1970	133,464	137,375	151,996	175,367	299,785	356,951	252,713	105,327	92,015	90,673	101,837	107,258
1971	141,014	191,553	202,888	234,659	342,583	436,950	435,851	312,869	300,793	307,701	310,998	310,998
1972	310,998	350,062	312,812	276,668	318,720	436,950	427,121	321,527	318,471	323,836	323,203	322,015
1973	322,015	325,451	330,885	344,961	384,420	341,008	196,888	65,122	54,704	62,191	77,710	97,832
1974	167,415	185,114	200,394	200,394	267,694	436,950	436,950	343,018	336,983	331,826	325,987	325,207
1975	325,207	333,637	327,616	313,564	346,056	436,950	393,920	283,973	270,013	281,807	310,998	349,367
1976	344,203	361,973	341,977	334,025	407,557	436,950	419,283	334,987	326,218	326,085	324,412	323,694
1977	322,862	337,899	338,664	363,507	322,654	260,380	142,657	36,037	34,482	38,381	99,495	218,159
1978	228,195	235,925	281,966	341,974	435,206	436,950	342,872	188,952	187,180	185,486	200,607	205,241
1979	202,533	204,759	240,018	274,007	409,435	380,564	250,029	92,761	77,444	74,231	72,762	149,084
1980	154,296	160,053	182,257	267,222	388,629	408,873	252,015	97,404	82,637	79,952	118,037	241,205
1981	272,500	316,159	339,071	384,945	424,360	364,263	239,930	102,115	91,174	102,276	114,701	121,946
1982	139,562	203,554	236,922	270,195	385,989	436,950	383,930	223,522	211,282	222,441	229,478	258,875
1983	309,953	329,497	349,722	347,705	431,001	436,950	361,840	200,506	193,071	188,648	229,598	236,049
1984	310,998	329,215	343,704	343,704	414,638	436,950	386,910	229,054	216,692	222,035	235,100	240,045
1985	236,546	234,534	241,344	317,937	436,240	421,474	290,423	119,196	104,412	129,458	172,410	168,911
1986	176,113	216,006	281,512	331,417	422,194	401,728	262,784	100,195	83,449	81,981	126,590	135,417
1987	135,135	136,312	177,681	260,091	385,462	339,598	205,666	58,438	40,425	33,960	30,048	37,272
1988	36,008	47,492	80,752	185,358	304,419	329,906	225,320	80,307	66,710	93,828	139,167	172,240
1989	201,401	213,122	225,242	321,521	426,775	411,166	281,129	114,791	90,531	83,065	130,223	181,239
1990	209,265	230,212	256,338	381,139	435,642	436,950	347,808	192,375	174,597	214,191	369,995	340,857
1991	335,402	396,024	377,143	406,085	436,193	436,950	374,084	215,500	196,375	189,160	209,858	244,725
1992	269,642	299,666	355,403	426,067	424,144	315,766	164,525	39,629	32,816	33,252	48,700	55,881
1993	67,715	75,251	103,644	157,874	316,889	296,826	165,768	40,186	22,627	17,527	15,212	17,108
1994	29,083	33,835	71,197	162,968	267,050	248,274	145,910	34,490	23,002	29,912	46,782	79,331
1995	93,805	182,936	226,156	277,449	434,439	435,697	317,746	140,937	121,329	159,832	353,588	344,062
1996	341,013	399,320	370,857	395,668	435,961	432,522	326,284	170,453	155,036	162,319	195,934	213,799
1997	242,469	276,597	287,947	278,078	363,722	436,950	405,549	279,825	279,756	335,929	337,817	329,264
1998	327,792	336,469	347,239	347,239	434,754	424,685	299,121	125,581	99,850	95,011	121,330	158,845
1999	212,710	225,355	237,415	261,445	312,990	436,950	436,146	349,940	336,916	341,398	343,763	341,024
2000	328,445	328,665	334,622	360,932	435,316	436,950	337,594	159,539	145,906	156,080	154,411	148,755
2001	145,365	140,539	154,671	182,798	277,556	248,019	141,104	41,811	28,517	37,195	91,678	112,944
2002	156,801	173,671	193,293	270,125	403,285	436,950	366,987	189,357	168,466	159,897	161,144	161,793
2003	191,737	226,493	274,466	329,858	419,404	412,957	268,253	105,459	88,805	120,548	172,378	191,490
2004	201,596	213,682	255,230	334,960	433,433	397,377	248,373	107,276	115,916	126,384	164,614	215,939
2005	288,781	305,229	320,206	352,417	377,355	281,727	152,432	40,684	26,722	36,779	53,829	76,293
2006	116,730	129,399	136,109	193,657	365,868	436,950	321,928	141,746	116,566	105,426	217,264	230,084
2007	255,414	279,349	351,909	384,044	436,374	418,374	296,601	121,999	96,238	101,966	113,791	150,577
2008	152,993	156,453	166,150	173,220	360,266	436,950	359,735	205,812	186,618	187,148	259,630	275,001
2009	310,998	314,223	319,052	330,377	431,113	425,680	308,100	131,721	110,904	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP0 (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,971	2,058	7,873
1926	11,265	11,666	15,597	33,968	33,970	32,384	26,054	18,762	13,593	14,862	15,000	15,000
1927	14,993	15,244	14,222	15,701	27,188	33,970	31,457	20,663	16,859	14,978	15,222	15,000
1928	15,126	14,446	15,000	15,000	36,004	33,970	29,848	20,482	17,068	13,479	10,801	6,642
1929	2,062	1,715	2,133	3,517	32,688	33,970	29,972	20,604	14,941	8,936	2,625	2,246
1930	1,465	8,242	8,517	29,484	33,970	33,970	27,378	19,967	14,462	7,598	3,335	1,605
1931	5,268	7,501	9,833	20,305	33,970	33,970	28,519	20,404	13,957	8,293	8,728	6,227
1932	6,014	11,315	15,000	15,000	32,049	33,970	31,457	20,764	17,141	11,185	15,869	14,949
1933	14,981	13,221	11,075	15,000	15,858	34,845	33,963	21,793	18,075	16,128	15,027	30,521
1934	17,174	19,238	18,845	32,908	33,929	33,970	29,848	20,335	15,619	16,548	15,782	15,000
1935	15,267	18,999	15,008	15,000	31,837	33,970	30,632	20,717	17,246	12,696	7,978	3,168
1936	1,882	1,891	2,121	15,000	32,559	33,970	30,234	20,544	17,168	11,998	6,094	3,731
1937	1,654	1,705	2,070	7,108	28,604	34,373	31,667	20,677	15,572	11,016	15,191	15,161
1938	15,085	14,315	12,440	16,779	35,599	33,970	30,234	20,401	14,984	10,357	5,826	6,476
1939	6,676	3,689	4,280	21,401	34,001	33,970	29,463	20,525	15,845	9,165	3,970	13,033
1940	14,423	17,184	21,730	33,491	33,964	33,970	29,848	20,335	14,102	9,176	6,940	9,903
1941	7,455	4,985	7,007	20,372	33,970	33,899	26,751	13,589	8,544	4,897	8,429	15,000
1942	13,822	8,465	5,062	17,958	33,964	33,970	29,848	20,484	16,225	9,986	15,000	15,000
1943	14,959	13,874	14,457	16,269	23,426	34,049	32,892	20,969	16,716	11,169	6,896	10,397
1944	5,366	3,129	3,692	8,968	32,292	33,970	27,985	20,516	14,951	8,948	3,815	2,246
1945	11,431	17,909	14,706	15,105	34,193	33,970	29,634	20,468	17,176	11,452	10,373	10,674
1946	14,431	10,364	8,036	15,000	26,962	33,970	32,892	21,062	15,819	14,723	15,000	15,244
1947	15,000	18,298	15,000	22,334	33,708	33,970	29,848	20,561	16,874	16,119	15,139	15,000
1948	13,614	14,041	14,791	15,000	27,909	33,970	31,667	20,749	17,107	12,965	11,894	11,838
1949	7,014	4,392	8,139	15,000	29,806	33,970	30,632	20,585	16,870	15,000	21,003	15,000
1950	15,000	15,057	15,000	15,000	16,965	36,010	33,970	22,462	18,222	15,657	16,001	17,755
1951	15,338	16,118	14,560	15,028	30,895	33,970	30,835	20,664	16,014	15,178	15,000	14,441
1952	10,297	10,301	7,480	15,953	33,457	33,970	29,848	20,367	15,224	8,833	2,937	1,709
1953	15,153	18,566	13,369	15,000	31,053	33,970	33,257	21,076	16,003	11,435	11,342	15,000
1954	15,000	14,312	14,954	15,000	20,233	33,970	33,970	22,960	18,367	15,103	15,000	14,935
1955	13,043	10,281	6,060	3,205	15,000	33,970	29,848	20,538	17,333	15,740	15,562	15,448
1956	15,000	13,483	11,325	15,224	35,188	35,796	33,963	21,301	17,333	15,015	14,965	15,237
1957	12,360	10,631	13,389	15,066	33,462	33,970	29,848	20,420	15,259	10,645	6,490	5,794
1958	7,526	10,243	11,336	15,000	42,875	33,970	29,848	20,432	15,680	11,997	15,279	16,050
1959	15,444	15,289	14,290	15,809	31,733	33,970	31,457	20,672	17,627	15,671	17,332	15,394
1960	15,000	16,778	15,000	17,161	33,669	33,970	30,234	20,502	15,573	10,972	15,000	14,780
1961	15,000	16,330	15,030	15,030	26,781	33,970	30,234	20,637	16,481	13,536	11,165	15,000
1962	14,977	15,326	13,046	22,047	33,673	33,970	30,632	20,565	16,208	14,271	16,758	15,197
1963	14,396	23,611	23,288	27,379	33,970	33,970	29,848	20,434	15,248	9,917	9,897	11,335
1964	15,000	12,718	8,957	9,448	16,019	33,970	33,708	21,202	17,048	13,580	14,138	15,640
1965	15,427	17,243	14,923	17,336	32,975	33,970	29,848	20,459	16,008	10,898	8,671	6,266
1966	3,086	1,945	2,373	15,661	33,638	33,970	29,848	20,436	15,866	10,551	9,254	15,000
1967	15,000	16,001	14,241	12,978	26,496	35,285	29,848	20,426	15,937	15,509	15,000	15,000
1968	15,107	24,551	24,036	27,540	33,969	33,970	29,848	20,666	17,300	15,206	15,418	14,674
1969	14,565	11,819	9,474	15,000	30,763	33,970	29,848	20,393	16,931	13,556	12,180	7,851
1970	11,029	10,985	12,346	14,724	31,316	33,970	29,848	20,394	15,649	10,233	10,783	14,360
1971	15,000	15,629	14,671	15,000	21,526	33,970	33,970	23,035	18,367	14,999	14,597	12,453
1972	12,217	16,435	16,126	15,201	27,994	34,595	33,970	22,926	18,496	13,663	13,058	16,306
1973	15,020	13,726	11,053	14,089	33,970	33,970	29,848	20,370	15,233	9,858	15,000	15,000
1974	16,852	14,835	15,000	15,000	16,788	45,682	33,970	24,111	18,883	14,169	12,391	15,000
1975	15,000	15,000	14,586	14,091	18,220	33,970	33,079	21,218	17,311	15,000	15,000	15,863
1976	15,488	15,529	13,337	15,000	28,976	33,970	33,831	23,251	18,828	13,657	7,778	3,121
1977	2,475	2,305	1,961	8,979	18,941	28,210	23,269	17,622	14,499	9,856	16,122	15,302
1978	14,107	12,627	15,000	16,450	33,428	33,970	30,632	20,668	17,331	12,998	8,697	3,904
1979	1,826	2,168	7,123	9,779	33,957	33,970	29,848	20,526	15,724	11,399	6,003	15,625
1980	15,032	18,401	14,716	23,379	33,680	33,970	29,848	20,511	16,932	11,879	15,000	32,975
1981	15,255	26,651	27,904	33,899	33,970	33,970	29,848	20,457	16,613	12,664	12,204	14,999
1982	13,330	20,225	15,091	15,000	23,271	35,701	31,877	20,704	17,333	15,097	13,137	15,025
1983	15,056	16,238	15,200	15,000	36,217	33,970	29,848	20,519	17,333	11,951	14,951	14,633
1984	15,243	17,420	15,053	15,048	30,552	33,970	32,086	20,772	15,987	11,931	8,711	3,891
1985	1,824	1,864	2,098	14,939	33,748	33,970	29,848	20,363	16,772	15,000	14,647	9,235
1986	10,532	19,923	18,420	32,068	36,661	33,970	29,848	20,388	16,600	11,848	15,725	14,069
1987	11,640	12,245	15,102	33,011	33,945	33,970	29,848	20,343	14,765	8,687	2,556	2,775
1988	2,506	2,349	5,871	23,041	33,790	33,970	29,848	20,352	15,476	10,944	14,961	15,000
1989	14,812	13,091	13,671	22,747	33,746	33,970	29,848	20,438	15,991	10,389	11,809	14,857
1990	15,115	16,361	15,000	19,623	33,563	33,970	30,632	20,640	16,919	15,401	24,332	15,000
1991	15,000	22,689	14,938	19,904	33,734	33,970	31,457	20,771	15,990	9,900	11,380	13,477
1992	14,092	17,518	27,436	33,965	33,970	31,722	25,313	19,614	14,316	7,605	3,477	1,755
1993	2,872	1,866	7,096	15,048	33,948	33,970	28,641	20,372	14,799	8,629	2,338	1,675
1994	2,232	2,060	6,198	23,702	33,970	33,970	28,750	20,379	14,790	12,132	10,192	15,000
1995	15,303	20,675	15,362	15,065	33,226	33,970	29,848	20,455	16,276	14,936	34,054	15,694
1996	15,428	19,439	15,309	21,904	33,662	33,970	29,848	20,588	16,762	13,062	15,000	15,000
1997	15,149	15,149	16,698	16,005	32,311	33,970	33,423	21,079	17,585	18,893	15,369	15,016
1998	15,000	14,813	15,000	15,386	33,288	33,970	29,848	20,443	15,643	10,875	15,000	16,495
1999	15,000	14,647	14,549	15,000	19,705	33,970	33,970	24,053	19,117	13,982	17,527	15,204
2000	14,457	14,294	13,299	16,511	33,463	33,970	30,431	20,568	17,230	13,165	7,674	2,783
2001	1,794	1,702	3,466	7,781	33,970	33,970	28,010	20,467	14,666	8,299	14,284	14,797
2002	15,000	16,119	14,934	16,098	27,793	33,970	31,041	20,652	15,833	10,702	5,286	2,519
2003	17,523	19,089	15,572	26,169	34,037	33,970	29,848	20,435	15,334	13,387	15,000	13,542
2004	14,015	14,459	16,511	33,238	33,953	33,970	29,848	20,549	17,268	14,456	14,795	15,034
2005	16,276	15,193	14,844	24,181	33,970	33,242	27,697	20,369	15,308	10,306	9,227	15,000
2006	15,451	16,021	13,717	15,066	29,883	33,970	30,632	20,563	16,486	11,864	15,758	15,000
2007	14,837	16,902	18,085	21,011	33,790	33,970	29,848	20,410	15,541	12,841	14,614	15,000
2008	13,669	11,242	8,946	8,564	27,612	34,147	32,086	20,765	16,869	12,357	15,027	14,317
2009	15,000	13,564	11,652	15,000	33,492	33,970	29,848	20,434	16,449	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP0 (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	26,621	28,544	48,796
1926	59,797	72,475	92,370	127,627	150,959	157,004	146,952	126,195	49,360	39,375	52,801	75,389
1927	87,818	101,292	115,437	126,584	165,184	198,000	190,161	169,038	67,925	81,580	113,439	129,025
1928	129,025	140,735	151,989	149,231	197,064	198,000	180,272	159,652	46,977	29,295	37,688	44,485
1929	48,973	49,477	55,798	65,681	106,270	146,597	160,171	141,159	58,676	36,817	35,184	37,118
1930	39,175	57,499	76,298	115,492	142,462	161,225	163,741	131,549	64,862	41,827	45,691	46,748
1931	52,307	61,530	74,069	102,692	153,612	170,344	164,209	130,875	58,050	37,278	43,565	50,353
1932	60,270	76,003	109,598	138,688	185,405	198,000	191,036	169,059	52,501	24,541	64,695	87,064
1933	103,397	111,891	121,480	113,884	136,509	198,000	197,956	176,369	72,683	59,880	86,919	168,829
1934	137,702	162,807	157,458	196,124	197,929	198,000	178,671	148,606	65,586	56,081	99,776	122,433
1935	129,025	150,213	146,494	139,460	182,853	198,000	189,169	168,933	61,756	21,990	22,579	27,398
1936	32,534	33,828	43,786	82,169	155,678	198,000	184,860	166,030	71,117	53,323	56,486	58,790
1937	60,815	60,900	67,267	87,763	133,060	198,000	191,536	169,564	77,254	57,000	79,454	105,924
1938	129,025	140,397	134,610	137,160	195,209	198,000	184,860	158,479	47,540	22,585	30,528	45,275
1939	56,606	64,203	78,116	110,221	153,908	174,465	179,969	150,676	56,667	38,628	44,129	62,744
1940	74,268	89,721	113,922	144,641	188,250	198,000	177,814	134,673	60,935	43,109	49,949	65,177
1941	73,681	80,143	94,921	120,626	140,204	147,552	137,894	103,395	54,609	46,676	60,678	90,585
1942	100,941	108,085	117,314	144,361	173,999	198,000	176,926	138,069	58,144	36,054	55,128	77,873
1943	94,474	107,109	116,417	127,977	165,719	198,000	194,706	169,447	55,374	24,373	33,816	47,171
1944	53,489	60,608	72,610	87,316	109,517	124,104	119,860	96,335	31,333	16,510	23,757	30,818
1945	50,459	70,074	79,776	92,594	139,204	167,198	169,405	145,764	64,708	43,935	54,644	66,099
1946	81,457	89,924	104,691	114,084	174,964	198,000	194,706	169,617	68,256	28,024	49,920	99,860
1947	117,837	140,488	153,313	166,576	197,538	198,000	183,789	160,363	61,756	66,143	93,547	111,834
1948	127,874	143,975	116,648	102,763	140,519	198,000	191,536	169,413	65,643	48,976	61,942	73,630
1949	81,631	91,456	104,598	106,989	177,394	198,000	189,169	168,844	64,856	34,434	65,597	87,162
1950	103,042	121,010	103,730	92,458	120,016	198,000	198,000	183,494	82,457	78,977	116,736	129,025
1951	129,025	159,719	125,250	126,295	191,576	198,000	189,615	169,090	68,831	60,470	76,058	93,138
1952	103,141	117,457	129,755	156,514	197,094	198,000	183,789	168,217	67,767	49,733	54,835	56,151
1953	89,053	118,484	132,432	134,311	175,744	198,000	195,747	169,901	56,943	23,872	35,769	64,218
1954	82,150	96,026	114,090	109,658	147,071	198,000	198,000	188,272	93,824	66,130	84,405	97,032
1955	107,967	118,910	127,598	123,482	142,602	198,000	187,532	168,711	64,810	60,439	100,881	129,025
1956	129,025	129,078	69,783	65,407	137,620	198,000	197,955	171,175	70,984	41,052	55,282	88,407
1957	99,785	110,725	130,465	144,724	196,817	198,000	180,268	150,575	47,326	25,108	33,659	46,892
1958	60,631	78,635	96,623	123,656	196,532	198,000	178,648	150,250	59,360	42,811	82,975	129,025
1959	129,025	146,661	139,598	138,389	171,080	198,000	191,036	169,041	93,494	109,420	134,984	130,937
1960	130,244	148,033	150,493	162,772	197,469	198,000	185,445	168,929	66,856	33,068	52,830	64,864
1961	87,637	124,098	130,610	127,169	170,414	198,000	188,322	169,187	65,690	36,101	47,134	63,632
1962	92,367	108,866	120,291	164,481	189,715	198,000	189,169	168,462	70,089	59,850	100,211	129,025
1963	129,025	169,775	187,532	197,667	198,000	198,000	180,236	155,254	76,554	63,847	75,380	88,551
1964	105,476	117,182	127,649	119,264	137,145	198,000	197,117	174,108	72,028	53,756	63,447	96,200
1965	127,513	159,698	141,875	145,558	190,770	198,000	187,532	168,532	74,514	45,187	57,168	66,106
1966	72,640	73,938	81,395	111,843	162,317	192,409	183,789	160,473	66,341	30,278	41,384	66,277
1967	85,434	103,806	116,935	127,110	168,724	198,000	184,647	168,766	80,918	86,915	110,158	129,025
1968	129,025	176,546	184,743	196,575	198,000	198,000	184,215	169,731	90,399	72,308	106,564	123,681
1969	129,025	139,941	130,028	125,280	191,607	198,000	183,126	159,628	72,039	52,223	63,062	71,948
1970	89,974	103,229	122,233	139,026	186,538	198,000	180,281	151,367	77,556	68,455	80,595	95,379
1971	119,256	153,586	114,592	100,481	144,163	198,000	198,000	186,616	88,579	48,129	58,618	69,430
1972	85,176	113,558	89,678	70,810	122,636	198,000	198,000	189,570	116,339	89,855	102,812	129,025
1973	129,025	140,325	151,810	166,313	192,232	198,000	178,595	146,867	75,501	58,769	79,240	101,360
1974	129,523	136,996	82,238	67,687	105,311	198,000	198,000	196,245	107,800	67,454	78,331	96,882
1975	129,025	146,987	125,028	111,056	143,940	198,000	195,233	171,080	70,506	41,321	63,741	129,025
1976	129,025	150,533	130,969	124,587	174,306	198,000	197,746	192,124	106,478	74,188	83,166	88,459
1977	93,953	95,484	97,233	110,761	118,417	132,233	122,802	105,839	57,349	41,240	63,095	132,081
1978	130,422	142,773	149,358	155,932	193,660	198,000	189,169	169,490	102,448	77,372	86,706	94,103
1979	96,370	102,455	119,975	133,918	180,149	198,000	180,289	151,310	66,951	45,567	51,782	75,920
1980	89,074	101,068	123,723	169,912	197,489	198,000	180,258	151,339	73,518	58,987	78,898	129,025
1981	129,025	166,141	189,093	197,876	198,000	198,000	180,270	150,860	69,063	74,074	85,504	103,801
1982	122,763	163,862	134,718	123,448	164,107	198,000	192,048	169,228	83,981	56,915	68,609	90,517
1983	124,531	146,164	144,046	139,191	194,741	198,000	187,532	170,204	86,196	53,525	77,138	89,333
1984	129,025	150,975	146,832	141,814	174,206	198,000	192,570	169,682	89,021	67,826	80,739	88,461
1985	91,106	92,060	100,336	130,603	176,210	198,000	180,271	152,130	83,379	75,570	90,398	97,686
1986	108,610	137,227	170,486	196,549	197,964	198,000	180,231	151,124	77,933	65,665	83,929	93,926
1987	102,453	113,560	143,780	177,818	197,958	198,000	178,511	146,373	46,372	22,750	27,353	41,198
1988	47,182	58,913	78,039	118,965	164,527	191,850	178,579	145,500	61,487	47,014	64,314	79,827
1989	92,430	101,610	117,926	163,173	197,605	198,000	180,277	152,746	45,336	23,189	39,669	64,892
1990	95,295	110,186	129,281	163,518	196,516	198,000	189,169	169,327	62,661	42,827	87,812	108,929
1991	129,025	167,535	156,524	166,060	197,237	198,000	191,036	169,471	64,346	25,648	43,378	60,325
1992	75,017	95,390	120,857	152,767	182,154	188,546	178,608	146,744	65,042	46,546	53,298	55,103
1993	56,446	58,127	73,427	96,185	150,189	168,613	166,947	138,784	59,747	41,378	42,726	43,570
1994	50,688	51,915	68,666	99,583	132,359	143,208	140,640	112,433	41,209	23,578	37,133	61,760
1995	80,220	138,510	149,332	146,244	196,624	198,000	183,738	160,258	73,896	79,172	155,984	132,779
1996	131,915	169,738	149,528	168,373	197,457	198,000	187,532	168,978	81,184	55,175	70,262	87,438
1997	128,029	134,965	90,229	85,457	152,910	198,000	196,238	170,759	102,583	131,942	131,438	130,306
1998	129,785	143,877	148,562	146,948	196,796	198,000	183,401	160,442	59,142	35,511	51,550	80,596
1999	111,904	126,403	114,789	102,411	130,116	198,000	198,000	196,005	111,936	93,967	129,025	129,025
2000	129,025	143,764	143,883	155,554	197,104	198,000	187,437	169,161	82,033	56,043	61,809	66,654
2001	67,592	67,815	73,734	86,392	116,242	124,936	120,623	107,410	33,969	14,645	35,361	49,361
2002	80,128	94,579	111,241	130,447	169,146	198,000	190,075	168,800	69,721	31,830	38,084	44,237
2003	71,493	104,534	136,401	167,130	197,913	198,000	180,257	150,756	66,005	58,353	69,897	81,851
2004	93,509	105,544	126,991	160,478	197,973	198,000	180,257	151,580	78,015	71,783	84,460	104,004
2005	129,025	140,918	153,646	173,951	197,865	198,000	176,841	140,462	67,727	47,963	59,019	77,136
2006	111,611	130,087	134,304	128,022	188,302	198,000	184,474	159,767	54,261	22,564	86,932	112,302
2007	129,025	150,297	153,626	167,661	197,683	198,000	180,234	159,258	48,511	24,832	38,591	67,462
2008	78,193	88,053	100,828	115,455	179,129	198,000	192,570	169,324	71,932	54,005	84,561	97,241
2009	129,025	140,996	143,407	139,637	194,802	198,000	183,789	160,919	53,319	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP0 (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP0 (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	325,939	329,351	456,491
1926	510,845	551,491	662,891	845,107	853,527	707,381	469,414	245,699	111,109	159,033	215,820	305,835
1927	338,471	364,495	391,737	492,527	745,729	992,067	872,851	595,537	424,201	493,174	673,354	740,337
1928	770,777	792,452	860,466	860,923	1,064,090	1,054,836	830,909	528,305	314,730	299,486	312,098	314,552
1929	307,781	301,524	336,194	348,923	605,068	744,725	569,481	320,776	161,299	120,406	102,895	109,251
1930	110,740	199,498	284,908	509,616	610,680	608,825	433,450	234,880	110,650	86,899	101,986	99,750
1931	131,147	183,509	268,252	397,503	649,467	650,949	459,453	244,095	109,391	90,530	146,614	163,531
1932	219,445	342,564	523,525	698,221	971,746	1,039,816	892,263	614,609	402,247	346,498	590,845	689,720
1933	734,395	752,227	758,532	746,562	808,303	1,066,545	1,040,018	817,732	646,445	738,072	752,871	901,036
1934	829,551	906,040	910,769	1,057,312	1,062,647	957,889	698,591	409,456	235,167	277,821	449,955	533,238
1935	685,535	767,857	796,495	806,728	1,033,187	1,065,670	921,588	645,129	445,963	365,591	355,969	354,089
1936	375,463	381,334	430,027	645,806	1,008,465	1,063,402	851,029	564,257	374,049	334,735	316,714	352,281
1937	351,721	358,374	391,825	488,243	762,452	1,051,093	909,282	636,936	448,141	415,625	548,493	646,112
1938	704,132	721,049	734,199	810,455	1,056,425	1,063,622	852,181	557,674	338,830	268,248	299,726	378,241
1939	463,474	485,990	544,841	727,193	970,133	977,470	758,329	462,474	272,385	244,853	272,680	384,163
1940	406,916	457,091	556,579	731,429	923,865	845,113	580,981	301,542	150,763	131,741	153,413	217,627
1941	233,637	243,837	329,707	475,691	553,033	512,188	348,566	184,096	116,941	156,072	236,325	347,092
1942	365,582	375,734	403,873	559,608	676,793	724,174	538,972	292,405	142,115	100,969	175,985	256,649
1943	312,613	342,647	393,784	588,515	828,515	1,019,213	947,643	683,585	470,802	395,298	405,182	482,378
1944	484,827	503,219	545,438	621,440	748,411	724,256	495,141	258,214	144,682	127,430	145,141	189,343
1945	322,859	409,367	441,021	495,632	790,919	845,751	623,831	363,514	216,449	210,549	273,606	322,081
1946	380,274	396,160	437,734	575,398	972,827	1,065,670	962,340	692,043	496,565	454,636	497,588	669,069
1947	733,738	817,114	868,978	951,946	1,063,647	1,041,359	824,003	546,160	360,459	434,524	570,476	635,002
1948	667,571	703,298	677,381	672,174	844,317	1,065,670	943,670	698,609	508,132	484,418	529,531	576,560
1949	586,465	615,659	654,111	690,618	999,793	1,065,092	974,843	725,762	535,867	523,785	694,198	731,810
1950	750,861	785,849	705,512	671,651	743,556	1,067,710	1,042,865	841,496	651,701	684,282	751,935	796,958
1951	798,122	909,807	786,984	794,216	1,038,911	1,065,466	897,657	626,149	433,490	451,893	514,425	554,649
1952	564,486	594,512	618,759	782,392	1,044,708	1,044,411	863,022	581,610	385,424	343,874	327,285	317,795
1953	488,105	622,826	662,077	736,775	977,936	1,065,670	973,071	724,626	516,754	458,415	510,573	652,484
1954	702,788	740,978	751,251	732,911	860,624	1,065,670	1,041,105	859,097	689,241	646,466	689,632	710,574
1955	725,575	772,071	779,008	743,199	882,297	1,022,739	976,537	731,333	540,696	586,396	741,594	777,292
1956	776,808	765,016	582,923	592,024	837,370	1,067,496	1,021,437	779,950	592,959	584,639	639,867	733,683
1957	748,989	769,091	812,947	838,342	1,060,581	1,013,424	761,655	483,357	281,363	221,769	234,294	288,954
1958	329,554	398,216	458,750	584,698	971,174	981,594	732,035	435,529	257,726	261,774	463,915	655,886
1959	728,896	774,810	795,937	815,482	1,015,363	1,065,670	945,723	670,779	582,707	699,788	841,951	817,508
1960	797,233	840,001	851,735	889,740	1,063,335	1,063,315	863,333	586,433	392,328	345,522	439,840	466,397
1961	558,257	697,768	741,245	762,252	993,623	1,063,579	901,813	623,880	433,808	402,607	437,691	506,192
1962	641,214	711,950	737,299	934,391	1,042,874	1,064,624	904,730	648,263	457,616	445,890	606,325	707,360
1963	741,467	888,400	951,486	1,017,573	1,065,670	1,014,852	777,473	506,715	332,166	310,534	362,148	396,453
1964	461,815	483,009	512,098	563,664	764,933	1,065,670	1,016,179	802,920	626,029	603,230	639,885	713,863
1965	769,262	870,171	840,906	851,067	1,052,371	1,055,671	886,008	629,665	442,120	384,455	425,607	448,863
1966	467,528	468,974	501,501	671,623	937,652	1,007,551	839,907	557,106	366,050	311,850	346,992	484,611
1967	582,199	658,699	682,859	676,430	906,700	1,003,218	850,593	575,310	393,195	482,549	583,179	728,918
1968	776,951	948,912	1,001,712	1,016,860	1,065,319	1,042,262	829,962	583,760	444,527	441,425	558,693	626,639
1969	687,751	701,781	705,382	759,495	1,037,492	1,046,660	826,832	544,600	371,181	339,078	362,751	372,735
1970	413,724	441,640	499,606	563,747	821,306	940,313	754,057	477,599	316,215	302,257	349,106	380,907
1971	485,919	618,935	604,060	632,078	846,837	1,065,670	1,062,762	850,246	670,978	619,666	652,329	671,950
1972	706,848	804,455	714,051	633,636	782,609	1,066,295	1,042,886	863,486	728,977	680,875	706,135	762,053
1973	777,531	796,192	820,840	857,809	939,794	886,545	647,292	378,647	228,451	214,245	270,153	337,682
1974	510,707	554,456	519,288	529,957	685,838	1,077,382	1,065,202	902,019	734,049	654,805	667,980	715,618
1975	774,651	816,572	778,364	735,751	851,126	1,065,670	982,532	774,493	589,556	562,114	667,351	816,077
1976	810,537	872,322	804,699	786,407	986,137	1,065,670	1,024,347	871,792	702,699	636,457	649,054	668,828
1977	692,244	728,435	737,966	801,138	720,204	652,488	429,235	227,987	139,825	130,156	295,836	592,221
1978	611,996	642,189	727,205	824,788	1,014,555	1,037,495	876,283	633,360	502,396	440,672	472,770	496,855
1979	497,685	520,981	615,999	698,429	966,847	942,204	714,501	436,008	264,614	223,686	221,314	404,640
1980	432,733	465,992	530,864	737,117	941,376	953,951	730,732	452,965	293,364	267,518	373,600	665,793
1981	700,638	842,341	909,747	997,958	1,037,272	978,975	748,255	468,075	299,079	324,883	360,162	405,987
1982	475,420	655,957	687,738	720,554	937,618	1,067,401	959,420	702,874	537,375	505,977	537,510	623,803
1983	745,928	810,251	842,284	834,768	1,034,449	1,038,390	918,316	674,515	517,177	448,133	562,036	591,936
1984	765,761	826,457	843,159	834,824	1,008,303	1,065,670	965,041	706,818	541,734	502,323	545,809	565,430
1985	563,671	564,545	593,966	780,929	1,035,171	1,038,858	790,127	500,662	346,650	397,242	502,619	503,055
1986	532,497	650,110	803,638	926,014	1,051,401	1,000,415	749,687	457,095	296,930	278,605	403,280	430,492
1987	440,769	461,530	575,382	780,736	977,597	889,277	635,658	360,465	168,488	116,176	108,247	144,416
1988	152,978	199,290	293,344	533,978	771,859	818,951	620,403	365,497	200,088	223,208	333,002	417,239
1989	496,805	529,709	575,358	807,590	1,009,995	1,002,761	775,318	496,844	289,386	221,628	339,488	462,937
1990	567,848	638,687	695,482	920,923	1,061,736	1,065,307	897,816	634,459	436,780	471,200	800,878	786,607
1991	801,248	958,496	898,350	962,683	1,063,505	1,065,256	937,786	685,359	485,044	400,610	473,566	574,679
1992	644,037	725,575	856,101	998,026	1,012,425	847,183	587,570	318,089	178,244	152,035	195,746	216,800
1993	251,334	267,873	351,434	489,322	789,505	759,558	535,615	291,097	138,379	102,283	97,414	110,906
1994	158,365	174,272	268,784	473,161	648,209	623,163	454,482	245,233	110,682	103,046	159,645	262,546
1995	315,665	538,998	624,061	709,046	998,772	994,887	811,406	543,542	364,677	422,635	846,845	811,286
1996	810,055	952,122	876,612	959,333	1,063,284	1,048,814	878,331	622,751	450,143	422,434	511,869	568,040
1997	669,084	731,783	666,072	654,006	903,127	1,065,670	1,001,470	770,452	638,304	751,934	774,089	774,302
1998	784,665	822,238	850,601	850,876	1,060,324	1,040,029	824,428	542,545	337,717	276,506	365,960	484,690
1999	614,515	659,114	652,728	671,182	785,817	1,065,670	1,054,910	907,753	737,471	695,784	769,903	799,371
2000	793,748	813,206	824,713	885,904	1,061,703	1,065,345	879,310	600,488	435,619	401,766	403,661	396,401
2001	395,383	391,498	433,971	507,650	708,953	662,973	470,576	276,113	137,467	133,386	261,843	322,684
2002	438,926	490,347	547,477	707,168	969,226	1,065,670	932,988	652,600	455,171	370,269	375,383	381,856
2003	494,674	595,336	722,141	858,865	1,013,590	998,048	747,231	462,485	286,379	328,944	443,062	489,017
2004	530,247	568,290	670,209	854,499	1,021,330	972,636	716,331	461,865	344,866	358,256	444,133	559,582
2005	710,395	751,186	791,234	873,735	909,751	761,855	527,952	303,679	164,858	157,260	210,682	279,429
2006	397,094	445,441	463,397	564,990	897,698	1,012,739	820,889	539,647	337,451	255,123	527,478	580,602
2007	651,426	724,488	857,907	941,919	1,064,296	1,032,180	815,017	530,373	317,243	277,636	320,675	415,077
2008	432,988	454,180	487,870	511,904	905,253	1,065,847	923,552	663,813	479,065	457,335	622,413	668,085
2009	776,844	795,733	804,705	818,370	1,052,726	1,045,427	831,052	556,627	360,168	NA	NA	NA

Appendix C-3
Scenario IP1A (KKC Only)

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP1A - KKC 400 cfs (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	3,067	761	1,538	1,546	89.3%	384	92	88.7%	349	79	60	5
Avg. WY 1982 to 2009	2,943	669	1,535	1,499	88.6%	360	85	88.2%	325	72	28	14
1941 (Dry Year)	1,697	239	972	878	22.4%	119	6	22.8%	139	13	669	0
1994 (Dry Year)	1,816	257	1,078	922	29.9%	112	8	30.2%	71	5	0	0
2001 (Dry Year)	1,895	197	1,204	1,032	43.3%	137	34	43.3%	106	28	0	0
2005 (Dry Year)	1,922	176	1,242	1,058	45.9%	164	31	48.0%	147	31	0	0

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,936	229	1,232	1,016	44.5%	112	11	44.7%	111	13	0	0
1927	3,126	700	1,609	1,620	100.0%	427	104	100.0%	452	95	289	0
1928	3,067	751	1,610	1,500	100.0%	316	91	100.0%	291	67	0	0
1929	2,132	219	1,377	1,161	61.3%	163	15	58.7%	129	11	0	0
1930	1,938	278	1,181	981	38.9%	108	4	38.0%	75	3	2,392	0
1931	1,905	281	1,150	977	38.7%	108	6	38.1%	79	5	656	0
1932	3,100	680	1,609	1,615	100.0%	419	97	100.0%	347	68	0	0
1933	3,855	1,207	1,609	2,009	100.0%	646	161	100.0%	599	151	0	0
1934	2,933	742	1,566	1,371	91.7%	235	53	89.5%	197	48	0	0
1935	3,214	769	1,609	1,633	100.0%	446	113	100.0%	376	85	0	0
1936	3,349	1,004	1,566	1,527	91.7%	372	87	89.9%	341	82	0	0
1937	2,973	550	1,589	1,635	100.0%	441	106	96.9%	405	101	1	0
1938	3,421	1,083	1,609	1,523	100.0%	338	90	100.0%	273	62	0	0
1939	2,530	331	1,543	1,422	97.6%	269	53	94.9%	237	50	0	0
1940	2,277	308	1,444	1,189	70.0%	151	21	67.7%	124	18	0	0
1941	1,697	239	972	878	22.4%	119	6	22.8%	139	13	669	0
1942	2,194	285	1,385	1,132	61.0%	142	14	59.1%	103	9	0	0
1943	3,482	1,010	1,609	1,740	100.0%	475	119	100.0%	402	91	0	0
1944	1,991	198	1,281	1,088	52.3%	147	18	49.4%	130	17	0	0
1945	2,365	294	1,476	1,282	73.1%	215	26	70.8%	183	22	0	0
1946	3,494	995	1,609	1,730	100.0%	497	120	100.0%	417	93	0	0
1947	3,093	736	1,609	1,548	100.0%	359	105	100.0%	339	84	0	0
1948	3,922	1,413	1,609	1,730	100.0%	508	135	100.0%	485	119	0	0
1949	4,043	1,510	1,609	1,747	100.0%	536	161	100.0%	495	146	0	0
1950	4,296	1,647	1,609	2,069	100.0%	652	157	100.0%	641	151	0	0
1951	3,795	1,362	1,609	1,628	100.0%	433	109	100.0%	408	88	0	0
1952	2,915	553	1,591	1,548	100.0%	381	111	99.2%	347	108	0	0
1953	3,193	674	1,609	1,784	100.0%	517	131	100.0%	459	106	0	0
1954	4,031	1,344	1,609	2,100	100.0%	689	161	100.0%	633	148	0	0
1955	3,452	907	1,609	1,830	100.0%	541	162	100.0%	522	160	0	0
1956	4,865	2,276	1,609	1,939	100.0%	593	145	100.0%	536	127	0	0
1957	3,218	941	1,610	1,452	100.0%	280	68	100.0%	219	41	0	0
1958	2,881	634	1,609	1,418	100.0%	249	50	100.0%	238	36	0	0
1959	3,544	962	1,609	1,797	100.0%	583	154	100.0%	606	158	0	0
1960	3,159	768	1,609	1,580	100.0%	392	96	100.0%	327	70	0	0
1961	3,631	1,202	1,609	1,621	100.0%	434	109	100.0%	392	89	0	0
1962	3,019	560	1,609	1,647	100.0%	458	122	100.0%	429	102	0	0
1963	2,730	426	1,585	1,479	96.1%	331	79	93.7%	301	75	0	0
1964	3,420	796	1,609	1,966	100.0%	626	157	100.0%	600	147	0	0
1965	3,409	972	1,609	1,630	100.0%	442	115	100.0%	382	88	0	0
1966	2,819	466	1,609	1,546	100.0%	358	108	100.0%	286	81	0	0
1967	3,131	760	1,581	1,573	95.8%	394	110	91.9%	392	112	0	0
1968	2,857	415	1,609	1,633	100.0%	444	111	100.0%	405	89	0	0
1969	3,614	1,250	1,609	1,556	100.0%	369	91	100.0%	339	67	0	0
1970	2,895	611	1,572	1,448	91.5%	310	75	89.7%	292	74	0	0
1971	3,939	1,266	1,609	2,020	100.0%	671	161	100.0%	604	147	0	0
1972	4,804	2,081	1,609	2,108	100.0%	729	174	100.0%	683	162	0	0
1973	2,307	186	1,501	1,318	77.1%	232	47	75.5%	206	43	0	0
1974	4,671	1,939	1,609	2,211	100.0%	734	163	100.0%	665	148	0	0
1975	3,886	1,300	1,609	1,929	100.0%	589	149	100.0%	530	125	0	0
1976	3,843	1,145	1,609	2,007	100.0%	703	164	100.0%	640	143	223	0
1977	1,932	184	1,246	1,060	46.6%	139	12	46.5%	119	13	0	0
1978	3,133	628	1,609	1,715	100.0%	504	121	100.0%	446	93	0	0
1979	2,449	264	1,529	1,372	82.2%	259	49	80.3%	214	37	0	0
1980	2,801	541	1,581	1,439	99.2%	289	67	96.7%	267	66	0	0
1981	2,560	306	1,551	1,429	87.4%	301	70	85.9%	321	75	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP1A - KKC 400 cfs (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,511	979	1,609	1,768	100.0%	537	136	100.0%	486	115	89	89
1983	3,422	907	1,609	1,727	100.0%	517	140	100.0%	454	115	31	0
1984	3,299	760	1,609	1,780	100.0%	542	134	100.0%	493	108	0	0
1985	2,859	537	1,589	1,506	99.0%	344	63	97.5%	323	62	0	0
1986	2,641	385	1,567	1,425	90.4%	293	58	89.3%	272	58	0	0
1987	2,404	379	1,492	1,230	74.3%	166	27	72.7%	121	15	97	97
1988	2,444	347	1,508	1,282	77.6%	199	20	76.5%	173	14	0	0
1989	2,820	531	1,588	1,456	98.4%	308	68	96.6%	287	67	0	0
1990	3,223	794	1,609	1,619	100.0%	437	105	100.0%	403	86	0	0
1991	3,045	568	1,609	1,676	100.0%	485	130	100.0%	410	101	216	216
1992	2,226	255	1,434	1,197	68.0%	180	33	67.7%	153	30	0	0
1993	2,196	284	1,400	1,157	64.8%	137	16	62.1%	107	12	0	0
1994	1,816	257	1,078	922	29.9%	112	8	30.2%	71	5	0	0
1995	2,982	614	1,609	1,559	100.0%	372	101	100.0%	379	87	246	0
1996	3,237	807	1,609	1,627	100.0%	450	122	100.0%	393	96	0	0
1997	4,591	1,954	1,609	1,914	100.0%	638	150	100.0%	681	154	65	0
1998	3,168	841	1,609	1,513	100.0%	338	97	100.0%	280	71	0	0
1999	4,067	1,347	1,609	2,112	100.0%	737	170	100.0%	693	156	0	0
2000	3,320	891	1,609	1,618	100.0%	436	97	100.0%	394	78	0	0
2001	1,895	197	1,204	1,032	43.3%	137	34	43.3%	106	28	0	0
2002	3,343	891	1,609	1,646	100.0%	455	111	100.0%	386	83	0	0
2003	2,663	444	1,556	1,399	89.5%	276	60	89.0%	253	56	0	0
2004	2,613	326	1,588	1,478	98.6%	334	64	96.9%	321	64	33	0
2005	1,922	176	1,242	1,058	45.9%	164	31	48.0%	147	31	0	0
2006	3,193	858	1,609	1,521	100.0%	335	87	100.0%	261	59	0	0
2007	3,035	725	1,609	1,502	100.0%	316	93	100.0%	262	67	0	0
2008	3,191	732	1,593	1,707	100.0%	479	115	99.5%	457	115	0	0
2009	3,285	941	1,601	1,539	100.0%	358	105	100.0%	NA	NA	0	0
Average	3,067	761	1,538	1,546	89.3%	384	92	88.7%	349	79	60	5

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP1A - KKC 400 cfs (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	3.7%	50.4%	1.0%	0.0%	1.3%
	0 -10% Above Target[1]	72.7%	35.3%	0.1%	0.0%	75.2%
	0-10% Below Target	0.1%	0.3%	58.5%	97.5%	0.6%
	> 10% Below Target	23.5%	14.0%	40.4%	2.5%	22.9%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	57.1%	76.0%	79.3%	6.3%
	0 -10% Above Target	8.2%	3.2%	2.6%	72.9%
	0-10% Below Target	7.4%	2.4%	2.7%	3.7%
	> 10% Below Target	27.3%	18.4%	15.4%	17.1%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			0.0%	
	0 -10% Above Target			3.1%	
	0-10% Below Target			3.6%	
	> 10% Below Target			93.3%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				16.4%	
	0 -10% Above Target				28.7%	
	0-10% Below Target				39.1%	
	> 10% Below Target				15.8%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				97.4%	
	0 -10% Above Target				0.7%	
	0-10% Below Target				0.9%	
	> 10% Below Target				1.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	13.0%	32.2%		5.9%
	0 -10% Above Target	1.2%	2.8%		1.7%
	0-10% Below Target	7.6%	2.9%		20.9%
	> 10% Below Target	78.2%	62.1%		71.5%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			45.6%	20.4%	17.9%
	0 -10% Above Target			22.3%	6.1%	1.8%
	0-10% Below Target			10.1%	7.2%	3.8%
	> 10% Below Target			22.0%	66.3%	76.5%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.8%	94.3%	89.5%
	0 -10% Above Target			0.1%	2.3%	3.9%
	0-10% Below Target			0.1%	1.7%	2.8%
	> 10% Below Target			0.0%	1.7%	3.8%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			59.4%	
	0 -10% Above Target			3.7%	
	0-10% Below Target			4.1%	
	> 10% Below Target			32.8%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.9%	94.4%	89.5%
	0 -10% Above Target			0.7%	1.7%	4.0%
	0-10% Below Target			0.4%	1.5%	2.3%
	> 10% Below Target			0.0%	2.4%	4.2%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP1A - KKC 400 cfs (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	17.5%	41.1%	96.8%		17.9%
	0 -10% Above Target	58.8%	39.8%	2.6%		61.3%
	0-10% Below Target	0.0%	0.3%	0.0%		0.2%
	> 10% Below Target	23.7%	18.8%	0.6%		20.6%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	15.7%			
	0 -10% Above Target	1.1%			
	0-10% Below Target	1.1%			
	> 10% Below Target	82.1%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	71.4%			
	0 -10% Above Target	3.7%			
	0-10% Below Target	4.4%			
	> 10% Below Target	20.5%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP1A 400 cfs

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	37.9	3.9	0.9	0.9	0.8	0.9	5.5	35.6	48.6	69.7	78.0	42.8	325.5
1927	3.9	1.0	0.9	0.9	0.8	0.9	0.9	5.1	18.3	42.5	50.0	71.4	196.8
1928	22.1	0.9	6.8	31.6	1.0	19.3	21.4	30.1	24.2	57.1	72.1	74.0	360.6
1929	30.2	4.0	4.4	4.4	2.4	1.3	12.3	9.9	26.7	63.5	70.4	50.2	279.6
1930	7.1	5.0	3.7	1.2	0.8	0.9	1.6	13.7	28.9	44.8	46.3	16.0	170.1
1931	3.4	3.6	5.2	3.6	0.8	0.9	3.1	7.7	31.2	49.2	63.8	30.9	203.3
1932	5.1	2.2	1.0	0.9	1.1	0.9	0.9	7.9	19.0	63.0	77.8	72.5	252.5
1933	33.4	0.9	6.2	17.7	1.0	29.3	23.6	25.8	26.2	51.4	63.7	71.7	350.9
1934	26.7	22.3	97.7	55.2	2.1	70.2	26.9	24.5	31.8	68.5	75.6	70.1	571.7
1935	6.2	0.9	0.9	0.9	0.8	0.9	14.3	16.9	33.9	55.5	65.7	72.9	269.8
1936	32.4	3.5	4.4	0.9	0.9	1.6	2.1	11.0	38.2	69.7	72.8	71.2	308.6
1937	9.0	5.2	2.5	2.1	1.1	0.9	1.9	8.4	17.4	54.5	63.7	70.7	237.4
1938	6.8	1.2	0.9	0.9	0.8	11.6	29.6	16.1	26.7	65.7	65.6	70.0	295.8
1939	32.8	0.9	0.9	0.9	0.8	0.9	1.6	13.7	34.0	74.1	81.6	68.3	310.6
1940	5.0	3.0	0.9	2.1	0.9	0.9	2.8	16.2	43.2	65.5	75.7	48.9	265.0
1941	6.2	3.4	1.1	2.0	1.1	0.9	3.4	12.8	22.5	33.1	41.9	12.8	141.1
1942	1.8	1.1	0.9	0.9	0.8	1.0	3.7	19.6	24.6	31.8	54.9	50.7	192.1
1943	5.5	1.4	0.9	0.9	0.8	0.9	1.1	9.3	18.6	41.0	53.1	70.7	204.2
1944	31.1	2.7	1.7	1.8	0.9	1.8	8.9	24.4	37.3	57.9	66.1	48.5	283.1
1945	5.7	2.7	1.9	0.9	0.8	1.0	4.3	10.0	32.2	58.0	58.6	65.8	241.9
1946	5.6	1.0	1.5	0.9	0.8	0.9	0.9	1.7	24.6	56.0	73.4	69.4	236.8
1947	31.2	2.7	0.9	0.9	0.8	29.0	22.0	26.2	28.1	55.9	58.5	69.8	325.9
1948	27.5	0.9	0.9	0.9	0.9	19.0	23.6	40.5	30.1	55.5	59.4	67.1	326.4
1949	26.5	1.8	0.9	0.9	0.8	5.7	29.4	32.6	36.3	41.5	56.1	68.5	301.1
1950	26.9	2.5	23.0	16.2	4.6	68.6	22.2	30.1	27.1	49.3	64.0	69.7	404.2
1951	26.3	13.6	35.6	28.4	27.3	51.4	28.0	20.2	28.9	58.6	61.5	67.1	447.0
1952	27.1	1.2	2.1	2.0	0.9	0.9	1.0	11.0	28.3	45.2	63.1	70.0	252.7
1953	4.3	5.9	5.8	1.5	0.8	0.9	9.0	17.3	25.1	53.6	64.5	70.4	259.0
1954	27.1	3.1	0.9	2.1	1.0	29.2	26.7	31.9	25.7	58.3	63.8	70.7	340.6
1955	28.0	1.9	3.4	7.6	1.0	18.7	22.0	20.1	34.7	45.4	62.6	70.0	315.3
1956	22.4	24.7	37.2	13.1	15.9	68.6	28.4	41.7	21.0	53.6	69.0	68.9	464.5
1957	27.4	1.2	32.6	10.1	1.0	9.9	26.2	27.2	35.1	77.6	63.6	68.7	380.5
1958	29.8	3.7	1.0	0.9	0.8	0.9	1.5	10.4	31.2	55.5	71.1	68.7	275.7
1959	22.4	0.9	0.9	0.9	0.8	22.5	33.9	14.3	34.9	53.0	67.6	68.2	320.4
1960	20.4	51.8	43.9	9.6	1.1	20.4	25.9	15.7	32.0	65.0	68.8	68.6	423.3
1961	28.7	1.1	2.3	1.1	0.8	18.7	32.6	18.7	36.5	55.0	66.8	69.8	332.3
1962	26.5	2.6	1.4	0.9	0.8	0.9	11.2	20.7	25.4	59.7	53.3	67.8	271.3
1963	27.6	1.7	0.9	4.9	1.1	6.4	14.1	25.2	27.7	64.5	66.3	69.2	309.7
1964	5.6	2.2	2.0	0.9	0.9	0.9	3.8	8.3	25.8	65.9	67.2	67.9	251.4
1965	29.6	2.3	9.2	22.6	2.8	40.9	31.8	11.8	32.3	51.7	62.4	69.8	367.2
1966	29.8	4.1	3.8	2.5	2.5	0.9	2.6	11.7	26.2	40.7	54.4	66.2	245.5
1967	28.1	2.5	0.9	0.9	0.8	0.9	21.3	11.3	24.3	41.1	75.7	69.4	277.3
1968	2.2	0.9	18.9	39.4	8.2	29.1	17.5	18.9	26.6	48.5	68.5	68.5	347.2
1969	26.3	0.9	0.9	1.0	1.6	3.4	28.5	27.1	39.2	66.9	68.7	68.3	332.8
1970	28.8	4.3	4.0	2.3	0.8	0.9	7.9	7.9	19.2	51.1	69.7	71.1	268.1
1971	3.7	3.5	3.8	1.1	0.8	0.9	11.4	40.9	21.1	43.1	68.8	66.4	265.5
1972	28.1	0.9	8.2	20.3	42.5	97.9	25.1	44.6	19.7	46.9	54.4	66.3	454.9
1973	27.4	1.2	17.9	17.7	1.0	4.1	15.0	30.9	30.8	57.4	77.1	64.2	344.7
1974	8.0	3.2	1.0	1.0	0.8	0.9	32.0	28.4	32.5	50.4	65.5	71.2	295.0
1975	29.2	3.7	3.7	27.8	1.2	37.8	20.0	30.7	28.7	60.1	62.6	67.7	373.2
1976	26.5	0.9	72.0	49.4	1.8	38.1	24.7	22.2	24.8	46.1	54.3	71.1	432.0
1977	30.3	3.4	2.2	0.9	0.8	8.9	15.4	49.9	43.2	65.9	71.4	38.1	330.4
1978	2.3	0.9	0.9	0.9	0.8	0.9	2.8	14.5	25.4	54.7	52.9	66.6	223.8
1979	30.7	6.0	3.3	3.4	2.2	0.9	5.9	13.9	38.3	64.6	77.5	66.9	313.6
1980	13.9	4.3	1.0	0.9	0.9	0.9	0.9	11.2	28.3	37.2	71.7	67.0	238.3
1981	5.4	1.7	0.9	0.9	0.9	0.9	5.8	21.7	25.0	68.3	81.5	71.8	284.7
1982	3.2	2.2	1.1	1.5	0.8	0.9	16.9	23.2	31.6	55.2	63.5	71.0	271.1
1983	27.3	1.2	1.0	0.9	0.8	37.9	22.5	16.2	30.7	35.4	46.8	69.6	290.3
1984	28.4	0.9	0.9	12.2	2.0	33.4	19.0	8.7	37.8	52.0	64.3	70.2	329.8
1985	30.5	1.0	2.5	3.9	3.9	0.9	3.7	8.3	37.5	84.6	76.0	70.5	323.6
1986	2.6	0.9	2.2	2.0	1.5	0.9	4.3	16.6	34.6	78.2	78.7	68.1	290.6
1987	4.8	1.5	0.9	2.6	1.2	0.9	0.9	13.7	46.0	71.0	77.6	67.8	288.8
1988	14.1	4.3	2.9	3.8	1.1	0.9	1.2	7.6	33.0	64.3	56.9	62.2	252.4
1989	8.9	0.9	0.9	0.9	0.8	1.0	1.2	11.2	27.6	62.2	74.4	70.3	260.3
1990	4.2	1.0	0.9	0.9	0.8	5.4	33.0	22.4	35.4	61.3	67.5	70.6	303.5
1991	26.8	10.1	32.6	31.7	12.5	42.4	19.1	21.4	23.2	55.6	51.3	70.5	397.2
1992	31.8	1.7	0.9	0.9	0.9	0.9	15.9	30.3	42.5	79.6	85.0	54.5	345.0
1993	5.7	0.9	0.9	1.0	0.8	0.9	1.5	10.4	42.5	73.6	79.1	48.6	266.0
1994	6.8	4.6	2.1	1.0	0.9	1.0	2.0	11.2	28.5	41.6	55.8	34.7	190.1
1995	4.5	0.9	0.9	0.9	0.8	0.9	3.5	11.1	30.7	42.1	51.9	72.5	220.8
1996	26.7	9.6	23.8	52.8	33.2	52.1	20.4	23.7	30.6	47.5	62.6	69.5	452.6
1997	28.2	0.9	0.9	0.9	11.1	82.4	33.7	36.9	31.1	53.3	66.7	71.8	418.1
1998	20.1	4.3	11.6	13.3	1.0	18.6	23.1	17.3	27.7	51.9	66.5	72.6	327.9
1999	32.0	1.9	1.0	0.9	0.8	15.1	26.5	31.6	22.3	50.7	57.0	72.1	312.1
2000	31.8	6.8	43.1	14.0	3.1	7.7	26.2	20.1	32.8	66.9	75.9	71.1	399.5
2001	29.4	2.9	4.2	4.1	3.0	1.9	6.5	10.7	39.0	54.6	65.4	49.5	271.2
2002	9.2	1.3	0.9	0.9	0.8	0.9	1.1	3.2	44.9	58.7	71.8	72.3	266.1
2003	31.7	5.3	5.0	3.3	0.8	0.9	3.2	16.5	31.4	65.9	76.5	71.1	311.6
2004	7.6	0.9	0.9	2.1	0.9	0.9	3.4	17.3	32.1	61.4	77.9	70.5	275.8
2005	4.9	1.0	0.9	1.2	0.8	2.3	8.6	25.3	42.6	55.7	60.0	49.5	252.9
2006	4.3	1.0	2.3	0.9	0.8	0.9	1.1	8.1	26.8	51.9	54.9	68.4	221.5
2007	34.8	1.0	1.6	0.9	0.8	13.5	16.5	27.8	33.4	53.9	68.3	71.6	324.2
2008	36.5	2.3	3.0	2.7	0.9	1.6	7.2	3.7	13.0	66.6	74.7	68.7	280.8
2009	5.6	1.0	1.2	23.3	1.0	7.6	22.4	22.8	33.7	61.4	62.4	68.5	310.8
Average	19.1	3.7	7.7	7.3	2.9	13.4	13.6	19.1	30.4	56.4	65.8	64.8	304.1

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A - KKC 400 cfs (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A - KKC 400 cfs (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	39	34	368	232	120	-	-	-	80	115	367	13	83
1927	2	1	-	-	-	-	-	361	93	400	338	13	74
1928	149	385	219	58	-	68	-	-	-	400	400	13	103
1929	12	35	36	37	17	3	-	129	400	84	256	12	62
1930	15	44	27	3	-	-	66	72	14	3	206	11	28
1931	2	29	43	27	-	-	-	387	109	8	288	13	55
1932	7	15	1	0	3	248	400	39	13	400	400	171	103
1933	58	395	400	106	-	158	-	-	-	280	400	400	134
1934	400	177	354	325	6	335	-	-	-	400	377	13	146
1935	-	90	234	173	-	-	19	-	-	367	400	69	83
1936	13	29	37	6	14	153	185	-	-	395	400	13	76
1937	11	47	14	13	3	23	255	142	-	400	400	13	81
1938	3	237	400	-	-	-	-	-	-	400	400	13	89
1939	19	0	207	359	62	72	-	-	-	400	400	13	94
1940	2	23	69	39	151	225	225	-	-	222	340	13	79
1941	5	26	2	12	3	-	-	-	-	-	172	13	14
1942	3	3	-	0	-	1	303	2	176	21	290	13	49
1943	-	5	-	-	-	-	322	310	-	400	400	63	91
1944	9	20	273	10	56	92	116	-	175	1	263	10	62
1945	8	19	10	-	60	70	101	397	144	214	248	13	78
1946	-	2	6	94	38	114	275	131	-	275	400	310	100
1947	86	149	335	-	-	118	-	-	-	400	400	13	92
1948	84	398	248	-	-	-	-	-	-	315	400	219	101
1949	96	126	173	39	-	-	-	-	-	310	400	339	90
1950	188	266	-	45	-	400	-	-	4	246	400	400	118
1951	400	284	61	174	158	360	-	-	-	373	400	13	135
1952	146	180	81	11	61	41	34	-	-	400	400	13	83
1953	4	50	44	99	129	-	-	-	-	245	400	256	74
1954	0	218	400	-	-	6	-	-	-	295	400	400	104
1955	363	211	122	-	-	-	-	-	-	233	400	400	105
1956	400	94	221	48	55	400	27	21	-	303	400	400	144
1957	285	224	189	31	-	-	-	-	-	400	400	13	94
1958	8	32	1	-	143	135	301	90	-	374	288	13	84
1959	-	227	400	141	-	194	1	-	-	309	400	400	126
1960	400	260	232	20	-	77	-	-	4	400	400	13	111
1961	1	375	71	287	50	24	2	-	-	397	400	13	99
1962	65	156	204	184	-	-	-	-	-	381	400	26	87
1963	87	218	400	-	-	-	-	-	-	400	400	13	93
1964	3	14	12	18	28	77	188	24	-	368	400	400	93
1965	376	135	214	-	-	185	-	-	-	400	400	13	106
1966	2	76	92	81	18	58	240	-	-	400	392	13	84
1967	0	17	230	297	-	-	-	-	-	309	400	40	79
1968	129	399	158	125	31	188	-	-	-	400	396	13	112
1969	116	320	195	1	6	-	-	-	-	400	400	13	89
1970	9	39	33	59	67	160	225	123	-	400	328	13	89
1971	3	28	29	84	400	13	-	-	-	162	400	400	90
1972	384	317	56	-	100	400	5	65	-	208	400	400	142
1973	333	109	102	-	-	23	-	-	-	378	289	13	76
1974	9	25	1	194	335	157	53	58	-	215	383	400	110
1975	375	93	211	-	-	199	-	-	-	302	400	387	120
1976	117	400	330	334	5	216	-	-	-	254	400	400	149
1977	123	105	150	-	-	58	-	-	146	43	301	8	57
1978	3	-	374	313	83	26	-	-	-	400	400	13	99
1979	15	116	161	28	99	274	-	-	-	400	396	13	91
1980	4	37	7	53	68	165	296	-	-	400	350	13	85
1981	13	8	194	199	0	-	-	-	-	400	400	13	75
1982	8	15	2	165	351	-	23	-	-	314	400	301	94
1983	86	138	280	4	-	154	-	-	-	400	400	13	90
1984	8	351	75	56	6	154	-	-	-	277	400	225	94
1985	64	173	78	28	30	23	67	-	-	400	400	13	78
1986	65	400	77	23	100	13	-	-	-	400	400	13	90
1987	14	81	76	23	11	304	152	-	-	365	357	13	85
1988	6	37	19	30	3	-	227	400	242	120	228	13	80
1989	0	-	72	299	114	106	199	-	-	400	400	13	98
1990	4	116	348	230	-	-	-	-	-	372	400	13	91
1991	202	400	296	175	79	283	-	-	-	362	400	74	138
1992	6	167	400	0	-	-	-	-	-	335	391	13	80
1993	1	0	-	1	-	103	391	181	105	217	362	13	84
1994	12	39	11	1	0	1	125	227	-	-	266	13	42
1995	3	-	-	-	343	400	130	-	-	400	316	13	96
1996	-	315	303	297	185	354	-	-	-	400	400	13	138
1997	74	316	156	12	-	400	30	-	-	237	400	400	123
1998	310	286	8	-	-	-	-	-	-	400	400	13	87
1999	5	64	222	275	-	77	-	-	-	258	400	400	104
2000	336	273	124	59	17	0	-	-	-	382	400	101	103
2001	117	40	35	34	24	23	126	297	227	3	317	13	76
2002	3	1	-	156	130	159	157	-	-	340	400	173	92
2003	3	49	42	77	400	136	-	-	-	400	393	13	91
2004	1	13	113	65	153	198	-	-	-	400	381	13	82
2005	-	27	316	228	4	11	-	-	168	23	300	8	66
2006	4	1	14	-	-	0	322	219	-	400	340	13	80
2007	22	307	168	201	4	-	-	-	-	400	400	13	93
2008	31	16	142	23	42	83	-	122	-	324	400	239	87
2009	10	308	298	-	-	-	-	-	-	400	400	13	87
Average	81	134	144	81	52	101	66	45	25	304	370	106	92

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A - KKC 400 cfs (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	368	232	120	-	-	-	80	52	-	-	52
1927	-	-	-	-	-	-	-	361	93	400	190	-	64
1928	149	385	219	-	-	-	-	-	-	374	50	-	72
1929	-	-	-	-	-	-	-	129	400	68	-	-	36
1930	-	-	-	-	-	-	66	72	14	-	-	-	9
1931	-	-	-	-	-	-	-	387	109	-	-	-	30
1932	-	-	-	-	-	248	400	39	13	361	19	158	75
1933	42	395	315	-	-	-	-	-	-	128	118	387	84
1934	400	57	-	-	-	-	-	-	-	115	21	-	36
1935	-	90	234	173	-	-	19	-	-	366	63	56	61
1936	-	-	-	6	14	146	185	-	-	353	44	-	46
1937	-	-	-	-	-	23	255	142	-	400	145	-	59
1938	-	233	400	-	-	-	-	-	-	358	59	-	64
1939	-	-	207	359	62	72	-	-	-	201	-	-	55
1940	-	-	69	27	151	225	225	-	-	169	-	-	52
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	303	2	176	-	-	-	29
1943	-	-	-	-	-	-	322	310	-	400	210	50	79
1944	-	-	266	1	55	85	116	-	175	-	-	-	42
1945	-	-	-	-	60	69	101	397	144	206	-	-	59
1946	-	-	-	94	38	114	275	131	-	219	42	296	73
1947	81	130	335	-	-	-	-	-	-	218	66	-	51
1948	84	398	248	-	-	-	-	-	-	303	86	205	80
1949	94	116	173	39	-	-	-	-	-	267	86	326	67
1950	188	265	-	-	-	-	-	-	4	121	152	387	67
1951	400	284	-	-	-	-	-	-	-	361	101	-	70
1952	146	177	70	-	61	41	34	-	-	398	114	-	63
1953	-	-	-	94	129	-	-	-	-	213	94	243	46
1954	-	194	400	-	-	-	-	-	-	106	128	387	74
1955	363	202	120	-	-	-	-	-	-	74	83	387	74
1956	400	94	-	-	-	-	27	21	-	164	94	387	72
1957	285	221	108	-	-	-	-	-	-	37	31	-	42
1958	-	-	-	-	143	135	301	90	-	374	-	-	63
1959	-	227	400	141	-	-	1	-	-	302	54	387	92
1960	400	166	2	-	-	-	-	-	4	364	56	-	61
1961	-	372	57	285	50	-	2	-	-	388	63	-	74
1962	64	137	199	184	-	-	-	-	-	369	140	13	68
1963	82	208	400	-	-	-	-	-	-	254	26	-	59
1964	-	-	-	18	28	77	188	24	-	153	72	387	57
1965	367	122	214	-	-	-	-	-	-	365	46	-	68
1966	-	40	62	64	0	58	240	-	-	400	173	-	63
1967	-	-	230	297	-	-	-	-	-	309	133	27	61
1968	129	399	158	0	-	-	-	-	-	398	58	-	69
1969	116	320	195	-	-	-	-	-	-	303	12	-	57
1970	-	-	-	43	67	160	225	123	-	400	90	-	67
1971	-	-	-	82	400	13	-	-	-	16	161	387	62
1972	384	317	56	-	-	-	5	65	-	126	194	387	93
1973	333	107	100	-	-	-	-	-	-	378	-	-	56
1974	-	-	-	194	335	157	53	58	-	8	168	387	81
1975	372	68	209	-	-	-	-	-	-	206	89	373	80
1976	117	400	26	-	-	-	-	-	-	235	209	387	83
1977	116	81	139	-	-	-	-	-	146	-	-	-	29
1978	-	-	374	313	83	26	-	-	-	400	185	-	84
1979	1	58	137	2	85	274	-	-	-	279	24	-	52
1980	-	-	7	53	68	165	296	-	-	400	19	-	61
1981	-	-	194	199	-	-	-	-	-	326	31	-	46
1982	-	-	-	159	351	-	23	-	-	300	60	288	70
1983	86	135	279	4	-	-	-	-	-	400	163	-	65
1984	-	351	75	4	-	-	-	-	-	275	74	211	60
1985	53	172	63	0	-	23	67	-	-	129	-	-	31
1986	65	400	65	13	94	13	-	-	-	28	0	-	40
1987	-	75	76	4	7	304	152	-	-	246	-	-	53
1988	-	-	-	-	-	-	227	400	242	109	-	-	59
1989	-	-	72	299	114	106	199	-	-	242	-	-	62
1990	-	114	348	230	-	-	-	-	-	361	68	-	69
1991	202	307	19	5	-	-	-	-	-	362	176	61	69
1992	-	158	400	-	-	-	-	-	-	285	-	-	52
1993	-	-	-	-	-	103	391	181	105	151	-	-	56
1994	-	-	-	-	-	-	125	227	-	-	-	-	21
1995	-	-	-	-	343	400	130	-	-	400	141	-	85
1996	-	275	55	-	-	-	-	-	-	400	165	-	54
1997	74	316	156	12	-	-	30	-	-	200	83	387	76
1998	310	286	8	-	-	-	-	-	-	339	67	-	62
1999	-	53	221	275	-	-	-	-	-	134	212	387	78
2000	332	268	4	2	-	-	-	-	-	308	9	87	61
2001	117	17	-	-	-	14	126	297	227	-	-	-	48
2002	-	-	-	156	130	159	157	-	-	306	15	160	65
2003	-	-	-	52	400	136	-	-	-	319	27	-	55
2004	-	13	113	53	153	198	-	-	-	329	12	-	53
2005	-	25	316	225	4	-	-	-	168	-	-	-	45
2006	-	-	-	-	-	0	322	219	-	400	128	-	65
2007	-	306	162	201	4	-	-	-	-	200	25	-	55
2008	-	-	120	4	42	75	-	122	-	229	23	226	51
2009	-	307	297	-	-	-	-	-	-	310	37	-	58
Average	76	117	114	55	43	43	66	45	25	237	65	93	59

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A - KKC 400 cfs (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	39	34	-	-	-	-	-	-	-	64	367	13	32
1927	2	1	-	-	-	-	-	-	-	-	148	13	10
1928	-	-	-	58	-	68	-	-	-	26	350	13	32
1929	12	35	36	37	17	3	-	-	-	15	256	12	26
1930	15	44	27	3	-	-	-	-	-	3	206	11	19
1931	2	29	43	27	-	-	-	-	-	8	288	13	25
1932	7	15	1	0	3	-	-	-	-	39	381	13	28
1933	17	-	85	106	-	158	-	-	-	153	282	13	50
1934	-	120	354	325	6	335	-	-	-	285	356	13	110
1935	-	-	-	-	-	-	-	-	-	1	337	13	22
1936	13	29	37	0	-	7	-	-	-	43	356	13	31
1937	11	47	14	13	3	-	-	-	-	0	255	13	22
1938	3	3	-	-	-	-	-	-	-	42	341	13	25
1939	19	0	-	-	-	-	-	-	-	199	400	13	39
1940	2	23	-	13	-	-	-	-	-	53	340	13	27
1941	5	26	2	12	3	-	-	-	-	-	172	13	14
1942	3	3	-	0	-	1	-	-	-	21	290	13	20
1943	-	5	-	-	-	-	-	-	-	-	190	13	13
1944	9	20	8	9	0	8	-	-	-	1	263	10	20
1945	8	19	10	-	-	1	-	-	-	8	248	13	19
1946	-	2	6	-	-	-	-	-	-	56	358	13	27
1947	5	19	-	-	-	118	-	-	-	182	334	13	41
1948	-	-	-	-	-	-	-	-	-	13	314	13	21
1949	2	10	0	-	-	-	-	-	-	42	314	13	23
1950	-	1	-	45	-	400	-	-	-	125	248	13	51
1951	0	-	61	174	158	360	-	-	-	13	299	13	65
1952	-	3	11	11	-	-	-	-	-	2	286	13	20
1953	4	50	44	5	-	-	-	-	-	32	306	13	28
1954	0	24	-	-	-	6	-	-	-	189	272	13	31
1955	-	9	2	-	-	-	-	-	-	159	317	13	31
1956	-	-	221	48	55	400	-	-	-	139	306	13	72
1957	-	3	81	31	-	-	-	-	-	363	369	13	53
1958	8	32	1	-	-	-	-	-	-	-	288	13	21
1959	-	-	-	-	-	194	-	-	-	7	346	13	34
1960	-	93	230	20	-	77	-	-	-	36	344	13	50
1961	1	3	14	2	-	24	-	-	-	9	337	13	25
1962	1	19	5	-	-	-	-	-	-	12	260	13	19
1963	5	9	-	-	-	-	-	-	-	146	374	13	34
1964	3	14	12	-	-	-	-	-	-	215	328	13	36
1965	9	13	-	-	-	185	-	-	-	35	354	13	37
1966	2	36	30	17	18	0	-	-	-	-	219	13	20
1967	0	17	-	-	-	-	-	-	-	0	267	13	18
1968	-	0	-	125	31	188	-	-	-	2	338	13	43
1969	-	-	-	1	6	-	-	-	-	97	388	13	31
1970	9	39	33	15	-	-	-	-	-	-	238	13	21
1971	3	28	29	2	-	-	-	-	-	146	239	13	28
1972	-	-	-	-	100	400	-	-	-	82	206	13	49
1973	0	3	2	-	-	23	-	-	-	-	289	13	20
1974	9	25	1	1	-	-	-	-	-	206	215	13	29
1975	3	25	2	-	-	199	-	-	-	96	311	13	40
1976	-	-	304	334	5	216	-	-	-	20	191	13	67
1977	7	24	10	-	-	58	-	-	-	43	301	8	28
1978	3	-	-	-	-	-	-	-	-	0	215	13	14
1979	14	58	24	26	14	-	-	-	-	121	372	13	39
1980	4	37	0	-	-	-	-	-	-	-	332	13	24
1981	13	8	-	-	0	-	-	-	-	74	369	13	29
1982	8	15	2	6	-	-	-	-	-	14	340	13	24
1983	-	3	0	0	-	154	-	-	-	-	237	13	25
1984	8	0	-	51	6	154	-	-	-	1	326	13	34
1985	11	2	15	28	30	-	-	-	-	271	400	13	47
1986	-	-	12	10	6	-	-	-	-	372	400	13	50
1987	14	6	-	18	4	-	-	-	-	119	357	13	33
1988	6	37	19	30	3	-	-	-	-	10	228	13	21
1989	0	-	-	-	-	1	-	-	-	158	400	13	35
1990	4	2	-	-	-	-	-	-	-	12	332	13	22
1991	-	93	276	170	79	283	-	-	-	-	224	13	69
1992	6	9	-	0	-	-	-	-	-	50	391	13	29
1993	1	0	-	1	-	-	-	-	-	67	362	13	27
1994	12	39	11	1	0	1	-	-	-	-	266	13	21
1995	3	-	-	-	-	-	-	-	-	-	175	13	12
1996	-	40	248	297	185	354	-	-	-	-	235	13	83
1997	-	-	-	-	-	400	-	-	-	38	317	13	47
1998	-	0	-	-	-	-	-	-	-	61	333	13	25
1999	5	11	1	-	-	77	-	-	-	124	188	13	26
2000	4	5	120	56	17	0	-	-	-	74	391	13	42
2001	-	23	35	34	24	9	-	-	-	3	317	13	28
2002	3	1	-	-	-	-	-	-	-	34	385	13	27
2003	3	49	42	26	-	-	-	-	-	81	366	13	36
2004	1	-	0	12	-	-	-	-	-	71	368	13	29
2005	-	1	-	3	-	11	-	-	-	23	300	8	21
2006	4	1	14	-	-	-	-	-	-	0	212	13	15
2007	22	1	6	-	-	-	-	-	-	200	375	13	38
2008	31	16	22	19	-	7	-	-	-	95	377	13	36
2009	10	1	2	-	-	-	-	-	-	90	363	13	29
Average	5	17	31	26	9	58	-	-	-	67	305	13	33

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A - KKC 400 cfs (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	16,553	-	-	-	-	-	9,245	37,081	38,082	42,931	41,280	13,365	198,537
1927	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,581	40,277	239,150
1928	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1929	16,553	-	-	-	-	-	9,171	39,749	40,743	53,267	52,355	16,073	227,912
1930	23	-	-	-	-	-	9,311	34,276	33,849	37,631	36,536	9,714	161,341
1931	23	-	-	-	-	-	7,996	34,050	33,723	37,795	36,190	11,413	161,190
1932	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1933	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1934	16,553	-	-	-	-	-	9,311	39,841	40,559	53,700	56,432	39,722	256,118
1935	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1936	16,553	-	-	-	-	-	7,949	39,743	40,743	53,689	56,412	39,776	254,865
1937	23	-	-	-	-	-	9,311	39,743	40,743	53,478	55,979	40,603	239,880
1938	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1939	16,553	-	-	-	-	-	9,328	36,735	40,322	53,496	56,143	40,457	253,034
1940	23	-	-	-	-	-	9,311	38,655	40,743	53,692	54,111	16,845	213,380
1941	23	-	-	-	-	-	7,810	21,751	20,944	22,650	23,241	7,905	104,324
1942	23	-	-	-	-	-	9,317	39,584	40,780	53,225	52,378	16,154	211,461
1943	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1944	16,553	-	-	-	-	-	9,296	40,297	40,750	47,744	44,363	13,529	212,533
1945	23	-	-	-	-	-	7,388	39,968	40,743	50,592	47,720	32,485	218,919
1946	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1947	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1948	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1949	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1950	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1951	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1952	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,827	40,672	256,321
1953	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1954	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1955	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1956	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1957	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1958	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1959	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1960	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1961	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1962	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1963	16,553	-	-	-	-	-	9,311	39,743	40,743	53,512	56,198	40,342	256,402
1964	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1965	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1966	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1967	16,553	-	-	-	-	-	9,311	39,743	40,743	53,585	56,322	40,156	256,413
1968	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1969	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1970	16,553	-	-	-	-	-	9,311	39,743	40,743	53,702	56,429	39,741	256,222
1971	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1972	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1973	16,553	-	-	-	-	-	7,142	39,902	40,743	52,231	50,436	34,346	241,352
1974	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1975	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1976	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,612	40,313	255,746
1977	16,553	-	-	-	-	-	8,099	38,547	39,397	45,163	42,745	13,701	204,205
1978	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1979	16,553	-	-	-	-	-	7,666	39,754	40,743	53,748	53,440	36,230	248,134
1980	23	-	-	-	-	-	9,311	39,679	40,137	53,477	55,989	40,601	239,217
1981	23	-	-	-	-	-	8,036	39,743	40,743	53,913	56,209	38,387	237,055
1982	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1983	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,716	40,400	255,937
1984	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1985	16,553	-	-	-	-	-	9,311	39,743	40,743	53,476	55,951	40,636	256,413
1986	23	-	-	-	-	-	9,311	39,743	40,743	53,749	56,459	39,643	239,671
1987	23	-	-	-	-	-	9,311	39,405	40,743	51,209	48,787	33,273	222,751
1988	23	-	-	-	-	-	9,311	39,414	40,743	52,341	50,853	34,751	227,437
1989	23	-	-	-	-	-	9,311	39,743	40,743	53,481	56,016	40,582	239,899
1990	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1991	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1992	16,553	-	-	-	-	-	6,792	39,893	40,743	53,789	54,143	16,784	228,697
1993	23	-	-	-	-	-	9,323	38,826	40,743	53,636	54,338	16,752	213,641
1994	23	-	-	-	-	-	9,309	28,178	26,855	29,513	29,699	10,345	133,921
1995	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,578	40,323	239,193
1996	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1997	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,701	40,381	255,903
1998	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1999	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2000	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2001	16,553	-	-	-	-	-	7,746	36,278	37,076	42,048	40,101	13,039	192,839
2002	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2003	16,553	-	-	-	-	-	9,311	38,845	40,743	53,789	56,463	39,560	255,264
2004	23	-	-	-	-	-	9,311	39,743	40,743	53,477	55,966	40,576	239,840
2005	23	-	-	-	-	-	8,029	37,963	38,832	44,579	42,915	13,955	186,297
2006	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2007	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2008	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,796	40,678	256,296
2009	23	-	-	-	-	-	9,203	39,284	40,273	52,855	55,096	39,941	236,675
Average	9,666	-	-	-	-	-	9,096	39,078	40,043	51,842	53,385	35,499	238,608

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A - KKC 400 cfs (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	18,681	-	-	-	-	8,883	29,971	27,350	31,891	32,517	31,921	20,571	201,785
1927	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1928	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1929	18,681	-	-	-	-	8,883	24,709	35,781	43,907	43,319	41,582	26,889	243,752
1930	986	-	-	-	-	8,883	30,437	25,195	27,869	28,034	27,777	17,621	166,802
1931	986	-	-	-	-	8,883	21,534	23,375	27,750	28,154	27,472	17,550	155,703
1932	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1933	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1934	18,681	-	-	-	-	8,883	30,437	42,162	47,217	54,404	53,846	35,671	291,300
1935	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1936	18,681	-	-	-	-	8,883	30,617	42,081	47,350	54,387	53,809	35,684	291,494
1937	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,515	35,668	273,092
1938	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1939	18,681	-	-	-	-	8,883	30,554	39,728	47,126	54,222	53,533	35,730	288,458
1940	986	-	-	-	-	8,883	30,445	41,681	48,484	49,442	47,729	30,955	258,607
1941	986	-	-	-	-	8,883	28,740	14,633	16,136	15,804	16,642	10,623	112,447
1942	986	-	-	-	-	8,883	30,556	35,615	42,927	43,111	41,612	27,073	230,763
1943	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1944	18,681	-	-	-	-	8,883	20,522	28,924	35,770	36,784	35,200	22,682	207,446
1945	986	-	-	-	-	8,883	30,390	41,847	48,125	51,690	49,767	31,959	263,647
1946	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1947	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1948	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1949	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1950	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1951	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1952	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,607	290,723
1953	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1954	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1955	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1956	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1957	18,681	-	-	-	-	8,883	30,442	42,030	47,350	54,222	53,512	35,446	290,567
1958	18,681	-	-	-	-	8,883	30,636	42,030	47,350	54,222	53,512	35,446	290,761
1959	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1960	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1961	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1962	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1963	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,551	35,751	290,905
1964	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1965	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1966	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1967	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,263	53,613	35,754	291,012
1968	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1969	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1970	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,406	53,838	35,675	291,301
1971	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1972	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1973	18,681	-	-	-	-	8,883	29,366	42,218	47,681	54,397	52,852	33,471	287,550
1974	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1975	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1976	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1977	18,681	-	-	-	-	8,883	18,972	26,883	33,331	34,439	33,198	21,359	195,746
1978	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1979	18,681	-	-	-	-	8,883	30,654	42,494	47,356	55,435	54,719	34,632	292,856
1980	986	-	-	-	-	8,883	30,437	42,043	46,774	54,222	53,516	35,670	272,530
1981	986	-	-	-	-	8,883	30,421	42,080	47,350	54,824	54,277	35,400	274,222
1982	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1983	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1984	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1985	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,649	290,765
1986	986	-	-	-	-	8,883	30,437	42,030	47,350	54,486	53,915	35,646	273,733
1987	986	-	-	-	-	8,883	30,525	41,518	47,979	52,611	51,001	32,642	266,145
1988	986	-	-	-	-	8,883	30,595	41,990	47,595	54,578	53,252	33,749	271,630
1989	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,517	35,676	273,102
1990	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1991	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1992	18,681	-	-	-	-	8,883	27,562	39,795	48,327	48,197	47,178	30,829	269,453
1993	986	-	-	-	-	8,883	30,957	37,748	46,126	45,720	43,915	28,465	242,800
1994	986	-	-	-	-	8,883	30,624	20,244	21,432	21,337	21,958	13,977	139,441
1995	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1996	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1997	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1998	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1999	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2000	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2001	18,681	-	-	-	-	8,883	18,543	25,080	30,934	31,778	30,890	19,823	184,613
2002	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2003	18,681	-	-	-	-	8,883	30,437	41,415	47,350	54,570	53,957	35,623	290,917
2004	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,514	35,664	273,087
2005	986	-	-	-	-	8,883	18,793	26,420	32,693	33,940	33,374	21,958	177,048
2006	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2007	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2008	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,600	290,716
2009	986	-	-	-	-	8,758	30,006	41,434	46,680	53,454	52,754	34,944	269,015
Average	11,308	-	-	-	-	8,882	29,671	39,851	45,268	51,032	50,266	33,139	269,416

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A - KKC 400 cfs (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	25,229	-	-	-	-	6,232	45,732	73,513	71,408	77,766	73,300	49,873	423,054
1927	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1928	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1929	25,229	-	-	-	-	6,232	46,609	87,292	83,291	89,917	83,013	52,943	474,525
1930	21,815	-	-	-	-	6,232	51,572	71,991	67,431	72,722	69,137	48,443	409,344
1931	21,815	-	-	-	-	6,232	40,247	71,307	67,312	72,858	68,831	48,405	397,009
1932	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1933	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1934	25,229	-	-	-	-	6,232	51,572	99,848	104,037	113,381	104,075	59,716	564,089
1935	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1936	25,229	-	-	-	-	6,232	50,520	101,401	105,816	113,423	104,275	59,775	566,672
1937	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,301	61,314	573,178
1938	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1939	25,229	-	-	-	-	6,232	50,533	83,722	104,649	113,694	106,806	60,904	551,769
1940	21,815	-	-	-	-	6,232	51,512	87,059	89,633	96,802	89,190	54,961	497,204
1941	21,815	-	-	-	-	6,232	42,587	58,724	55,826	58,971	57,933	45,040	347,128
1942	21,815	-	-	-	-	6,232	50,418	85,976	82,327	89,682	83,038	53,033	472,521
1943	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1944	25,229	-	-	-	-	6,232	45,059	78,444	75,252	82,566	76,597	50,899	440,279
1945	21,815	-	-	-	-	6,232	48,904	96,858	91,871	99,371	91,244	55,566	511,860
1946	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1947	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1948	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1949	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1950	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1951	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1952	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,742	61,832	577,551
1953	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1954	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1955	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1956	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1957	25,229	-	-	-	-	6,232	51,546	101,401	109,844	113,698	108,774	74,355	591,080
1958	25,229	-	-	-	-	6,232	50,278	101,401	109,844	113,698	108,774	74,355	589,813
1959	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1960	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1961	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1962	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1963	25,229	-	-	-	-	6,232	51,572	101,401	108,129	113,674	106,465	60,615	573,318
1964	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1965	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1966	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1967	25,229	-	-	-	-	6,232	51,572	101,401	109,398	113,587	105,396	60,227	573,043
1968	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1969	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1970	25,229	-	-	-	-	6,232	51,572	101,401	107,496	113,383	104,113	59,739	569,166
1971	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1972	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1973	25,229	-	-	-	-	6,232	48,438	97,654	94,555	102,709	94,398	56,609	525,824
1974	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1975	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1976	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1977	25,229	-	-	-	-	6,232	44,754	75,815	72,833	79,930	74,585	50,256	429,633
1978	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1979	25,229	-	-	-	-	6,232	49,150	99,986	98,090	106,764	97,893	57,666	541,010
1980	21,815	-	-	-	-	6,232	51,572	99,860	106,656	113,698	107,300	61,294	568,427
1981	21,815	-	-	-	-	6,232	49,694	101,354	102,299	110,905	101,601	58,875	552,774
1982	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1983	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1984	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1985	25,229	-	-	-	-	6,232	51,572	101,401	109,599	113,698	107,399	61,464	576,595
1986	21,815	-	-	-	-	6,232	51,572	101,401	104,469	113,160	103,692	59,647	561,989
1987	21,815	-	-	-	-	6,232	51,075	96,530	92,716	100,467	92,481	56,008	517,325
1988	21,815	-	-	-	-	6,232	50,568	95,819	95,126	103,045	94,880	56,835	524,321
1989	21,815	-	-	-	-	6,232	51,572	101,401	109,406	113,698	107,203	61,249	572,577
1990	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1991	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1992	25,229	-	-	-	-	6,232	46,084	92,488	88,228	95,401	88,628	54,895	497,184
1993	21,815	-	-	-	-	6,232	45,388	85,728	85,542	92,616	85,357	53,710	476,389
1994	21,815	-	-	-	-	6,232	48,412	65,911	61,064	65,188	63,283	46,670	378,575
1995	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1996	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1997	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1998	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1999	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2000	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2001	25,229	-	-	-	-	6,232	44,029	73,495	70,462	76,936	72,265	49,508	418,157
2002	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2003	25,229	-	-	-	-	6,232	51,572	95,704	104,511	112,709	103,462	59,578	558,998
2004	21,815	-	-	-	-	6,232	51,572	101,401	109,250	113,698	107,347	61,354	572,671
2005	21,815	-	-	-	-	6,232	44,738	75,220	72,203	79,368	74,747	50,545	424,868
2006	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2007	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2008	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,837	61,908	577,723
2009	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
Average	23,807	-	-	-	-	6,232	50,502	96,838	102,533	107,477	101,818	66,724	555,931

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A - KKC 400 cfs (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	33,266	-	-	-	-	10,226	38,344	55,032	58,677	60,651	59,959	50,669	366,825
1927	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1928	33,266	-	-	-	-	10,226	41,472	57,867	65,148	70,157	70,467	59,068	407,671
1929	33,289	-	-	-	-	10,226	40,383	57,645	63,266	65,000	63,979	52,403	386,193
1930	24,263	-	-	-	-	10,226	41,928	55,192	56,993	58,776	58,235	49,860	355,473
1931	24,263	-	-	-	-	10,226	37,297	56,001	56,941	58,789	58,109	49,839	351,464
1932	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1933	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1934	33,266	-	-	-	-	10,226	41,928	58,536	64,726	69,912	69,492	55,672	403,758
1935	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1936	33,266	-	-	-	-	10,226	41,053	57,867	65,148	69,954	69,580	55,691	402,787
1937	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,226	56,232	395,172
1938	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1939	33,266	-	-	-	-	10,226	41,447	50,842	63,566	70,157	70,168	56,086	395,758
1940	24,263	-	-	-	-	10,226	41,870	52,988	64,025	67,566	66,536	53,504	380,979
1941	24,263	-	-	-	-	10,226	37,087	52,041	52,080	53,555	53,649	47,936	330,837
1942	24,263	-	-	-	-	10,226	41,031	57,056	63,207	64,912	63,990	52,452	377,138
1943	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1944	33,266	-	-	-	-	10,226	40,407	57,219	60,485	62,235	61,324	51,248	376,411
1945	24,263	-	-	-	-	10,226	40,478	57,867	64,145	68,267	67,386	53,824	386,457
1946	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1947	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1948	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1949	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1950	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1951	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1952	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,259	56,433	404,409
1953	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1954	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1955	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1956	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1957	33,266	-	-	-	-	10,226	41,895	57,867	65,148	70,157	70,467	59,068	408,095
1958	33,312	-	-	-	-	10,226	41,106	59,101	65,148	70,157	70,467	59,068	408,585
1959	32,779	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,765
1960	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1961	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1962	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1963	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,156	70,136	55,982	403,835
1964	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1965	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1966	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1967	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,153	69,942	55,845	403,501
1968	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1969	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1970	33,266	-	-	-	-	10,226	41,053	57,867	65,148	69,904	69,509	55,679	402,653
1971	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1972	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1973	33,266	-	-	-	-	10,226	40,430	57,867	64,526	68,779	68,411	54,362	397,869
1974	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1975	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1976	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1977	33,266	-	-	-	-	10,226	40,562	56,902	59,398	61,342	60,491	50,885	373,073
1978	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1979	33,266	-	-	-	-	10,226	40,335	57,867	65,090	68,739	68,643	54,848	399,015
1980	24,263	-	-	-	-	10,226	41,356	58,040	63,793	70,157	70,222	56,225	394,283
1981	24,263	-	-	-	-	10,226	40,351	57,867	65,148	69,151	68,847	55,362	391,217
1982	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1983	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1984	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1985	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,235	56,289	404,241
1986	24,263	-	-	-	-	10,226	41,053	57,867	65,148	69,715	69,334	55,645	393,251
1987	24,263	-	-	-	-	10,226	41,598	57,571	64,200	68,547	67,875	54,057	388,337
1988	24,263	-	-	-	-	10,226	41,185	56,950	64,660	68,770	68,499	54,471	389,025
1989	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,215	56,207	395,137
1990	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1991	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1992	33,266	-	-	-	-	10,226	39,260	57,867	63,957	67,064	66,305	53,467	391,412
1993	24,263	-	-	-	-	10,226	38,934	55,205	63,796	66,016	64,950	52,821	376,211
1994	24,263	-	-	-	-	10,226	40,077	53,999	54,297	55,923	55,813	48,857	343,457
1995	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1996	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1997	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1998	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1999	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2000	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2001	33,266	-	-	-	-	10,226	40,251	56,519	58,274	60,349	59,530	50,462	368,878
2002	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2003	33,266	-	-	-	-	10,226	41,928	55,665	65,148	69,555	69,244	55,621	400,653
2004	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,231	56,246	395,191
2005	24,263	-	-	-	-	10,226	40,624	56,804	59,107	61,157	60,560	51,049	363,791
2006	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2007	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2008	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,317	56,463	404,498
2009	24,263	-	-	-	-	10,179	40,863	57,599	64,847	69,832	70,140	59,283	397,005
Average	29,510	-	-	-	-	10,226	40,874	57,411	64,144	68,614	68,628	56,872	396,278

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A - KKC 400 cfs (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	3,644	-	-	-	-	421	4,196	12,696	16,421	18,106	18,065	15,460	89,006
1927	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1928	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1929	3,644	-	-	-	-	421	3,443	13,084	16,423	18,347	18,395	15,551	89,308
1930	798	-	-	-	-	421	4,768	12,849	16,395	17,758	17,724	15,346	86,060
1931	798	-	-	-	-	421	2,899	13,084	16,394	17,762	17,699	15,342	84,398
1932	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1933	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1934	3,644	-	-	-	-	421	4,768	12,863	16,211	18,347	18,395	15,598	90,248
1935	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1936	3,644	-	-	-	-	421	4,371	13,084	16,423	18,347	18,395	15,598	90,284
1937	798	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,609	87,848
1938	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1939	3,644	-	-	-	-	421	4,686	10,784	15,841	18,347	18,395	15,606	87,724
1940	798	-	-	-	-	421	4,761	11,217	16,423	18,347	18,395	15,564	85,926
1941	798	-	-	-	-	421	3,976	12,930	15,943	16,737	16,792	14,937	82,533
1942	798	-	-	-	-	421	4,694	12,978	16,423	18,347	18,395	15,551	87,608
1943	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1944	3,644	-	-	-	-	421	2,974	13,084	16,423	18,342	18,327	15,510	88,725
1945	798	-	-	-	-	421	4,134	13,084	16,423	18,347	18,395	15,569	87,171
1946	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1947	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1948	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1949	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1950	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1951	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1952	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	18,610	15,613	91,515
1953	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1954	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1955	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1956	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1957	3,644	-	-	-	-	421	4,767	13,084	16,425	18,950	19,461	15,860	92,612
1958	3,644	-	-	-	-	421	4,644	13,084	16,425	18,950	19,461	15,860	92,489
1959	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1960	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1961	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1962	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1963	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,604	90,687
1964	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1965	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1966	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1967	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,602	90,686
1968	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1969	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1970	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,598	90,681
1971	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1972	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1973	3,644	-	-	-	-	421	3,994	13,084	16,423	18,347	18,395	15,576	89,884
1974	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1975	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1976	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1977	3,644	-	-	-	-	421	2,838	13,084	16,423	18,203	18,167	15,479	88,259
1978	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1979	3,644	-	-	-	-	421	4,228	13,084	16,423	18,347	18,395	15,584	90,126
1980	798	-	-	-	-	421	4,768	12,865	16,006	18,347	18,395	15,609	87,209
1981	798	-	-	-	-	421	4,333	13,084	16,423	18,347	18,395	15,592	87,394
1982	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1983	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1984	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1985	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,610	90,694
1986	798	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,598	87,834
1987	798	-	-	-	-	421	4,738	12,695	16,423	18,347	18,395	15,572	87,389
1988	798	-	-	-	-	421	4,701	12,776	16,423	18,347	18,395	15,578	87,439
1989	798	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,609	87,845
1990	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1991	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1992	3,644	-	-	-	-	421	3,695	13,084	16,423	18,347	18,395	15,564	89,574
1993	798	-	-	-	-	421	4,244	12,402	16,423	18,347	18,395	15,556	86,586
1994	798	-	-	-	-	421	4,493	12,923	16,213	17,207	17,232	15,142	84,429
1995	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1996	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1997	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1998	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1999	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2000	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2001	3,644	-	-	-	-	421	2,706	13,084	16,418	18,036	17,980	15,437	87,725
2002	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2003	3,644	-	-	-	-	421	4,768	12,372	16,423	18,347	18,395	15,597	89,967
2004	798	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,609	87,846
2005	798	-	-	-	-	421	2,818	13,084	16,423	18,173	18,179	15,493	85,388
2006	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2007	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2008	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,613	92,367
2009	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
Average	2,458	-	-	-	-	421	4,562	12,992	16,401	18,656	18,968	15,722	90,179

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A - KKC 400 cfs (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	7,393	-	-	-	-	20	10,527	13,324	13,270	12,210	14,194	12,792	83,728
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1929	7,393	-	-	-	-	20	10,559	13,571	14,230	13,127	14,194	12,849	85,942
1930	5,536	-	-	-	-	20	11,828	13,422	13,121	11,427	13,468	12,611	81,432
1931	5,536	-	-	-	-	20	9,552	13,399	13,121	11,427	13,468	12,611	79,133
1932	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	15,316	14,607	14,065	14,735	13,329	91,292
1935	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1936	7,393	-	-	-	-	20	11,360	14,763	15,209	14,065	14,735	13,329	90,874
1937	5,536	-	-	-	-	20	11,828	15,543	16,253	17,102	17,346	15,376	99,002
1938	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1939	7,393	-	-	-	-	20	11,597	12,901	15,196	17,070	17,346	15,376	96,898
1940	5,536	-	-	-	-	20	11,812	13,421	14,527	14,065	14,735	13,329	87,446
1941	5,536	-	-	-	-	20	10,169	12,413	11,508	10,903	11,990	11,798	74,337
1942	5,536	-	-	-	-	20	11,493	13,520	14,230	13,127	14,194	12,849	84,968
1943	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1944	7,393	-	-	-	-	20	10,539	13,571	14,230	13,127	14,194	12,849	85,922
1945	5,536	-	-	-	-	20	10,737	13,791	14,527	14,065	14,735	13,329	86,741
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1947	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1948	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,441	15,376	101,482
1953	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,822	15,543	16,253	17,629	17,780	15,757	102,196
1958	7,393	-	-	-	-	20	11,469	15,543	16,253	17,629	17,780	15,757	101,843
1959	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1960	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1961	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1962	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1963	7,393	-	-	-	-	20	11,828	15,543	15,747	17,070	17,346	15,376	100,321
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1966	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1967	7,393	-	-	-	-	20	11,828	15,543	16,092	17,070	15,235	13,329	96,509
1968	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1969	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1970	7,393	-	-	-	-	20	11,828	15,543	15,457	14,065	14,735	13,329	92,370
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,724	13,791	14,527	14,065	14,735	13,329	88,585
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,570	13,571	14,230	13,127	14,194	12,849	85,953
1978	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1979	7,393	-	-	-	-	20	10,686	13,791	14,527	14,065	14,735	13,329	88,547
1980	5,536	-	-	-	-	20	11,828	15,319	15,617	17,070	17,346	15,376	98,112
1981	5,536	-	-	-	-	20	11,072	14,745	14,527	14,065	14,735	13,329	88,030
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,828	15,543	16,070	17,070	17,346	15,376	100,645
1986	5,536	-	-	-	-	20	11,828	15,241	14,646	14,065	14,735	13,329	89,400
1987	5,536	-	-	-	-	20	11,678	14,898	14,527	14,065	14,735	13,329	88,788
1988	5,536	-	-	-	-	20	11,525	13,884	14,527	14,065	14,735	13,329	87,621
1989	5,536	-	-	-	-	20	11,828	15,543	15,928	17,070	17,346	15,376	98,645
1990	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1991	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1992	7,393	-	-	-	-	20	10,209	13,791	14,527	14,065	14,735	13,329	88,070
1993	5,536	-	-	-	-	20	10,520	13,384	14,418	13,127	14,194	12,849	84,048
1994	5,536	-	-	-	-	20	11,051	12,985	12,155	11,120	12,579	12,125	77,571
1995	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1996	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1997	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1998	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1999	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2000	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2001	7,393	-	-	-	-	20	10,304	13,395	13,121	12,405	13,468	12,611	82,716
2002	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2003	7,393	-	-	-	-	20	11,828	14,342	14,775	14,065	14,735	13,329	90,486
2004	5,536	-	-	-	-	20	11,828	15,543	15,834	17,070	17,346	15,376	98,552
2005	5,536	-	-	-	-	20	10,587	13,571	14,230	13,127	14,194	12,849	84,113
2006	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2007	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2008	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,734	15,376	101,775
2009	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
Average	6,619	-	-	-	-	20	11,572	15,019	15,576	16,271	16,654	14,866	96,597

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP1A (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	77,231	79,476	85,630
1926	80,060	80,323	98,916	119,816	105,946	84,858	55,114	16,746	16,410	32,222	42,138	56,487
1927	60,511	62,895	65,850	80,129	90,814	130,939	101,989	67,930	72,644	80,340	100,052	99,405
1928	118,796	119,176	130,324	130,706	157,253	155,616	106,672	68,237	62,971	73,471	73,970	71,749
1929	67,534	64,218	69,259	61,961	85,523	84,186	63,135	30,460	27,328	23,964	19,400	19,957
1930	21,794	41,262	54,465	81,543	78,853	76,474	53,565	25,323	22,692	25,910	29,607	27,674
1931	33,975	43,471	60,341	78,022	82,894	78,936	56,461	22,992	19,967	23,981	37,894	40,415
1932	53,541	70,935	82,998	86,752	123,450	157,519	125,882	90,429	78,611	80,601	112,486	105,870
1933	118,796	120,983	113,530	109,215	123,083	157,770	150,101	115,830	97,373	103,407	118,796	123,596
1934	118,796	130,697	134,293	156,721	155,936	136,343	83,718	43,148	40,332	58,171	80,475	81,335
1935	105,153	115,213	124,787	124,532	154,039	157,770	123,469	84,569	78,604	76,470	74,650	73,967
1936	80,040	80,280	79,853	95,771	155,159	157,463	113,266	73,922	70,184	66,467	60,775	75,526
1937	74,548	75,935	80,331	80,201	102,958	148,176	116,442	76,595	72,722	72,611	93,390	86,276
1938	94,433	94,326	97,867	123,394	156,205	157,180	112,322	71,766	66,741	63,388	73,861	81,640
1939	80,142	80,036	83,639	106,344	134,857	144,010	98,783	58,569	55,070	55,525	62,190	80,343
1940	79,383	80,267	83,142	95,369	110,588	102,322	62,925	27,246	23,635	23,727	29,026	41,895
1941	42,957	44,163	57,449	71,831	68,283	62,895	45,797	21,234	26,534	40,197	54,505	69,707
1942	70,527	71,760	76,333	80,099	79,235	79,768	59,186	26,512	24,119	22,666	40,821	56,460
1943	64,427	67,468	76,375	91,066	102,215	141,433	122,118	84,073	77,964	76,101	78,180	79,980
1944	79,545	79,961	80,101	81,061	89,614	79,166	54,969	24,967	28,442	28,934	32,427	41,999
1945	69,126	80,102	80,273	80,736	97,845	99,642	66,652	37,003	40,427	50,052	66,092	76,895
1946	80,134	80,180	80,249	85,683	138,873	157,770	135,581	99,099	79,595	83,414	80,351	91,998
1947	108,970	121,364	131,160	143,604	157,521	154,353	106,702	64,682	62,624	80,671	85,407	80,275
1948	84,118	87,577	90,722	102,067	122,602	157,770	129,040	92,395	80,151	79,936	82,428	80,187
1949	79,781	84,334	90,622	106,341	147,482	157,734	137,240	100,823	79,743	81,691	97,547	113,764
1950	118,796	124,046	98,299	94,224	113,704	159,354	151,283	117,634	92,268	83,950	94,411	118,796
1951	118,796	133,981	113,224	117,253	153,576	157,693	119,369	79,398	75,553	80,522	80,260	79,993
1952	79,618	80,024	80,306	102,663	140,343	152,221	113,053	73,134	70,005	66,291	59,520	54,537
1953	88,429	103,913	108,928	120,596	145,031	157,770	136,366	97,579	79,039	80,245	80,830	89,618
1954	99,766	105,042	109,232	105,454	129,364	157,947	151,049	120,706	98,759	80,049	84,510	81,062
1955	85,275	95,235	97,532	102,591	129,111	157,774	151,728	118,659	93,398	91,090	117,326	118,796
1956	118,760	113,915	75,456	81,505	124,215	157,770	146,851	109,184	84,262	80,306	80,136	118,796
1957	118,796	120,397	125,078	127,669	157,113	149,792	100,751	61,018	56,266	53,895	55,929	69,337
1958	76,772	82,328	80,278	84,671	118,916	121,311	77,681	44,711	43,490	58,184	89,947	100,413
1959	117,232	123,698	122,621	124,089	150,434	157,770	129,249	90,893	88,042	91,300	120,401	118,796
1960	118,796	125,382	128,997	132,066	157,481	157,316	114,878	75,872	73,700	80,733	80,368	80,038
1961	80,920	104,658	116,707	116,319	150,325	157,403	120,196	79,626	77,236	80,249	80,240	82,937
1962	93,931	103,810	106,033	138,784	149,280	157,596	120,729	81,679	78,323	80,000	94,038	88,233
1963	99,970	123,337	132,075	145,644	157,406	150,111	99,676	58,902	54,069	54,272	68,620	71,507
1964	80,165	80,108	80,225	79,804	111,651	157,770	147,503	116,532	95,730	80,072	81,854	89,462
1965	111,638	128,575	123,999	128,141	156,788	156,531	117,919	78,312	74,261	75,869	80,122	80,044
1966	80,001	79,243	81,507	94,631	126,492	139,807	104,263	64,097	59,366	62,775	70,954	84,613
1967	88,999	103,605	108,792	105,354	134,677	157,770	124,865	82,955	75,902	88,600	80,137	106,451
1968	118,796	147,477	150,167	148,275	157,608	154,110	107,523	68,975	75,905	80,296	81,343	80,196
1969	94,282	93,923	97,415	116,156	154,168	155,371	109,534	71,084	71,107	75,174	77,127	76,798
1970	80,257	80,065	80,488	75,453	102,130	129,294	90,124	54,952	53,328	54,656	66,308	67,970
1971	84,717	84,694	87,863	97,011	127,387	157,770	156,851	122,540	97,507	80,514	80,236	87,541
1972	103,396	118,890	115,365	94,373	114,343	157,770	149,832	116,841	99,732	79,918	80,413	102,955
1973	116,033	116,728	120,036	123,120	123,094	122,519	78,566	45,611	44,263	47,239	53,544	65,269
1974	91,247	80,126	80,705	80,567	105,392	158,077	157,456	129,619	105,088	79,803	80,062	91,253
1975	115,310	120,668	113,239	105,910	129,612	157,770	137,861	104,203	79,828	81,491	91,419	118,796
1976	118,796	127,376	117,025	114,103	145,766	157,770	143,687	111,940	87,592	79,480	80,156	80,741
1977	95,283	104,079	105,508	115,789	87,378	78,058	53,728	17,704	19,665	23,174	65,109	95,517
1978	80,106	80,184	97,036	117,412	141,020	155,412	116,127	76,944	79,945	78,221	80,468	80,020
1979	79,035	80,089	80,964	96,091	129,122	131,733	87,519	49,468	46,743	45,867	42,742	80,170
1980	80,113	80,829	80,146	94,775	115,173	117,497	81,307	48,265	49,313	46,300	70,650	108,484
1981	103,205	128,620	136,224	150,098	149,156	156,437	108,180	65,806	60,642	67,704	72,435	79,670
1982	86,676	101,495	116,141	113,643	140,572	157,770	131,994	95,998	80,093	80,460	80,053	80,060
1983	104,953	113,830	124,773	124,542	142,716	147,919	116,968	78,364	79,460	77,717	81,337	80,156
1984	118,796	124,907	126,986	125,263	153,586	157,770	132,058	93,782	79,672	80,092	80,029	80,028
1985	78,221	77,416	80,884	110,756	153,439	154,473	108,185	67,981	66,918	83,889	83,531	77,781
1986	80,100	93,909	119,511	134,278	151,659	145,880	97,605	57,030	54,722	54,722	81,985	79,996
1987	78,847	80,151	80,209	106,846	132,634	123,460	75,311	39,517	36,385	33,197	30,091	37,597
1988	37,993	48,933	66,116	91,477	98,084	89,613	64,342	36,991	34,735	47,619	68,524	81,667
1989	81,523	80,034	80,263	110,743	136,234	145,636	99,291	62,106	59,100	56,512	80,142	80,159
1990	88,489	103,557	115,934	140,615	157,376	157,634	119,135	79,078	75,645	84,144	131,906	118,796
1991	118,796	145,179	133,317	143,665	157,547	157,634	123,716	84,896	77,416	73,883	82,165	80,946
1992	98,391	111,220	129,602	149,163	144,648	119,111	73,112	33,576	36,951	37,701	51,245	56,950
1993	67,057	69,859	80,923	84,569	104,461	97,055	61,732	24,023	20,552	18,679	18,031	24,142
1994	37,944	40,971	58,286	82,914	78,382	76,772	56,503	27,586	24,991	32,589	47,712	67,898
1995	76,112	92,048	83,453	93,213	124,716	129,886	93,959	62,697	58,824	79,261	128,136	118,796
1996	118,673	140,534	128,726	144,426	157,475	153,498	114,265	75,219	74,546	82,391	82,654	80,656
1997	97,690	113,732	90,145	94,171	135,529	157,770	141,230	105,502	83,680	87,635	83,133	89,360
1998	97,730	103,200	116,933	128,926	157,101	153,615	105,108	67,001	62,859	61,153	81,476	93,663
1999	99,961	105,304	106,360	103,458	119,413	157,770	151,496	125,313	99,147	80,618	94,333	118,796
2000	118,796	119,439	123,837	134,703	157,275	157,689	120,707	85,710	81,196	80,060	78,699	74,936
2001	74,287	72,767	80,833	85,960	93,141	79,714	60,059	27,247	24,081	34,981	59,579	70,648
2002	80,279	81,082	80,196	103,738	150,126	157,770	128,518	91,521	78,269	74,228	74,290	73,459
2003	90,794	82,481	97,263	116,174	130,622	134,880	88,953	49,263	44,947	58,199	81,706	79,984
2004	84,564	80,092	83,862	109,895	125,329	130,027	82,539	50,734	58,577	64,570	80,404	82,364
2005	93,064	97,125	101,213	112,276	102,053	79,959	55,680	23,671	22,200	26,985	40,831	51,584
2006	71,044	77,590	80,197	84,680	113,352	136,380	97,880	63,887	60,571	56,720	85,540	80,261
2007	80,080	90,639	128,960	142,621	157,603	153,034	105,292	66,253	62,287	68,330	75,440	79,942
2008	79,826	80,154	79,738	76,687	130,658	157,796	129,680	95,178	79,212	78,037	91,146	80,257
2009	113,375	113,806	116,260	124,794	155,975	155,064	108,670	70,115	66,469	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP1A (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	73,936	78,663	128,112
1926	154,954	172,460	194,725	218,475	201,239	165,499	103,707	48,918	10,715	21,131	32,581	50,596
1927	58,286	65,281	71,378	92,852	155,740	194,994	191,357	165,718	103,969	109,342	170,626	203,025
1928	203,025	207,839	213,666	214,345	238,524	235,776	207,442	160,529	90,804	69,131	73,619	77,091
1929	79,350	81,638	92,494	96,096	138,940	168,666	118,138	63,942	14,552	9,424	8,500	12,980
1930	15,594	34,115	52,276	89,187	104,117	90,936	51,724	18,415	4,305	4,925	11,026	13,172
1931	19,862	31,481	52,328	73,509	130,130	123,195	79,760	35,511	6,183	7,373	18,790	25,242
1932	36,153	60,864	109,114	166,448	209,217	232,100	208,805	157,602	96,855	73,198	143,940	189,643
1933	203,025	209,966	198,164	194,181	207,096	238,980	233,184	201,196	161,388	187,178	203,025	203,025
1934	203,025	220,437	217,330	238,033	238,030	214,498	172,136	120,842	53,013	62,381	95,516	128,124
1935	176,826	189,919	204,764	208,320	237,044	238,980	217,995	178,964	112,538	83,129	84,892	88,710
1936	98,029	104,686	128,382	175,406	236,591	238,469	201,037	155,299	87,279	80,997	80,047	92,681
1937	96,656	102,939	114,737	148,983	194,294	226,027	208,499	173,487	106,455	100,164	142,257	187,311
1938	199,996	205,014	203,773	207,269	237,556	237,521	199,826	159,340	90,282	60,371	70,470	101,761
1939	145,708	157,408	175,760	204,249	230,387	216,874	175,264	118,702	52,907	52,217	59,926	84,432
1940	91,143	111,074	144,132	185,081	203,343	172,282	122,268	68,287	20,800	19,087	24,647	36,835
1941	42,049	45,615	61,840	81,723	86,328	71,865	40,604	11,275	5,945	16,392	31,014	48,774
1942	53,650	58,613	66,962	108,892	116,637	122,674	97,619	62,089	13,752	10,404	25,346	42,473
1943	54,364	61,605	74,271	133,344	187,800	212,582	212,364	185,344	119,267	90,709	94,614	127,416
1944	131,039	140,962	156,014	174,915	180,021	167,117	111,487	62,341	18,043	16,888	21,799	31,950
1945	58,432	77,572	91,257	109,727	171,848	170,456	129,413	86,603	25,616	27,995	43,144	55,623
1946	74,817	82,559	100,080	144,383	218,655	238,980	216,646	169,954	120,061	104,727	121,069	175,364
1947	196,212	211,979	214,438	226,092	238,771	229,558	203,286	171,152	104,812	104,185	155,185	184,039
1948	193,211	202,516	192,614	187,583	207,090	238,980	217,544	185,938	134,699	120,823	139,856	163,811
1949	171,967	182,528	188,344	191,528	232,565	238,872	234,686	207,198	160,691	158,287	203,025	203,025
1950	203,025	208,267	184,104	180,343	198,325	238,980	234,414	201,052	157,280	171,374	203,025	203,025
1951	203,025	216,491	197,882	201,601	235,843	238,852	209,496	173,451	109,164	105,012	129,237	142,335
1952	146,903	157,385	166,653	196,986	230,757	227,142	215,314	178,450	111,207	108,068	106,809	107,427
1953	147,427	181,173	191,774	205,783	230,039	238,980	219,491	183,392	130,846	108,176	130,738	187,226
1954	203,025	213,064	194,197	190,710	213,736	238,980	233,597	203,084	160,725	161,140	189,534	203,025
1955	203,025	216,138	206,073	196,572	213,106	238,980	238,286	206,173	162,379	184,380	203,025	203,025
1956	203,025	197,459	163,019	170,761	207,600	238,980	228,913	188,011	145,233	148,287	173,888	203,025
1957	203,025	209,319	209,985	211,216	238,395	223,346	173,531	135,075	67,798	41,759	46,461	61,677
1958	71,827	96,205	115,988	159,026	208,797	195,911	166,929	114,283	49,793	40,264	94,488	155,150
1959	190,257	200,134	206,482	207,910	233,877	238,980	218,976	179,630	153,945	186,911	202,871	203,025
1960	203,025	212,844	212,442	216,737	238,735	237,791	203,959	162,027	96,273	76,161	119,546	129,809
1961	167,053	198,066	201,096	200,739	232,374	238,147	216,304	175,445	108,930	95,499	113,284	141,644
1962	179,509	195,445	202,775	228,821	236,841	238,596	211,785	185,685	121,964	108,596	147,693	193,058
1963	203,025	226,452	234,759	237,729	238,980	224,265	187,048	145,733	79,111	77,207	88,803	96,768
1964	113,213	121,115	136,548	165,129	202,655	238,980	229,299	195,999	157,197	159,185	175,813	203,025
1965	203,025	222,154	207,828	211,651	238,095	235,908	216,210	181,653	114,851	89,195	99,511	109,447
1966	121,089	124,655	137,164	180,193	211,867	209,895	202,004	172,416	107,927	85,877	94,297	135,575
1967	178,224	195,853	206,268	194,347	222,391	238,980	225,644	175,600	109,528	135,515	176,437	203,025
1968	203,025	229,321	233,656	230,268	238,793	232,769	213,174	171,846	110,959	103,785	143,528	173,664
1969	190,303	194,739	200,738	200,588	235,676	233,432	197,607	154,936	90,967	67,752	71,924	76,179
1970	87,706	98,692	121,249	147,928	190,397	210,957	192,312	143,120	75,393	75,966	87,308	93,665
1971	123,657	171,198	181,773	185,915	211,177	238,980	238,090	199,981	160,616	163,207	195,892	203,025
1972	203,025	197,253	170,868	167,275	198,915	238,980	233,964	211,186	174,499	172,164	186,236	203,025
1973	203,025	207,411	214,413	215,834	211,851	196,630	166,278	108,636	46,757	44,194	52,666	66,228
1974	113,678	145,392	168,966	168,248	190,653	238,980	238,785	206,365	163,138	159,378	169,035	203,025
1975	203,025	212,901	197,896	191,130	213,298	238,980	222,439	190,909	148,815	139,413	191,932	203,025
1976	203,025	216,911	201,391	198,693	229,531	238,980	229,801	209,600	163,891	143,354	153,768	173,040
1977	187,994	198,991	204,621	210,998	178,943	158,257	96,497	45,929	11,544	15,220	49,731	128,876
1978	156,880	168,395	190,435	212,059	230,129	232,051	208,887	182,744	120,886	91,957	101,626	118,896
1979	123,108	136,698	173,106	189,739	219,244	202,060	166,061	113,202	48,855	37,725	39,129	74,945
1980	85,242	96,513	120,895	172,703	197,375	187,326	180,116	132,196	67,384	66,820	87,436	150,525
1981	177,074	201,190	213,877	232,902	233,832	228,297	191,549	137,420	70,111	76,690	83,843	94,096
1982	121,614	175,346	195,299	198,268	223,679	238,980	219,571	184,865	135,978	122,191	137,360	170,452
1983	198,974	212,059	208,543	208,329	229,774	221,551	222,126	204,006	140,307	115,483	158,203	170,894
1984	203,025	214,423	210,585	208,994	235,322	238,980	221,418	187,311	134,149	114,165	134,956	146,617
1985	149,558	152,253	162,854	200,504	238,438	230,942	178,609	128,615	62,698	80,855	129,163	136,932
1986	144,630	170,531	201,195	219,542	235,147	218,275	172,233	122,284	57,800	57,963	88,626	100,595
1987	106,193	112,702	152,051	196,410	221,808	190,808	144,711	92,323	26,938	13,978	14,559	21,821
1988	25,534	37,849	58,811	111,383	167,332	170,353	119,625	78,217	20,154	22,899	45,130	67,600
1989	105,734	120,874	137,164	188,314	214,334	212,610	182,001	135,873	68,168	66,999	96,171	140,315
1990	178,209	196,896	209,326	224,880	238,638	238,753	211,070	170,897	104,874	112,553	197,992	203,025
1991	203,025	227,068	216,429	226,968	238,795	238,702	217,492	193,673	129,877	100,980	125,745	174,166
1992	192,510	208,725	229,746	238,980	228,605	192,733	138,888	81,588	32,690	30,503	42,595	50,683
1993	60,815	66,340	89,914	139,215	187,541	166,502	115,647	61,937	15,646	10,987	12,641	17,928
1994	31,934	39,009	57,954	97,528	130,209	115,240	78,144	40,065	7,543	12,014	25,006	45,737
1995	57,405	112,008	156,937	184,253	216,947	204,513	192,818	165,756	101,078	96,158	181,129	203,025
1996	203,025	223,091	212,192	228,962	238,729	230,824	220,417	187,395	122,318	109,189	147,722	170,836
1997	190,873	199,872	174,275	180,294	218,656	238,980	225,030	188,584	150,130	172,966	203,025	203,025
1998	203,025	212,410	211,655	212,376	238,384	229,758	206,950	166,123	96,996	70,729	93,376	131,863
1999	177,514	189,980	191,546	188,867	203,594	238,980	235,257	211,961	170,090	165,520	203,025	203,025
2000	203,025	207,045	209,071	218,203	238,545	238,736	203,141	153,339	96,940	84,069	88,670	90,876
2001	93,949	96,277	108,869	132,812	176,681	167,076	115,555	76,979	33,794	35,065	57,820	71,813
2002	103,596	121,722	144,638	188,232	232,948	238,980	216,367	170,083	110,969	81,699	84,665	87,934
2003	111,214	150,826	186,526	207,621	220,317	207,557	173,100	125,064	59,766	66,935	92,557	110,557
2004	124,957	142,845	175,910	204,325	219,304	203,056	168,343	120,235	63,674	69,646	88,443	130,824
2005	171,805	181,277	189,931	200,293	189,943	162,810	112,339	76,095	30,918	33,242	45,791	57,433
2006	80,274	90,360	97,057	141,552	198,279	205,425	184,432	151,483	87,259	57,577	121,011	141,952
2007	171,027	186,214	214,714	226,581	238,847	228,801	204,401	161,659	93,278	69,259	77,832	101,599
2008	107,783	117,614	131,545	137,308	206,917	238,791	209,481	163,685	115,246	116,599	162,861	192,047
2009	203,025	207,722	208,913	208,562	237,344	232,713	200,645	165,736	105,132	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP1A (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	141,192	140,623	186,093
1926	204,782	214,579	261,297	345,233	361,423	267,644	137,591	29,776	20,585	52,027	73,884	108,947
1927	117,448	120,367	125,433	177,844	307,387	436,950	360,257	175,257	166,117	210,227	284,781	310,998
1928	314,194	319,501	349,487	351,642	435,244	431,475	306,675	122,266	100,515	117,716	119,626	118,191
1929	113,469	108,081	120,116	125,242	245,169	314,740	201,353	60,081	42,747	38,059	32,357	30,785
1930	26,524	52,193	87,164	187,723	244,864	239,410	129,317	34,380	21,177	24,381	30,017	28,240
1931	37,423	57,215	89,369	140,719	266,932	263,193	149,860	32,072	20,957	23,755	47,787	51,443
1932	73,617	133,597	216,965	301,483	430,750	436,950	353,838	194,364	175,260	173,432	272,218	310,998
1933	310,998	312,775	314,282	314,282	325,757	436,950	424,814	303,679	298,579	373,132	345,442	379,144
1934	352,913	372,922	382,844	433,526	436,823	375,078	234,175	79,257	63,925	87,948	161,714	189,653
1935	267,934	302,571	325,533	329,530	430,064	436,950	360,293	193,011	177,393	171,350	165,913	160,889
1936	163,017	160,564	175,801	277,375	428,478	435,500	321,634	148,372	128,617	122,266	113,628	121,870
1937	118,366	117,211	127,738	164,505	303,853	436,950	353,559	189,756	169,661	168,357	211,723	244,962
1938	261,769	263,172	273,676	325,853	431,856	436,950	324,940	147,536	119,549	110,486	117,980	142,028
1939	173,282	179,423	201,647	283,578	415,582	406,835	274,981	111,589	89,959	87,381	100,529	141,675
1940	145,702	156,847	191,656	270,849	385,723	335,162	185,872	45,952	26,249	31,392	37,249	58,214
1941	61,893	63,328	102,888	175,537	218,650	190,382	87,675	18,746	27,932	55,008	88,796	130,124
1942	133,738	135,908	145,300	215,395	279,927	296,021	175,984	42,833	29,443	22,841	40,673	65,824
1943	85,371	93,573	113,246	220,841	350,337	436,950	389,364	228,022	206,067	196,684	195,413	221,139
1944	219,062	222,180	236,639	272,660	340,049	322,223	182,377	47,151	44,844	49,081	56,933	75,922
1945	127,001	157,301	168,600	191,015	341,354	367,918	221,797	72,379	67,635	76,228	98,465	111,902
1946	128,548	132,093	143,638	215,208	414,313	436,950	382,514	233,103	214,037	223,689	231,189	287,573
1947	310,998	339,974	355,870	394,143	436,109	425,478	300,378	129,764	115,231	168,243	222,035	244,692
1948	252,949	259,382	266,557	267,924	346,197	436,950	373,883	230,699	211,459	222,407	234,096	247,779
1949	246,703	253,580	266,869	270,759	412,547	436,516	383,115	229,799	215,820	236,487	310,998	310,998
1950	310,998	317,470	304,379	289,626	294,547	436,950	425,175	317,599	302,452	335,303	335,370	335,370
1951	334,373	383,670	336,075	334,045	427,021	436,950	348,341	184,131	164,908	191,691	214,850	225,562
1952	225,347	230,006	235,057	310,769	435,298	425,861	313,801	140,634	121,361	111,090	103,325	98,112
1953	148,183	200,830	215,716	257,394	392,791	436,950	388,203	253,211	234,854	235,339	252,546	300,740
1954	310,998	320,535	318,778	312,088	350,219	436,950	424,488	325,018	318,250	324,728	324,371	323,813
1955	321,638	336,758	337,861	310,297	384,323	394,131	369,173	219,833	206,429	238,400	310,998	310,998
1956	310,998	311,082	263,340	258,442	332,746	436,950	413,756	290,945	276,202	301,034	310,998	318,931
1957	318,490	321,344	334,030	339,666	434,793	408,316	277,217	116,043	95,072	88,813	90,205	103,705
1958	111,249	129,256	152,977	200,796	402,506	424,666	271,196	97,767	84,753	107,970	184,247	262,042
1959	310,998	326,382	338,473	340,121	429,727	436,950	375,145	211,619	230,924	297,812	360,350	348,917
1960	330,095	336,892	344,803	361,003	435,982	436,201	328,785	159,375	140,623	145,285	172,794	177,450
1961	208,159	257,277	294,527	302,995	413,729	436,060	346,757	180,078	166,703	178,455	187,101	204,212
1962	261,662	289,736	296,692	390,018	435,997	436,950	352,903	193,250	172,845	184,936	249,388	285,878
1963	306,850	356,785	380,875	411,323	436,950	408,505	280,664	125,995	107,109	105,216	119,373	128,217
1964	147,887	151,605	158,437	189,722	297,165	436,950	408,553	295,830	284,724	297,320	305,233	310,998
1965	313,589	345,008	352,258	348,373	433,743	431,262	334,498	181,520	163,743	164,563	181,392	188,094
1966	191,703	190,181	200,050	270,284	404,326	425,681	312,846	132,907	110,096	115,913	124,648	176,691
1967	208,087	232,980	242,010	243,264	361,033	373,574	285,900	131,107	115,392	160,492	205,930	271,216
1968	310,998	371,016	409,110	414,202	436,950	423,413	295,201	152,726	150,536	170,402	212,412	234,998
1969	266,080	267,863	277,211	302,470	425,278	425,886	306,717	137,193	119,254	129,489	137,575	139,076
1970	143,875	147,785	162,407	184,286	308,594	357,966	251,550	101,988	89,302	87,959	99,124	104,545
1971	138,301	188,840	200,174	231,946	342,583	436,950	435,851	319,033	306,468	313,376	315,108	315,108
1972	315,108	353,310	313,147	276,728	313,976	436,950	427,121	323,716	321,041	326,406	324,979	323,355
1973	323,355	326,791	332,316	346,996	386,890	342,848	200,174	64,532	54,439	61,926	77,446	97,568
1974	167,150	184,849	200,394	200,394	267,694	436,950	436,950	346,698	340,586	335,429	327,569	326,420
1975	326,420	334,850	328,091	313,677	346,056	436,950	393,920	287,382	273,310	285,104	310,998	349,786
1976	344,319	362,089	341,984	334,027	407,559	436,950	419,283	335,470	326,647	326,514	324,703	323,937
1977	323,063	338,100	339,166	364,661	324,744	261,981	136,919	34,782	33,393	37,292	98,406	217,071
1978	227,107	234,836	280,878	340,886	435,206	436,950	344,802	191,128	189,157	187,463	202,584	207,218
1979	204,510	206,736	241,996	276,076	411,563	380,161	246,731	97,313	82,475	79,261	77,792	154,115
1980	159,327	165,084	187,287	272,252	393,564	413,516	255,648	97,437	83,308	80,622	118,707	241,876
1981	273,170	316,830	339,741	385,283	424,368	364,320	240,333	98,283	88,065	99,166	111,591	118,837
1982	136,453	200,444	233,812	267,086	385,989	436,950	383,930	232,938	221,122	232,281	239,318	268,715
1983	310,998	330,300	350,216	347,969	431,001	436,950	361,840	201,883	194,315	189,892	230,842	237,293
1984	310,998	329,215	343,704	343,704	414,638	436,950	386,910	236,063	223,590	228,932	241,998	246,942
1985	243,443	241,432	248,242	324,574	436,240	421,474	293,717	130,200	115,839	140,885	183,837	180,338
1986	187,539	227,433	292,938	342,488	432,058	400,243	265,363	103,854	87,953	86,484	131,093	139,921
1987	139,639	140,816	182,184	264,594	389,238	341,160	205,842	60,462	43,240	36,775	32,863	40,087
1988	38,824	50,308	83,568	188,174	307,193	332,408	226,133	81,658	68,480	95,598	140,937	174,010
1989	203,171	214,893	227,012	323,291	426,314	410,343	282,782	126,421	104,769	100,013	147,171	198,187
1990	226,213	247,160	273,286	379,509	435,642	436,950	347,805	195,240	177,773	217,367	366,623	340,662
1991	335,319	395,942	377,141	406,084	436,193	436,950	374,084	217,194	198,476	191,261	211,959	246,827
1992	271,744	301,767	357,505	428,263	424,343	316,321	171,838	42,389	35,653	36,089	51,537	58,718
1993	70,552	78,088	106,481	160,712	319,709	299,475	168,430	41,519	23,728	18,628	16,313	18,210
1994	30,185	34,936	72,298	164,052	268,103	249,149	146,025	33,188	21,906	28,816	45,687	78,236
1995	92,709	181,841	225,061	276,354	434,439	435,697	318,171	141,402	121,960	160,463	354,219	344,099
1996	341,033	399,320	370,857	395,668	435,961	432,522	326,269	171,937	157,340	164,623	198,239	216,103
1997	244,773	278,901	289,422	278,734	364,310	436,950	405,549	285,132	285,063	341,235	339,231	329,658
1998	328,006	336,678	347,448	347,448	434,754	424,685	299,121	130,044	105,136	100,297	126,616	164,131
1999	217,996	230,641	242,702	261,445	312,990	436,950	436,146	351,281	338,534	343,016	344,567	341,379
2000	328,513	328,733	334,691	360,932	435,316	436,950	337,594	172,903	159,949	170,123	168,455	162,798
2001	159,408	154,583	168,715	196,355	290,584	258,963	148,036	45,334	32,352	40,544	94,949	116,215
2002	160,072	176,942	196,564	273,397	406,557	436,950	366,987	202,474	180,806	172,236	173,484	174,132
2003	204,077	238,833	286,805	342,198	431,128	412,636	264,721	107,519	91,460	123,203	175,033	194,145
2004	204,251	216,337	257,885	337,513	435,720	395,694	243,701	108,311	117,174	127,642	165,872	217,197
2005	290,039	306,487	321,415	353,317	377,956	282,014	152,217	37,682	23,968	34,025	51,075	73,539
2006	113,975	126,645	133,355	190,902	363,114	436,950	322,093	142,253	117,413	104,292	216,130	228,950
2007	254,280	278,216	351,909	384,044	436,374	418,374	295,234	122,809	98,279	100,873	112,697	149,484
2008	151,899	155,359	165,056	172,134	359,181	436,950	359,735	215,664	197,042	197,572	270,054	285,424
2009	318,358	321,299	326,128	330,377	431,113	425,680	308,100	138,362	118,119	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP1A (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,971	2,058	7,873
1926	11,265	11,666	15,597	33,968	33,970	32,384	26,054	18,762	13,593	14,862	15,000	15,000
1927	14,993	15,244	14,222	15,701	27,188	33,970	31,457	20,663	16,859	14,978	15,222	15,000
1928	15,126	14,446	15,000	15,000	36,004	33,970	29,848	20,482	17,068	13,479	10,801	6,642
1929	2,062	1,715	2,133	3,517	32,688	33,970	29,972	20,606	14,942	8,937	2,626	2,246
1930	1,465	8,242	8,517	29,484	33,970	33,970	27,378	20,001	14,416	7,557	3,296	1,604
1931	5,268	7,501	9,833	20,305	33,970	33,970	28,519	20,363	13,930	8,269	8,704	6,204
1932	5,992	11,294	15,000	15,000	32,049	33,970	31,457	20,763	17,141	11,185	15,869	14,949
1933	14,981	13,221	11,075	15,000	15,858	34,845	33,963	21,791	18,075	16,128	15,027	30,521
1934	17,174	19,238	18,845	32,908	33,929	33,970	29,848	20,335	15,619	16,548	15,782	15,000
1935	15,267	18,999	15,008	15,000	31,837	33,970	30,632	20,717	17,246	12,696	7,978	3,168
1936	1,882	1,891	2,121	15,000	32,559	33,970	30,234	20,544	17,168	11,998	6,094	3,731
1937	1,654	1,705	2,070	7,108	28,604	34,373	31,667	20,677	15,572	11,016	15,191	15,161
1938	15,085	14,315	12,440	16,779	35,599	33,970	30,234	20,401	14,984	10,357	5,826	6,476
1939	6,676	3,689	4,280	21,401	34,001	33,970	29,463	20,525	15,845	9,165	3,970	13,033
1940	14,423	17,184	21,730	33,491	33,964	33,970	29,848	20,335	14,102	9,176	6,940	9,903
1941	7,455	4,985	7,007	20,372	33,970	33,899	26,751	13,619	8,574	4,921	8,453	15,000
1942	13,822	8,465	5,062	17,958	33,964	33,970	29,848	20,484	16,225	9,986	15,000	15,000
1943	14,959	13,874	14,457	16,269	23,426	34,049	32,892	20,969	16,716	11,169	6,896	10,397
1944	5,366	3,129	3,692	8,968	32,292	33,970	27,986	20,516	14,951	8,948	4,327	2,475
1945	11,491	17,969	14,706	15,105	34,193	33,970	29,635	20,468	17,176	11,452	10,373	10,674
1946	14,431	10,364	8,036	15,000	26,962	33,970	32,892	21,062	15,819	14,723	15,000	15,244
1947	15,000	18,298	15,000	22,334	33,708	33,970	29,848	20,561	16,874	16,119	15,139	15,000
1948	13,614	14,041	14,791	15,000	27,909	33,970	31,667	20,749	17,107	12,965	11,894	11,838
1949	7,014	4,392	8,139	15,000	29,806	33,970	30,632	20,585	16,870	15,000	21,003	15,000
1950	15,000	15,057	15,000	15,000	16,965	36,010	33,970	22,458	18,218	15,656	16,001	17,755
1951	15,338	16,118	14,560	15,028	30,895	33,970	30,835	20,664	16,014	15,178	15,000	14,441
1952	10,297	10,301	7,480	15,953	33,457	33,970	29,848	20,367	15,224	8,833	2,937	1,709
1953	15,153	18,566	13,369	15,000	31,053	33,970	33,257	21,076	16,003	11,435	11,342	15,000
1954	15,000	14,312	14,954	15,000	20,233	33,970	33,970	22,960	18,367	15,103	15,000	14,935
1955	13,043	10,281	6,060	3,205	15,000	33,970	29,848	20,538	17,333	15,740	15,562	15,448
1956	15,000	13,483	11,325	15,224	35,188	35,796	33,963	21,301	17,333	15,015	14,965	15,237
1957	12,360	10,631	13,389	15,066	33,462	33,970	29,848	20,420	15,259	10,645	6,490	5,794
1958	7,526	10,243	11,336	15,000	42,875	33,970	29,848	20,432	15,680	11,997	15,279	16,050
1959	15,444	15,289	14,290	15,809	31,733	33,970	31,457	20,672	17,627	15,671	17,332	15,394
1960	15,000	16,778	15,000	17,161	33,669	33,970	30,234	20,501	15,573	10,972	15,000	14,780
1961	15,000	16,330	15,030	15,030	26,781	33,970	30,234	20,637	16,481	13,536	11,165	15,000
1962	14,977	15,326	13,046	22,047	33,673	33,970	30,632	20,565	16,208	14,271	16,758	15,197
1963	14,396	23,611	23,288	27,379	33,970	33,970	29,848	20,434	15,248	9,917	9,897	11,335
1964	15,000	12,718	8,957	9,448	16,019	33,970	33,708	21,202	17,048	13,580	14,138	15,640
1965	15,427	17,243	14,923	17,336	32,975	33,970	29,848	20,459	16,008	10,898	8,671	6,266
1966	3,086	1,945	2,373	15,661	33,638	33,970	29,848	20,436	15,866	10,551	9,254	15,000
1967	15,000	16,001	14,241	12,978	26,496	35,285	29,848	20,426	15,937	15,509	15,000	15,000
1968	15,107	24,551	24,036	27,540	33,969	33,970	29,848	20,664	17,300	15,206	15,418	14,674
1969	14,565	11,819	9,474	15,000	30,763	33,970	29,848	20,393	16,931	13,556	12,180	7,851
1970	11,029	10,985	12,346	14,724	31,316	33,970	29,848	20,394	15,649	10,233	10,783	14,360
1971	15,000	15,629	14,671	15,000	21,526	33,970	33,970	23,035	18,367	14,999	14,597	12,453
1972	12,217	16,435	16,126	15,201	27,994	34,595	33,970	22,926	18,496	13,663	13,058	16,306
1973	15,020	13,726	11,053	14,089	33,970	33,970	29,848	20,370	15,233	9,858	15,000	15,000
1974	16,852	14,835	15,000	15,000	16,788	45,682	33,970	24,111	18,883	14,169	12,391	15,000
1975	15,000	15,000	14,586	14,091	18,220	33,970	33,079	21,218	17,311	15,000	15,000	15,863
1976	15,488	15,529	13,337	15,000	28,976	33,970	33,831	23,248	18,825	13,655	7,776	3,120
1977	2,475	2,305	1,961	8,979	18,941	28,211	23,269	17,627	14,504	9,860	16,122	15,302
1978	14,107	12,627	15,000	16,450	33,428	33,970	30,632	20,668	17,331	12,998	8,697	3,904
1979	1,826	2,168	7,123	9,779	33,957	33,970	29,848	20,526	15,724	11,399	6,003	15,625
1980	15,032	18,401	14,716	23,379	33,680	33,970	29,848	20,511	16,932	11,879	15,000	32,975
1981	15,255	26,651	27,904	33,899	33,970	33,970	29,848	20,457	16,613	12,664	12,204	14,999
1982	13,330	20,225	15,091	15,000	23,271	35,701	31,877	20,704	17,333	15,097	13,137	15,025
1983	15,056	16,238	15,200	15,000	36,217	33,970	29,848	20,519	17,333	11,951	14,951	14,633
1984	15,243	17,420	15,053	15,048	30,552	33,970	32,086	20,772	15,987	11,931	8,711	3,891
1985	1,824	1,864	2,098	14,939	33,748	33,970	29,848	20,363	16,772	15,000	14,647	9,235
1986	10,532	19,923	18,420	32,068	36,661	33,970	29,848	20,388	16,600	11,848	15,725	14,069
1987	11,640	12,245	15,102	33,011	33,945	33,970	29,848	20,343	14,765	8,687	2,556	2,775
1988	2,506	2,349	5,871	23,041	33,790	33,970	29,848	20,352	15,476	10,944	14,961	15,000
1989	14,812	13,091	13,671	22,747	33,746	33,970	29,848	20,438	15,991	10,131	11,549	14,857
1990	15,115	16,361	15,000	19,623	33,563	33,970	30,632	20,640	16,919	15,401	24,332	15,000
1991	15,000	22,689	14,938	19,904	33,734	33,970	31,457	20,771	15,990	9,900	11,380	13,477
1992	14,092	17,518	27,436	33,965	33,970	31,722	25,313	19,529	14,231	7,527	3,432	1,754
1993	2,872	1,866	7,096	15,048	33,948	33,970	28,642	20,372	14,799	8,629	2,338	1,675
1994	2,232	2,060	6,198	23,702	33,970	33,970	28,750	20,379	14,790	12,132	10,192	15,000
1995	15,303	20,675	15,362	15,065	33,226	33,970	29,848	20,455	16,276	14,936	34,054	15,694
1996	15,428	19,439	15,309	21,904	33,662	33,970	29,848	20,588	16,762	13,062	15,000	15,000
1997	15,149	15,149	16,698	16,005	32,311	33,970	33,423	21,079	17,585	18,893	15,369	15,016
1998	15,000	14,813	15,000	15,386	33,288	33,970	29,848	20,443	15,643	10,875	15,000	16,495
1999	15,000	14,647	14,549	15,000	19,705	33,970	33,970	24,050	19,112	13,980	17,527	15,204
2000	14,457	14,294	13,299	16,511	33,463	33,970	30,431	20,568	17,230	13,165	7,674	2,783
2001	1,794	1,702	3,466	7,781	33,970	33,970	28,010	20,467	14,666	8,299	14,284	14,797
2002	15,000	16,119	14,934	16,098	27,793	33,970	31,041	20,652	15,833	10,702	5,286	2,519
2003	17,523	19,089	15,572	26,169	34,037	33,970	29,848	20,435	15,334	13,387	15,000	13,542
2004	14,015	14,459	16,511	33,238	33,953	33,970	29,848	20,549	17,268	14,456	14,795	15,034
2005	16,276	15,193	14,844	24,181	33,970	33,241	27,705	20,369	15,308	10,306	9,227	15,000
2006	15,451	16,021	13,717	15,066	29,883	33,970	30,632	20,563	16,486	11,864	15,758	15,000
2007	14,837	16,902	18,085	21,011	33,790	33,970	29,848	20,410	15,541	12,841	14,614	15,000
2008	13,669	11,242	8,946	8,564	27,612	34,147	32,086	20,765	16,869	12,357	15,027	14,317
2009	15,000	13,564	11,652	15,000	33,492	33,970	29,848	20,434	16,449	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP1A (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	26,621	28,544	48,796
1926	59,797	72,475	92,370	127,627	150,959	157,004	146,952	132,378	51,044	40,039	53,465	76,053
1927	88,482	101,956	116,101	126,584	165,184	198,000	190,578	168,754	67,378	81,019	112,879	129,025
1928	129,025	140,735	151,989	149,231	197,064	198,000	180,272	157,561	44,167	26,484	34,877	41,675
1929	46,162	46,666	52,987	62,868	103,456	143,783	157,358	147,334	63,200	41,551	41,540	44,810
1930	46,891	65,214	84,014	123,208	150,178	168,940	171,944	135,526	45,475	21,515	25,431	26,478
1931	32,037	41,260	53,799	82,427	133,347	150,081	143,963	132,047	47,403	26,172	32,458	39,245
1932	49,161	64,894	98,489	129,050	179,719	198,000	191,036	167,916	50,850	24,541	64,695	86,991
1933	103,325	111,819	121,480	113,884	136,509	198,000	197,956	175,166	70,958	58,155	85,194	169,032
1934	137,705	162,810	157,458	196,124	197,929	198,000	178,671	145,839	62,019	52,514	96,209	118,867
1935	129,025	150,213	146,494	139,460	182,853	198,000	189,169	167,837	60,151	21,990	22,579	27,398
1936	32,534	33,828	43,786	82,169	155,678	198,000	184,860	163,949	68,738	50,942	54,105	56,408
1937	58,433	58,518	64,885	85,381	130,679	198,000	191,536	168,924	76,450	56,198	78,653	105,123
1938	129,025	140,397	134,610	137,160	195,209	198,000	184,860	157,496	46,142	22,585	30,527	45,274
1939	56,605	64,203	78,115	110,221	153,907	174,464	178,494	149,534	55,209	37,171	42,672	61,287
1940	72,811	88,264	112,465	143,184	186,794	198,000	177,556	139,537	65,965	48,343	55,535	70,763
1941	79,267	85,729	100,507	126,212	145,790	153,138	147,753	120,763	49,643	41,240	55,243	85,150
1942	95,505	102,650	111,879	138,926	168,564	192,888	176,926	140,752	58,611	35,129	54,203	76,948
1943	93,549	106,184	115,740	127,977	165,719	198,000	194,706	168,929	54,539	24,372	33,816	47,170
1944	53,488	60,608	72,610	87,303	109,505	124,092	119,839	105,655	40,409	25,662	31,686	39,028
1945	58,827	78,442	88,144	100,957	147,568	175,562	177,769	146,008	64,552	43,790	54,499	65,954
1946	81,312	89,779	104,545	114,084	174,964	198,000	194,706	168,783	67,012	28,024	49,920	99,860
1947	117,837	140,488	153,313	166,576	197,538	198,000	183,789	159,020	59,941	64,329	91,733	110,019
1948	126,059	142,161	116,645	102,763	140,519	198,000	191,536	168,760	64,642	47,975	60,941	72,629
1949	80,630	90,455	103,816	106,989	177,394	198,000	189,169	167,284	62,670	32,248	63,411	84,976
1950	100,856	118,824	103,706	92,456	120,016	198,000	198,000	182,674	81,397	77,915	115,674	129,025
1951	129,025	159,719	125,250	126,295	191,576	198,000	189,615	168,435	67,784	59,423	75,011	92,091
1952	102,094	116,409	128,708	156,514	197,094	198,000	183,789	164,512	63,384	45,375	50,477	51,794
1953	84,697	114,127	128,075	134,311	175,744	198,000	195,747	169,329	55,972	23,314	35,210	63,659
1954	81,592	95,468	113,874	109,640	147,071	198,000	198,000	187,228	93,023	65,329	83,604	96,231
1955	107,166	118,109	126,797	123,472	142,602	198,000	187,532	166,060	61,088	56,717	97,159	129,025
1956	129,025	129,078	69,783	65,407	137,620	198,000	197,955	170,499	69,919	39,987	54,218	87,342
1957	98,720	109,661	129,401	144,724	196,817	198,000	180,268	149,174	45,347	25,107	33,658	46,891
1958	60,630	78,634	96,622	123,655	196,532	198,000	178,648	149,143	54,878	36,047	76,210	129,025
1959	129,025	146,661	139,598	138,389	171,080	198,000	191,036	168,043	92,246	108,171	130,316	130,144
1960	130,078	147,867	150,492	162,772	197,469	198,000	185,439	168,035	65,538	31,750	51,512	63,546
1961	86,319	122,780	130,569	127,168	170,414	198,000	188,322	168,095	64,460	34,871	45,904	62,402
1962	91,137	107,636	119,061	163,251	188,485	198,000	189,169	167,511	68,703	58,465	98,826	129,025
1963	129,025	169,775	187,532	197,667	198,000	198,000	180,236	154,471	75,490	62,782	74,316	87,487
1964	104,411	116,117	126,584	119,262	137,145	198,000	197,117	173,312	71,282	53,010	62,701	95,454
1965	126,767	158,952	141,875	145,558	190,770	198,000	187,532	167,666	73,203	43,877	55,858	64,796
1966	71,330	72,628	80,085	110,533	161,007	191,098	183,789	158,760	64,308	28,245	39,351	64,244
1967	83,401	101,773	114,902	125,077	168,724	198,000	184,677	166,057	77,201	83,199	106,442	129,025
1968	129,025	176,546	184,743	196,575	198,000	198,000	184,215	169,296	89,576	71,485	105,740	122,858
1969	129,025	139,941	130,028	125,280	191,607	198,000	183,126	158,441	70,372	50,556	61,395	70,282
1970	88,308	101,563	120,567	138,707	186,538	198,000	180,281	149,828	75,953	66,848	78,989	93,773
1971	117,650	152,486	114,592	100,481	144,163	198,000	198,000	185,625	87,983	47,532	58,022	68,833
1972	84,579	112,962	89,729	70,811	122,636	198,000	198,000	188,785	115,176	88,692	101,649	129,025
1973	129,025	140,325	151,810	166,291	192,211	198,000	178,595	143,704	71,347	54,647	75,117	97,237
1974	129,025	136,875	82,237	67,687	105,311	198,000	198,000	195,155	106,276	65,930	76,806	95,358
1975	129,025	146,987	125,028	111,056	143,940	198,000	195,233	170,643	70,149	40,964	63,384	129,025
1976	129,025	150,533	130,969	124,587	174,306	198,000	197,746	191,476	105,667	73,358	82,336	87,628
1977	93,122	94,652	96,402	109,897	117,553	131,370	121,902	111,721	59,978	43,912	65,767	132,081
1978	130,422	142,773	149,358	155,932	193,660	198,000	189,169	169,062	96,311	67,268	76,603	83,999
1979	86,266	92,352	109,871	123,820	170,051	190,956	180,289	149,832	65,655	44,251	50,466	74,603
1980	87,757	99,751	122,406	168,689	197,489	198,000	180,258	149,743	71,793	57,264	77,175	129,025
1981	129,025	166,141	189,093	197,876	198,000	198,000	180,270	147,916	65,319	70,332	81,762	100,059
1982	119,021	163,212	134,718	123,448	164,107	198,000	192,048	168,369	82,774	55,709	67,402	89,310
1983	123,324	144,958	144,044	139,191	194,741	198,000	187,532	169,707	85,723	53,049	76,662	88,857
1984	129,025	150,975	146,832	141,814	174,206	198,000	192,570	168,891	88,334	67,139	80,052	87,773
1985	90,418	91,373	99,649	129,915	175,523	198,000	179,736	150,518	81,534	73,725	88,552	95,840
1986	106,765	135,381	170,484	196,549	197,964	198,000	180,231	149,393	75,964	63,714	81,978	91,975
1987	100,502	111,609	141,829	175,867	197,958	198,000	178,511	145,078	44,844	21,202	25,841	39,800
1988	45,784	57,515	76,641	117,567	163,129	190,451	178,579	146,497	59,713	44,626	61,926	77,439
1989	90,042	99,223	115,538	160,785	197,605	198,000	179,884	151,334	60,298	51,041	67,507	92,730
1990	123,133	138,024	144,737	163,518	196,516	198,000	189,169	168,579	61,540	41,705	82,469	103,565
1991	125,745	164,506	156,524	166,060	197,237	198,000	191,036	168,778	63,238	24,540	42,270	59,217
1992	73,909	94,282	119,749	151,643	181,030	187,422	178,456	142,641	60,157	41,656	48,376	50,135
1993	51,477	53,159	68,459	91,217	145,221	163,645	161,979	142,113	62,439	43,944	46,674	47,535
1994	54,653	55,880	72,632	103,548	136,324	147,178	144,623	124,721	42,406	18,482	32,036	56,664
1995	75,124	133,414	149,307	146,244	196,624	198,000	183,789	160,460	73,750	79,012	155,186	132,771
1996	131,913	169,738	149,528	168,373	197,457	198,000	187,532	167,596	79,165	53,155	68,242	85,418
1997	126,009	134,700	90,228	85,457	152,910	198,000	196,238	170,156	101,840	131,196	131,432	130,305
1998	129,785	143,876	148,562	146,948	196,796	198,000	183,401	158,932	57,086	33,455	49,495	78,541
1999	109,849	124,348	114,759	102,410	130,116	198,000	198,000	195,063	110,500	92,528	129,025	129,025
2000	129,025	143,764	143,883	155,554	197,104	198,000	187,437	167,955	80,292	54,303	60,069	64,914
2001	65,851	66,075	71,994	84,652	114,501	123,196	118,883	106,079	32,577	14,645	35,361	49,361
2002	80,128	94,579	111,241	130,447	169,146	198,000	190,075	167,871	69,291	31,400	37,654	43,807
2003	71,063	104,104	135,971	166,700	197,913	198,000	180,257	149,446	64,869	57,209	68,754	80,707
2004	92,365	104,400	125,847	159,334	197,973	198,000	180,257	150,645	77,177	70,936	83,613	103,157
2005	129,025	140,918	153,646	173,985	197,898	198,000	176,841	144,298	72,006	52,154	63,211	81,327
2006	115,803	134,278	134,528	128,022	188,302	198,000	183,838	159,353	53,615	22,563	86,931	112,301
2007	129,025	150,297	153,626	167,661	197,683	198,000	180,234	157,649	46,273	24,831	38,590	67,460
2008	78,192	88,052	100,827	115,454	179,129	197,732	192,570	168,482	70,659	52,733	83,288	95,968
2009	129,025	140,996	143,407	139,637	194,802	198,000	183,789	160,129	52,149	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP1A (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP1A (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	325,952	329,363	456,504
1926	510,858	551,504	662,904	845,120	853,537	707,388	469,418	246,580	112,347	160,282	217,068	307,083
1927	339,719	365,743	392,985	493,111	746,313	994,853	875,638	598,323	426,968	495,907	683,560	757,453
1928	780,165	801,698	860,466	860,923	1,064,090	1,054,836	830,909	529,076	315,525	300,281	312,893	315,347
1929	308,576	302,319	336,990	349,684	605,777	745,345	569,956	322,423	162,769	121,934	104,423	110,779
1930	112,268	201,026	286,436	511,145	611,981	609,730	433,928	233,645	108,065	84,289	99,376	97,168
1931	128,565	180,927	265,670	394,982	647,273	649,374	458,562	242,985	108,438	89,550	145,633	162,550
1932	218,465	341,584	522,566	698,733	975,185	1,058,539	911,018	631,075	418,716	362,957	609,208	708,451
1933	751,124	768,765	758,532	746,562	808,303	1,066,545	1,040,018	817,662	646,374	738,001	767,484	905,319
1934	829,614	906,103	910,769	1,057,312	1,062,647	957,889	698,549	409,421	234,908	277,562	449,697	532,980
1935	694,204	776,915	816,586	816,842	1,035,836	1,065,670	921,558	645,099	445,932	365,634	356,012	354,132
1936	375,502	381,249	429,942	645,722	1,008,465	1,063,403	851,030	562,085	371,987	332,670	314,649	350,216
1937	349,656	356,309	389,760	486,178	760,387	1,043,527	901,704	629,439	440,860	408,346	541,214	638,833
1938	700,308	717,225	722,366	810,455	1,056,425	1,063,622	852,181	556,539	337,697	267,187	298,665	377,180
1939	462,413	484,758	543,442	725,793	968,734	976,154	756,985	458,919	268,991	241,460	269,287	380,770
1940	403,462	453,637	553,125	727,975	920,411	841,736	578,470	301,356	150,752	131,724	153,397	217,610
1941	233,620	243,820	329,691	475,674	553,020	512,179	348,580	185,637	118,628	157,758	238,011	348,754
1942	367,244	377,396	405,535	561,270	678,327	725,320	539,563	292,671	142,151	101,026	176,042	256,706
1943	312,670	342,704	394,089	589,497	829,496	1,023,014	951,444	687,336	474,552	399,035	408,918	486,102
1944	488,502	506,839	549,055	624,908	751,482	726,567	496,657	260,631	146,689	129,513	147,173	191,374
1945	324,878	411,385	442,980	497,541	792,809	847,547	625,266	362,461	215,405	209,517	272,573	321,048
1946	379,241	394,975	436,548	574,358	973,766	1,065,670	962,340	692,000	496,524	454,578	497,529	670,039
1947	749,017	832,104	869,781	952,749	1,063,647	1,041,359	824,003	545,179	359,482	433,547	569,499	634,025
1948	669,951	705,677	681,329	675,338	844,317	1,065,670	943,670	698,540	508,058	484,107	529,215	576,244
1949	586,095	615,289	657,790	690,618	999,793	1,065,092	974,843	725,689	535,795	523,713	695,983	727,763
1950	748,675	783,664	705,488	671,650	743,556	1,069,294	1,042,842	841,415	651,616	684,198	764,481	803,971
1951	800,558	909,980	786,991	794,221	1,038,911	1,065,466	897,657	626,078	433,422	451,826	514,357	554,421
1952	564,258	594,125	618,205	782,885	1,036,949	1,037,194	855,805	577,098	381,182	339,657	323,068	313,579
1953	483,889	618,610	657,861	733,084	974,658	1,065,670	973,064	724,587	516,715	458,508	510,666	656,243
1954	710,380	748,421	751,035	732,892	860,624	1,065,847	1,041,105	858,996	689,124	646,349	697,019	719,066
1955	730,147	776,520	774,323	736,137	884,142	1,022,855	976,568	731,264	540,628	586,327	744,070	777,292
1956	776,808	765,016	582,923	591,339	837,370	1,067,496	1,021,437	779,940	592,950	584,630	634,205	743,331
1957	751,391	771,352	811,883	838,342	1,060,581	1,013,424	761,615	481,731	279,742	220,219	232,744	287,404
1958	328,005	396,666	457,201	583,148	969,625	973,858	724,301	426,336	248,595	254,461	460,172	662,680
1959	762,956	812,163	821,465	826,318	1,016,850	1,065,670	945,863	670,857	582,783	699,864	831,269	816,276
1960	796,994	839,762	851,734	889,740	1,063,335	1,063,278	863,295	585,809	391,707	344,902	439,219	465,624
1961	557,452	699,110	757,929	762,251	993,623	1,063,579	901,813	623,880	433,810	402,610	437,694	506,195
1962	641,217	711,952	737,607	942,920	1,044,276	1,065,112	905,218	648,690	458,045	446,268	606,703	711,392
1963	753,266	899,960	958,529	1,019,742	1,065,306	1,014,851	777,472	505,535	331,027	309,394	361,009	395,314
1964	460,676	481,663	510,751	563,364	764,634	1,065,670	1,016,179	802,875	625,981	603,167	639,738	714,579
1965	770,446	871,931	840,883	851,058	1,052,371	1,055,671	886,008	629,610	442,067	384,402	425,553	448,648
1966	467,208	468,652	501,179	671,301	937,330	1,000,451	832,750	548,617	357,563	303,362	338,505	476,123
1967	573,712	650,212	686,212	681,019	913,322	1,003,609	850,935	576,144	393,961	483,315	583,946	724,717
1968	776,951	948,912	1,001,712	1,016,860	1,065,319	1,042,262	829,962	583,508	444,276	441,174	558,441	626,388
1969	694,255	708,285	714,865	759,495	1,037,492	1,046,660	826,832	542,047	368,631	336,528	360,202	370,186
1970	411,174	439,090	497,056	561,097	818,975	930,187	744,115	470,282	309,624	295,663	342,512	374,313
1971	479,325	612,847	599,072	630,353	846,837	1,065,670	1,062,762	850,213	670,940	619,628	663,855	686,960
1972	718,324	798,850	705,234	624,387	777,865	1,066,295	1,042,886	863,455	728,945	680,844	706,336	774,666
1973	786,458	804,980	829,628	866,330	948,015	893,966	653,461	382,852	232,040	217,864	273,773	341,302
1974	517,952	562,077	547,303	531,896	685,838	1,077,690	1,065,161	901,947	733,971	654,709	665,863	731,056
1975	788,780	830,406	778,840	735,864	851,126	1,065,670	982,532	774,355	589,413	561,971	672,733	816,495
1976	810,653	872,438	804,706	786,409	986,139	1,065,670	1,024,347	871,734	702,622	636,362	648,739	668,466
1977	701,936	738,128	747,659	810,324	727,561	657,877	432,316	227,763	139,085	129,459	295,134	588,847
1978	608,622	638,814	732,706	842,738	1,033,443	1,056,383	889,618	640,546	503,630	437,907	469,978	494,038
1979	494,746	518,042	613,060	695,506	963,937	938,880	710,447	430,340	259,452	218,504	216,132	399,458
1980	427,471	460,578	525,451	731,797	937,281	950,309	727,178	448,152	288,730	262,885	368,968	662,884
1981	697,729	839,432	906,838	1,000,057	1,039,327	981,025	750,181	469,882	300,750	326,556	361,835	407,660
1982	477,093	660,723	695,061	717,445	937,618	1,067,401	959,420	702,874	537,300	505,737	537,270	623,563
1983	753,304	817,385	842,776	835,032	1,034,449	1,038,390	918,316	674,479	517,138	448,091	561,995	591,834
1984	777,087	836,940	843,159	834,824	1,008,303	1,065,670	965,041	706,818	541,732	502,259	545,745	565,252
1985	563,464	564,337	593,725	780,689	1,037,389	1,038,859	790,096	497,676	343,762	394,354	499,730	500,125
1986	529,567	647,177	802,549	924,926	1,053,489	996,368	745,281	452,948	293,039	274,732	399,407	426,555
1987	436,820	457,523	571,375	776,729	975,583	887,397	634,223	357,722	166,172	113,840	105,910	142,080
1988	150,641	196,953	291,007	531,642	769,529	816,795	618,527	363,715	198,558	221,686	331,479	415,716
1989	495,283	528,114	573,648	805,880	1,008,233	1,000,560	773,806	496,171	308,326	284,696	402,540	526,248
1990	631,159	701,998	758,282	928,145	1,061,736	1,065,307	897,811	634,434	436,752	471,171	803,321	781,048
1991	797,885	955,385	898,348	962,681	1,063,505	1,065,256	937,786	685,313	484,998	400,564	473,520	574,632
1992	650,647	733,512	864,037	1,002,013	1,012,595	847,309	587,608	319,723	179,682	153,475	197,185	218,240
1993	252,774	269,312	352,873	490,761	790,879	760,648	536,431	289,964	137,164	100,867	95,997	109,489
1994	156,949	172,856	267,368	471,744	646,988	622,309	454,045	245,939	111,637	104,034	160,633	263,534
1995	316,653	539,986	630,120	715,130	1,005,951	1,002,067	818,585	550,769	371,888	429,830	852,723	814,385
1996	810,072	952,122	876,612	959,333	1,063,284	1,048,814	878,331	622,736	450,130	422,421	511,856	568,014
1997	674,494	742,355	660,768	654,662	903,715	1,065,670	1,001,470	770,452	638,298	751,925	772,189	767,364
1998	773,545	810,977	839,599	851,085	1,060,324	1,040,029	824,428	542,544	337,720	276,509	365,963	484,693
1999	620,321	664,920	669,915	671,180	785,817	1,065,670	1,054,869	907,669	737,384	695,662	788,476	807,429
2000	793,816	813,275	824,782	885,904	1,061,703	1,065,345	879,310	600,475	435,608	401,721	403,567	396,307
2001	395,289	391,404	433,876	507,559	708,877	662,919	470,543	276,106	137,470	133,535	261,993	322,834
2002	439,075	490,444	547,573	711,912	986,571	1,065,670	932,988	652,600	455,168	370,266	375,379	381,852
2003	494,671	595,333	722,138	858,862	1,014,018	987,043	736,879	451,726	276,376	318,933	433,050	478,936
2004	520,152	558,134	660,015	844,304	1,012,279	960,747	704,688	450,473	333,869	347,250	433,127	548,576
2005	700,209	741,001	781,048	864,052	901,820	756,024	524,782	302,115	164,399	156,713	210,135	278,882
2006	396,547	444,894	458,854	560,223	892,930	1,010,725	818,875	537,538	335,345	253,016	525,371	578,464
2007	649,248	722,267	867,293	941,919	1,064,296	1,032,180	815,009	528,781	315,658	276,134	319,173	413,485
2008	431,370	452,422	486,112	510,146	903,496	1,065,416	923,551	663,773	479,028	457,298	622,377	668,014
2009	778,783	797,388	806,360	818,370	1,052,726	1,045,427	831,052	554,776	358,319	NA	NA	NA

Appendix C-4
Scenario IP2A (KDRPP Only)

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP2A - KDRPP 1000 cfs (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	3,021	749	1,545	1,527	90.0%	328	22	89.3%	296	7	2,263	49
Avg. WY 1982 to 2009	2,887	652	1,543	1,482	89.5%	307	20	88.8%	275	4	2,932	146
1941 (Dry Year)	1,687	246	1,153	971	40.6%	-93	-200	40.4%	-67	-196	1,248	0
1994 (Dry Year)	1,810	258	1,219	998	44.7%	-91	-200	44.8%	-122	-200	3,369	241
2001 (Dry Year)	1,895	184	1,394	1,170	65.8%	-27	-87	64.4%	-55	-100	0	0
2005 (Dry Year)	1,880	167	1,389	1,168	64.6%	-6	-108	65.4%	-13	-120	2,299	2,299

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,936	207	1,411	1,161	68.6%	-33	-79	68.6%	-26	-86	4,524	0
1927	3,027	679	1,609	1,513	100.0%	320	-38	100.0%	345	-48	402	0
1928	2,923	684	1,610	1,413	100.0%	242	18	100.0%	221	10	293	0
1929	2,058	212	1,437	1,282	70.0%	44	-99	70.0%	17	-116	2,327	0
1930	1,899	275	1,282	1,040	50.4%	-91	-200	49.4%	-105	-200	6,464	0
1931	1,874	274	1,177	990	41.8%	-89	-200	41.5%	-112	-200	10,811	0
1932	3,019	700	1,606	1,389	100.0%	210	-112	100.0%	140	-137	1,979	0
1933	3,657	1,107	1,609	1,859	100.0%	526	19	100.0%	481	10	0	0
1934	2,933	743	1,566	1,371	91.7%	234	56	89.4%	196	51	3,040	0
1935	3,188	743	1,609	1,633	100.0%	446	97	100.0%	376	69	0	0
1936	3,350	1,004	1,566	1,527	91.7%	372	80	89.9%	341	74	0	0
1937	2,973	562	1,588	1,623	100.0%	429	74	95.9%	393	68	0	0
1938	3,393	1,064	1,609	1,515	100.0%	329	74	100.0%	265	46	0	0
1939	2,521	337	1,544	1,402	95.2%	252	30	92.6%	220	27	0	0
1940	2,260	314	1,446	1,373	70.0%	127	-61	70.0%	105	-74	122	0
1941	1,687	246	1,153	971	40.6%	-93	-200	40.4%	-67	-196	1,248	0
1942	2,125	286	1,384	1,128	61.8%	-62	-200	59.9%	-94	-200	1,878	0
1943	3,401	999	1,609	1,544	100.0%	270	-123	100.0%	200	-149	2,607	0
1944	1,890	212	1,273	1,088	53.6%	-58	-200	49.5%	-63	-200	9,906	0
1945	2,304	305	1,452	1,290	70.0%	35	-194	70.0%	5	-200	4,041	0
1946	3,440	1,019	1,571	1,494	100.0%	319	1	100.0%	267	1	38,325	0
1947	2,986	673	1,609	1,489	100.0%	316	41	100.0%	298	20	16,968	0
1948	3,859	1,350	1,609	1,730	100.0%	508	109	100.0%	485	88	0	0
1949	4,015	1,483	1,609	1,747	100.0%	536	128	100.0%	495	108	0	0
1950	4,296	1,647	1,609	2,068	100.0%	652	127	100.0%	641	109	0	0
1951	3,795	1,362	1,609	1,628	100.0%	433	95	100.0%	408	73	0	0
1952	2,916	578	1,588	1,525	99.3%	358	76	96.9%	323	73	0	0
1953	3,158	655	1,609	1,764	100.0%	501	97	100.0%	443	73	0	0
1954	3,991	1,304	1,609	2,099	100.0%	689	132	100.0%	633	107	0	0
1955	3,436	891	1,609	1,830	100.0%	540	135	100.0%	522	121	0	0
1956	4,865	2,276	1,609	1,939	100.0%	593	117	100.0%	536	93	0	0
1957	3,198	921	1,609	1,452	100.0%	279	69	100.0%	219	43	0	0
1958	2,880	637	1,609	1,416	100.0%	245	22	100.0%	235	15	0	0
1959	3,485	903	1,609	1,797	100.0%	583	123	100.0%	606	115	149	0
1960	3,159	768	1,609	1,580	100.0%	392	87	100.0%	328	61	0	0
1961	3,600	1,170	1,609	1,621	100.0%	434	99	100.0%	392	78	0	0
1962	3,005	569	1,609	1,625	100.0%	436	89	100.0%	406	67	0	0
1963	2,685	419	1,571	1,441	92.7%	298	45	90.2%	268	41	0	0
1964	3,388	764	1,609	1,943	100.0%	626	129	100.0%	600	107	0	0
1965	3,399	962	1,609	1,630	100.0%	442	102	100.0%	382	75	0	0
1966	2,820	471	1,609	1,542	100.0%	353	61	100.0%	282	35	0	0
1967	3,088	756	1,572	1,533	92.6%	360	82	88.7%	358	85	0	0
1968	2,857	415	1,609	1,633	100.0%	444	101	100.0%	405	80	0	0
1969	3,591	1,227	1,609	1,556	100.0%	368	85	100.0%	339	61	0	0
1970	2,894	617	1,572	1,444	91.6%	303	49	89.6%	286	47	0	0
1971	3,892	1,220	1,609	2,020	100.0%	671	135	100.0%	604	109	0	0
1972	4,812	2,089	1,609	2,108	100.0%	729	139	100.0%	683	115	0	0
1973	2,276	188	1,484	1,292	74.7%	217	47	72.9%	191	43	0	0
1974	4,628	1,896	1,609	2,210	100.0%	734	138	100.0%	665	111	0	0
1975	3,877	1,290	1,609	1,929	100.0%	590	116	100.0%	530	92	0	0
1976	3,843	1,145	1,609	2,007	100.0%	703	126	100.0%	640	98	0	0
1977	1,901	168	1,401	1,177	65.9%	-22	-89	65.2%	-33	-102	0	0
1978	2,992	615	1,609	1,571	100.0%	377	-34	100.0%	322	-59	359	0
1979	2,329	292	1,454	1,232	70.8%	181	-84	68.2%	135	-101	0	0
1980	2,746	583	1,536	1,322	85.9%	199	-99	83.1%	178	-100	0	0
1981	2,415	367	1,456	1,244	71.7%	196	-29	69.1%	216	-32	2,581	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP2A - KDRPP 1000 cfs (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,371	895	1,609	1,694	100.0%	481	44	100.0%	433	22	89	89
1983	3,327	865	1,609	1,658	100.0%	465	56	100.0%	405	31	0	0
1984	3,222	699	1,609	1,761	100.0%	525	100	100.0%	477	73	0	0
1985	2,843	530	1,588	1,482	98.1%	335	55	96.6%	316	54	0	0
1986	2,620	395	1,555	1,397	88.0%	273	48	86.9%	252	48	0	0
1987	2,384	387	1,470	1,204	71.6%	160	21	69.9%	113	4	97	97
1988	2,434	346	1,504	1,273	76.8%	195	-23	75.7%	169	-28	0	0
1989	2,788	584	1,555	1,391	92.2%	253	13	90.3%	232	12	2,101	0
1990	3,140	728	1,609	1,603	100.0%	421	84	100.0%	387	65	0	0
1991	3,045	568	1,609	1,676	100.0%	485	105	100.0%	411	76	216	216
1992	2,198	270	1,406	1,371	65.0%	162	-11	64.1%	140	-26	75	0
1993	2,159	290	1,429	1,315	70.0%	74	-101	70.0%	50	-115	0	0
1994	1,810	258	1,219	998	44.7%	-91	-200	44.8%	-122	-200	3,369	241
1995	2,864	620	1,581	1,373	99.8%	189	-144	98.3%	230	-134	3,729	0
1996	3,096	770	1,609	1,523	100.0%	345	26	100.0%	288	12	0	0
1997	4,538	1,900	1,609	1,914	100.0%	638	119	100.0%	681	111	2,400	0
1998	3,156	829	1,609	1,513	100.0%	338	85	100.0%	280	58	0	0
1999	4,035	1,316	1,609	2,112	100.0%	737	137	100.0%	693	111	0	0
2000	3,307	877	1,609	1,618	100.0%	436	89	100.0%	394	65	0	0
2001	1,895	184	1,394	1,170	65.8%	-27	-87	64.4%	-55	-100	0	0
2002	3,195	850	1,609	1,528	100.0%	338	-11	100.0%	269	-35	0	0
2003	2,538	461	1,482	1,278	77.8%	213	5	75.4%	194	4	26,806	0
2004	2,575	336	1,573	1,437	94.3%	298	15	92.6%	285	15	4,651	1,133
2005	1,880	167	1,389	1,168	64.6%	-6	-108	65.4%	-13	-120	2,299	2,299
2006	3,075	845	1,554	1,355	97.3%	236	2	94.4%	213	2	33,547	0
2007	2,927	660	1,609	1,472	100.0%	301	60	100.0%	250	36	2,706	0
2008	3,180	734	1,590	1,671	100.0%	466	81	98.4%	446	59	0	0
2009	3,233	889	1,601	1,539	100.0%	358	93	100.0%	NA	NA	0	0
Average	3,021	749	1,545	1,527	90.0%	328	22	89.3%	296	7	2,263	49

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP2A - KDRPP 1000 cfs (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	43.2%	64.4%	70.8%	91.4%	22.9%
	0 -10% Above Target[1]	36.2%	24.7%	11.8%	0.5%	55.4%
	0-10% Below Target	1.0%	0.1%	10.2%	0.1%	3.2%
	> 10% Below Target	19.6%	10.8%	7.2%	8.0%	18.5%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	58.6%	75.2%	73.5%	6.0%
	0 -10% Above Target	8.0%	3.6%	4.0%	71.6%
	0-10% Below Target	7.1%	2.3%	3.3%	5.9%
	> 10% Below Target	26.3%	18.9%	19.2%	16.5%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			3.0%	
	0 -10% Above Target			4.9%	
	0-10% Below Target			9.1%	
	> 10% Below Target			83.0%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				26.2%	
	0 -10% Above Target				25.1%	
	0-10% Below Target				32.2%	
	> 10% Below Target				16.5%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				98.5%	
	0 -10% Above Target				0.8%	
	0-10% Below Target				0.7%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	13.8%	31.6%		7.2%
	0 -10% Above Target	1.2%	2.6%		1.6%
	0-10% Below Target	7.6%	3.1%		20.1%
	> 10% Below Target	77.4%	62.7%		71.1%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			41.7%	20.6%	18.2%
	0 -10% Above Target			21.6%	5.8%	1.8%
	0-10% Below Target			12.0%	5.6%	3.6%
	> 10% Below Target			24.7%	68.0%	76.4%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.6%	93.8%	88.5%
	0 -10% Above Target			0.6%	2.3%	4.4%
	0-10% Below Target			0.3%	1.7%	2.9%
	> 10% Below Target			0.5%	2.2%	4.2%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			59.8%	
	0 -10% Above Target			4.5%	
	0-10% Below Target			2.5%	
	> 10% Below Target			33.2%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.0%	93.4%	88.5%
	0 -10% Above Target			0.9%	2.3%	4.0%
	0-10% Below Target			0.5%	1.4%	2.7%
	> 10% Below Target			0.6%	2.9%	4.8%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP2A - KDRPP 1000 cfs (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	17.7%	41.8%	96.7%		19.4%
	0 -10% Above Target	58.7%	40.2%	2.5%		60.3%
	0-10% Below Target	0.0%	0.2%	0.0%		0.3%
	> 10% Below Target	23.6%	17.8%	0.8%		20.0%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	16.6%			
	0 -10% Above Target	1.1%			
	0-10% Below Target	1.2%			
	> 10% Below Target	81.1%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	69.9%			
	0 -10% Above Target	4.0%			
	0-10% Below Target	4.8%			
	> 10% Below Target	21.3%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP2A

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	33.3	1.8	0.9	0.9	0.8	0.9	2.2	26.7	63.7	75.3	61.6	50.2	318.5
1927	14.1	0.9	0.9	0.9	0.8	0.9	1.0	3.8	14.5	29.9	48.9	58.4	175.1
1928	20.9	0.9	0.9	0.9	0.9	0.9	0.9	2.7	17.8	33.7	41.6	66.5	188.7
1929	13.5	1.8	2.0	1.9	1.3	1.0	14.1	10.9	29.6	70.9	61.3	50.5	258.6
1930	19.6	2.8	2.5	1.0	0.8	0.9	1.5	15.2	41.8	61.5	58.9	25.5	232.2
1931	1.7	1.7	2.3	2.0	0.8	0.9	2.4	5.6	23.9	33.4	34.8	40.3	149.8
1932	2.7	1.3	1.0	0.9	0.9	0.9	0.9	3.2	3.9	31.3	47.2	58.4	152.6
1933	27.1	0.9	0.9	0.9	0.8	0.9	0.9	1.2	3.0	15.7	33.7	64.0	150.2
1934	13.7	0.9	0.9	0.9	0.8	17.1	26.9	24.5	31.8	45.6	48.8	68.8	280.6
1935	6.2	0.9	0.9	0.9	0.8	0.9	0.9	6.8	28.5	47.0	39.6	71.6	205.0
1936	31.1	1.6	2.0	0.9	0.9	1.1	1.7	0.9	13.2	55.8	45.6	70.1	224.9
1937	8.3	2.4	1.6	1.3	0.9	0.9	1.6	5.7	9.0	34.8	45.5	69.7	181.8
1938	6.6	1.0	0.9	0.9	0.8	0.9	0.9	4.1	14.1	49.7	41.8	68.9	190.7
1939	30.7	0.9	0.9	0.9	0.8	0.9	1.2	3.3	19.5	54.6	43.4	67.2	224.3
1940	4.9	1.6	0.9	1.2	0.9	0.9	1.9	7.9	47.7	68.8	60.1	47.6	244.2
1941	16.2	2.3	1.1	1.5	1.1	0.9	3.3	20.5	42.2	60.2	59.5	41.7	250.5
1942	5.1	1.0	0.9	0.9	0.8	0.9	2.5	11.9	19.9	28.4	32.8	46.1	151.3
1943	0.8	1.0	0.9	0.9	0.8	0.9	1.0	4.5	12.2	20.9	39.5	58.3	141.9
1944	26.7	1.2	1.0	1.1	0.9	1.0	4.3	11.3	34.4	56.9	48.5	8.8	196.1
1945	3.7	1.5	1.2	0.9	0.8	0.9	2.4	6.0	21.9	35.5	41.0	49.7	165.7
1946	7.3	0.9	1.1	0.9	0.8	0.9	0.9	1.0	1.0	12.7	6.6	2.4	36.6
1947	1.6	1.4	0.9	0.9	0.8	0.9	1.3	5.8	22.3	40.0	34.7	68.5	179.2
1948	27.2	0.9	0.9	0.9	0.9	0.9	0.9	1.3	2.1	45.6	39.4	66.1	187.1
1949	26.4	1.1	0.9	0.9	0.8	0.9	0.9	14.8	36.3	30.2	37.6	67.2	218.0
1950	26.9	0.9	0.9	0.9	0.8	24.0	22.2	30.1	26.8	37.5	43.4	68.6	283.1
1951	26.3	0.9	0.9	0.9	7.6	29.2	28.0	20.2	28.9	46.9	40.3	66.0	296.2
1952	27.1	1.0	1.2	1.2	0.9	0.9	0.9	3.7	14.5	30.7	39.9	68.4	190.4
1953	4.0	2.4	2.6	1.1	0.8	0.9	2.4	5.2	16.6	36.1	42.9	69.2	184.2
1954	27.0	1.4	0.9	0.9	0.8	0.9	0.9	17.2	25.7	43.5	42.5	69.6	231.5
1955	28.0	0.9	1.0	0.9	0.8	0.9	2.3	4.7	26.4	34.8	39.0	68.5	208.4
1956	22.4	0.9	0.9	0.9	11.3	44.0	27.6	39.6	21.0	39.5	45.9	67.8	321.9
1957	27.4	0.9	0.9	0.9	0.8	0.9	3.4	27.2	35.1	52.2	39.2	67.4	256.4
1958	28.5	1.9	1.0	0.9	0.8	0.9	1.2	5.9	23.3	45.2	45.6	66.0	221.3
1959	15.6	0.9	0.9	0.9	0.8	0.9	0.9	6.7	17.1	45.5	40.3	67.0	197.6
1960	20.4	0.9	9.2	8.4	1.1	15.7	25.9	15.7	31.8	51.7	42.5	67.4	290.7
1961	28.7	1.0	1.2	1.0	0.8	0.9	0.9	12.0	36.5	43.4	39.6	68.7	234.8
1962	26.4	1.4	1.1	0.9	0.8	0.9	1.1	9.2	20.8	42.0	36.7	66.7	208.1
1963	27.3	1.1	0.9	0.9	0.8	0.9	1.5	7.3	21.2	47.7	39.3	68.2	217.3
1964	5.4	1.3	1.3	0.9	0.9	0.9	2.2	4.4	1.0	25.1	43.1	66.8	153.3
1965	28.9	1.0	0.9	0.9	0.8	0.9	21.8	11.8	32.3	40.0	37.7	68.6	245.9
1966	29.7	1.8	1.8	1.4	1.4	0.9	1.8	5.4	15.4	35.5	36.1	65.2	196.4
1967	28.1	1.3	0.9	0.9	0.8	0.9	3.5	5.3	7.4	25.1	36.4	67.9	178.6
1968	2.2	0.9	0.9	0.9	0.9	3.2	17.5	18.9	26.6	32.5	45.5	67.5	217.5
1969	26.3	0.9	0.9	0.9	1.0	0.9	0.9	9.6	39.2	54.2	38.9	67.1	240.9
1970	28.2	1.9	2.0	1.3	0.8	0.9	4.6	5.3	13.2	30.2	41.8	69.8	200.0
1971	3.5	1.6	1.7	1.0	0.8	0.9	0.9	0.9	17.4	33.5	47.0	65.4	174.6
1972	28.1	0.9	0.9	0.9	0.9	63.9	25.0	40.5	19.7	38.1	38.3	65.2	322.5
1973	27.4	0.9	0.9	0.9	0.8	2.0	9.7	22.5	24.4	36.1	45.2	62.2	233.1
1974	7.4	1.8	1.0	0.9	0.8	0.9	0.9	12.9	32.5	37.4	45.0	69.9	211.3
1975	28.9	1.0	0.9	0.9	0.8	0.9	10.4	30.7	28.7	48.4	42.0	66.7	260.5
1976	26.5	0.9	0.9	15.9	1.5	24.8	24.7	22.2	24.8	37.2	37.9	70.2	287.6
1977	29.8	1.1	0.9	0.9	0.8	4.0	13.3	51.0	59.7	68.2	60.7	46.5	336.9
1978	16.3	0.9	0.9	0.9	0.8	0.9	1.2	5.4	17.2	31.6	44.0	58.5	178.7
1979	27.4	2.0	1.4	1.4	1.2	0.9	2.3	3.9	21.1	42.8	48.2	47.8	200.5
1980	19.1	1.8	1.0	0.9	0.9	0.9	0.9	3.3	19.1	36.5	44.6	58.1	187.1
1981	4.5	1.1	0.9	0.9	0.8	0.9	1.6	5.4	17.4	28.9	34.1	45.8	142.4
1982	10.0	1.1	0.9	1.0	0.8	0.9	0.9	1.3	6.1	31.4	44.7	70.1	169.4
1983	27.3	1.0	0.9	0.9	0.8	0.9	1.1	6.6	25.1	28.6	30.6	68.6	192.5
1984	27.8	0.9	0.9	0.9	0.9	0.9	1.3	3.3	2.3	35.3	42.4	69.0	186.0
1985	29.8	0.9	1.3	1.5	1.7	0.9	2.0	2.6	9.2	57.1	43.3	69.4	219.9
1986	2.6	0.9	1.2	1.2	1.0	0.9	1.6	5.7	23.3	51.6	45.8	66.4	202.2
1987	3.9	1.1	0.9	1.5	1.0	0.9	0.9	4.4	33.0	42.0	45.2	64.6	199.4
1988	19.5	2.1	1.7	1.9	0.9	0.9	1.2	5.8	25.7	49.1	41.9	58.7	209.5
1989	7.8	0.9	0.9	0.9	0.8	1.0	1.0	2.7	14.6	46.8	40.2	57.3	175.0
1990	3.3	0.9	0.9	0.9	0.8	0.9	1.2	5.3	7.3	42.9	44.7	69.5	178.7
1991	26.8	0.9	0.9	0.9	0.8	17.7	19.1	21.4	23.2	44.1	38.3	69.0	263.1
1992	31.5	1.1	0.9	0.9	0.9	0.9	1.3	12.3	46.6	65.4	69.9	51.3	283.1
1993	18.8	0.9	0.9	1.1	0.8	0.9	1.5	7.0	43.9	68.7	61.0	49.7	255.1
1994	17.9	3.3	1.6	1.0	1.0	1.0	1.8	13.1	44.2	59.7	58.4	36.1	238.8
1995	1.2	0.9	0.9	0.9	0.8	0.9	1.7	4.2	20.5	31.1	40.7	58.3	162.1
1996	2.2	0.9	0.9	1.0	1.0	0.9	0.9	5.3	22.7	30.0	33.1	67.4	166.2
1997	16.6	0.9	0.9	0.9	0.8	0.9	0.9	16.6	31.1	45.1	44.0	70.7	229.5
1998	20.1	0.9	0.9	0.9	0.8	0.9	0.9	16.2	27.7	39.9	42.2	71.4	222.9
1999	31.7	1.2	1.0	0.9	0.8	0.9	0.9	20.6	22.3	38.7	39.1	71.0	229.1
2000	31.5	0.9	0.9	1.0	1.7	0.9	13.6	20.1	32.8	54.6	43.8	69.9	271.6
2001	29.4	1.4	1.9	1.8	1.6	1.3	8.8	15.9	58.4	73.8	61.3	51.7	307.4
2002	16.3	1.2	0.9	0.9	0.8	0.9	0.9	1.3	1.0	37.3	52.1	61.3	175.0
2003	27.9	2.0	2.1	1.5	0.8	0.9	1.7	6.0	21.3	43.8	34.7	11.7	154.6
2004	4.1	0.9	0.9	1.1	0.9	0.9	1.1	3.9	18.9	54.3	42.7	58.3	187.8
2005	4.9	0.9	0.9	0.9	0.8	1.5	7.1	21.5	61.3	65.8	59.8	51.2	276.7
2006	16.9	0.9	1.4	0.9	0.8	0.9	1.0	4.4	19.8	28.4	8.5	3.6	87.5
2007	2.6	0.9	1.0	0.9	0.8	0.9	1.6	4.8	14.7	42.4	38.9	70.2	180.0
2008	32.0	1.3	1.5	1.4	0.9	1.0	4.5	2.6	0.9	36.0	46.0	67.6	195.6
2009	27.4	0.9	0.9	0.9	0.8	0.9	0.9	1.1	12.9	50.5	36.7	67.5	201.5
Average	18.4	1.2	1.2	1.3	1.1	3.7	5.0	10.7	23.7	43.0	43.2	59.7	212.3

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A - KDRPP 1000 cfs (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	516	844	82
1927	229	16	15	15	15	15	17	14	-	-	-	700	62
1928	340	14	-	-	-	-	-	-	-	-	-	-	22
1929	-	-	-	-	-	-	-	-	-	-	803	848	100
1930	319	47	40	17	15	15	25	248	703	1,000	959	429	232
1931	27	29	37	32	15	15	40	92	402	544	566	678	150
1932	44	21	16	15	16	15	15	53	61	175	768	981	132
1933	441	12	15	15	15	15	15	1	-	-	-	-	32
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	227	799	62
1941	264	38	17	24	20	15	56	333	709	979	968	701	250
1942	83	16	15	15	15	15	42	194	334	462	533	774	151
1943	13	17	15	15	15	15	17	72	204	341	643	980	142
1944	434	21	17	17	15	17	72	184	578	925	788	148	196
1945	60	26	20	15	15	15	41	98	368	577	667	836	166
1946	119	16	17	15	15	15	15	17	16	-	-	-	15
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	761	782	93
1978	265	12	6	15	2	-	-	-	-	-	-	600	54
1979	445	34	24	23	21	15	32	-	-	-	597	803	121
1980	311	30	16	15	15	15	15	0	-	-	700	977	127
1981	73	18	8	15	10	-	-	-	-	-	-	520	38
1982	163	18	15	13	-	-	-	-	-	-	-	-	13
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	400	24
1989	128	12	-	-	-	-	-	-	-	-	-	-	9
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	222	13
1993	306	15	15	15	-	-	-	-	-	-	895	834	126
1994	291	56	26	16	17	16	30	212	742	970	949	606	239
1995	19	15	15	15	15	15	28	68	345	506	662	979	162
1996	35	4	9	8	-	-	-	-	-	-	-	-	4
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	739	869	97
2002	264	20	15	15	15	15	7	-	-	-	-	167	31
2003	455	34	33	25	6	-	-	-	-	-	-	-	34
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	97	973	861	117
2006	274	16	23	15	15	15	17	43	-	-	-	-	26
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	64	7	5	5	3	3	6	19	53	78	163	206	37

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A - KDRPP 1000 cfs (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A - KDRPP 1000 cfs (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A - KDRPP 1000 cfs (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A - KDRPP 1000 cfs (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	16,553	-	-	-	-	-	9,299	39,020	40,743	53,764	54,860	17,969	232,208
1927	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1928	16,553	-	-	-	-	-	9,311	39,804	40,743	53,472	55,740	40,115	255,736
1929	14,226	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	230,488
1930	23	-	-	-	-	-	9,311	39,933	40,986	48,009	45,885	8,621	192,769
1931	-	-	-	-	-	-	8,359	36,251	36,064	40,565	38,727	11,220	171,185
1932	-	-	-	-	-	-	9,311	39,790	40,747	53,472	55,740	40,407	239,466
1933	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1934	13,513	-	-	-	-	-	9,311	39,841	40,559	53,700	56,428	39,691	253,043
1935	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1936	16,553	-	-	-	-	-	7,950	39,743	40,743	53,689	56,413	39,780	254,871
1937	23	-	-	-	-	-	9,311	39,743	40,743	53,485	56,054	40,530	239,889
1938	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1939	16,553	-	-	-	-	-	9,328	36,985	40,613	53,552	56,295	40,243	253,570
1940	23	-	-	-	-	-	9,311	38,655	40,743	53,657	54,162	17,132	213,683
1941	23	-	-	-	-	-	7,998	34,579	35,119	39,282	38,026	11,796	166,823
1942	23	-	-	-	-	-	9,317	39,584	40,745	53,364	53,004	15,798	211,834
1943	-	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,416
1944	16,553	-	-	-	-	-	9,370	40,212	41,043	48,790	45,427	3,774	205,169
1945	23	-	-	-	-	-	7,004	40,145	40,743	53,643	54,804	18,172	214,534
1946	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	2,616	201,647
1947	9,228	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	248,644
1948	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1949	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1950	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1951	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1952	16,553	-	-	-	-	-	9,311	39,743	40,743	53,477	55,974	40,611	256,411
1953	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1954	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1955	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1956	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1957	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1958	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1959	16,404	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,819
1960	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1961	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1962	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1963	16,553	-	-	-	-	-	9,311	39,743	40,743	53,644	56,376	39,850	256,220
1964	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1965	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1966	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1967	16,553	-	-	-	-	-	9,311	39,743	40,743	53,733	56,428	39,489	256,000
1968	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1969	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1970	16,553	-	-	-	-	-	9,311	39,743	40,743	53,697	56,419	39,721	256,187
1971	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1972	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1973	16,553	-	-	-	-	-	7,012	40,028	40,743	51,365	48,980	33,324	238,005
1974	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1975	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1976	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1977	16,553	-	-	-	-	-	9,166	39,746	40,743	53,805	54,794	17,396	232,203
1978	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1979	16,553	-	-	-	-	-	7,171	40,065	40,743	50,221	54,751	17,940	227,443
1980	23	-	-	-	-	-	9,311	39,677	39,313	53,972	55,281	37,366	234,942
1981	23	-	-	-	-	-	7,465	39,819	40,743	50,037	47,100	16,783	201,970
1982	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1983	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1984	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1985	16,553	-	-	-	-	-	9,311	39,743	40,743	53,481	56,015	40,589	256,436
1986	23	-	-	-	-	-	9,360	39,572	40,743	53,875	56,428	38,806	238,807
1987	23	-	-	-	-	-	9,311	39,167	40,743	50,016	47,119	29,946	216,325
1988	23	-	-	-	-	-	9,311	39,440	40,743	52,099	50,403	34,436	226,455
1989	23	-	-	-	-	-	9,311	38,613	40,743	53,667	56,399	37,774	236,529
1990	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1991	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1992	16,553	-	-	-	-	-	6,676	39,741	40,743	53,757	53,934	16,156	227,560
1993	23	-	-	-	-	-	9,394	37,210	40,743	53,643	54,804	18,172	213,989
1994	23	-	-	-	-	-	9,312	37,590	38,166	42,988	41,501	10,943	180,523
1995	-	-	-	-	-	-	9,322	39,743	40,398	53,374	55,830	40,664	239,331
1996	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1997	14,153	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	253,568
1998	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1999	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2000	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2001	16,553	-	-	-	-	-	9,165	39,746	40,743	53,781	54,666	17,149	231,803
2002	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2003	16,553	-	-	-	-	-	9,311	38,849	40,743	52,491	51,190	7,683	216,820
2004	14	-	-	-	-	-	9,347	39,250	40,743	53,559	56,274	38,768	237,956
2005	23	-	-	-	-	-	9,170	39,750	40,743	53,705	54,787	17,356	215,534
2006	23	-	-	-	-	-	9,311	39,743	40,767	53,193	55,934	7,429	206,400
2007	5	-	-	-	-	-	9,345	39,743	40,743	53,472	55,740	40,407	239,456
2008	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,873	40,658	256,353
2009	23	-	-	-	-	-	9,203	39,284	40,273	52,855	55,096	39,941	236,675
Average	9,089	-	-	-	-	-	9,129	39,503	40,566	52,771	54,420	33,601	239,079

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A - KDRPP 1000 cfs (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	18,681	-	-	-	-	8,883	29,991	39,152	48,426	48,526	47,496	31,190	272,344
1927	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1928	18,681	-	-	-	-	8,883	30,437	42,104	47,350	54,222	53,512	35,446	290,636
1929	18,681	-	-	-	-	8,883	26,644	39,776	48,460	49,896	48,680	31,571	272,592
1930	986	-	-	-	-	8,883	30,437	30,669	36,079	36,938	35,937	22,922	202,851
1931	986	-	-	-	-	8,883	22,087	25,118	29,973	30,507	29,689	19,115	166,358
1932	986	-	-	-	-	8,883	30,437	42,144	47,520	54,222	53,512	35,446	273,151
1933	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1934	18,681	-	-	-	-	8,883	30,437	42,162	47,217	54,404	53,849	35,662	291,295
1935	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1936	18,681	-	-	-	-	8,883	30,617	42,081	47,350	54,388	53,809	35,685	291,495
1937	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,522	35,697	273,127
1938	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1939	18,681	-	-	-	-	8,883	30,554	39,916	47,325	54,234	53,577	35,758	288,928
1940	986	-	-	-	-	8,883	30,445	41,681	48,460	49,896	48,680	31,571	260,603
1941	986	-	-	-	-	8,883	29,000	24,647	29,075	29,425	29,085	18,715	169,816
1942	986	-	-	-	-	8,883	30,557	36,119	43,722	43,738	42,210	27,455	233,671
1943	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1944	18,681	-	-	-	-	8,883	21,003	29,758	36,913	37,763	36,139	22,989	212,129
1945	986	-	-	-	-	8,883	28,924	40,568	48,460	49,896	48,680	31,571	257,970
1946	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1947	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1948	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1949	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1950	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1951	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1952	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,515	35,665	290,783
1953	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1954	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1955	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1956	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1957	18,681	-	-	-	-	8,883	30,455	42,030	47,350	54,222	53,512	35,446	290,580
1958	18,681	-	-	-	-	8,883	30,636	42,030	47,350	54,222	53,512	35,446	290,761
1959	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1960	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1961	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1962	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1963	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,332	53,743	35,705	291,161
1964	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1965	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1966	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1967	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,456	53,917	35,616	291,371
1968	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1969	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1970	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,400	53,833	35,669	291,284
1971	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1972	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1973	18,681	-	-	-	-	8,883	28,834	41,847	47,955	52,871	51,224	32,678	282,974
1974	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1975	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1976	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1977	18,681	-	-	-	-	8,883	25,201	37,606	47,246	46,657	45,798	29,956	260,029
1978	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1979	18,681	-	-	-	-	8,883	29,518	41,542	48,402	50,129	48,326	31,113	276,596
1980	986	-	-	-	-	8,883	30,552	42,041	45,950	55,017	54,536	35,148	273,114
1981	986	-	-	-	-	8,883	30,527	42,428	48,172	50,804	49,050	31,493	262,343
1982	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1983	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1984	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1985	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,517	35,674	290,794
1986	986	-	-	-	-	8,883	30,593	41,932	47,350	54,751	54,184	35,491	274,171
1987	986	-	-	-	-	8,883	30,525	41,207	48,308	50,750	49,073	31,694	261,427
1988	986	-	-	-	-	8,883	30,595	41,872	47,688	54,178	52,811	33,534	270,548
1989	986	-	-	-	-	8,883	30,467	41,119	47,350	54,358	53,767	35,710	272,641
1990	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1991	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1992	18,681	-	-	-	-	8,883	27,040	37,226	46,677	46,035	44,961	29,316	258,818
1993	986	-	-	-	-	8,883	30,980	40,063	48,460	49,896	48,680	31,571	259,520
1994	986	-	-	-	-	8,883	30,685	27,770	31,970	32,567	32,117	20,659	185,638
1995	986	-	-	-	-	8,883	30,457	42,030	47,418	54,163	53,512	35,623	273,072
1996	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1997	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1998	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1999	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2000	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2001	18,681	-	-	-	-	8,883	25,179	37,508	47,147	46,482	45,010	29,414	258,305
2002	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2003	18,681	-	-	-	-	8,883	30,437	41,810	47,508	54,768	53,574	33,663	289,324
2004	986	-	-	-	-	8,883	30,491	41,689	47,350	54,238	53,571	35,756	272,965
2005	986	-	-	-	-	8,883	24,738	36,485	46,353	45,718	45,164	29,879	238,206
2006	986	-	-	-	-	8,883	30,439	42,030	47,386	54,068	53,514	35,699	273,006
2007	986	-	-	-	-	8,883	30,490	42,030	47,350	54,222	53,512	35,446	272,920
2008	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,624	290,740
2009	986	-	-	-	-	8,758	30,006	41,434	46,680	53,454	52,754	34,944	269,015
Average	10,887	-	-	-	-	8,882	29,897	40,703	46,507	52,081	51,269	33,782	274,008

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A - KDRPP 1000 cfs (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	25,229	-	-	-	-	6,232	45,970	88,712	88,684	95,771	88,942	55,095	494,635
1927	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1928	25,229	-	-	-	-	6,232	51,572	100,467	109,844	113,698	108,774	74,355	590,173
1929	25,229	-	-	-	-	6,232	47,603	92,309	89,080	97,312	90,146	55,333	503,244
1930	21,815	-	-	-	-	6,232	51,572	79,042	75,551	82,739	77,339	51,024	445,315
1931	21,815	-	-	-	-	6,232	40,620	73,552	69,512	75,505	71,058	49,164	407,458
1932	21,815	-	-	-	-	6,232	51,572	100,015	107,023	113,698	108,774	74,355	583,485
1933	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1934	25,229	-	-	-	-	6,232	51,572	99,848	104,037	113,381	104,057	59,684	564,040
1935	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1936	25,229	-	-	-	-	6,232	50,521	101,401	105,800	113,423	104,274	59,779	566,660
1937	21,815	-	-	-	-	6,232	51,572	101,401	109,674	113,698	107,081	61,108	572,582
1938	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1939	25,229	-	-	-	-	6,232	50,533	84,936	104,543	113,616	105,732	60,385	551,205
1940	21,815	-	-	-	-	6,232	51,512	87,059	89,080	97,312	90,146	55,333	498,490
1941	21,815	-	-	-	-	6,232	43,201	70,996	68,623	74,287	70,447	48,973	404,575
1942	21,815	-	-	-	-	6,232	50,419	86,626	83,112	90,387	83,640	53,219	475,451
1943	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1944	25,229	-	-	-	-	6,232	45,245	79,519	76,384	83,668	77,543	51,059	444,878
1945	21,815	-	-	-	-	6,232	48,226	94,187	89,080	97,312	90,146	55,333	502,332
1946	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1947	22,615	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	588,493
1948	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1949	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1950	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1951	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1952	25,229	-	-	-	-	6,232	51,572	101,401	109,621	113,698	107,334	61,337	576,425
1953	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1954	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1955	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1956	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1957	25,229	-	-	-	-	6,232	51,476	101,401	109,844	113,698	108,774	74,355	591,011
1958	25,229	-	-	-	-	6,232	50,278	101,401	109,844	113,698	108,774	74,355	589,813
1959	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1960	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1961	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1962	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1963	25,229	-	-	-	-	6,232	51,572	101,401	106,117	113,493	104,650	59,849	568,543
1964	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1965	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1966	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1967	25,229	-	-	-	-	6,232	51,572	101,401	108,401	113,267	103,693	59,522	569,318
1968	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1969	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1970	25,229	-	-	-	-	6,232	51,572	101,401	107,565	113,397	104,143	59,718	569,258
1971	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1972	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1973	25,229	-	-	-	-	6,232	48,201	96,546	92,855	100,783	92,708	56,036	518,589
1974	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1975	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1976	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1977	25,229	-	-	-	-	6,232	47,022	89,612	86,737	93,669	87,239	54,436	490,176
1978	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1979	25,229	-	-	-	-	6,232	48,370	95,988	90,264	97,575	89,796	55,052	508,507
1980	21,815	-	-	-	-	6,232	50,876	99,869	96,364	109,567	100,084	58,304	543,111
1981	21,815	-	-	-	-	6,232	48,797	98,609	91,596	98,333	90,523	55,272	511,178
1982	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1983	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1984	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1985	25,229	-	-	-	-	6,232	51,572	101,401	109,422	113,698	107,208	61,265	576,028
1986	21,815	-	-	-	-	6,232	49,898	99,723	102,860	111,414	102,147	59,109	553,199
1987	21,815	-	-	-	-	6,232	51,075	95,664	90,807	98,272	90,542	55,397	509,805
1988	21,815	-	-	-	-	6,232	50,569	95,477	94,516	102,428	94,357	56,658	522,052
1989	21,815	-	-	-	-	6,232	50,720	94,344	106,392	113,456	104,509	59,879	557,348
1990	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1991	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1992	25,229	-	-	-	-	6,232	45,855	88,983	86,097	92,969	86,403	54,122	485,890
1993	21,815	-	-	-	-	6,232	46,257	85,893	89,080	97,312	90,146	55,333	492,068
1994	21,815	-	-	-	-	6,232	48,836	75,066	71,487	77,823	73,497	49,918	424,674
1995	21,815	-	-	-	-	6,232	51,340	101,401	103,087	112,947	107,692	61,665	566,181
1996	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1997	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1998	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1999	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2000	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2001	25,229	-	-	-	-	6,232	46,654	89,485	86,628	93,473	86,455	54,166	488,322
2002	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2003	25,229	-	-	-	-	6,232	51,572	94,706	96,470	103,328	95,276	56,706	529,518
2004	21,815	-	-	-	-	6,232	50,941	97,683	106,627	113,623	105,881	60,408	563,210
2005	21,815	-	-	-	-	6,232	46,915	88,162	85,739	92,613	86,593	54,395	482,464
2006	21,815	-	-	-	-	6,232	51,559	101,401	109,425	110,998	107,458	60,974	569,864
2007	21,815	-	-	-	-	6,232	50,956	101,401	109,844	113,698	108,774	74,355	587,077
2008	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,644	61,669	577,290
2009	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
Average	23,694	-	-	-	-	6,232	50,540	97,621	102,988	108,263	102,368	66,564	558,270

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A - KDRPP 1000 cfs (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	33,266	-	-	-	-	10,226	38,456	55,490	59,661	60,867	57,878	49,414	365,258
1927	24,007	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,993
1928	33,266	-	-	-	-	10,226	41,928	58,787	65,464	70,157	70,467	59,068	409,363
1929	33,124	-	-	-	-	10,226	40,684	57,477	62,069	63,374	62,461	51,769	381,183
1930	23,571	-	-	-	-	10,226	41,928	54,436	55,469	57,401	56,784	49,227	349,042
1931	14,990	-	-	-	-	10,226	37,273	55,619	56,129	58,040	57,344	49,541	339,162
1932	22,308	-	-	-	-	10,226	41,928	58,585	65,317	70,157	70,467	59,068	398,057
1933	32,779	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,765
1934	33,266	-	-	-	-	10,226	41,928	58,536	64,726	69,912	69,487	55,661	403,742
1935	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1936	33,266	-	-	-	-	10,226	41,053	57,867	65,148	69,953	69,580	55,693	402,786
1937	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,197	56,157	395,069
1938	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1939	33,266	-	-	-	-	10,226	41,447	51,426	64,237	70,155	70,030	55,902	396,689
1940	24,263	-	-	-	-	10,226	41,870	52,988	63,979	67,056	65,977	53,080	379,440
1941	23,794	-	-	-	-	10,226	37,476	51,357	51,626	53,413	53,099	47,709	328,700
1942	22,907	-	-	-	-	10,226	41,032	56,887	61,270	62,586	61,753	51,487	368,149
1943	21,680	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	395,666
1944	33,266	-	-	-	-	10,226	40,359	56,403	58,268	59,913	59,088	50,204	367,728
1945	20,223	-	-	-	-	10,226	40,478	57,867	63,957	66,882	65,795	53,141	378,569
1946	23,730	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,716
1947	26,496	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	400,482
1948	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1949	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1950	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1951	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1952	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,227	56,241	404,186
1953	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1954	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1955	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1956	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1957	33,266	-	-	-	-	10,226	41,357	57,867	65,148	70,157	70,467	59,068	407,557
1958	33,283	-	-	-	-	10,226	41,106	59,101	65,193	70,157	70,467	59,068	408,600
1959	32,779	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,765
1960	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1961	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1962	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1963	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,083	69,720	55,716	403,080
1964	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1965	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1966	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1967	33,266	-	-	-	-	10,226	41,053	57,867	65,148	69,779	69,335	55,603	402,277
1968	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1969	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1970	33,266	-	-	-	-	10,226	41,053	57,867	65,148	69,922	69,525	55,672	402,679
1971	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1972	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1973	33,266	-	-	-	-	10,226	40,430	57,867	64,205	68,617	67,957	54,071	396,641
1974	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1975	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1976	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1977	33,266	-	-	-	-	10,226	40,556	57,031	59,449	60,701	60,250	50,883	372,362
1978	23,904	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,890
1979	33,266	-	-	-	-	10,226	40,358	57,867	64,056	67,815	66,787	53,553	393,928
1980	24,263	-	-	-	-	10,226	41,447	58,463	62,138	69,021	68,693	55,123	389,375
1981	24,263	-	-	-	-	10,226	40,354	57,867	64,179	68,009	67,088	53,671	385,657
1982	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1983	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1984	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1985	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,216	56,214	404,148
1986	24,263	-	-	-	-	10,226	41,236	57,298	65,148	69,236	68,944	55,452	391,804
1987	24,263	-	-	-	-	10,226	41,598	57,122	64,089	68,001	67,096	53,736	386,132
1988	24,263	-	-	-	-	10,226	41,185	56,950	64,515	68,782	68,388	54,386	388,696
1989	24,263	-	-	-	-	10,226	41,233	55,727	65,148	70,033	69,667	55,726	392,023
1990	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1991	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1992	33,266	-	-	-	-	10,226	39,255	57,828	63,793	66,149	65,384	53,045	388,947
1993	24,263	-	-	-	-	10,226	39,446	52,072	63,356	65,135	64,215	52,501	371,215
1994	23,687	-	-	-	-	10,226	40,310	53,063	53,553	55,474	55,052	48,541	339,905
1995	20,557	-	-	-	-	10,226	41,782	59,101	63,586	69,843	70,251	56,370	391,716
1996	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1997	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1998	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1999	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2000	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2001	33,266	-	-	-	-	10,226	40,261	57,009	59,373	60,598	59,896	50,719	371,349
2002	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2003	33,266	-	-	-	-	10,226	41,928	55,707	64,720	68,761	68,551	54,416	397,575
2004	22,230	-	-	-	-	10,226	41,592	56,796	65,148	70,155	70,066	55,908	392,121
2005	24,263	-	-	-	-	10,226	40,612	56,765	59,024	60,304	59,984	50,860	362,038
2006	24,243	-	-	-	-	10,226	41,911	59,101	66,292	69,232	70,231	56,141	397,377
2007	21,576	-	-	-	-	10,226	41,651	57,867	65,148	70,157	70,467	59,068	396,161
2008	33,185	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,250	56,369	404,255
2009	24,263	-	-	-	-	10,179	40,863	57,599	64,847	69,832	70,140	59,283	397,005
Average	28,842	-	-	-	-	10,226	40,939	57,350	64,007	68,368	68,320	56,623	394,673

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A - KDRPP 1000 cfs (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	3,644	-	-	-	-	421	4,220	12,700	16,423	18,124	18,139	15,042	88,712
1927	660	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,630
1928	3,644	-	-	-	-	421	4,768	12,962	16,425	18,950	19,461	15,860	92,491
1929	3,644	-	-	-	-	421	3,348	13,084	16,423	18,347	18,392	15,542	89,201
1930	798	-	-	-	-	421	4,768	12,851	16,323	17,497	17,430	15,222	85,310
1931	798	-	-	-	-	421	2,828	13,084	16,360	17,624	17,544	15,284	83,943
1932	798	-	-	-	-	421	4,768	12,888	16,033	18,950	19,461	15,860	89,179
1933	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1934	3,644	-	-	-	-	421	4,768	12,863	16,211	18,347	18,395	15,598	90,247
1935	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1936	3,644	-	-	-	-	421	4,372	13,084	16,423	18,347	18,395	15,598	90,284
1937	798	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,608	87,846
1938	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1939	3,644	-	-	-	-	421	4,686	10,948	15,998	18,347	18,395	15,603	88,041
1940	798	-	-	-	-	421	4,761	11,217	16,423	18,347	18,395	15,560	85,923
1941	798	-	-	-	-	421	4,030	12,840	15,885	16,709	16,680	14,885	82,247
1942	798	-	-	-	-	421	4,694	12,979	16,423	18,347	18,378	15,527	87,567
1943	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1944	3,644	-	-	-	-	421	2,682	13,084	16,416	17,961	17,893	15,405	87,504
1945	798	-	-	-	-	421	3,939	13,084	16,423	18,347	18,395	15,560	86,967
1946	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1947	3,571	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,540
1948	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1949	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1950	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1951	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1952	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,609	90,692
1953	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1954	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1955	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1956	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1957	3,644	-	-	-	-	421	4,763	13,084	16,425	18,950	19,461	15,860	92,608
1958	3,644	-	-	-	-	421	4,644	13,084	16,425	18,950	19,461	15,860	92,489
1959	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1960	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1961	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1962	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1963	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,599	90,681
1964	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1965	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1966	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1967	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,597	90,679
1968	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1969	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1970	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,598	90,680
1971	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1972	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1973	3,644	-	-	-	-	421	3,917	13,084	16,423	18,347	18,395	15,572	89,803
1974	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1975	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1976	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1977	3,644	-	-	-	-	421	2,803	13,084	16,423	18,097	18,120	15,479	88,070
1978	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1979	3,644	-	-	-	-	421	4,007	13,084	16,423	18,347	18,395	15,565	89,886
1980	798	-	-	-	-	421	4,715	12,867	15,513	18,347	18,395	15,588	86,643
1981	798	-	-	-	-	421	4,152	13,084	16,423	18,347	18,395	15,567	87,187
1982	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1983	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1984	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1985	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,609	90,691
1986	798	-	-	-	-	421	4,642	12,915	16,423	18,347	18,395	15,594	87,535
1987	798	-	-	-	-	421	4,738	12,569	16,423	18,347	18,395	15,568	87,259
1988	798	-	-	-	-	421	4,701	12,776	16,423	18,347	18,395	15,577	87,437
1989	798	-	-	-	-	421	4,718	12,106	16,423	18,347	18,395	15,599	86,807
1990	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1991	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1992	3,644	-	-	-	-	421	3,629	13,084	16,423	18,347	18,395	15,559	89,502
1993	798	-	-	-	-	421	4,321	11,222	16,423	18,347	18,395	15,551	85,479
1994	798	-	-	-	-	421	4,530	12,820	16,126	17,118	17,077	15,076	83,965
1995	798	-	-	-	-	421	4,751	13,084	15,403	18,836	18,729	15,611	87,633
1996	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1997	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1998	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1999	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2000	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2001	3,644	-	-	-	-	421	2,770	13,084	16,423	18,079	18,052	15,464	87,937
2002	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2003	3,644	-	-	-	-	421	4,768	12,380	16,423	18,347	18,395	15,576	89,954
2004	798	-	-	-	-	421	4,701	12,626	16,423	18,347	18,395	15,603	87,313
2005	798	-	-	-	-	421	2,748	13,084	16,423	18,031	18,067	15,477	85,050
2006	798	-	-	-	-	421	4,768	13,084	16,363	18,069	18,395	15,605	87,502
2007	798	-	-	-	-	421	4,700	13,084	16,425	18,950	19,461	15,860	89,699
2008	3,644	-	-	-	-	421	4,768	13,084	16,425	18,617	18,395	15,612	90,966
2009	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
Average	2,388	-	-	-	-	421	4,545	12,953	16,377	18,620	18,917	15,704	89,924

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A - KDRPP 1000 cfs (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	7,393	-	-	-	-	20	10,564	13,539	14,527	14,065	14,735	13,329	88,173
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,828	15,399	16,253	17,629	17,780	15,757	102,059
1929	7,393	-	-	-	-	20	10,799	13,791	14,527	14,065	14,735	13,329	88,659
1930	5,536	-	-	-	-	20	11,828	13,591	14,230	13,127	14,194	12,849	85,374
1931	5,536	-	-	-	-	20	9,551	13,414	13,121	11,427	13,468	12,611	79,148
1932	5,536	-	-	-	-	20	11,828	15,341	15,848	17,629	17,780	15,757	99,739
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	15,316	14,607	14,065	14,735	13,329	91,292
1935	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1936	7,393	-	-	-	-	20	11,360	14,763	15,209	14,065	14,735	13,329	90,874
1937	5,536	-	-	-	-	20	11,828	15,543	16,134	17,086	17,346	15,376	98,868
1938	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1939	7,393	-	-	-	-	20	11,597	13,076	15,356	17,070	17,346	13,813	95,671
1940	5,536	-	-	-	-	20	11,812	13,421	14,527	14,065	14,735	13,329	87,446
1941	5,536	-	-	-	-	20	10,284	13,197	13,121	11,427	13,468	12,611	79,664
1942	5,536	-	-	-	-	20	11,493	13,520	14,230	13,127	14,194	12,849	84,968
1943	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1944	7,393	-	-	-	-	20	10,537	13,571	14,230	13,127	14,194	12,849	85,920
1945	5,536	-	-	-	-	20	10,737	13,791	14,527	14,065	14,735	13,329	86,741
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1947	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1948	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,543	15,973	17,070	17,346	15,376	100,548
1953	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,802	15,543	16,253	17,629	17,780	15,757	102,177
1958	7,393	-	-	-	-	20	11,469	15,543	16,253	17,629	17,780	15,757	101,843
1959	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1960	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1961	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1962	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1963	7,393	-	-	-	-	20	11,828	15,382	15,251	14,065	14,735	13,329	92,003
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1966	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1967	7,393	-	-	-	-	20	11,828	15,543	15,636	14,065	14,735	13,329	92,548
1968	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1969	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1970	7,393	-	-	-	-	20	11,828	15,543	15,471	14,065	14,735	13,329	92,383
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,724	13,791	14,527	14,065	14,735	13,329	88,585
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,780	13,791	14,527	14,065	14,735	13,329	88,641
1978	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1979	7,393	-	-	-	-	20	10,693	13,791	14,527	14,065	14,735	13,329	88,553
1980	5,536	-	-	-	-	20	11,620	15,321	13,863	14,065	14,735	13,329	88,489
1981	5,536	-	-	-	-	20	10,670	13,791	14,527	14,065	14,735	13,329	86,674
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,828	15,543	15,973	17,070	17,346	15,376	100,548
1986	5,536	-	-	-	-	20	11,507	14,676	14,571	14,065	14,735	13,329	88,439
1987	5,536	-	-	-	-	20	11,678	14,825	14,527	14,065	14,735	13,329	88,715
1988	5,536	-	-	-	-	20	11,525	13,884	14,527	14,065	14,735	13,329	87,621
1989	5,536	-	-	-	-	20	11,568	14,464	15,045	14,065	14,735	13,329	88,761
1990	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1991	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1992	7,393	-	-	-	-	20	10,209	13,643	14,527	13,127	14,194	12,849	85,961
1993	5,536	-	-	-	-	20	10,707	13,246	14,527	14,065	14,735	13,329	86,165
1994	5,536	-	-	-	-	20	11,158	13,541	13,289	12,210	14,194	12,827	82,775
1995	5,536	-	-	-	-	20	11,786	15,543	15,271	17,518	17,471	15,376	98,520
1996	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1997	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1998	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1999	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2000	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2001	7,393	-	-	-	-	20	10,692	13,791	14,527	13,730	14,194	12,849	87,196
2002	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2003	7,393	-	-	-	-	20	11,828	13,762	14,527	14,065	14,735	13,329	89,659
2004	5,536	-	-	-	-	20	11,720	14,746	15,644	17,070	17,346	14,503	96,584
2005	5,536	-	-	-	-	20	10,587	13,597	14,406	13,127	14,404	13,329	85,006
2006	5,536	-	-	-	-	20	11,825	15,543	16,192	16,909	17,346	15,376	98,746
2007	5,536	-	-	-	-	20	11,721	15,543	16,253	17,629	17,780	15,757	100,238
2008	7,393	-	-	-	-	20	11,828	15,543	16,253	17,375	17,346	15,376	101,133
2009	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
Average	6,575	-	-	-	-	20	11,570	14,994	15,594	16,208	16,616	14,802	96,379

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2A (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	74,587	76,823	105,630
1926	114,341	121,265	139,858	156,117	108,304	71,822	24,156	9,553	9,921	24,483	34,393	48,741
1927	52,765	55,149	58,105	72,169	103,921	145,756	131,342	80,990	84,866	101,730	118,796	118,796
1928	118,796	119,176	130,324	130,536	156,951	153,144	120,198	77,669	71,264	73,863	74,230	71,847
1929	67,471	64,085	69,190	55,289	82,275	97,857	50,639	10,351	7,975	5,713	3,739	6,455
1930	8,324	27,792	40,995	71,796	62,454	49,633	11,427	8,582	6,672	10,109	13,786	11,551
1931	18,523	28,019	44,889	62,785	88,764	87,166	62,686	25,649	21,672	15,346	29,153	31,664
1932	44,789	62,161	89,448	117,071	151,488	157,730	136,076	90,638	87,400	85,106	118,796	118,796
1933	118,796	120,983	113,530	109,215	123,083	157,770	152,579	121,989	126,014	151,199	125,260	122,043
1934	118,796	130,697	134,293	156,721	155,936	136,343	88,596	35,988	31,917	49,756	77,391	92,669
1935	118,796	128,468	127,008	124,532	151,411	157,770	131,382	90,103	86,571	84,398	82,479	81,652
1936	88,112	89,157	97,627	117,732	155,159	157,463	121,172	73,599	69,312	65,591	59,873	74,611
1937	73,626	75,012	80,845	95,616	124,523	157,770	133,698	85,707	81,257	81,139	115,790	118,796
1938	118,796	118,689	119,606	123,394	153,703	156,238	118,425	73,213	67,475	62,870	73,343	93,828
1939	114,390	117,738	125,763	148,038	157,674	156,034	106,043	60,091	55,970	56,422	63,041	85,461
1940	86,078	95,646	112,337	137,012	143,252	116,021	65,183	14,605	9,584	9,484	15,153	26,603
1941	25,981	25,739	37,794	50,419	29,438	12,189	10,012	8,494	14,640	25,723	40,013	55,215
1942	56,035	57,268	61,849	83,589	80,430	87,828	64,751	29,759	26,993	12,081	30,195	45,835
1943	53,801	56,843	65,749	99,526	126,128	157,770	146,057	105,193	101,396	95,552	97,381	115,354
1944	114,771	118,371	123,745	125,981	118,923	103,847	56,261	12,927	16,533	11,000	14,435	23,929
1945	51,057	65,384	69,825	77,730	115,654	120,732	91,818	50,474	53,504	47,171	63,200	73,952
1946	82,964	85,104	92,203	110,351	150,775	157,770	133,179	73,439	70,240	60,918	65,519	97,755
1947	114,727	127,121	131,160	143,019	156,611	152,970	115,730	76,275	73,544	96,741	118,796	118,796
1948	118,796	122,255	107,517	101,998	122,602	157,770	136,861	98,153	97,529	103,071	112,326	118,796
1949	118,577	123,130	102,892	106,341	147,482	157,734	146,439	109,528	106,818	120,317	118,796	118,796
1950	118,796	124,046	98,299	94,224	113,704	157,770	154,467	121,166	118,090	134,344	118,796	118,796
1951	118,796	133,981	113,224	117,253	153,576	157,693	127,699	84,722	80,256	94,185	104,410	108,208
1952	107,612	111,551	114,333	135,025	157,270	154,992	132,046	89,286	85,118	81,387	74,191	68,779
1953	108,387	131,011	124,697	121,784	141,901	157,343	141,958	99,818	95,091	96,317	108,208	118,796
1954	118,796	124,072	109,232	105,303	129,364	157,770	154,304	122,212	122,596	126,224	118,796	118,796
1955	118,796	128,757	122,098	110,512	128,737	157,770	155,486	121,241	117,263	138,296	121,140	118,796
1956	118,760	113,915	75,456	82,984	124,215	157,770	151,396	110,627	108,048	121,624	118,796	118,796
1957	118,796	120,397	125,078	127,669	157,113	149,791	99,915	58,060	52,395	49,576	51,640	65,050
1958	72,485	85,972	92,195	114,235	149,504	143,995	103,209	55,911	53,949	68,642	113,894	118,796
1959	118,796	125,109	122,621	124,089	147,007	157,770	134,782	93,328	112,659	139,120	127,191	118,796
1960	118,796	125,382	128,997	132,066	157,481	157,322	121,946	77,751	74,956	81,989	103,755	106,716
1961	118,796	137,289	116,707	116,319	150,325	157,403	126,306	83,335	80,302	87,278	95,314	110,205
1962	118,796	128,590	130,421	144,999	148,529	154,350	127,209	88,677	85,315	91,991	118,350	118,796
1963	118,796	142,106	149,892	156,226	154,949	146,954	102,544	59,872	54,506	54,704	69,006	71,852
1964	81,627	83,184	88,019	97,790	124,572	157,770	152,417	116,841	118,459	125,253	118,796	118,796
1965	118,796	133,204	123,999	128,141	156,788	156,531	125,543	85,420	80,554	82,160	88,697	92,236
1966	96,021	95,142	100,946	127,537	153,330	156,231	128,138	87,979	82,537	85,946	93,957	118,796
1967	118,796	133,096	125,845	111,995	137,999	157,568	137,249	95,845	89,158	109,759	118,796	118,981
1968	118,796	147,477	150,167	148,275	157,608	154,110	122,621	75,655	81,859	93,359	113,453	118,796
1969	118,796	118,220	116,318	116,156	154,168	155,371	113,050	72,916	72,114	76,178	78,103	77,745
1970	83,862	87,418	97,660	103,763	135,363	156,489	129,874	84,900	81,911	83,227	94,618	95,934
1971	117,709	132,512	106,135	100,261	127,351	157,770	157,252	122,592	120,103	126,699	118,796	118,796
1972	118,796	128,092	124,567	103,845	114,343	157,770	153,816	122,307	127,514	128,148	118,796	118,796
1973	118,796	119,491	122,548	123,867	119,618	113,681	83,045	35,932	33,258	36,246	42,600	54,330
1974	92,209	99,671	82,883	80,833	105,392	157,770	157,613	129,389	127,025	124,558	118,796	118,796
1975	118,796	124,086	113,239	105,910	129,612	157,770	144,756	108,035	105,471	114,319	118,796	118,796
1976	118,796	127,376	117,025	114,103	145,766	157,770	150,442	120,854	118,922	117,873	118,796	118,796
1977	118,796	127,592	125,835	123,517	65,721	49,320	11,846	7,235	9,747	12,891	54,826	108,242
1978	112,105	116,779	128,847	135,224	149,484	155,649	129,696	83,572	85,515	83,749	88,907	96,537
1979	95,279	100,804	118,499	133,300	156,484	150,309	111,458	62,195	59,028	55,901	52,468	90,283
1980	93,463	98,112	107,549	139,772	152,379	147,602	115,072	69,663	70,401	67,302	91,550	123,604
1981	118,796	144,207	151,810	157,712	147,096	148,382	121,157	82,770	78,340	86,656	92,785	101,333
1982	118,796	138,716	119,340	113,643	140,276	157,359	140,944	97,668	97,989	103,618	111,179	118,796
1983	118,796	127,673	124,773	124,052	137,351	137,030	123,782	91,953	92,610	90,819	115,316	118,776
1984	118,796	124,907	126,986	124,305	151,582	157,643	139,166	95,795	93,594	97,197	107,325	110,879
1985	108,423	107,098	111,950	138,580	157,561	154,849	106,067	59,825	58,125	79,063	102,507	100,575
1986	103,515	122,460	142,591	154,541	157,762	145,570	96,033	47,686	44,801	44,807	76,510	79,219
1987	78,310	80,006	98,763	134,416	148,673	125,612	83,477	38,187	34,363	29,659	26,544	34,043
1988	34,433	45,372	62,554	101,366	130,761	130,440	100,715	60,474	56,621	68,245	87,961	104,311
1989	118,796	121,828	127,160	147,362	156,261	152,606	109,638	69,951	66,144	63,544	93,970	115,413
1990	118,796	133,864	125,622	140,082	154,219	156,852	126,185	78,817	74,829	95,724	130,219	118,796
1991	118,796	145,179	133,317	143,665	157,547	157,634	134,418	94,471	89,928	86,378	103,976	118,796
1992	118,796	130,298	148,679	157,770	136,341	107,768	60,564	12,820	15,619	11,621	23,944	28,419
1993	37,121	38,811	54,992	80,487	107,628	94,837	48,851	11,360	7,863	6,835	8,393	13,119
1994	25,661	27,366	43,393	74,068	69,468	51,713	12,442	11,582	9,660	17,317	32,439	52,625
1995	60,840	95,836	111,837	127,526	152,047	147,373	122,058	80,851	76,367	96,805	130,471	118,796
1996	118,374	140,534	128,726	144,426	151,381	144,592	116,958	81,621	80,375	92,761	111,823	118,796
1997	118,796	121,124	96,923	94,171	135,529	157,770	147,585	106,721	107,321	130,333	118,796	118,796
1998	118,796	124,266	128,145	128,926	157,101	153,615	116,285	73,122	68,092	66,381	89,852	115,622
1999	118,796	124,139	106,360	103,458	119,413	157,770	155,359	131,044	127,079	128,909	118,796	118,796
2000	118,350	118,657	123,055	134,703	157,275	157,689	125,358	83,783	83,692	89,747	89,277	85,336
2001	84,529	82,926	91,809	98,408	107,577	88,418	39,569	10,587	8,249	19,420	43,434	54,503
2002	73,756	81,761	90,643	119,600	151,606	157,674	134,008	82,308	78,150	72,677	72,417	71,266
2003	91,595	105,497	128,655	146,055	151,590	146,711	106,905	67,324	63,208	73,156	98,646	105,125
2004	114,417	119,918	137,096	157,051	157,766	150,997	100,060	62,909	71,385	78,609	97,213	118,796
2005	118,796	123,990	128,540	131,398	100,947	69,994	18,165	10,790	9,849	14,210	28,049	38,691
2006	58,152	64,698	67,334	90,880	129,283	145,237	115,081	59,157	55,718	48,917	97,149	103,204
2007	116,638	128,526	131,459	142,322	157,603	153,763	115,185	74,408	69,587	73,664	80,718	92,457
2008	92,431	95,170	99,508	95,081	151,425	157,770	136,537	93,702	90,615	89,396	118,796	118,796
2009	118,796	119,227	121,681	124,794	155,975	155,064	114,176	76,250	71,898	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2A (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	62,990	67,725	94,522
1926	107,083	117,928	140,192	167,210	158,778	103,217	28,797	-32,210	-78,608	-78,509	-67,053	-49,038
1927	-41,348	-34,353	-28,255	-6,856	35,118	72,664	57,046	11,704	-37,838	-40,423	-2,042	22,722
1928	49,840	54,797	74,818	95,969	147,602	151,287	121,700	80,693	17,663	11,954	16,573	20,208
1929	22,627	24,986	35,901	37,783	71,699	74,741	11,689	-49,086	-99,414	-117,996	-119,283	-115,181
1930	-112,566	-94,045	-75,884	-42,838	-33,877	-60,849	-116,930	-175,548	-199,830	-197,637	-191,378	-188,909
1931	-182,299	-170,680	-149,833	-127,890	-92,993	-99,143	-127,334	-160,268	-199,830	-196,712	-185,189	-178,726
1932	-167,815	-143,082	-110,055	-76,473	-31,432	5,769	-10,409	-55,558	-112,371	-133,360	-86,114	-59,702
1933	-36,047	-28,914	-22,096	-3,351	34,123	89,207	101,905	75,349	19,366	33,600	60,324	135,282
1934	169,584	187,949	217,330	238,033	238,030	214,498	170,469	122,877	55,625	64,993	92,798	110,988
1935	149,028	162,121	176,966	192,810	231,631	238,980	203,969	166,448	97,231	68,356	70,218	74,181
1936	83,116	89,091	103,917	140,360	211,583	238,469	190,556	147,499	79,781	73,502	72,579	85,225
1937	89,206	95,491	105,851	125,203	164,369	204,456	182,039	140,665	73,891	67,607	95,828	116,288
1938	128,972	133,991	143,382	175,546	217,817	230,349	184,027	142,780	74,095	45,126	55,226	73,810
1939	95,697	104,113	118,211	147,133	183,705	184,715	138,029	95,021	29,551	28,864	36,618	56,857
1940	62,053	73,299	92,541	121,030	147,628	112,001	44,994	-14,189	-61,179	-73,289	-68,185	-56,079
1941	-51,027	-47,626	-31,401	-11,466	-14,554	-48,652	-107,028	-164,555	-199,617	-192,598	-177,957	-160,198
1942	-155,321	-150,358	-141,994	-116,849	-101,484	-101,116	-124,117	-155,330	-199,819	-198,518	-183,536	-166,409
1943	-154,517	-147,277	-134,610	-94,623	-54,398	-23,193	-27,947	-65,955	-123,350	-148,049	-143,895	-127,253
1944	-123,433	-116,640	-106,492	-89,943	-71,738	-92,229	-146,842	-194,484	-199,685	-199,316	-194,397	-184,169
1945	-157,687	-141,898	-132,453	-118,115	-76,413	-76,112	-107,844	-148,356	-194,049	-193,413	-178,253	-165,723
1946	-152,303	-146,502	-136,011	-108,054	-41,179	2,802	6,889	2,436	1,097	10,110	18,788	52,495
1947	73,344	89,111	112,334	144,738	177,731	174,327	139,367	106,464	40,562	35,081	62,401	76,020
1948	85,193	94,497	102,721	120,396	179,163	238,980	208,066	171,971	108,809	89,413	101,688	115,034
1949	120,828	131,389	141,985	173,667	232,565	238,872	227,004	193,518	128,073	114,118	144,610	166,660
1950	179,247	188,226	184,104	180,343	198,325	238,980	231,246	193,873	127,390	116,913	144,349	175,329
1951	192,076	216,491	197,882	201,601	235,843	238,852	198,245	158,884	94,915	81,805	95,542	104,734
1952	109,523	116,633	123,567	151,935	192,990	203,105	181,179	142,903	76,478	73,356	72,523	73,570
1953	107,854	134,459	145,060	165,691	202,133	219,534	202,557	163,506	96,937	74,348	85,605	117,498
1954	134,474	144,663	153,700	176,014	213,736	238,980	230,342	196,662	131,594	109,672	126,666	135,087
1955	141,719	154,953	162,682	172,937	204,799	238,980	234,556	201,580	135,455	132,861	169,699	192,437
1956	201,641	197,459	163,019	169,968	207,600	238,980	224,367	181,977	116,556	102,078	114,615	163,851
1957	171,097	177,532	187,158	211,216	238,395	223,344	174,375	135,706	68,898	43,703	48,375	63,589
1958	73,739	90,187	101,695	127,087	175,834	170,855	129,149	84,225	21,697	18,931	59,667	95,734
1959	122,190	132,066	148,036	182,520	216,088	238,980	207,519	170,901	122,600	130,970	182,380	203,025
1960	203,025	212,844	212,442	216,737	238,735	237,807	192,748	152,527	87,127	67,015	88,267	95,393
1961	115,179	143,437	162,743	194,051	232,374	238,147	203,508	165,227	99,040	81,646	91,387	107,552
1962	134,080	150,015	157,346	193,463	212,913	219,308	186,711	152,706	88,607	70,289	97,065	117,834
1963	131,771	155,494	169,270	184,822	203,924	195,722	150,755	111,889	45,394	43,495	55,137	63,143
1964	78,471	84,967	95,681	114,629	154,566	215,754	224,192	190,458	128,943	108,492	118,474	140,775
1965	162,445	183,527	197,844	211,651	238,095	235,908	203,275	168,887	102,414	76,760	84,793	91,274
1966	99,192	102,880	111,850	141,447	179,379	188,219	160,958	125,547	61,262	39,213	47,801	74,961
1967	99,372	117,001	127,416	133,303	167,333	200,812	184,513	149,217	82,311	100,395	117,590	152,424
1968	183,153	214,965	233,656	230,268	238,793	232,769	204,644	161,989	101,297	87,014	107,710	125,826
1969	142,514	147,168	155,606	183,097	235,676	233,432	185,725	148,315	84,736	61,524	65,724	70,008
1970	78,877	86,115	98,852	115,437	153,024	179,623	157,263	115,809	48,624	49,210	60,812	67,516
1971	92,479	117,805	127,587	142,287	207,483	238,980	237,688	196,846	134,690	113,693	127,488	138,442
1972	157,830	187,912	170,868	167,113	198,915	238,980	229,980	198,708	139,332	116,548	124,539	152,185
1973	168,949	173,473	181,125	187,856	192,288	183,406	151,119	107,639	47,018	44,444	52,866	66,424
1974	101,971	115,103	129,022	156,293	190,653	238,980	238,669	203,336	137,606	111,046	117,818	141,632
1975	168,522	178,760	188,385	191,130	213,298	238,980	215,544	180,214	116,094	99,506	128,224	190,107
1976	203,025	216,911	201,391	198,693	229,531	238,980	223,046	194,754	126,164	98,565	105,107	116,464
1977	131,418	142,415	149,366	157,853	124,736	78,821	12,181	-46,171	-89,483	-100,012	-65,501	-9,364
1978	-634	6,285	26,752	49,926	77,154	87,304	62,652	20,799	-33,705	-60,163	-53,378	-44,160
1979	-39,553	-30,436	-10,847	9,360	48,842	48,806	10,015	-37,885	-83,889	-100,471	-98,760	-63,330
1980	-56,190	-48,701	-34,439	-226	32,319	31,546	480	-41,883	-98,601	-99,079	-78,361	-27,173
1981	-12,867	11,254	23,941	47,137	64,347	66,337	44,377	13,128	-28,890	-29,611	-22,201	-11,906
1982	5,917	40,174	60,126	77,741	125,006	165,853	150,909	110,372	44,484	25,600	32,801	48,748
1983	77,018	90,104	114,096	135,269	166,328	163,631	146,404	119,871	56,366	31,590	53,433	61,544
1984	101,567	113,809	133,013	149,139	180,879	220,048	202,120	165,290	99,897	76,791	87,391	95,612
1985	99,231	102,447	111,696	147,094	190,738	211,520	162,115	120,234	54,689	68,879	93,384	97,377
1986	104,454	125,223	155,092	176,183	202,649	197,142	153,212	111,578	48,012	48,168	74,390	81,726
1987	87,095	93,270	113,919	149,264	183,894	165,853	126,306	84,387	21,406	2,680	3,270	10,538
1988	14,259	26,574	47,536	86,658	119,894	115,887	73,035	32,687	-22,737	-18,978	3,253	21,286
1989	41,016	49,894	59,767	99,253	133,724	145,035	105,267	68,736	13,238	12,742	35,116	57,835
1990	81,573	100,261	117,147	164,466	195,302	223,533	191,407	149,530	83,821	79,104	149,979	168,466
1991	188,508	219,797	216,429	226,968	238,795	238,702	206,790	171,428	104,705	75,825	91,275	115,100
1992	133,448	149,663	170,684	194,516	202,132	162,217	101,892	35,654	-10,870	-26,310	-14,236	-6,148
1993	3,886	9,411	26,637	52,763	93,377	64,752	5,372	-52,452	-100,598	-117,128	-116,491	-111,410
1994	-97,413	-90,442	-71,521	-39,197	-22,316	-52,979	-108,146	-165,097	-199,784	-192,131	-179,139	-158,407
1995	-146,739	-111,198	-90,863	-69,488	-29,812	-32,049	-57,380	-92,684	-143,969	-124,357	-49,412	-23,222
1996	10,418	52,059	70,612	106,940	135,087	135,051	117,648	89,573	25,825	19,800	39,534	53,041
1997	72,358	91,664	122,935	159,986	218,656	238,980	218,674	180,364	119,185	122,963	139,407	149,657
1998	162,030	171,551	188,452	211,339	238,384	229,758	194,361	153,237	84,518	58,256	77,755	102,659
1999	131,374	143,840	154,884	177,803	203,594	238,980	231,435	201,482	136,939	112,044	139,238	173,767
2000	183,176	187,640	196,408	218,203	238,545	238,736	192,036	149,743	88,550	68,523	72,282	74,665
2001	77,896	80,308	92,082	106,224	126,667	84,130	13,152	-40,820	-87,006	-93,020	-70,244	-56,252
2002	-34,089	-23,112	-9,965	24,465	71,006	120,987	98,907	47,673	-10,722	-36,423	-33,137	-29,547
2003	-9,261	8,136	35,461	58,065	81,208	78,499	41,558	11,194	4,505	15,135	39,963	51,063
2004	62,480	71,607	92,532	123,298	151,725	148,632	96,420	60,165	14,998	20,962	38,296	61,235
2005	88,485	97,762	106,557	118,434	111,822	55,926	-6,082	-60,521	-107,879	-118,421	-105,864	-94,113
2006	-71,272	-61,186	-54,489	-29,057	17,939	32,135	10,066	2,656	2,389	3,575	48,832	60,060
2007	76,790	91,803	132,900	159,595	194,787	203,402	165,922	128,013	60,248	38,749	47,379	63,998
2008	70,118	77,678	87,145	95,597	158,857	202,818	184,161	142,446	80,913	59,792	87,816	98,913
2009	132,233	137,078	144,941	166,072	216,541	232,713	186,988	153,271	92,950	NA	NA	NA

IP2A (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	154,769	154,199	199,669
1926	218,358	228,156	274,873	359,854	371,754	275,643	131,183	25,646	16,375	47,738	69,595	104,658
1927	113,160	116,078	121,145	173,086	302,475	436,950	357,241	208,463	200,619	244,729	310,998	311,294
1928	314,486	319,794	349,780	351,935	435,244	431,360	296,800	119,731	97,983	108,506	110,416	108,981
1929	104,259	98,872	111,104	121,455	242,398	313,942	226,330	95,834	66,837	62,148	56,447	54,875
1930	50,613	76,282	111,253	211,979	267,534	264,799	169,948	56,046	31,949	35,153	40,789	39,012
1931	48,195	67,987	100,141	149,857	273,410	260,819	127,636	25,666	15,322	18,121	42,152	45,809
1932	67,983	127,962	211,331	296,055	430,750	436,950	341,004	191,599	172,856	169,938	268,723	310,998
1933	310,998	312,775	314,282	314,282	325,757	436,950	422,844	303,462	283,605	358,157	344,737	375,675
1934	350,992	372,259	382,843	433,526	436,823	375,078	231,006	79,015	63,581	87,604	161,369	189,309
1935	267,589	302,227	325,189	329,530	430,064	436,950	366,435	198,931	183,165	178,155	172,719	167,694
1936	169,822	167,370	182,579	284,020	428,478	435,501	324,211	154,604	134,732	128,381	119,744	127,985
1937	124,481	123,327	133,853	170,614	309,957	436,950	350,768	201,128	181,044	179,739	223,106	256,345
1938	273,152	274,555	285,058	325,853	431,856	436,950	326,522	153,073	125,025	117,882	125,376	149,425
1939	180,679	186,820	209,044	290,972	421,942	408,013	284,726	114,767	93,115	90,537	103,685	144,831
1940	148,858	160,003	194,812	274,019	389,533	366,159	242,155	104,003	71,589	74,272	77,748	96,254
1941	97,474	96,687	133,788	204,412	238,995	205,509	100,731	21,225	27,929	55,005	88,793	130,122
1942	133,736	135,905	145,273	214,183	272,704	302,101	188,747	50,163	27,048	20,446	38,278	63,430
1943	82,976	91,178	110,851	218,446	346,720	436,950	389,275	247,367	225,711	215,749	214,479	240,205
1944	238,128	241,246	256,110	292,657	361,609	355,641	237,365	106,583	94,035	98,271	105,798	124,786
1945	175,865	206,165	217,432	237,298	387,912	411,670	254,423	98,557	83,498	92,091	114,329	127,765
1946	144,411	147,956	159,501	231,071	414,313	436,950	371,785	228,015	204,221	191,205	198,706	255,090
1947	281,178	310,685	351,332	390,400	436,109	423,754	305,352	140,861	126,552	179,564	233,356	256,013
1948	264,270	270,703	277,223	277,223	344,710	436,950	375,540	238,397	219,111	230,059	241,748	255,431
1949	254,355	261,232	272,614	272,614	413,162	436,516	381,598	233,287	219,251	239,918	310,998	310,998
1950	310,998	317,470	304,379	289,626	294,547	436,950	425,182	320,529	305,046	337,897	336,974	336,974
1951	335,065	383,991	336,088	334,054	427,021	436,950	351,263	192,848	173,561	200,344	223,503	234,215
1952	234,000	238,659	243,710	319,422	435,298	424,310	307,018	138,893	119,064	108,793	101,028	95,815
1953	145,886	198,534	213,419	254,173	389,539	436,950	383,408	254,242	235,730	236,392	253,599	301,793
1954	310,998	320,535	318,778	312,088	350,219	436,950	424,488	329,055	321,459	327,938	326,742	325,491
1955	322,466	337,586	338,482	310,332	384,377	393,599	368,849	218,998	205,570	237,541	310,998	310,998
1956	310,998	311,082	263,340	258,442	332,746	436,950	413,756	294,905	280,068	304,901	310,998	318,931
1957	318,490	321,344	334,030	339,666	434,793	408,312	277,236	116,740	95,648	90,884	92,277	105,776
1958	113,320	131,327	155,048	202,868	404,577	424,664	281,078	112,100	99,033	122,249	198,526	276,321
1959	310,998	326,123	338,324	339,973	429,727	436,950	381,107	217,035	235,068	301,956	359,833	347,489
1960	329,853	336,649	344,803	361,003	435,982	436,216	332,960	166,783	147,911	152,574	180,082	184,738
1961	215,447	264,565	301,815	303,357	413,729	436,060	353,443	185,533	171,816	183,567	192,213	209,324
1962	266,775	294,848	301,804	395,010	435,997	436,950	348,962	195,827	175,377	187,468	251,920	288,410
1963	309,382	359,317	383,407	413,382	436,950	404,004	277,988	128,313	109,732	107,840	121,996	130,840
1964	150,510	154,228	161,060	191,753	297,983	436,950	408,168	300,085	288,866	301,463	309,375	310,998
1965	313,634	345,053	352,286	348,384	433,743	431,262	339,808	186,367	168,637	169,456	186,285	192,987
1966	196,596	195,074	204,943	275,142	408,994	425,639	326,090	151,029	128,398	134,215	142,950	194,993
1967	226,390	251,282	260,312	252,923	368,025	373,596	278,340	114,770	98,884	143,984	189,422	254,708
1968	310,998	371,016	409,110	414,202	436,950	423,413	288,633	155,705	153,635	173,500	215,510	238,096
1969	269,179	270,962	280,309	302,470	425,278	425,886	315,083	140,629	122,649	132,885	140,971	142,471
1970	147,270	151,181	165,802	188,044	312,311	357,749	242,475	91,474	78,936	77,593	88,758	94,179
1971	127,935	178,474	189,808	221,580	342,583	436,950	435,851	321,157	308,299	315,207	316,939	316,939
1972	316,939	350,326	312,131	276,544	318,614	436,950	427,121	330,014	327,049	332,414	327,896	325,403
1973	325,403	328,839	333,966	345,945	382,657	339,643	190,084	54,675	45,121	52,608	68,127	88,250
1974	157,832	175,531	194,972	194,972	267,694	436,950	436,950	348,939	342,474	337,318	328,309	326,973
1975	326,973	335,402	328,297	313,725	346,056	436,950	393,920	294,033	279,695	291,490	310,998	349,371
1976	344,204	361,974	341,977	334,025	407,557	436,950	419,283	340,934	330,757	330,623	327,243	325,717
1977	324,471	339,508	342,439	369,609	334,227	274,575	139,151	31,970	25,328	29,227	90,341	209,005
1978	219,041	226,771	272,812	332,820	434,624	436,950	338,512	213,344	213,290	211,596	226,718	231,352
1979	228,643	230,869	266,129	298,330	432,872	381,071	262,569	122,261	99,879	96,666	95,197	171,519
1980	176,731	182,488	204,692	289,657	410,522	429,856	292,755	138,882	125,003	122,318	160,403	283,571
1981	310,998	354,657	377,569	419,267	421,093	357,857	221,416	78,555	65,155	78,716	93,522	103,227
1982	123,302	189,515	225,342	260,996	386,588	436,950	374,475	230,829	219,855	231,014	238,052	267,449
1983	310,998	330,300	350,216	347,969	431,001	436,950	366,698	214,062	205,422	200,998	241,948	248,400
1984	310,998	329,215	343,704	343,704	415,097	436,950	382,481	238,742	225,534	230,876	243,942	248,886
1985	245,387	243,376	250,186	326,030	436,240	416,447	292,750	132,213	118,183	143,229	186,181	182,682
1986	189,883	229,777	295,283	344,424	434,060	395,444	262,098	100,128	84,178	82,710	127,319	136,146
1987	135,865	137,042	178,410	260,820	385,387	339,855	197,736	56,106	39,474	33,009	29,097	36,321
1988	35,058	46,542	79,802	184,408	303,374	330,454	225,106	80,519	65,475	90,134	133,093	163,706
1989	190,408	199,908	209,567	303,467	418,165	409,399	287,146	126,743	105,402	100,645	147,803	198,820
1990	226,845	247,792	273,918	379,509	435,642	436,950	344,415	200,181	182,583	222,177	373,132	341,026
1991	335,472	396,095	377,145	406,087	436,193	436,950	374,084	229,295	210,182	202,967	223,665	258,533
1992	283,450	313,473	369,211	436,939	429,200	332,196	200,784	75,146	55,506	53,482	66,550	71,271
1993	80,646	85,961	111,894	163,871	320,402	324,375	225,787	106,941	75,448	67,888	63,193	62,630
1994	72,145	74,675	109,578	199,485	298,165	280,337	181,410	57,264	35,582	42,492	59,363	91,911
1995	106,385	195,517	238,737	290,030	434,439	436,950	325,847	174,352	157,425	195,928	386,035	345,440
1996	341,730	399,525	370,858	395,668	435,961	432,426	328,766	166,794	151,141	158,425	192,040	209,905
1997	238,574	272,703	280,461	274,596	360,298	436,950	405,549	291,581	291,436	347,609	340,483	329,986
1998	328,180	336,848	347,619	347,619	434,754	424,685	300,533	135,373	110,431	105,592	131,911	169,426
1999	223,291	235,936	247,997	261,445	312,990	436,950	436,146	355,177	342,270	346,752	346,164	341,991
2000	328,630	328,850	334,807	360,932	435,316	436,950	344,048	177,290	164,199	174,373	172,705	167,048
2001	163,658	158,833	172,965	201,784	287,619	257,793	152,865	38,261	17,493	25,932	80,119	101,385
2002	145,242	162,112	181,734	258,566	391,726	436,950	361,405	215,621	194,671	184,375	185,622	186,271
2003	216,216	250,971	298,944	354,337	436,793	415,010	276,569	115,785	101,693	131,459	185,669	207,241
2004	219,806	234,193	278,200	360,622	436,902	389,960	260,596	117,557	127,259	140,187	180,797	234,582
2005	309,883	328,553	345,690	376,607	394,679	303,610	174,124	46,503	22,534	32,591	49,641	72,105
2006	112,542	125,211	131,921	189,469	361,680	436,950	327,112	158,058	136,677	125,732	239,950	255,229
2007	283,018	309,176	351,929	384,050	436,374	413,003	298,709	131,496	107,021	113,738	125,562	162,349
2008	164,764	168,224	178,113	183,882	370,814	436,950	352,322	218,362	200,155	200,685	273,167	288,538
2009	324,666	327,607	331,945	331,945	431,113	425,680	316,251	142,985	122,791	NA	NA	NA

IP2A (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,971	2,058	7,873
1926	11,265	11,666	15,597	33,968	33,970	32,400	26,075	17,835	9,141	7,905	10,965	15,000
1927	14,993	15,244	14,222	15,701	27,188	33,970	31,457	20,663	16,859	14,978	15,222	15,000
1928	15,126	14,446	15,000	15,000	36,004	33,970	29,848	20,482	17,068	13,358	10,682	6,540
1929	2,032	1,715	2,133	3,517	32,688	33,970	29,972	20,450	14,246	8,241	2,109	2,244
1930	1,465	8,242	8,517	29,484	33,970	33,970	27,391	20,468	12,912	6,250	2,214	1,592
1931	5,268	7,501	9,832	20,305	33,970	33,970	28,522	20,402	13,956	8,292	8,727	6,226
1932	6,013	11,314	15,000	15,000	32,049	33,970	31,457	20,764	17,141	11,088	15,851	14,949
1933	14,981	13,221	11,075	15,000	15,858	34,845	33,963	21,360	17,539	15,910	15,026	30,521
1934	17,174	19,238	18,845	32,908	33,929	33,970	29,848	20,335	15,619	16,548	15,782	15,000
1935	15,267	18,999	15,008	15,000	31,837	33,970	30,632	20,717	17,246	12,696	7,978	3,168
1936	1,882	1,891	2,121	15,000	32,559	33,970	30,234	20,544	17,168	11,998	6,094	3,731
1937	1,654	1,705	2,070	7,108	28,604	34,373	31,667	20,677	15,572	11,016	15,191	15,161
1938	15,085	14,315	12,440	16,779	35,599	33,970	30,234	20,401	14,984	10,357	5,826	6,476
1939	6,676	3,689	4,280	21,401	34,001	33,970	29,462	20,525	15,845	9,166	3,971	13,034
1940	14,423	17,184	21,730	33,491	33,964	33,970	29,848	20,335	13,662	8,740	6,545	9,508
1941	7,133	4,711	6,733	20,097	33,970	33,901	26,489	13,643	5,788	2,512	6,208	15,000
1942	13,821	8,463	5,059	17,956	33,964	33,970	29,848	20,484	15,670	9,440	15,000	15,000
1943	14,959	13,874	14,457	16,269	23,426	34,049	32,892	20,969	16,716	11,153	6,884	10,385
1944	5,357	3,121	3,689	8,966	32,290	33,970	27,995	20,228	13,983	7,754	3,198	2,149
1945	11,406	17,883	14,706	15,105	34,193	33,970	29,634	20,468	15,749	10,026	8,975	9,325
1946	13,417	9,350	7,022	15,000	26,962	33,970	32,892	21,062	15,819	14,723	15,000	15,244
1947	15,000	18,298	15,000	22,334	33,708	33,970	29,848	20,561	16,874	16,119	15,139	15,000
1948	13,614	14,041	14,791	15,000	27,909	33,970	31,667	20,749	17,107	12,965	11,894	11,838
1949	7,014	4,392	8,139	15,000	29,806	33,970	30,632	20,585	16,870	15,000	21,003	15,000
1950	15,000	15,057	15,000	15,000	16,965	36,010	33,970	22,462	18,222	15,657	16,001	17,755
1951	15,338	16,118	14,560	15,028	30,895	33,970	30,835	20,664	16,014	15,178	15,000	14,441
1952	10,297	10,301	7,480	15,953	33,457	33,970	29,848	20,367	15,224	8,834	2,938	1,709
1953	15,153	18,566	13,369	15,000	31,053	33,970	33,257	21,076	16,003	11,435	11,342	15,000
1954	15,000	14,312	14,954	15,000	20,233	33,970	33,970	22,960	18,367	15,103	15,000	14,935
1955	13,043	10,281	6,060	3,205	15,000	33,970	29,848	20,538	17,333	15,740	15,562	15,448
1956	15,000	13,483	11,325	15,224	35,188	35,796	33,963	21,301	17,333	15,015	14,965	15,237
1957	12,360	10,631	13,389	15,066	33,462	33,970	29,848	20,420	15,259	10,645	6,490	5,794
1958	7,525	10,242	11,336	15,000	42,875	33,970	29,848	20,432	15,680	11,997	15,279	16,050
1959	15,444	15,289	14,290	15,809	31,733	33,970	31,457	20,672	17,627	15,671	17,332	15,394
1960	15,000	16,778	15,000	17,161	33,669	33,970	30,234	20,502	15,573	10,972	15,000	14,780
1961	15,000	16,330	15,030	15,030	26,781	33,970	30,234	20,637	16,481	13,536	11,165	15,000
1962	14,977	15,326	13,046	22,047	33,673	33,970	30,632	20,565	16,208	14,271	16,758	15,197
1963	14,396	23,611	23,288	27,379	33,970	33,970	29,848	20,434	15,248	9,917	9,898	11,335
1964	15,000	12,718	8,957	9,448	16,019	33,970	33,820	21,238	17,048	13,580	14,138	15,640
1965	15,427	17,243	14,923	17,336	32,975	33,970	29,848	20,459	16,008	10,898	8,671	6,266
1966	3,086	1,945	2,373	15,661	33,638	33,970	29,848	20,436	15,866	10,551	9,254	15,000
1967	15,000	16,001	14,241	12,978	26,496	35,285	29,848	20,426	15,937	15,509	15,000	15,000
1968	15,107	24,551	24,036	27,540	33,969	33,970	29,848	20,666	17,300	15,206	15,418	14,674
1969	14,565	11,819	9,474	15,000	30,763	33,970	29,848	20,393	16,931	13,556	12,180	7,851
1970	11,029	10,985	12,346	14,724	31,316	33,970	29,848	20,394	15,649	10,233	10,783	14,360
1971	15,000	15,629	14,671	15,000	21,526	33,970	33,970	23,035	18,367	14,999	14,597	12,453
1972	12,217	16,435	16,126	15,201	27,994	34,595	33,970	22,926	18,496	13,663	13,058	16,306
1973	15,020	13,726	11,053	14,089	33,970	33,970	29,848	20,370	15,233	9,858	15,000	15,000
1974	16,852	14,835	15,000	15,000	16,788	45,682	33,970	24,111	18,883	14,169	12,391	15,000
1975	15,000	15,000	14,586	14,091	18,220	33,970	33,079	21,218	17,311	15,000	15,000	15,863
1976	15,488	15,529	13,337	15,000	28,976	33,970	33,831	23,251	18,828	13,657	7,778	3,121
1977	2,475	2,305	1,961	8,979	18,941	28,217	23,278	16,601	7,777	4,135	15,135	15,282
1978	14,107	12,627	15,000	16,450	33,428	33,970	30,632	20,668	17,331	12,998	8,697	3,904
1979	1,826	2,168	7,123	9,779	33,957	33,970	29,628	20,526	13,537	9,274	4,445	15,377
1980	15,030	18,400	14,716	23,379	33,680	33,970	29,848	20,511	16,932	11,879	15,000	32,975
1981	15,255	26,651	27,904	33,899	33,970	33,970	29,848	20,457	13,244	8,522	8,363	12,301
1982	10,643	19,487	15,091	15,000	23,271	35,701	31,877	21,773	18,169	15,142	13,137	15,025
1983	15,056	16,238	15,200	15,000	36,217	33,970	29,848	20,519	17,333	11,951	14,951	14,633
1984	15,243	17,420	15,053	15,048	30,552	33,970	32,086	20,772	15,987	11,931	8,711	3,891
1985	1,824	1,864	2,098	14,939	33,748	33,970	29,848	20,363	16,772	15,000	14,647	9,235
1986	10,533	19,923	18,420	32,068	36,661	33,970	29,848	20,388	16,600	11,848	15,725	14,069
1987	11,641	12,246	15,102	33,011	33,945	33,970	29,848	20,343	14,765	8,561	2,480	2,755
1988	2,506	2,349	5,871	23,041	33,790	33,970	29,848	20,352	15,476	10,944	14,961	15,000
1989	14,812	13,091	13,671	22,747	33,746	33,970	29,848	20,438	15,991	10,130	11,549	14,857
1990	15,115	16,361	15,000	19,623	33,563	33,970	30,632	20,640	16,919	15,401	24,332	15,000
1991	15,000	22,689	14,938	19,904	33,734	33,970	31,457	20,771	15,990	9,900	11,380	13,477
1992	14,092	17,518	27,436	33,965	33,970	31,721	25,260	19,562	13,004	6,422	2,789	1,747
1993	2,871	1,866	7,096	15,048	33,948	33,970	29,848	20,372	14,201	6,065	1,597	1,671
1994	2,232	2,060	6,198	23,702	33,970	33,970	28,759	20,379	14,782	10,842	8,959	15,000
1995	15,303	20,675	15,362	15,065	33,226	33,970	30,431	20,521	16,284	14,934	34,053	15,694
1996	15,428	19,439	15,309	21,904	33,662	33,970	29,848	20,588	16,762	13,062	15,000	15,000
1997	15,149	15,149	16,698	16,005	32,311	33,970	33,423	21,079	17,585	18,893	15,369	15,016
1998	15,000	14,813	15,000	15,386	33,288	33,970	29,848	20,443	15,643	10,875	15,000	16,495
1999	15,000	14,647	14,549	15,000	19,705	33,970	33,970	24,053	19,117	13,982	17,527	15,204
2000	14,457	14,294	13,299	16,511	33,463	33,970	30,431	20,568	17,230	13,165	7,674	2,783
2001	1,794	1,702	3,466	7,781	33,970	33,970	28,022	20,467	14,666	4,264	11,342	13,516
2002	14,999	16,118	14,934	16,098	27,793	33,970	31,041	20,652	15,833	10,702	5,286	2,519
2003	17,523	19,089	15,572	26,169	34,037	33,970	29,848	20,435	15,334	13,485	15,000	13,543
2004	14,015	14,459	16,511	33,238	33,953	33,970	29,848	20,549	17,268	14,456	14,795	15,034
2005	16,276	15,193	14,844	24,181	33,970	32,747	26,942	20,369	15,057	9,924	8,861	15,000
2006	15,451	16,021	13,717	15,066	29,883	33,970	30,632	20,563	16,486	11,476	15,747	15,000
2007	14,837	16,902	18,085	21,011	33,790	33,970	29,848	20,410	15,541	12,841	14,612	15,000
2008	13,669	11,242	8,946	8,564	27,612	34,147	32,293	20,794	16,878	11,345	15,019	14,317
2009	15,000	13,564	11,652	15,000	33,492	33,970	29,848	20,434	16,449	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2A (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	26,621	28,544	48,796
1926	59,797	72,475	92,370	127,606	150,939	156,987	147,000	91,206	10,000	23,553	36,944	59,533
1927	71,962	85,436	99,581	124,514	165,184	198,000	191,036	168,987	55,039	67,513	99,372	125,297
1928	129,025	140,735	151,989	149,231	197,064	198,000	180,272	150,860	38,001	23,847	32,240	39,020
1929	43,436	43,911	50,231	60,213	100,803	141,132	154,715	136,179	54,781	51,614	49,377	50,607
1930	52,650	70,973	89,772	128,969	155,940	174,776	171,333	134,401	56,941	50,704	54,423	55,216
1931	60,171	69,394	81,933	110,632	161,553	178,321	172,349	133,958	60,088	54,201	60,488	67,276
1932	77,193	92,926	126,520	138,688	185,603	198,000	191,036	169,077	44,564	24,734	64,888	87,257
1933	103,590	112,084	121,480	113,884	136,509	198,000	197,955	170,333	79,803	56,702	83,741	167,522
1934	137,088	162,193	157,458	196,124	197,929	198,000	178,671	150,048	67,092	57,586	101,282	123,939
1935	129,025	150,213	146,494	139,460	182,853	198,000	189,169	168,930	61,754	21,990	22,579	27,398
1936	32,534	33,828	43,786	82,169	155,677	198,000	184,860	166,171	71,320	53,524	56,687	58,990
1937	61,015	61,100	67,467	87,963	133,261	198,000	191,536	169,509	77,713	57,453	79,907	106,377
1938	129,025	140,397	134,610	137,160	195,209	198,000	184,860	158,771	47,822	22,585	30,528	45,275
1939	56,606	64,203	78,116	110,221	153,739	174,134	179,637	150,862	57,841	39,815	45,317	63,932
1940	75,456	90,909	115,109	145,829	189,438	198,000	180,236	152,852	93,209	91,341	96,850	112,079
1941	120,509	126,923	141,701	167,352	187,028	192,858	158,990	110,441	58,451	60,941	74,785	104,692
1942	115,047	122,192	131,420	158,467	188,106	198,000	176,926	143,944	68,598	59,851	78,898	101,644
1943	118,244	130,879	121,813	127,977	165,719	198,000	194,706	169,501	49,899	24,521	33,961	47,315
1944	53,630	60,749	72,746	87,732	109,933	124,528	120,650	110,976	16,715	18,007	24,390	30,938
1945	50,514	70,129	79,831	92,839	139,448	167,441	169,646	148,722	76,494	76,016	86,697	98,104
1946	113,461	121,928	123,001	114,183	174,964	198,000	192,337	152,900	28,001	28,105	50,001	99,941
1947	117,917	140,569	153,313	166,576	197,538	198,000	180,286	152,502	58,201	64,830	92,234	110,521
1948	126,561	142,662	116,646	102,763	140,498	198,000	191,536	169,337	65,583	48,916	61,882	73,570
1949	81,571	91,396	104,555	106,989	177,394	198,000	189,169	168,844	64,855	34,434	65,596	87,161
1950	103,041	121,009	103,730	92,458	120,016	198,000	198,000	183,467	82,945	79,466	117,224	129,025
1951	129,025	159,719	125,250	126,295	191,576	198,000	189,615	169,032	68,751	60,390	75,978	93,058
1952	103,061	117,376	129,675	156,514	197,094	198,000	183,789	161,315	61,766	43,749	48,851	50,169
1953	83,071	112,502	126,450	134,311	175,744	198,000	195,747	169,839	56,853	23,782	35,679	64,128
1954	82,060	95,936	114,090	109,658	147,071	198,000	198,000	188,209	95,198	67,504	85,779	98,406
1955	109,341	120,284	128,972	123,499	142,602	198,000	187,532	168,711	64,810	60,439	100,881	129,025
1956	129,025	129,078	69,783	65,407	137,620	198,000	197,955	171,139	70,958	41,026	55,256	88,381
1957	99,759	110,700	130,439	144,724	196,817	198,000	180,268	150,551	47,287	25,108	33,659	46,891
1958	60,630	78,634	96,622	123,656	196,532	198,000	178,648	150,403	54,980	29,430	69,594	122,510
1959	129,025	146,661	139,598	138,389	171,080	198,000	191,036	169,021	94,923	110,849	134,703	130,903
1960	130,244	148,033	150,493	162,772	197,469	198,000	185,445	168,869	66,769	32,980	52,742	64,777
1961	87,549	124,010	130,606	127,169	170,414	198,000	188,322	169,150	66,176	36,587	47,619	64,118
1962	92,853	109,352	120,777	164,967	190,201	198,000	189,169	168,442	70,069	59,830	100,192	129,025
1963	129,025	169,775	187,532	197,667	198,000	198,000	180,236	150,807	73,605	60,857	72,391	85,562
1964	102,487	114,192	124,659	119,256	137,145	198,000	197,478	174,194	72,608	54,337	64,027	96,781
1965	128,094	160,279	141,875	145,558	190,770	198,000	187,532	168,531	74,513	45,186	57,167	66,105
1966	72,639	73,937	81,394	111,842	162,316	192,408	183,789	159,226	65,105	29,042	40,148	65,041
1967	84,198	102,570	115,699	125,874	168,724	198,000	183,789	160,153	73,804	79,778	103,021	127,360
1968	129,025	176,546	184,743	196,575	198,000	198,000	184,215	169,648	90,346	72,256	106,511	123,628
1969	129,025	139,941	130,028	125,280	191,607	198,000	183,126	159,585	71,996	52,180	63,019	71,906
1970	89,932	103,187	122,191	139,026	186,538	198,000	180,281	151,381	78,235	69,117	81,258	96,042
1971	119,919	154,007	114,593	100,481	144,163	198,000	198,000	186,616	89,512	49,061	59,551	70,362
1972	86,109	114,491	89,346	70,799	122,636	198,000	198,000	189,531	116,585	90,101	103,058	129,025
1973	129,025	140,325	151,810	166,367	192,286	198,000	178,595	146,951	76,588	59,759	80,229	102,349
1974	130,512	137,019	82,239	67,687	105,311	198,000	198,000	196,245	108,057	67,711	78,588	97,139
1975	129,025	146,987	125,028	111,056	143,940	198,000	195,233	170,993	70,976	41,790	64,210	129,025
1976	129,025	150,533	130,969	124,587	174,306	198,000	197,746	191,998	107,998	75,708	84,686	89,979
1977	95,473	97,003	98,753	112,290	119,950	133,771	121,821	76,959	25,039	31,187	53,037	129,025
1978	129,025	141,379	149,124	155,932	193,660	198,000	189,169	169,353	94,384	66,930	76,264	83,661
1979	85,927	92,013	109,532	123,701	169,930	190,832	181,422	162,074	92,467	78,159	83,809	107,869
1980	121,023	133,017	150,976	169,353	197,489	198,000	183,789	163,333	85,459	70,817	90,728	135,418
1981	130,934	167,960	190,912	197,876	198,000	198,000	178,611	147,082	67,811	79,522	90,653	108,950
1982	127,912	164,100	134,718	123,448	164,107	198,000	193,079	180,134	100,742	78,183	89,876	111,784
1983	129,025	150,261	144,051	139,191	194,741	198,000	187,532	170,207	93,478	64,774	88,387	100,582
1984	129,025	150,975	146,832	141,814	174,206	198,000	192,570	169,601	90,096	68,901	81,814	89,536
1985	92,181	93,135	101,411	131,678	177,285	198,000	180,271	150,878	86,925	81,523	96,350	103,638
1986	114,563	143,179	170,487	196,549	197,964	198,000	180,231	151,106	79,161	66,990	85,254	95,251
1987	103,778	114,885	145,105	179,143	197,958	198,000	178,511	147,122	49,513	30,817	35,405	49,317
1988	55,292	67,023	86,149	127,075	172,637	198,000	184,069	165,036	79,778	65,367	82,667	98,179
1989	110,782	119,963	136,278	173,508	197,605	198,000	180,277	151,283	52,214	42,326	58,792	84,015
1990	114,418	129,309	143,682	163,518	196,516	198,000	189,169	169,280	62,617	42,782	87,767	108,885
1991	129,025	167,535	156,524	166,060	197,237	198,000	191,036	169,393	64,240	25,542	43,271	60,219
1992	74,911	95,284	120,750	152,710	182,096	188,488	179,722	158,152	89,148	93,071	99,329	100,526
1993	101,862	103,544	118,843	141,523	196,735	198,000	180,248	148,851	77,336	78,227	77,512	77,377
1994	84,489	85,714	102,465	133,347	166,233	177,178	172,472	127,780	48,504	32,801	46,297	70,924
1995	89,384	147,674	149,345	146,244	196,624	198,000	185,306	160,672	82,444	98,093	159,234	132,849
1996	131,936	169,738	149,528	168,373	197,457	198,000	180,330	159,323	71,188	33,481	48,567	65,743
1997	106,335	128,785	90,088	85,457	152,910	198,000	196,238	170,708	102,777	132,136	131,439	130,306
1998	129,785	143,877	148,562	146,948	196,796	198,000	183,401	160,368	59,040	35,409	51,448	80,494
1999	111,802	126,301	114,787	102,411	130,116	198,000	198,000	195,996	112,070	94,101	129,025	129,025
2000	129,025	143,764	143,883	155,554	197,104	198,000	187,437	169,104	81,953	55,964	61,730	66,575
2001	67,512	67,736	73,655	86,252	116,106	124,800	120,505	96,743	19,102	15,337	35,831	49,832
2002	80,599	95,050	111,712	130,447	169,146	198,000	190,075	168,794	59,750	21,810	28,064	34,217
2003	61,473	94,514	126,381	157,108	195,403	198,000	178,592	146,679	27,829	28,836	40,381	52,335
2004	63,993	76,028	97,475	131,019	177,686	198,000	178,591	151,426	66,830	59,022	71,699	91,243
2005	121,869	134,220	146,948	167,359	191,276	193,622	178,512	130,071	54,918	58,668	69,707	87,811
2006	122,287	140,762	134,643	128,022	188,300	198,000	181,371	147,064	24,861	23,389	87,757	113,127
2007	129,025	150,297	153,625	167,723	197,683	198,000	180,234	154,606	48,176	24,993	38,752	67,622
2008	78,354	88,214	100,988	115,615	179,129	198,000	193,099	169,425	77,922	85,235	115,790	128,470
2009	131,112	143,007	143,442	139,637	194,802	198,000	183,789	161,234	53,634	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2A (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2A (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	325,938	329,349	456,490
1926	510,844	551,489	662,890	844,756	823,745	640,070	357,212	112,030	-33,170	25,170	84,844	178,895
1927	211,531	237,555	264,797	378,615	633,886	887,339	768,123	490,807	319,546	388,528	542,346	593,108
1928	627,273	648,949	721,911	742,670	972,866	967,761	748,819	449,435	241,979	231,528	244,141	246,596
1929	239,825	233,568	268,559	278,257	529,863	661,641	473,346	213,727	44,425	9,721	-7,611	-1,001
1930	487	89,244	174,654	399,390	486,022	462,330	263,169	43,948	-91,355	-95,421	-80,166	-81,538
1931	-50,141	2,221	86,964	215,689	464,705	461,133	263,860	45,408	-88,791	-100,752	-44,669	-27,752
1932	28,162	151,282	332,244	490,341	768,457	832,418	689,164	416,520	209,590	157,505	382,144	472,298
1933	512,318	530,150	538,271	549,030	635,329	916,772	909,245	692,492	526,327	615,568	629,088	831,043
1934	793,635	872,336	910,768	1,057,312	1,062,647	957,889	698,591	408,264	233,835	276,488	448,622	531,905
1935	679,705	762,028	790,665	801,333	1,027,795	1,065,670	921,588	645,129	445,966	365,595	355,973	354,093
1936	375,466	381,337	430,030	639,281	983,457	1,063,403	851,032	562,418	372,312	332,996	314,975	350,542
1937	349,982	356,635	390,086	486,504	760,713	1,031,550	889,708	617,685	429,476	396,954	529,823	612,966
1938	665,030	681,947	695,097	778,732	1,034,184	1,055,508	844,067	548,238	329,401	258,821	290,299	368,814
1939	454,047	476,563	535,414	717,766	951,060	956,865	737,898	441,267	252,322	224,804	252,632	364,115
1940	386,867	437,042	536,530	711,380	903,816	826,151	562,416	277,607	126,864	110,547	128,113	188,365
1941	200,070	206,434	288,615	430,814	474,877	395,804	189,194	-10,753	-92,808	-48,417	31,842	144,830
1942	163,318	173,469	201,608	357,346	473,719	520,783	336,156	89,021	-61,510	-96,700	-21,165	59,499
1943	115,463	145,497	178,260	367,595	607,594	803,576	734,983	477,074	270,372	198,926	208,809	286,006
1944	288,455	306,846	349,799	425,393	551,018	525,758	295,429	56,230	-58,419	-64,283	-46,576	-2,366
1945	131,155	217,663	249,342	304,857	600,794	657,701	437,677	169,866	35,197	31,890	94,948	143,422
1946	201,950	217,836	245,716	362,551	725,835	829,492	737,082	477,853	319,377	305,063	348,014	520,524
1947	602,166	685,785	763,139	867,067	1,001,697	983,021	770,583	496,663	315,733	392,335	521,926	576,350
1948	608,433	644,159	618,899	617,381	814,882	1,065,670	943,670	698,609	508,139	484,424	529,537	574,669
1949	582,344	611,538	630,185	674,612	1,000,407	1,065,092	974,843	725,762	535,867	523,785	661,003	698,615
1950	727,083	765,808	705,512	671,651	743,556	1,067,710	1,042,865	841,496	651,694	684,275	733,345	777,880
1951	790,301	910,300	787,003	794,230	1,038,910	1,065,466	897,657	626,149	433,497	451,901	514,432	554,656
1952	564,493	594,520	618,766	778,849	1,016,109	1,014,377	833,880	552,765	357,651	316,119	299,530	290,041
1953	460,351	595,071	622,994	690,959	940,369	1,045,797	956,927	708,481	500,613	442,274	494,432	617,214
1954	661,328	699,519	710,754	718,063	860,624	1,065,670	1,041,105	859,097	689,215	646,440	672,983	692,716
1955	705,365	751,860	758,294	720,485	875,515	1,022,319	976,273	731,068	540,432	584,877	718,280	766,703
1956	775,424	765,016	582,923	592,024	837,370	1,067,496	1,021,437	779,950	592,964	584,644	614,631	705,196
1957	720,502	740,604	790,095	838,342	1,060,581	1,013,417	761,643	481,476	279,488	219,915	232,440	287,100
1958	327,701	396,362	456,896	582,845	969,321	971,484	721,932	423,070	245,339	251,249	456,960	629,411
1959	696,453	745,247	762,870	800,779	995,634	1,065,670	945,902	670,957	582,876	698,566	821,438	815,607
1960	796,918	839,686	851,735	889,740	1,063,335	1,063,315	863,333	586,433	392,335	345,529	439,847	466,404
1961	551,971	685,631	726,901	755,926	993,623	1,063,579	901,813	623,880	433,815	402,614	437,698	506,199
1962	627,480	698,132	723,393	920,485	1,021,314	1,042,578	882,684	626,218	435,576	423,849	584,284	669,263
1963	703,369	850,303	913,389	979,476	1,027,794	978,649	741,372	471,315	298,485	276,813	328,428	362,733
1964	428,095	449,289	478,377	532,876	730,285	1,042,444	1,016,074	802,816	625,924	603,125	624,811	682,989
1965	738,396	839,305	830,927	851,069	1,052,371	1,055,671	886,008	629,665	442,126	384,461	425,612	448,868
1966	467,534	468,979	501,507	671,629	937,657	996,466	828,823	544,218	353,168	298,967	334,110	468,791
1967	543,756	619,950	643,512	637,072	868,578	965,261	813,739	540,410	360,095	449,425	543,828	668,472
1968	757,079	934,556	1,001,712	1,016,860	1,065,319	1,042,262	829,962	583,662	444,437	441,335	558,603	621,020
1969	674,079	688,109	691,735	742,004	1,037,492	1,046,660	826,832	541,839	368,427	336,323	359,997	369,981
1970	410,969	438,885	496,852	560,993	818,552	925,830	739,741	463,958	303,354	289,380	336,229	368,030
1971	473,042	598,427	552,793	579,608	843,107	1,065,670	1,062,762	850,246	670,972	619,660	637,371	656,992
1972	691,890	797,256	713,038	633,502	782,503	1,066,295	1,042,886	863,486	728,976	680,875	687,347	741,715
1973	757,193	775,853	800,502	838,124	920,820	868,700	632,691	365,567	217,219	202,915	258,824	326,353
1974	499,377	542,159	504,117	514,785	685,838	1,077,382	1,065,202	902,019	734,046	654,802	655,902	699,539
1975	758,316	800,236	769,535	735,913	851,126	1,065,670	982,532	774,493	589,547	562,105	637,228	803,161
1976	810,538	872,323	804,699	786,407	986,137	1,065,670	1,024,347	871,792	702,668	636,427	643,610	654,077
1977	672,633	708,824	718,356	772,249	663,575	564,705	308,277	86,595	-21,592	-22,572	147,838	452,190
1978	473,645	503,840	592,535	690,352	888,350	911,872	750,660	507,737	376,816	315,110	347,208	371,293
1979	372,123	395,418	490,436	574,470	842,084	804,988	595,092	329,172	181,022	139,528	137,159	321,717
1980	350,057	383,315	443,494	621,934	826,389	840,974	621,944	350,506	199,194	173,237	279,319	548,395
1981	563,116	704,730	772,136	855,891	864,505	804,546	595,409	341,993	195,661	223,806	263,122	313,905
1982	386,569	551,993	554,617	590,828	839,247	993,864	891,283	640,776	481,239	453,557	485,045	561,802
1983	650,893	714,577	748,336	761,481	965,637	969,581	854,265	616,613	465,209	400,132	514,035	543,935
1984	675,629	736,325	765,587	774,011	952,315	1,046,611	948,423	690,199	525,107	485,697	529,183	548,804
1985	547,045	547,919	577,339	758,320	995,573	1,014,785	771,051	483,513	334,694	387,693	493,070	493,507
1986	522,948	640,562	781,874	903,765	1,029,095	970,126	721,422	430,886	272,751	254,524	379,199	406,411
1987	416,688	437,449	551,300	756,654	949,858	863,290	615,879	346,144	159,521	104,726	96,796	132,974
1988	141,547	187,858	281,913	522,547	760,455	808,751	612,774	359,069	194,613	215,712	321,934	402,483
1989	475,813	504,684	546,443	746,336	939,500	939,010	712,177	437,150	252,989	229,387	347,231	470,939
1990	556,748	627,587	675,369	867,198	1,015,243	1,049,305	881,809	618,448	420,769	455,188	765,430	752,172
1991	786,801	951,295	898,351	962,684	1,063,505	1,065,256	937,786	685,358	485,045	400,612	473,568	566,125
1992	624,697	706,235	836,761	975,900	983,739	822,390	568,224	301,333	162,406	138,286	178,377	195,815
1993	226,387	239,592	319,463	453,693	752,090	715,934	490,106	235,073	74,249	41,887	34,204	43,387
1994	87,115	99,373	190,113	391,404	545,521	490,219	286,938	51,909	-91,256	-88,678	-32,081	72,053
1995	125,172	348,505	424,418	509,377	786,523	784,244	606,262	343,711	188,550	281,403	660,381	589,557
1996	617,887	781,294	735,034	837,310	953,548	944,039	773,551	517,899	345,290	317,528	406,963	462,484
1997	551,211	629,425	607,105	630,215	899,703	1,065,670	1,001,470	770,452	638,304	751,934	745,494	743,762
1998	753,791	791,355	827,777	850,218	1,060,324	1,040,029	824,428	542,544	337,724	276,513	365,966	484,696
1999	600,264	644,863	638,577	660,118	785,817	1,065,670	1,054,910	907,753	737,474	695,787	750,749	778,784
2000	773,638	793,205	811,453	885,904	1,061,703	1,065,345	879,310	600,488	435,625	401,773	403,668	396,408
2001	395,390	391,505	433,977	500,448	671,939	589,111	354,113	125,237	-27,497	-28,066	100,483	162,984
2002	280,506	331,928	389,059	549,176	811,278	947,581	815,436	535,048	337,683	253,141	258,254	264,727
2003	377,546	478,207	605,012	741,734	899,031	872,190	633,472	361,418	212,569	262,071	379,660	429,306
2004	474,711	516,205	621,813	805,228	958,033	921,559	665,515	412,606	297,740	313,235	402,800	520,890
2005	655,309	699,719	742,579	817,980	832,694	655,899	391,663	147,212	-5,521	-3,027	50,394	119,494
2006	237,159	285,506	293,126	394,380	727,086	846,292	664,262	387,498	236,130	213,087	489,436	546,620
2007	620,309	696,703	787,998	874,701	1,020,236	1,002,139	789,898	508,933	300,572	263,984	307,022	401,425
2008	419,336	440,528	474,701	498,738	887,836	1,029,685	898,412	644,729	466,483	446,453	610,588	649,034
2009	721,807	740,483	753,661	777,448	1,031,922	1,045,427	831,052	554,174	357,721	NA	NA	NA

Appendix C-5
Scenario IP2 (KKC and KDRPP)

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP2 (EPOR)

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
Avg. WY 1926 to 2009	3,045	753	1,553	1,549	91.0%	345	57	90.5%	312	43	535	87
Avg. WY 1982 to 2009	2,921	660	1,553	1,508	90.6%	327	55	90.2%	293	40	854	261
1941 (Dry Year)	1,673	237	1,176	982	42.6%	-87	-182	43.2%	-64	-184	254	0
1994 (Dry Year)	1,801	250	1,246	1,010	47.1%	-89	-192	47.8%	-120	-200	882	268
2001 (Dry Year)	1,895	175	1,397	1,170	65.8%	-20	-71	65.2%	-43	-84	342	342
2005 (Dry Year)	1,915	156	1,416	1,192	67.3%	13	-78	68.9%	6	-90	6,883	6,227

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
1926	1,936	205	1,408	1,162	68.7%	-28	-71	68.9%	-19	-79	7,495	0
1927	3,026	679	1,609	1,520	100.0%	327	20	100.0%	353	10	650	0
1928	3,024	707	1,610	1,500	100.0%	316	91	100.0%	291	67	0	0
1929	2,132	213	1,442	1,350	70.0%	107	-55	70.0%	79	-72	0	0
1930	1,898	257	1,326	1,070	57.0%	-75	-188	55.6%	-96	-200	209	0
1931	1,885	266	1,193	998	42.9%	-85	-200	43.1%	-106	-200	1,679	0
1932	3,016	692	1,605	1,405	100.0%	225	-22	100.0%	156	-48	2,222	0
1933	3,763	1,115	1,609	2,009	100.0%	646	161	100.0%	599	151	0	0
1934	2,933	742	1,566	1,371	91.7%	235	53	89.5%	197	48	0	0
1935	3,214	769	1,609	1,633	100.0%	446	113	100.0%	376	85	0	0
1936	3,349	1,004	1,566	1,527	91.7%	372	87	89.9%	341	82	0	0
1937	2,973	550	1,589	1,635	100.0%	441	106	96.9%	405	101	1	0
1938	3,421	1,083	1,609	1,523	100.0%	338	90	100.0%	273	62	0	0
1939	2,530	331	1,543	1,422	97.6%	269	53	94.9%	237	50	0	0
1940	2,277	314	1,443	1,389	70.0%	146	-29	67.0%	124	-42	125	0
1941	1,673	237	1,176	982	42.6%	-87	-182	43.2%	-64	-184	254	0
1942	2,116	283	1,389	1,131	62.5%	-59	-185	60.8%	-95	-200	25	0
1943	3,399	992	1,609	1,524	100.0%	275	-47	100.0%	205	-72	688	0
1944	1,813	197	1,290	1,091	55.0%	-55	-185	52.3%	-69	-199	0	0
1945	2,297	300	1,451	1,285	70.0%	35	-145	70.0%	7	-159	302	0
1946	3,403	951	1,609	1,569	100.0%	355	18	100.0%	280	8	776	0
1947	3,018	659	1,609	1,548	100.0%	359	105	100.0%	339	84	5,720	0
1948	3,922	1,413	1,609	1,730	100.0%	508	135	100.0%	485	119	0	0
1949	4,043	1,510	1,609	1,747	100.0%	536	161	100.0%	495	146	0	0
1950	4,296	1,647	1,609	2,069	100.0%	652	157	100.0%	641	151	0	0
1951	3,795	1,362	1,609	1,628	100.0%	433	109	100.0%	408	88	0	0
1952	2,915	553	1,591	1,548	100.0%	381	111	99.2%	347	108	0	0
1953	3,193	674	1,609	1,784	100.0%	517	131	100.0%	459	106	0	0
1954	4,031	1,344	1,609	2,100	100.0%	689	161	100.0%	633	148	0	0
1955	3,452	907	1,609	1,830	100.0%	541	162	100.0%	522	160	0	0
1956	4,865	2,276	1,609	1,939	100.0%	593	145	100.0%	536	127	0	0
1957	3,218	941	1,610	1,452	100.0%	280	68	100.0%	219	41	0	0
1958	2,881	634	1,609	1,418	100.0%	249	50	100.0%	238	36	0	0
1959	3,544	962	1,609	1,797	100.0%	583	154	100.0%	606	158	0	0
1960	3,159	768	1,609	1,580	100.0%	392	96	100.0%	327	70	0	0
1961	3,631	1,202	1,609	1,621	100.0%	434	109	100.0%	392	89	0	0
1962	3,019	560	1,609	1,647	100.0%	458	122	100.0%	429	102	0	0
1963	2,730	426	1,585	1,479	96.1%	331	79	93.7%	301	75	0	0
1964	3,420	796	1,609	1,966	100.0%	626	157	100.0%	600	147	0	0
1965	3,409	972	1,609	1,630	100.0%	442	115	100.0%	382	88	0	0
1966	2,819	466	1,609	1,546	100.0%	358	108	100.0%	286	81	0	0
1967	3,131	760	1,581	1,573	95.8%	394	110	91.9%	392	112	0	0
1968	2,857	415	1,609	1,633	100.0%	444	111	100.0%	405	89	0	0
1969	3,614	1,250	1,609	1,556	100.0%	369	91	100.0%	339	67	0	0
1970	2,895	611	1,572	1,448	91.5%	310	75	89.7%	292	74	0	0
1971	3,939	1,266	1,609	2,020	100.0%	671	161	100.0%	604	147	0	0
1972	4,804	2,081	1,609	2,108	100.0%	729	174	100.0%	683	162	0	0
1973	2,307	186	1,501	1,318	77.1%	232	47	75.5%	206	43	0	0
1974	4,671	1,939	1,609	2,211	100.0%	734	163	100.0%	665	148	0	0
1975	3,886	1,300	1,609	1,929	100.0%	589	149	100.0%	530	125	0	0
1976	3,843	1,145	1,609	2,007	100.0%	703	164	100.0%	640	143	223	0
1977	1,932	168	1,422	1,197	68.3%	-13	-75	67.6%	-25	-87	326	0
1978	3,014	602	1,609	1,605	100.0%	411	56	100.0%	356	28	353	0
1979	2,353	264	1,486	1,286	74.6%	213	28	72.8%	167	17	0	0
1980	2,772	532	1,568	1,431	98.1%	283	50	95.7%	262	50	0	0
1981	2,552	312	1,548	1,416	86.3%	291	69	84.7%	311	74	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP2 (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,501	968	1,609	1,768	100.0%	537	136	100.0%	486	115	89	89
1983	3,422	907	1,609	1,727	100.0%	517	140	100.0%	454	115	31	0
1984	3,299	760	1,609	1,780	100.0%	542	134	100.0%	493	108	0	0
1985	2,859	537	1,589	1,506	99.0%	344	63	97.5%	323	62	0	0
1986	2,641	385	1,567	1,425	90.4%	293	58	89.3%	272	58	0	0
1987	2,404	378	1,492	1,230	74.3%	167	34	72.8%	122	11	97	97
1988	2,445	346	1,509	1,283	77.7%	200	20	76.7%	174	14	0	0
1989	2,821	533	1,588	1,456	98.3%	308	68	96.5%	287	66	0	0
1990	3,223	794	1,609	1,619	100.0%	437	105	100.0%	403	86	0	0
1991	3,045	568	1,609	1,676	100.0%	485	130	100.0%	410	101	216	216
1992	2,226	262	1,433	1,397	68.0%	173	-3	67.1%	149	-18	6	0
1993	2,170	280	1,430	1,326	70.0%	93	-74	70.0%	68	-88	450	0
1994	1,801	250	1,246	1,010	47.1%	-89	-192	47.8%	-120	-200	882	268
1995	2,821	615	1,568	1,338	94.9%	198	-75	93.6%	239	-65	3,963	0
1996	3,227	796	1,609	1,627	100.0%	450	122	100.0%	393	96	0	0
1997	4,591	1,954	1,609	1,914	100.0%	638	150	100.0%	681	154	65	0
1998	3,168	841	1,609	1,513	100.0%	338	97	100.0%	280	71	0	0
1999	4,067	1,347	1,609	2,112	100.0%	737	170	100.0%	693	156	0	0
2000	3,320	891	1,609	1,618	100.0%	436	97	100.0%	394	78	0	0
2001	1,895	175	1,397	1,170	65.8%	-20	-71	65.2%	-43	-84	342	342
2002	3,198	801	1,609	1,591	100.0%	400	69	100.0%	331	41	59	59
2003	2,606	433	1,542	1,353	85.2%	245	48	84.8%	222	45	0	0
2004	2,603	326	1,584	1,471	97.7%	328	60	96.0%	315	60	38	0
2005	1,915	156	1,416	1,192	67.3%	13	-78	68.9%	6	-90	6,883	6,227
2006	3,071	826	1,609	1,386	100.0%	225	11	100.0%	161	6	3,584	0
2007	2,983	673	1,609	1,502	100.0%	316	93	100.0%	262	67	7,210	0
2008	3,191	732	1,593	1,707	100.0%	479	115	99.5%	457	115	0	0
2009	3,285	941	1,601	1,539	100.0%	358	105	100.0%	NA	NA	0	0
Average	3,045	753	1,553	1,549	91.0%	345	57	90.5%	312	43	535	87

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP2 (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	5.0%	49.1%	4.3%	4.3%	2.9%
	0 -10% Above Target[1]	72.6%	37.3%	1.7%	0.2%	74.0%
	0-10% Below Target	0.5%	0.3%	54.5%	83.9%	2.5%
	> 10% Below Target	21.9%	13.3%	39.5%	11.6%	20.6%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	56.9%	75.4%	74.9%	6.2%
	0 -10% Above Target	8.3%	3.4%	3.0%	73.2%
	0-10% Below Target	7.4%	2.3%	3.4%	5.6%
	> 10% Below Target	27.4%	18.9%	18.7%	15.0%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			3.7%	
	0 -10% Above Target			3.3%	
	0-10% Below Target			8.2%	
	> 10% Below Target			84.8%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				27.4%	
	0 -10% Above Target				26.2%	
	0-10% Below Target				33.8%	
	> 10% Below Target				12.6%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				100.0%	
	0 -10% Above Target				0.0%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	12.7%	31.7%		5.9%
	0 -10% Above Target	1.3%	2.7%		1.6%
	0-10% Below Target	7.5%	2.8%		21.2%
	> 10% Below Target	78.5%	62.8%		71.3%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			43.0%	20.5%	18.0%
	0 -10% Above Target			22.5%	6.0%	1.9%
	0-10% Below Target			9.8%	6.1%	3.6%
	> 10% Below Target			24.7%	67.4%	76.5%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.3%	93.5%	88.2%
	0 -10% Above Target			0.4%	2.5%	4.4%
	0-10% Below Target			0.4%	1.5%	3.1%
	> 10% Below Target			0.9%	2.5%	4.3%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			59.5%	
	0 -10% Above Target			3.9%	
	0-10% Below Target			3.0%	
	> 10% Below Target			33.6%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			97.6%	93.6%	88.1%
	0 -10% Above Target			0.9%	2.0%	4.7%
	0-10% Below Target			0.5%	1.3%	2.4%
	> 10% Below Target			1.0%	3.1%	4.8%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP2 (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	16.8%	41.4%	96.7%		18.7%
	0 -10% Above Target	60.7%	40.6%	2.5%		62.1%
	0-10% Below Target	0.0%	0.1%	0.0%		0.1%
	> 10% Below Target	22.5%	17.9%	0.8%		19.1%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	16.3%			
	0 -10% Above Target	1.1%			
	0-10% Below Target	1.2%			
	> 10% Below Target	81.4%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	70.8%			
	0 -10% Above Target	4.4%			
	0-10% Below Target	4.8%			
	> 10% Below Target	20.0%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP2

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	37.9	3.9	0.9	0.9	0.8	0.9	6.2	50.5	75.6	97.9	65.7	50.3	391.5
1927	14.1	0.9	0.9	0.9	0.8	0.9	1.0	4.1	16.2	37.2	52.5	69.9	199.6
1928	20.9	0.9	0.9	0.9	0.9	0.9	5.6	30.1	24.2	57.1	72.1	74.0	288.6
1929	30.2	4.0	4.4	4.4	2.4	1.4	16.1	12.6	34.0	101.9	90.8	50.9	353.0
1930	20.3	3.7	3.5	1.6	0.8	0.9	1.5	16.6	44.1	61.5	60.5	49.2	264.2
1931	13.5	1.7	2.3	2.0	0.8	0.9	2.4	6.1	25.0	33.7	34.5	47.8	170.8
1932	2.7	1.3	1.0	0.9	0.9	0.9	0.9	4.7	19.7	35.8	52.7	60.6	182.2
1933	27.7	0.9	0.9	0.9	0.8	0.9	1.1	5.6	24.2	51.4	63.7	71.7	250.0
1934	26.7	22.3	97.7	55.2	2.1	70.2	26.9	24.5	31.8	68.5	75.6	70.1	571.7
1935	6.2	0.9	0.9	0.9	0.8	0.9	14.3	16.9	33.9	55.5	65.7	72.9	269.8
1936	32.4	3.5	4.4	0.9	0.9	1.6	2.1	11.0	38.2	69.7	72.8	71.2	308.6
1937	9.0	5.2	2.5	2.1	1.1	0.9	1.9	8.4	17.4	54.5	63.7	70.7	237.4
1938	6.8	1.2	0.9	0.9	0.8	11.6	29.6	16.1	26.7	65.7	65.6	70.0	295.8
1939	32.8	0.9	0.9	0.9	0.8	0.9	1.6	13.7	34.0	74.1	81.6	68.3	310.6
1940	5.0	3.0	0.9	2.1	0.9	0.9	2.8	16.6	60.1	91.4	90.7	47.7	322.2
1941	16.5	2.4	1.1	1.5	1.1	0.9	3.5	22.9	45.8	61.5	60.5	47.0	264.8
1942	10.9	1.0	0.9	0.9	0.8	0.9	2.6	12.5	20.5	28.8	35.4	50.1	165.4
1943	15.4	1.0	0.9	0.9	0.8	0.9	1.0	5.3	15.2	30.4	45.8	59.1	176.8
1944	27.2	1.4	1.1	1.2	0.9	1.1	6.3	16.9	40.1	61.4	59.0	46.9	263.5
1945	17.1	1.4	1.2	0.9	0.8	0.9	2.5	6.4	24.0	35.9	34.4	49.7	175.3
1946	16.4	0.9	1.1	0.9	0.8	0.9	0.9	1.3	15.7	33.9	47.5	64.5	185.0
1947	15.0	2.7	0.9	0.9	0.8	0.9	2.0	20.5	28.1	55.9	58.5	69.8	256.0
1948	27.5	0.9	0.9	0.9	0.9	19.0	23.6	40.5	30.1	55.5	59.4	67.1	326.4
1949	26.5	1.8	0.9	0.9	0.8	5.7	29.4	32.6	36.3	41.5	56.1	68.5	301.1
1950	26.9	2.5	23.0	16.2	4.6	68.6	22.2	30.1	27.1	49.3	64.0	69.7	404.2
1951	26.3	13.6	35.6	28.4	27.3	51.4	28.0	20.2	28.9	58.6	61.5	67.1	447.0
1952	27.1	1.2	2.1	2.0	0.9	0.9	1.0	11.0	28.3	45.2	63.1	70.0	252.7
1953	4.3	5.9	5.8	1.5	0.8	0.9	9.0	17.3	25.1	53.6	64.5	70.4	259.0
1954	27.1	3.1	0.9	2.1	1.0	29.2	26.7	31.9	25.7	58.3	63.8	70.7	340.6
1955	28.0	1.9	3.4	7.6	1.0	18.7	22.0	20.1	34.7	45.4	62.6	70.0	315.3
1956	22.4	24.7	37.2	13.1	15.9	68.6	28.4	41.7	21.0	53.6	69.0	68.9	464.5
1957	27.4	1.2	32.6	10.1	1.0	9.9	26.2	27.2	35.1	77.6	63.6	68.7	380.5
1958	29.8	3.7	1.0	0.9	0.8	0.9	1.5	10.4	31.2	55.5	71.1	68.7	275.7
1959	22.4	0.9	0.9	0.9	0.8	22.5	33.9	14.3	34.9	53.0	67.6	68.2	320.4
1960	20.4	51.8	43.9	9.6	1.1	20.4	25.9	15.7	32.0	65.0	68.8	68.6	423.3
1961	28.7	1.1	2.3	1.1	0.8	18.7	32.6	18.7	36.5	55.0	66.8	69.8	332.3
1962	26.5	2.6	1.4	0.9	0.8	0.9	11.2	20.7	25.4	59.7	53.3	67.8	271.3
1963	27.6	1.7	0.9	4.9	1.1	6.4	14.1	25.2	27.7	64.5	66.3	69.2	309.7
1964	5.6	2.2	2.0	0.9	0.9	0.9	3.8	8.3	25.8	65.9	67.2	67.9	251.4
1965	29.6	2.3	9.2	22.6	2.8	40.9	31.8	11.8	32.3	51.7	62.4	69.8	367.2
1966	29.8	4.1	3.8	2.5	2.5	0.9	2.6	11.7	26.2	40.7	54.4	66.2	245.5
1967	28.1	2.5	0.9	0.9	0.8	0.9	21.3	11.3	24.3	41.1	75.7	69.4	277.3
1968	2.2	0.9	18.9	39.4	8.2	29.1	17.5	18.9	26.6	48.5	68.5	68.5	347.2
1969	26.3	0.9	0.9	1.0	1.6	3.4	28.5	27.1	39.2	66.9	68.7	68.3	332.8
1970	28.8	4.3	4.0	2.3	0.8	0.9	7.9	7.9	19.2	51.1	69.7	71.1	268.1
1971	3.7	3.5	3.8	1.1	0.8	0.9	11.4	40.9	21.1	43.1	68.8	66.4	265.5
1972	28.1	0.9	8.2	20.3	42.5	97.9	25.1	44.6	19.7	46.9	54.4	66.3	454.9
1973	27.4	1.2	17.9	17.7	1.0	4.1	15.0	30.9	30.8	57.4	77.1	64.2	344.7
1974	8.0	3.2	1.0	1.0	0.8	0.9	32.0	28.4	32.5	50.4	65.5	71.2	295.0
1975	29.2	3.7	3.7	27.8	1.2	37.8	20.0	30.7	28.7	60.1	62.6	67.7	373.2
1976	26.5	0.9	72.0	49.4	1.8	38.1	24.7	22.2	24.8	46.1	54.3	71.1	432.0
1977	30.3	3.4	2.2	0.9	0.8	11.4	22.5	67.7	64.9	84.3	61.0	47.0	396.4
1978	16.3	0.9	0.9	0.9	0.8	0.9	2.2	12.2	25.9	42.8	49.7	67.0	220.5
1979	30.7	6.0	3.3	3.4	2.2	0.9	3.8	11.0	33.7	45.1	55.0	64.5	259.7
1980	13.2	3.7	1.0	0.9	0.9	0.9	0.9	10.4	26.8	46.6	59.5	66.6	231.4
1981	5.4	1.7	0.9	0.9	0.9	0.9	5.6	20.2	26.4	65.5	80.9	71.5	280.7
1982	3.2	2.2	1.1	1.5	0.8	0.9	12.3	23.2	31.6	55.2	63.5	71.0	266.5
1983	27.3	1.2	1.0	0.9	0.8	37.9	22.5	16.2	30.7	35.4	46.8	69.6	290.3
1984	28.4	0.9	0.9	12.2	2.0	33.4	19.0	8.7	37.8	52.0	64.3	70.2	329.8
1985	30.5	1.0	2.5	3.9	3.9	0.9	3.7	8.3	37.5	84.6	76.0	70.5	323.6
1986	2.6	0.9	2.2	2.0	1.5	0.9	4.3	16.6	34.6	78.2	78.7	68.1	290.6
1987	4.8	1.5	0.9	2.6	1.2	0.9	0.9	13.7	41.4	67.5	80.8	68.1	284.2
1988	25.5	4.3	2.9	3.8	1.1	0.9	1.2	7.6	32.6	62.0	55.2	62.0	259.2
1989	8.8	0.9	0.9	0.9	0.8	1.0	1.2	11.0	27.5	62.2	74.5	70.3	259.9
1990	4.2	1.0	0.9	0.9	0.8	5.4	33.0	22.4	35.4	61.3	67.5	70.6	303.5
1991	26.8	10.1	32.6	31.7	12.5	42.4	19.1	21.4	23.2	55.6	51.3	70.5	397.2
1992	31.8	1.7	0.9	0.9	0.9	0.9	15.9	33.7	52.8	90.0	99.4	55.2	384.2
1993	18.8	0.9	0.9	1.3	0.8	0.9	1.4	8.2	50.6	93.9	72.6	49.7	300.1
1994	17.9	3.4	1.6	1.0	1.0	1.0	1.8	14.4	47.2	61.2	59.1	48.6	258.2
1995	8.5	0.9	0.9	0.9	0.8	0.9	2.2	6.8	25.6	34.8	37.5	58.4	178.3
1996	2.2	1.7	9.5	7.0	1.5	18.8	11.6	23.7	30.6	47.6	62.6	69.5	286.1
1997	28.2	0.9	0.9	0.9	11.1	82.4	33.7	36.9	31.1	53.3	66.7	71.8	418.1
1998	20.1	4.3	11.6	13.3	1.0	18.6	23.1	17.3	27.7	51.9	66.5	72.6	327.9
1999	32.0	1.9	1.0	0.9	0.8	15.1	26.5	31.6	22.3	50.7	57.0	72.1	312.1
2000	31.8	6.8	43.1	14.0	3.1	7.7	26.2	20.1	32.8	66.9	75.9	71.1	399.5
2001	29.4	2.9	4.2	4.1	3.0	1.9	10.0	20.3	66.0	101.5	69.2	51.8	364.3
2002	16.3	1.5	0.9	0.9	0.8	0.9	1.0	2.2	11.3	44.4	74.2	73.1	227.6
2003	31.7	5.3	4.9	3.3	0.8	0.9	3.1	15.5	30.9	55.7	67.5	69.6	289.3
2004	7.1	0.9	0.9	1.6	0.9	0.9	3.3	16.6	31.6	60.9	77.1	70.5	272.3
2005	4.9	1.0	0.9	1.2	0.8	2.6	13.4	37.2	73.4	99.0	62.0	51.7	348.2
2006	16.9	0.9	1.4	0.9	0.8	0.9	1.0	5.4	23.7	39.5	42.9	52.5	186.8
2007	13.7	0.9	1.3	0.9	0.8	0.9	2.5	14.0	32.6	53.8	68.3	71.6	261.6
2008	36.5	2.3	3.0	2.7	0.9	1.6	7.2	3.7	13.0	66.6	74.7	68.7	280.8
2009	5.6	1.0	1.2	23.3	1.0	7.6	22.4	22.8	33.7	61.4	62.4	68.5	310.8
Average	20.1	3.5	7.3	6.2	2.5	12.0	12.7	19.0	31.8	57.8	64.0	65.2	302.2

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	387	845	74
1927	229	16	15	15	15	15	17	-	-	-	-	-	20
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	61	855	55
1930	330	62	56	25	15	15	25	42	556	1,000	984	826	239
1931	220	29	37	32	15	15	40	99	419	549	561	804	171
1932	44	21	16	15	16	15	15	31	-	-	-	367	32
1933	451	7	-	-	-	-	-	-	-	-	-	-	28
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	487	29
1941	268	41	17	25	20	15	-	-	437	1,000	984	790	219
1942	177	16	15	15	15	15	43	203	345	469	575	843	165
1943	251	17	15	15	15	15	17	86	88	-	-	767	77
1944	442	23	18	19	15	18	106	249	586	998	960	789	257
1945	278	24	20	15	15	15	42	104	403	584	559	836	175
1946	266	16	18	15	15	15	15	10	-	-	-	-	23
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	507	790	78
1978	265	12	-	-	-	-	-	-	-	-	-	-	17
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	43	3
1993	306	15	12	-	-	-	-	-	-	-	414	835	96
1994	292	58	27	16	17	16	31	72	703	996	961	817	243
1995	138	15	15	15	15	15	37	30	-	-	447	981	103
1996	35	4	-	-	-	-	-	-	-	-	-	-	2
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	450	871	79
2002	264	26	15	15	15	5	-	-	-	-	-	-	21
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	506	870	83
2006	274	16	23	15	15	15	16	-	-	-	-	-	23
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	54	5	4	3	3	2	5	11	42	67	99	160	28

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	39	34	368	232	120	-	-	-	43	243	31	-	67
1927	-	-	-	-	-	-	-	238	400	380	197	13	75
1928	-	323	400	350	-	-	-	-	-	400	400	13	115
1929	12	35	36	37	17	4	-	72	320	222	317	-	65
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	138	10	-	-	-	9
1932	-	-	-	-	-	145	400	400	400	387	226	13	120
1933	-	213	400	400	222	37	155	6	-	280	400	400	152
1934	400	177	354	325	6	335	-	-	-	400	377	13	146
1935	-	90	234	173	-	-	19	-	-	367	400	69	83
1936	13	29	37	6	14	153	185	-	-	395	400	13	76
1937	11	47	14	13	3	23	255	142	-	400	400	13	81
1938	3	237	400	-	-	-	-	-	-	400	400	13	89
1939	19	0	207	359	62	72	-	-	-	400	400	13	94
1940	2	23	69	39	151	225	225	-	107	263	327	0	87
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	109	-	74	-	-	-	11
1943	-	-	-	-	-	-	213	376	400	400	197	13	97
1944	-	-	-	-	-	-	85	-	-	-	-	-	5
1945	-	-	-	-	-	-	-	368	369	-	-	-	45
1946	-	-	-	-	-	23	275	400	400	400	400	13	116
1947	40	93	335	355	346	69	-	-	-	400	400	13	124
1948	84	398	248	-	-	-	-	-	-	315	400	219	101
1949	96	126	173	39	-	-	-	-	-	310	400	339	90
1950	188	266	-	45	-	400	-	-	4	246	400	400	118
1951	400	284	61	174	158	360	-	-	-	373	400	13	135
1952	146	180	81	11	61	41	34	-	-	400	400	13	83
1953	4	50	44	99	129	-	-	-	-	245	400	256	74
1954	0	218	400	-	-	6	-	-	-	295	400	400	104
1955	363	211	122	-	-	-	-	-	-	233	400	400	105
1956	400	94	221	48	55	400	27	21	-	303	400	400	144
1957	285	224	189	31	-	-	-	-	-	400	400	13	94
1958	8	32	1	-	143	135	301	90	-	374	288	13	84
1959	-	227	400	141	-	194	1	-	-	309	400	400	126
1960	400	260	232	20	-	77	-	-	4	400	400	13	111
1961	1	375	71	287	50	24	2	-	-	397	400	13	99
1962	65	156	204	184	-	-	-	-	-	381	400	26	87
1963	87	218	400	-	-	-	-	-	-	400	400	13	93
1964	3	14	12	18	28	77	188	24	-	368	400	400	93
1965	376	135	214	-	-	185	-	-	-	400	400	13	106
1966	2	76	92	81	18	58	240	-	-	400	392	13	84
1967	0	17	230	297	-	-	-	-	-	309	400	40	79
1968	129	399	158	125	31	188	-	-	-	400	396	13	112
1969	116	320	195	1	6	-	-	-	-	400	400	13	89
1970	9	39	33	59	67	160	225	123	-	400	328	13	89
1971	3	28	29	84	400	13	-	-	-	162	400	400	90
1972	384	317	56	-	100	400	5	65	-	208	400	400	142
1973	333	109	102	-	-	23	-	-	-	378	289	13	76
1974	9	25	1	194	335	157	53	58	-	215	383	400	110
1975	375	93	211	-	-	199	-	-	-	302	400	387	120
1976	117	400	330	334	5	216	-	-	-	254	400	400	149
1977	123	105	150	-	-	77	-	-	-	147	-	-	37
1978	-	-	343	179	83	205	400	285	-	256	150	13	116
1979	14	58	25	28	16	124	165	400	261	15	230	13	82
1980	1	31	-	-	87	185	304	107	-	355	254	13	81
1981	13	8	186	400	0	-	-	-	-	400	400	13	87
1982	8	14	2	96	350	21	13	-	-	314	400	301	91
1983	86	138	280	4	-	154	-	-	-	400	400	13	90
1984	8	351	75	56	6	154	-	-	-	277	400	225	94
1985	64	173	78	28	30	23	67	-	-	400	400	13	78
1986	65	400	77	23	100	13	-	-	-	400	400	13	90
1987	14	81	76	23	11	304	152	-	-	365	390	13	87
1988	20	37	19	30	3	-	213	400	317	59	213	13	80
1989	0	-	66	299	114	106	199	-	-	400	400	13	97
1990	4	116	348	235	-	-	-	-	-	372	400	13	91
1991	202	400	296	175	79	283	-	-	-	362	400	74	138
1992	6	167	400	0	-	-	-	-	-	386	400	13	84
1993	-	-	-	4	0	-	80	400	136	248	173	-	64
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	129	394	268	396	93	-	10	-	78
1996	-	200	400	400	262	323	27	-	-	400	400	13	148
1997	74	316	156	12	-	400	30	-	-	237	400	400	123
1998	310	286	8	-	-	-	-	-	-	400	400	13	87
1999	5	64	222	275	-	77	-	-	-	258	400	400	104
2000	336	273	124	59	17	0	-	-	-	382	400	101	103
2001	117	40	35	34	24	23	87	298	-	278	123	-	65
2002	-	-	-	-	25	146	357	400	173	400	400	13	117
2003	3	51	44	49	400	300	168	-	-	324	291	13	98
2004	-	-	71	85	174	266	39	-	-	400	366	13	86
2005	-	11	316	228	57	14	-	-	18	263	18	-	57
2006	-	-	-	-	-	-	105	400	400	194	178	13	78
2007	91	74	102	221	211	228	-	-	-	400	400	13	106
2008	31	16	144	23	42	83	-	122	-	324	400	239	87
2009	10	308	298	-	-	-	-	-	-	400	400	13	87
Average	78	123	139	90	56	99	68	68	47	299	316	96	90

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	368	232	120	-	-	-	43	-	-	-	46
1927	-	-	-	-	-	-	-	238	400	380	-	-	62
1928	-	323	400	350	-	-	-	-	-	374	50	-	91
1929	-	-	-	-	-	-	-	72	320	-	-	-	23
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	138	10	-	-	-	9
1932	-	-	-	-	-	145	400	400	400	387	-	-	105
1933	-	213	400	400	222	37	155	6	-	128	118	387	124
1934	400	57	-	-	-	-	-	-	-	115	21	-	36
1935	-	90	234	173	-	-	19	-	-	366	63	56	61
1936	-	-	-	6	14	146	185	-	-	353	44	-	46
1937	-	-	-	-	-	23	255	142	-	400	145	-	59
1938	-	233	400	-	-	-	-	-	-	358	59	-	64
1939	-	-	207	359	62	72	-	-	-	201	-	-	55
1940	-	-	69	27	151	225	225	-	107	46	-	-	51
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	109	-	74	-	-	-	11
1943	-	-	-	-	-	-	213	376	400	400	12	-	85
1944	-	-	-	-	-	-	85	-	-	-	-	-	5
1945	-	-	-	-	-	-	-	368	369	-	-	-	45
1946	-	-	-	-	-	23	275	400	400	397	164	-	101
1947	-	72	335	355	346	69	-	-	-	218	66	-	88
1948	84	398	248	-	-	-	-	-	-	303	86	205	80
1949	94	116	173	39	-	-	-	-	-	267	86	326	67
1950	188	265	-	-	-	-	-	-	4	121	152	387	67
1951	400	284	-	-	-	-	-	-	-	361	101	-	70
1952	146	177	70	-	61	41	34	-	-	398	114	-	63
1953	-	-	-	94	129	-	-	-	-	213	94	243	46
1954	-	194	400	-	-	-	-	-	-	106	128	387	74
1955	363	202	120	-	-	-	-	-	-	74	83	387	74
1956	400	94	-	-	-	-	27	21	-	164	94	387	72
1957	285	221	108	-	-	-	-	-	-	37	31	-	42
1958	-	-	-	-	143	135	301	90	-	374	-	-	63
1959	-	227	400	141	-	-	1	-	-	302	54	387	92
1960	400	166	2	-	-	-	-	-	4	364	56	-	61
1961	-	372	57	285	50	-	2	-	-	388	63	-	74
1962	64	137	199	184	-	-	-	-	-	369	140	13	68
1963	82	208	400	-	-	-	-	-	-	254	26	-	59
1964	-	-	-	18	28	77	188	24	-	153	72	387	57
1965	367	122	214	-	-	-	-	-	-	365	46	-	68
1966	-	40	62	64	0	58	240	-	-	400	173	-	63
1967	-	-	230	297	-	-	-	-	-	309	133	27	61
1968	129	399	158	0	-	-	-	-	-	398	58	-	69
1969	116	320	195	-	-	-	-	-	-	303	12	-	57
1970	-	-	-	43	67	160	225	123	-	400	90	-	67
1971	-	-	-	82	400	13	-	-	-	16	161	387	62
1972	384	317	56	-	-	-	5	65	-	126	194	387	93
1973	333	107	100	-	-	-	-	-	-	378	-	-	56
1974	-	-	-	194	335	157	53	58	-	8	168	387	81
1975	372	68	209	-	-	-	-	-	-	206	89	373	80
1976	117	400	26	-	-	-	-	-	-	235	209	387	83
1977	116	81	139	-	-	-	-	-	-	-	-	-	21
1978	-	-	343	179	83	205	400	285	-	256	-	-	106
1979	-	-	-	-	-	124	165	400	261	15	-	-	58
1980	-	-	-	-	87	185	304	107	-	355	-	-	63
1981	-	-	186	400	-	-	-	-	-	355	56	-	61
1982	-	-	-	90	350	21	13	-	-	300	60	288	66
1983	86	135	279	4	-	-	-	-	-	400	163	-	65
1984	-	351	75	4	-	-	-	-	-	275	74	211	60
1985	53	172	63	0	-	23	67	-	-	129	-	-	31
1986	65	400	65	13	94	13	-	-	-	28	0	-	40
1987	-	75	76	4	7	304	152	-	-	209	-	-	50
1988	-	-	-	-	-	-	213	400	317	52	-	-	59
1989	-	-	66	299	114	106	199	-	-	242	-	-	62
1990	-	114	348	235	-	-	-	-	-	361	68	-	69
1991	202	307	19	5	-	-	-	-	-	362	176	61	69
1992	-	158	400	-	-	-	-	-	-	60	-	-	38
1993	-	-	-	-	-	-	80	400	136	-	-	-	37
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	129	394	268	396	93	-	-	-	77
1996	-	187	315	304	254	33	27	-	-	400	165	-	102
1997	74	316	156	12	-	-	30	-	-	200	83	387	76
1998	310	286	8	-	-	-	-	-	-	339	67	-	62
1999	-	53	221	275	-	-	-	-	-	134	212	387	78
2000	332	268	4	2	-	-	-	-	-	308	9	87	61
2001	117	17	-	-	-	14	87	298	-	-	-	-	33
2002	-	-	-	-	25	146	357	400	173	385	74	-	95
2003	-	-	-	22	400	300	168	-	-	322	-	-	72
2004	-	-	71	77	174	266	39	-	-	352	8	-	60
2005	-	10	316	225	57	-	-	-	18	-	-	-	38
2006	-	-	-	-	-	-	105	400	400	194	-	-	67
2007	-	73	98	221	211	228	-	-	-	206	27	-	64
2008	-	-	122	4	42	75	-	122	-	229	23	226	51
2009	-	307	297	-	-	-	-	-	-	310	37	-	58
Average	72	109	113	68	49	45	68	68	47	218	57	85	61

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	39	34	-	-	-	-	-	-	-	243	31	-	21
1927	-	-	-	-	-	-	-	-	-	-	197	13	13
1928	-	-	-	-	-	-	-	-	-	26	350	13	24
1929	12	35	36	37	17	4	-	-	-	222	317	-	42
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	0	226	13	15
1933	-	-	-	-	-	-	-	-	-	153	282	13	28
1934	-	120	354	325	6	335	-	-	-	285	356	13	110
1935	-	-	-	-	-	-	-	-	-	1	337	13	22
1936	13	29	37	0	-	7	-	-	-	43	356	13	31
1937	11	47	14	13	3	-	-	-	-	0	255	13	22
1938	3	3	-	-	-	-	-	-	-	42	341	13	25
1939	19	0	-	-	-	-	-	-	-	199	400	13	39
1940	2	23	-	13	-	-	-	-	-	218	327	0	36
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	185	13	12
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	3	236	13	15
1947	40	22	-	-	-	-	-	-	-	182	334	13	36
1948	-	-	-	-	-	-	-	-	-	13	314	13	21
1949	2	10	0	-	-	-	-	-	-	42	314	13	23
1950	-	1	-	45	-	400	-	-	-	125	248	13	51
1951	0	-	61	174	158	360	-	-	-	13	299	13	65
1952	-	3	11	11	-	-	-	-	-	2	286	13	20
1953	4	50	44	5	-	-	-	-	-	32	306	13	28
1954	0	24	-	-	-	6	-	-	-	189	272	13	31
1955	-	9	2	-	-	-	-	-	-	159	317	13	31
1956	-	-	221	48	55	400	-	-	-	139	306	13	72
1957	-	3	81	31	-	-	-	-	-	363	369	13	53
1958	8	32	1	-	-	-	-	-	-	-	288	13	21
1959	-	-	-	-	-	194	-	-	-	7	346	13	34
1960	-	93	230	20	-	77	-	-	-	36	344	13	50
1961	1	3	14	2	-	24	-	-	-	9	337	13	25
1962	1	19	5	-	-	-	-	-	-	12	260	13	19
1963	5	9	-	-	-	-	-	-	-	146	374	13	34
1964	3	14	12	-	-	-	-	-	-	215	328	13	36
1965	9	13	-	-	-	185	-	-	-	35	354	13	37
1966	2	36	30	17	18	0	-	-	-	-	219	13	20
1967	0	17	-	-	-	-	-	-	-	0	267	13	18
1968	-	0	-	125	31	188	-	-	-	2	338	13	43
1969	-	-	-	1	6	-	-	-	-	97	388	13	31
1970	9	39	33	15	-	-	-	-	-	-	238	13	21
1971	3	28	29	2	-	-	-	-	-	146	239	13	28
1972	-	-	-	-	100	400	-	-	-	82	206	13	49
1973	0	3	2	-	-	23	-	-	-	-	289	13	20
1974	9	25	1	1	-	-	-	-	-	206	215	13	29
1975	3	25	2	-	-	199	-	-	-	96	311	13	40
1976	-	-	304	334	5	216	-	-	-	20	191	13	67
1977	7	24	10	-	-	77	-	-	-	147	-	-	16
1978	-	-	-	-	-	-	-	-	-	-	150	13	10
1979	14	58	25	28	16	-	-	-	-	-	230	13	23
1980	1	31	-	-	-	-	-	-	-	-	254	13	18
1981	13	8	-	-	0	-	-	-	-	45	344	13	26
1982	8	14	2	6	-	-	-	-	-	14	340	13	24
1983	-	3	0	0	-	154	-	-	-	-	237	13	25
1984	8	0	-	51	6	154	-	-	-	1	326	13	34
1985	11	2	15	28	30	-	-	-	-	271	400	13	47
1986	-	-	12	10	6	-	-	-	-	372	400	13	50
1987	14	6	-	18	4	-	-	-	-	156	390	13	37
1988	20	37	19	30	3	-	-	-	-	8	213	13	21
1989	0	-	-	-	-	1	-	-	-	158	400	13	35
1990	4	2	-	-	-	-	-	-	-	12	332	13	22
1991	-	93	276	170	79	283	-	-	-	-	224	13	69
1992	6	9	-	0	-	-	-	-	-	327	400	13	46
1993	-	-	-	4	0	-	-	-	-	248	173	-	26
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	10	-	1
1996	-	13	85	96	8	290	-	-	-	-	235	13	45
1997	-	-	-	-	-	400	-	-	-	38	317	13	47
1998	-	0	-	-	-	-	-	-	-	61	333	13	25
1999	5	11	1	-	-	77	-	-	-	124	188	13	26
2000	4	5	120	56	17	0	-	-	-	74	391	13	42
2001	-	23	35	34	24	9	-	-	-	278	123	-	32
2002	-	-	-	-	-	-	-	-	-	15	326	13	22
2003	3	51	44	27	-	-	-	-	-	2	291	13	26
2004	-	-	-	7	-	-	-	-	-	48	358	13	26
2005	-	1	-	3	-	14	-	-	-	263	18	-	18
2006	-	-	-	-	-	-	-	-	-	-	178	13	12
2007	91	0	4	-	-	-	-	-	-	194	373	13	42
2008	31	16	22	19	-	7	-	-	-	95	377	13	36
2009	10	1	2	-	-	-	-	-	-	90	363	13	29
Average	5	14	26	22	7	53	-	-	-	81	259	11	29

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	16,553	-	-	-	-	-	9,256	39,011	40,743	53,761	54,866	17,995	232,186
1927	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1928	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1929	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
1930	23	-	-	-	-	-	9,311	39,599	41,061	51,236	49,908	15,490	206,627
1931	23	-	-	-	-	-	8,472	36,939	36,815	41,740	39,822	13,028	176,840
1932	-	-	-	-	-	-	9,311	39,787	40,754	53,472	55,740	40,407	239,470
1933	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1934	16,553	-	-	-	-	-	9,311	39,841	40,559	53,700	56,432	39,722	256,118
1935	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1936	16,553	-	-	-	-	-	7,949	39,743	40,743	53,689	56,412	39,776	254,865
1937	23	-	-	-	-	-	9,311	39,743	40,743	53,478	55,979	40,603	239,880
1938	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1939	16,553	-	-	-	-	-	9,328	36,735	40,322	53,496	56,143	40,457	253,034
1940	23	-	-	-	-	-	9,311	38,655	40,743	53,691	54,056	16,718	213,196
1941	23	-	-	-	-	-	7,999	35,877	36,592	41,141	40,003	13,102	174,737
1942	23	-	-	-	-	-	9,317	39,584	40,743	53,462	53,475	16,486	213,091
1943	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,609	40,307	239,208
1944	16,553	-	-	-	-	-	9,405	40,113	41,168	49,840	46,790	14,075	217,945
1945	23	-	-	-	-	-	7,054	40,111	40,743	53,643	54,804	18,172	214,550
1946	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,651	40,229	239,171
1947	10,833	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	250,248
1948	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1949	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1950	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1951	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1952	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,827	40,672	256,321
1953	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1954	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1955	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1956	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1957	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1958	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1959	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1960	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1961	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1962	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1963	16,553	-	-	-	-	-	9,311	39,743	40,743	53,512	56,198	40,342	256,402
1964	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1965	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1966	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1967	16,553	-	-	-	-	-	9,311	39,743	40,743	53,585	56,322	40,156	256,413
1968	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1969	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1970	16,553	-	-	-	-	-	9,311	39,743	40,743	53,702	56,429	39,741	256,222
1971	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1972	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1973	16,553	-	-	-	-	-	7,142	39,902	40,743	52,231	50,436	34,346	241,352
1974	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1975	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1976	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,612	40,313	255,746
1977	16,553	-	-	-	-	-	9,158	39,743	40,743	53,782	54,846	17,868	232,695
1978	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1979	16,553	-	-	-	-	-	7,284	39,960	40,743	51,341	48,902	33,271	238,054
1980	23	-	-	-	-	-	9,311	39,650	39,525	53,486	56,078	40,521	238,594
1981	23	-	-	-	-	-	8,015	39,743	40,743	53,962	55,765	37,944	236,195
1982	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1983	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,716	40,400	255,937
1984	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1985	16,553	-	-	-	-	-	9,311	39,743	40,743	53,476	55,951	40,636	256,413
1986	23	-	-	-	-	-	9,311	39,743	40,743	53,749	56,459	39,643	239,671
1987	23	-	-	-	-	-	9,311	39,405	40,743	51,208	48,800	33,316	222,806
1988	23	-	-	-	-	-	9,311	39,413	40,743	52,404	50,971	34,831	227,696
1989	23	-	-	-	-	-	9,311	39,743	40,743	53,482	56,020	40,578	239,900
1990	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1991	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1992	16,553	-	-	-	-	-	6,794	39,893	40,743	53,789	54,104	16,703	228,579
1993	23	-	-	-	-	-	9,394	37,210	40,743	53,643	54,354	18,172	213,539
1994	23	-	-	-	-	-	9,312	39,009	39,605	45,110	43,592	13,955	190,607
1995	23	-	-	-	-	-	9,322	39,743	40,398	52,472	55,978	40,196	238,133
1996	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1997	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,701	40,381	255,903
1998	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1999	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2000	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2001	16,553	-	-	-	-	-	9,166	39,746	40,743	53,780	54,726	17,291	232,004
2002	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2003	16,553	-	-	-	-	-	9,311	38,847	40,743	53,991	55,567	37,970	252,981
2004	23	-	-	-	-	-	9,398	39,825	40,743	53,484	56,037	40,503	240,014
2005	23	-	-	-	-	-	9,162	39,743	40,743	53,854	54,894	18,042	216,462
2006	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	36,839	235,871
2007	10,401	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	249,817
2008	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,796	40,678	256,296
2009	23	-	-	-	-	-	9,203	39,284	40,273	52,855	55,096	39,941	236,675
Average	9,327	-	-	-	-	-	9,141	39,556	40,611	52,971	54,667	35,670	241,943

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	18,681	-	-	-	-	8,883	29,964	39,142	48,429	48,550	47,553	31,243	272,447
1927	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1928	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1929	18,681	-	-	-	-	8,883	26,488	39,776	48,460	49,896	48,680	31,571	272,436
1930	986	-	-	-	-	8,883	30,437	32,730	39,173	40,299	39,456	25,520	217,485
1931	986	-	-	-	-	8,883	22,259	25,663	30,686	31,510	30,648	19,803	170,438
1932	986	-	-	-	-	8,883	30,437	42,141	47,519	54,222	53,512	35,446	273,146
1933	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1934	18,681	-	-	-	-	8,883	30,437	42,162	47,217	54,404	53,846	35,671	291,300
1935	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1936	18,681	-	-	-	-	8,883	30,617	42,081	47,350	54,387	53,809	35,684	291,494
1937	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,515	35,668	273,092
1938	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1939	18,681	-	-	-	-	8,883	30,554	39,728	47,126	54,222	53,533	35,730	288,458
1940	986	-	-	-	-	8,883	30,445	41,681	48,484	49,457	47,630	30,666	258,235
1941	986	-	-	-	-	8,883	29,001	25,663	30,475	30,998	30,816	19,948	176,771
1942	986	-	-	-	-	8,883	30,557	36,449	44,327	44,249	42,739	27,849	236,040
1943	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1944	18,681	-	-	-	-	8,883	21,510	30,625	38,150	38,785	37,357	24,053	218,045
1945	986	-	-	-	-	8,883	29,140	40,382	48,460	49,896	48,680	31,571	257,999
1946	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1947	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1948	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1949	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1950	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1951	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1952	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,607	290,723
1953	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1954	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1955	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1956	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1957	18,681	-	-	-	-	8,883	30,442	42,030	47,350	54,222	53,512	35,446	290,567
1958	18,681	-	-	-	-	8,883	30,636	42,030	47,350	54,222	53,512	35,446	290,761
1959	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1960	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1961	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1962	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1963	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,551	35,751	290,905
1964	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1965	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1966	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1967	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,263	53,613	35,754	291,012
1968	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1969	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1970	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,406	53,838	35,675	291,301
1971	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1972	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1973	18,681	-	-	-	-	8,883	29,366	42,218	47,681	54,397	52,852	33,471	287,550
1974	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1975	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1976	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1977	18,681	-	-	-	-	8,883	26,590	39,751	48,377	48,359	47,406	30,980	269,028
1978	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1979	18,681	-	-	-	-	8,883	29,953	41,933	47,974	52,832	51,133	32,633	284,022
1980	986	-	-	-	-	8,883	30,046	42,025	46,150	54,222	53,523	35,701	271,537
1981	986	-	-	-	-	8,883	30,437	42,104	47,350	54,951	54,410	35,301	274,424
1982	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1983	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1984	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1985	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,649	290,765
1986	986	-	-	-	-	8,883	30,437	42,030	47,350	54,486	53,915	35,646	273,733
1987	986	-	-	-	-	8,883	30,525	41,518	47,979	52,609	51,016	32,679	266,195
1988	986	-	-	-	-	8,883	30,595	41,999	47,589	54,662	53,367	33,803	271,885
1989	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,518	35,678	273,104
1990	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1991	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1992	18,681	-	-	-	-	8,883	27,565	39,793	48,326	48,193	47,064	30,647	269,153
1993	986	-	-	-	-	8,883	30,980	40,063	48,460	49,896	48,680	31,571	259,520
1994	986	-	-	-	-	8,883	30,684	28,883	33,629	34,377	33,946	21,945	193,334
1995	986	-	-	-	-	8,883	30,457	42,030	47,418	53,314	53,548	35,750	272,386
1996	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1997	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1998	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1999	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2000	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2001	18,681	-	-	-	-	8,883	25,176	37,503	47,142	46,476	45,322	29,746	258,930
2002	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2003	18,681	-	-	-	-	8,883	30,437	41,519	47,350	55,066	54,460	35,298	291,695
2004	986	-	-	-	-	8,883	30,564	42,135	47,350	54,222	53,520	35,690	273,352
2005	986	-	-	-	-	8,883	25,860	38,714	47,979	47,703	47,363	31,328	248,819
2006	986	-	-	-	-	8,883	30,440	42,030	47,350	54,222	53,512	35,446	272,870
2007	18,679	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,560
2008	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,600	290,716
2009	986	-	-	-	-	8,758	30,006	41,434	46,680	53,454	52,754	34,944	269,015
Average	11,098	-	-	-	-	8,882	29,944	40,875	46,638	52,361	51,579	34,021	275,398

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	25,229	-	-	-	-	6,232	45,759	88,692	88,704	95,799	88,999	55,126	494,541
1927	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1928	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1929	25,229	-	-	-	-	6,232	47,281	92,309	89,080	97,312	90,146	55,333	502,922
1930	21,815	-	-	-	-	6,232	51,572	81,813	78,618	86,519	80,872	52,279	459,720
1931	21,815	-	-	-	-	6,232	40,737	74,254	70,217	76,634	72,020	49,497	411,406
1932	21,815	-	-	-	-	6,232	51,572	100,050	107,068	113,698	108,774	74,355	583,565
1933	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1934	25,229	-	-	-	-	6,232	51,572	99,848	104,037	113,381	104,075	59,716	564,089
1935	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1936	25,229	-	-	-	-	6,232	50,520	101,401	105,816	113,423	104,275	59,775	566,672
1937	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,301	61,314	573,178
1938	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1939	25,229	-	-	-	-	6,232	50,533	83,722	104,649	113,694	106,806	60,904	551,769
1940	21,815	-	-	-	-	6,232	51,512	87,059	89,633	96,819	89,097	54,803	496,971
1941	21,815	-	-	-	-	6,232	43,202	72,305	70,008	76,057	72,185	49,572	411,376
1942	21,815	-	-	-	-	6,232	50,419	87,052	83,709	90,962	84,171	53,409	477,770
1943	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1944	25,229	-	-	-	-	6,232	45,446	80,635	77,606	84,817	78,765	51,567	450,297
1945	21,815	-	-	-	-	6,232	48,317	93,871	89,080	97,312	90,146	55,333	502,107
1946	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1947	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1948	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1949	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1950	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1951	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1952	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,742	61,832	577,551
1953	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1954	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1955	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1956	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1957	25,229	-	-	-	-	6,232	51,546	101,401	109,844	113,698	108,774	74,355	591,080
1958	25,229	-	-	-	-	6,232	50,278	101,401	109,844	113,698	108,774	74,355	589,813
1959	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1960	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1961	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1962	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1963	25,229	-	-	-	-	6,232	51,572	101,401	108,129	113,674	106,465	60,615	573,318
1964	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1965	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1966	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1967	25,229	-	-	-	-	6,232	51,572	101,401	109,398	113,587	105,396	60,227	573,043
1968	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1969	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1970	25,229	-	-	-	-	6,232	51,572	101,401	107,496	113,383	104,113	59,739	569,166
1971	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1972	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1973	25,229	-	-	-	-	6,232	48,438	97,654	94,555	102,709	94,398	56,609	525,824
1974	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1975	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1976	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1977	25,229	-	-	-	-	6,232	47,538	92,279	88,423	95,584	88,854	54,972	499,111
1978	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1979	25,229	-	-	-	-	6,232	48,576	96,994	92,745	100,734	92,617	56,006	519,134
1980	21,815	-	-	-	-	6,232	48,864	99,686	103,514	113,698	107,039	61,074	561,923
1981	21,815	-	-	-	-	6,232	49,660	101,313	101,531	110,011	100,818	58,626	550,007
1982	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1983	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1984	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1985	25,229	-	-	-	-	6,232	51,572	101,401	109,599	113,698	107,399	61,464	576,595
1986	21,815	-	-	-	-	6,232	51,572	101,401	104,469	113,160	103,692	59,647	561,989
1987	21,815	-	-	-	-	6,232	51,075	96,530	92,716	100,465	92,495	56,032	517,361
1988	21,815	-	-	-	-	6,232	50,568	95,842	95,170	103,179	95,017	56,880	524,703
1989	21,815	-	-	-	-	6,232	51,572	101,401	109,391	113,698	107,191	61,238	572,539
1990	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1991	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1992	25,229	-	-	-	-	6,232	46,086	92,485	88,224	95,397	88,518	54,793	496,964
1993	21,815	-	-	-	-	6,232	46,257	85,893	89,080	97,312	90,146	55,333	492,068
1994	21,815	-	-	-	-	6,232	48,834	76,499	73,128	79,858	75,333	50,541	432,241
1995	21,815	-	-	-	-	6,232	51,337	101,401	103,088	108,803	106,624	60,626	559,927
1996	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1997	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1998	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1999	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2000	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2001	25,229	-	-	-	-	6,232	46,653	89,478	86,622	93,466	86,763	54,327	488,771
2002	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2003	25,229	-	-	-	-	6,232	51,572	95,741	101,546	109,223	100,520	58,639	548,701
2004	21,815	-	-	-	-	6,232	50,083	100,125	108,688	113,698	107,139	61,150	568,930
2005	21,815	-	-	-	-	6,232	47,257	91,036	87,606	94,846	88,800	55,175	492,767
2006	21,815	-	-	-	-	6,232	51,555	101,401	109,844	113,698	108,774	74,355	587,676
2007	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2008	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,837	61,908	577,723
2009	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
Average	23,766	-	-	-	-	6,232	50,571	98,029	103,638	108,828	103,035	66,966	561,064

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	33,266	-	-	-	-	10,226	38,346	55,481	59,671	60,877	56,769	47,890	362,526
1927	23,760	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,746
1928	33,266	-	-	-	-	10,226	41,472	57,867	65,148	70,157	70,467	59,068	407,671
1929	33,289	-	-	-	-	10,226	40,390	57,670	63,362	65,159	64,170	52,493	386,758
1930	24,054	-	-	-	-	10,226	41,928	54,519	55,627	57,386	57,013	49,405	350,158
1931	22,584	-	-	-	-	10,226	37,279	55,774	56,428	58,460	57,744	49,729	348,224
1932	22,064	-	-	-	-	10,226	41,928	58,596	64,630	70,157	70,467	59,068	397,136
1933	32,779	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,765
1934	33,266	-	-	-	-	10,226	41,928	58,536	64,726	69,912	69,492	55,672	403,758
1935	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1936	33,266	-	-	-	-	10,226	41,053	57,867	65,148	69,954	69,580	55,691	402,787
1937	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,226	56,232	395,172
1938	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1939	33,266	-	-	-	-	10,226	41,447	50,842	63,566	70,157	70,168	56,086	395,758
1940	24,263	-	-	-	-	10,226	41,870	52,988	64,025	67,572	66,497	53,293	380,734
1941	24,009	-	-	-	-	10,226	37,476	51,548	51,880	53,761	53,497	47,909	330,307
1942	24,238	-	-	-	-	10,226	41,032	56,852	60,927	62,231	61,424	51,358	368,288
1943	23,806	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,792
1944	33,266	-	-	-	-	10,226	40,296	55,668	56,626	58,173	57,510	49,593	361,359
1945	23,961	-	-	-	-	10,226	40,478	57,867	63,921	66,712	65,657	53,125	381,948
1946	23,755	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,741
1947	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1948	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1949	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1950	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1951	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1952	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,259	56,433	404,409
1953	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1954	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1955	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1956	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1957	33,266	-	-	-	-	10,226	41,895	57,867	65,148	70,157	70,467	59,068	408,095
1958	33,312	-	-	-	-	10,226	41,106	59,101	65,148	70,157	70,467	59,068	408,585
1959	32,779	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,765
1960	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1961	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1962	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1963	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,156	70,136	55,982	403,835
1964	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1965	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1966	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1967	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,153	69,942	55,845	403,501
1968	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1969	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1970	33,266	-	-	-	-	10,226	41,053	57,867	65,148	69,904	69,509	55,679	402,653
1971	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1972	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1973	33,266	-	-	-	-	10,226	40,430	57,867	64,526	68,779	68,411	54,362	397,869
1974	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1975	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1976	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1977	33,266	-	-	-	-	10,226	40,574	57,227	60,166	61,421	60,621	51,186	374,688
1978	23,910	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,896
1979	33,266	-	-	-	-	10,226	40,357	57,867	64,197	68,606	67,926	54,056	396,501
1980	24,263	-	-	-	-	10,226	39,716	58,384	62,606	70,157	70,191	56,146	391,688
1981	24,263	-	-	-	-	10,226	40,352	57,867	65,148	69,054	68,749	55,258	390,918
1982	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1983	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1984	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1985	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,235	56,289	404,241
1986	24,263	-	-	-	-	10,226	41,053	57,867	65,148	69,715	69,334	55,645	393,251
1987	24,263	-	-	-	-	10,226	41,598	57,571	64,200	68,546	67,879	54,070	388,353
1988	24,263	-	-	-	-	10,226	41,185	56,950	64,670	68,765	68,524	54,493	389,077
1989	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,213	56,203	395,131
1990	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1991	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1992	33,266	-	-	-	-	10,226	39,260	57,867	63,956	67,062	66,259	53,412	391,308
1993	24,263	-	-	-	-	10,226	39,446	52,082	63,575	65,485	64,677	52,755	372,511
1994	23,677	-	-	-	-	10,226	40,308	52,964	53,417	55,393	55,009	48,547	339,542
1995	20,654	-	-	-	-	10,226	41,780	59,101	63,586	67,889	70,140	55,990	389,366
1996	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1997	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1998	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1999	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2000	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2001	33,266	-	-	-	-	10,226	40,261	57,008	59,371	60,595	60,024	50,810	371,563
2002	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2003	33,266	-	-	-	-	10,226	41,928	55,710	65,148	68,971	68,742	55,265	399,257
2004	24,263	-	-	-	-	10,226	41,049	57,622	65,148	70,157	70,207	56,171	394,842
2005	24,263	-	-	-	-	10,226	40,637	57,131	59,818	61,144	60,325	51,302	364,846
2006	24,247	-	-	-	-	10,226	41,907	59,101	66,255	70,157	70,467	59,068	401,428
2007	32,382	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,368
2008	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,317	56,463	404,498
2009	24,263	-	-	-	-	10,179	40,863	57,599	64,847	69,832	70,140	59,283	397,005
Average	29,259	-	-	-	-	10,226	40,896	57,383	64,038	68,456	68,446	56,742	395,446

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	3,644	-	-	-	-	421	4,199	12,698	16,423	18,126	18,144	14,755	88,408
1927	660	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,630
1928	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1929	3,644	-	-	-	-	421	3,542	13,084	16,423	18,347	18,395	15,552	89,408
1930	798	-	-	-	-	421	4,768	12,866	16,337	17,496	17,477	15,257	85,420
1931	798	-	-	-	-	421	2,849	13,084	16,374	17,703	17,625	15,321	84,176
1932	798	-	-	-	-	421	4,768	12,893	16,040	18,950	19,461	15,860	89,191
1933	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1934	3,644	-	-	-	-	421	4,768	12,863	16,211	18,347	18,395	15,598	90,248
1935	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1936	3,644	-	-	-	-	421	4,371	13,084	16,423	18,347	18,395	15,598	90,284
1937	798	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,609	87,848
1938	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1939	3,644	-	-	-	-	421	4,686	10,784	15,841	18,347	18,395	15,606	87,724
1940	798	-	-	-	-	421	4,761	11,217	16,423	18,347	18,395	15,563	85,925
1941	798	-	-	-	-	421	4,030	12,840	15,917	16,778	16,761	14,931	82,477
1942	798	-	-	-	-	421	4,694	12,979	16,423	18,345	18,345	15,518	87,523
1943	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1944	3,644	-	-	-	-	421	2,454	13,084	16,394	17,641	17,578	15,296	86,512
1945	798	-	-	-	-	421	3,963	13,084	16,423	18,347	18,395	15,560	86,991
1946	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1947	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1948	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1949	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1950	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1951	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1952	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	18,610	15,613	91,515
1953	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1954	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1955	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1956	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1957	3,644	-	-	-	-	421	4,767	13,084	16,425	18,950	19,461	15,860	92,612
1958	3,644	-	-	-	-	421	4,644	13,084	16,425	18,950	19,461	15,860	92,489
1959	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1960	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1961	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1962	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1963	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,604	90,687
1964	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1965	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1966	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1967	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,602	90,686
1968	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1969	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1970	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,598	90,681
1971	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1972	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1973	3,644	-	-	-	-	421	3,994	13,084	16,423	18,347	18,395	15,576	89,884
1974	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1975	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1976	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1977	3,644	-	-	-	-	421	2,993	13,084	16,423	18,217	18,248	15,505	88,534
1978	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1979	3,644	-	-	-	-	421	4,066	13,084	16,423	18,347	18,395	15,572	89,953
1980	798	-	-	-	-	421	4,527	12,841	15,657	18,347	18,395	15,607	86,593
1981	798	-	-	-	-	421	4,327	13,084	16,423	18,347	18,395	15,591	87,386
1982	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1983	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1984	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1985	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,610	90,694
1986	798	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,598	87,834
1987	798	-	-	-	-	421	4,738	12,695	16,423	18,347	18,395	15,572	87,390
1988	798	-	-	-	-	421	4,701	12,776	16,423	18,347	18,395	15,578	87,439
1989	798	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,609	87,845
1990	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1991	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1992	3,644	-	-	-	-	421	3,695	13,084	16,423	18,347	18,395	15,563	89,573
1993	798	-	-	-	-	421	4,321	11,222	16,423	18,347	18,395	15,555	85,482
1994	798	-	-	-	-	421	4,530	12,820	16,109	17,102	17,069	15,077	83,925
1995	798	-	-	-	-	421	4,750	13,084	15,403	17,599	18,395	15,604	86,054
1996	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1997	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1998	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1999	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2000	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2001	3,644	-	-	-	-	421	2,770	13,084	16,423	18,078	18,077	15,472	87,969
2002	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2003	3,644	-	-	-	-	421	4,768	12,380	16,423	18,347	18,395	15,591	89,969
2004	798	-	-	-	-	421	4,616	12,952	16,423	18,347	18,395	15,608	87,560
2005	798	-	-	-	-	421	2,876	13,084	16,423	18,171	18,242	15,514	85,528
2006	798	-	-	-	-	421	4,767	13,084	16,425	18,950	19,461	15,860	89,767
2007	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2008	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,613	92,367
2009	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
Average	2,422	-	-	-	-	421	4,553	12,972	16,378	18,628	18,943	15,706	90,022

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	7,393	-	-	-	-	20	10,529	13,536	14,527	14,065	14,735	13,329	88,134
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1929	7,393	-	-	-	-	20	10,718	13,791	14,527	14,065	14,735	13,329	88,578
1930	5,536	-	-	-	-	20	11,828	13,615	14,230	13,127	14,194	12,849	85,398
1931	5,536	-	-	-	-	20	9,551	13,458	13,121	11,808	13,468	12,611	79,572
1932	5,536	-	-	-	-	20	11,828	15,346	15,854	17,629	17,780	15,757	99,750
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	15,316	14,607	14,065	14,735	13,329	91,292
1935	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1936	7,393	-	-	-	-	20	11,360	14,763	15,209	14,065	14,735	13,329	90,874
1937	5,536	-	-	-	-	20	11,828	15,543	16,253	17,102	17,346	15,376	99,002
1938	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1939	7,393	-	-	-	-	20	11,597	12,901	15,196	17,070	17,346	15,376	96,898
1940	5,536	-	-	-	-	20	11,812	13,421	14,527	14,065	14,735	13,329	87,446
1941	5,536	-	-	-	-	20	10,284	13,197	13,121	11,427	13,468	12,611	79,664
1942	5,536	-	-	-	-	20	11,493	13,520	14,230	13,127	14,194	12,849	84,969
1943	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1944	7,393	-	-	-	-	20	10,537	13,571	14,230	13,127	14,194	12,849	85,920
1945	5,536	-	-	-	-	20	10,737	13,791	14,527	14,065	14,735	13,329	86,741
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1947	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1948	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,441	15,376	101,482
1953	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,822	15,543	16,253	17,629	17,780	15,757	102,196
1958	7,393	-	-	-	-	20	11,469	15,543	16,253	17,629	17,780	15,757	101,843
1959	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1960	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1961	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1962	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1963	7,393	-	-	-	-	20	11,828	15,543	15,747	17,070	17,346	15,376	100,321
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1966	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1967	7,393	-	-	-	-	20	11,828	15,543	16,092	17,070	15,235	13,329	96,509
1968	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1969	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1970	7,393	-	-	-	-	20	11,828	15,543	15,457	14,065	14,735	13,329	92,370
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,724	13,791	14,527	14,065	14,735	13,329	88,585
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,780	13,791	14,527	14,065	14,735	13,329	88,641
1978	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1979	7,393	-	-	-	-	20	10,693	13,791	14,527	14,065	14,735	13,329	88,553
1980	5,536	-	-	-	-	20	11,055	15,294	14,986	17,070	17,346	15,376	96,682
1981	5,536	-	-	-	-	20	11,005	14,708	14,527	14,065	14,735	13,329	87,925
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,828	15,543	16,070	17,070	17,346	15,376	100,645
1986	5,536	-	-	-	-	20	11,828	15,241	14,646	14,065	14,735	13,329	89,400
1987	5,536	-	-	-	-	20	11,678	14,898	14,527	14,065	14,735	13,329	88,788
1988	5,536	-	-	-	-	20	11,525	13,884	14,527	14,065	14,735	13,329	87,621
1989	5,536	-	-	-	-	20	11,828	15,543	15,928	17,070	17,346	15,376	98,645
1990	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1991	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1992	7,393	-	-	-	-	20	10,209	13,791	14,527	14,065	14,735	13,329	88,070
1993	5,536	-	-	-	-	20	10,707	13,246	14,527	14,065	14,735	13,329	86,165
1994	5,536	-	-	-	-	20	11,157	13,541	14,230	13,127	14,194	12,849	84,654
1995	5,536	-	-	-	-	20	11,786	15,543	15,271	16,425	17,346	15,376	97,302
1996	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1997	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1998	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1999	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2000	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2001	7,393	-	-	-	-	20	10,692	13,791	14,527	13,714	14,509	13,329	87,975
2002	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2003	7,393	-	-	-	-	20	11,828	13,991	14,527	14,065	14,735	13,329	89,887
2004	5,536	-	-	-	-	20	11,574	15,343	15,769	17,070	17,346	15,376	98,034
2005	5,536	-	-	-	-	20	10,797	13,791	14,527	14,065	14,735	13,329	86,801
2006	5,536	-	-	-	-	20	11,824	15,543	16,253	17,629	17,780	15,757	100,342
2007	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2008	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,734	15,376	101,775
2009	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
Average	6,597	-	-	-	-	20	11,575	15,042	15,649	16,394	16,739	14,920	96,936

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	77,231	79,476	85,630
1926	80,060	80,323	98,916	119,298	91,257	60,181	17,675	9,144	9,498	24,434	34,344	48,693
1927	52,716	55,101	58,056	72,120	89,488	109,319	78,780	52,842	57,555	74,419	97,808	86,054
1928	87,467	87,847	103,308	118,262	157,253	155,616	106,672	68,237	62,971	73,471	73,970	71,749
1929	67,534	64,218	69,201	56,607	80,163	79,904	47,385	11,222	7,973	5,697	3,724	6,450
1930	8,135	26,570	38,544	68,262	58,377	45,020	11,147	8,375	6,465	9,906	13,584	11,414
1931	18,440	27,936	44,806	62,582	79,634	77,494	54,178	24,922	21,865	17,531	31,334	33,845
1932	46,969	64,342	82,685	86,507	97,826	109,666	79,065	54,283	51,857	55,323	98,029	95,194
1933	90,283	80,134	80,108	82,828	109,748	157,770	150,101	115,830	97,373	103,407	118,796	123,596
1934	118,796	130,697	134,293	156,721	155,936	136,343	83,718	43,148	40,332	58,171	80,475	81,335
1935	105,153	115,213	124,787	124,532	154,039	157,770	123,469	84,569	78,604	76,470	74,650	73,967
1936	80,040	80,280	79,853	95,771	155,159	157,463	113,266	73,922	70,184	66,467	60,775	75,526
1937	74,548	75,935	80,331	80,201	102,958	148,176	116,442	76,595	72,722	72,611	93,390	86,276
1938	94,433	94,326	97,867	123,394	156,205	157,180	112,322	71,766	66,741	63,388	73,861	81,640
1939	80,142	80,036	83,639	106,344	134,857	144,010	98,783	58,569	55,070	55,525	62,190	80,343
1940	79,383	80,267	83,142	95,362	110,200	88,741	46,752	11,824	8,087	8,543	14,424	25,881
1941	25,292	25,064	37,120	49,864	27,874	11,986	9,981	8,475	14,617	27,445	41,735	56,937
1942	57,758	58,990	63,571	78,825	75,846	79,106	56,695	24,538	22,142	14,445	32,558	48,198
1943	56,164	59,205	68,112	89,206	93,478	105,478	80,756	54,812	51,675	49,282	51,276	69,326
1944	68,833	72,436	77,846	76,233	72,998	61,429	14,009	10,965	15,067	12,333	15,688	25,181
1945	52,309	66,636	71,075	78,748	94,485	79,226	57,530	28,786	32,210	36,621	52,653	63,420
1946	72,432	74,572	80,249	85,683	121,960	140,856	111,823	75,370	73,509	80,086	80,350	91,998
1947	87,134	80,338	95,351	130,662	157,521	154,353	106,702	64,682	62,624	80,671	85,407	80,275
1948	84,118	87,577	90,722	102,067	122,602	157,770	129,040	92,395	80,151	79,936	82,428	80,187
1949	79,781	84,334	90,622	106,341	147,482	157,734	137,240	100,823	79,743	81,691	97,547	113,764
1950	118,796	124,046	98,299	94,224	113,704	159,354	151,283	117,634	92,268	83,950	94,411	118,796
1951	118,796	133,981	113,224	117,253	153,576	157,693	119,369	79,398	75,553	80,522	80,260	79,993
1952	79,618	80,024	80,306	102,663	140,343	152,221	113,053	73,134	70,005	66,291	59,520	54,537
1953	88,429	103,913	108,928	120,596	145,031	157,770	136,366	97,579	79,039	80,245	80,830	89,618
1954	99,766	105,042	109,232	105,454	129,364	157,947	151,049	120,706	98,759	80,049	84,510	81,062
1955	85,275	95,235	97,532	102,591	129,111	157,774	151,728	118,659	93,398	91,090	117,326	118,796
1956	118,760	113,915	75,456	81,505	124,215	157,770	146,851	109,184	84,262	80,306	80,136	118,796
1957	118,796	120,397	125,078	127,669	157,113	149,792	100,751	61,018	56,266	53,895	55,929	69,337
1958	76,772	82,328	80,278	84,671	118,916	121,311	77,681	44,711	43,490	58,184	89,947	100,413
1959	117,232	123,698	122,621	124,089	150,434	157,770	129,249	90,893	88,042	91,300	120,401	118,796
1960	118,796	125,382	128,997	132,066	157,481	157,316	114,878	75,872	73,700	80,733	80,368	80,038
1961	80,920	104,658	116,707	116,319	150,325	157,403	120,196	79,626	77,236	80,249	80,240	82,937
1962	93,931	103,810	106,033	138,784	149,280	157,596	120,729	81,679	78,323	80,000	94,038	88,233
1963	99,970	123,337	132,075	145,644	157,406	150,111	99,676	58,902	54,069	54,272	68,620	71,507
1964	80,165	80,108	80,225	79,804	111,651	157,770	147,503	116,532	95,730	80,072	81,854	89,462
1965	111,638	128,575	123,999	128,141	156,788	156,531	117,919	78,312	74,261	75,869	80,122	80,044
1966	80,001	79,243	81,507	94,631	126,492	139,807	104,263	64,097	59,366	62,775	70,954	84,613
1967	88,999	103,605	108,792	105,354	134,677	157,770	124,865	82,955	75,902	88,600	80,137	106,451
1968	118,796	147,477	150,167	148,275	157,608	154,110	107,523	68,975	75,905	80,296	81,343	80,196
1969	94,282	93,923	97,415	116,156	154,168	155,371	109,534	71,084	71,107	75,174	77,127	76,798
1970	80,257	80,065	80,488	75,453	102,130	129,294	90,124	54,952	53,328	54,656	66,308	67,970
1971	84,717	84,694	87,863	97,011	127,387	157,770	156,851	122,540	97,507	80,514	80,236	87,541
1972	103,396	118,890	115,365	94,373	114,343	157,770	149,832	116,841	99,732	79,918	80,413	102,955
1973	116,033	116,728	120,036	123,120	123,094	122,519	78,566	45,611	44,263	47,239	53,544	65,269
1974	91,247	80,126	80,705	80,567	105,392	158,077	157,456	129,619	105,088	79,803	80,062	91,253
1975	115,310	120,668	113,239	105,910	129,612	157,770	137,861	104,203	79,828	81,491	91,419	118,796
1976	118,796	127,376	117,025	114,103	145,766	157,770	143,687	111,940	87,592	79,480	80,156	80,741
1977	95,283	104,079	104,372	108,185	60,762	47,705	12,118	7,358	9,857	12,998	54,933	87,244
1978	80,106	80,184	85,984	81,923	85,430	100,283	73,570	50,606	53,607	51,913	57,614	65,518
1979	64,538	70,204	80,283	85,500	91,895	80,774	66,912	39,287	37,712	38,157	36,593	75,709
1980	80,120	80,909	80,186	95,489	110,340	113,873	76,993	47,759	48,807	45,784	70,121	108,431
1981	90,800	116,216	123,819	138,695	139,683	148,722	100,751	58,376	53,212	60,281	65,034	72,273
1982	83,540	98,410	111,758	113,643	140,572	157,770	131,994	95,998	80,093	80,460	80,053	80,060
1983	104,953	113,830	124,773	124,542	142,716	147,919	116,968	78,364	79,460	77,717	81,337	80,156
1984	118,796	124,907	126,986	125,263	153,586	157,770	132,058	93,782	79,672	80,092	80,029	80,028
1985	78,221	77,416	80,884	110,756	153,439	154,473	108,185	67,981	66,918	83,889	83,531	77,781
1986	80,100	93,909	119,511	134,278	151,659	145,880	97,605	57,030	54,722	54,722	81,985	79,996
1987	78,847	80,151	80,209	106,846	132,634	120,062	75,745	37,896	34,764	30,572	27,470	34,978
1988	35,379	46,319	63,502	89,658	96,229	83,792	63,033	36,587	34,331	47,215	68,120	81,667
1989	81,523	80,034	80,263	110,742	136,274	145,615	99,269	62,084	59,079	56,490	80,142	80,159
1990	88,224	103,292	115,668	140,615	157,376	157,634	119,135	79,078	75,645	84,144	131,906	118,796
1991	118,796	145,179	133,317	143,665	157,547	157,634	123,716	84,896	77,416	73,883	82,165	80,946
1992	98,391	111,220	129,602	149,040	141,128	112,617	62,583	22,493	24,718	19,645	31,968	36,442
1993	45,141	46,832	63,013	83,737	87,485	71,103	33,609	10,657	7,331	6,326	7,980	12,799
1994	25,341	27,051	43,080	73,773	68,051	49,738	11,761	11,465	9,672	17,326	32,448	52,634
1995	60,849	88,705	80,456	80,707	83,505	78,385	61,960	35,496	31,622	52,060	119,202	109,387
1996	112,876	137,850	128,359	144,426	157,475	153,498	114,264	75,218	74,545	82,391	82,654	80,656
1997	97,686	113,728	90,145	94,171	135,529	157,770	141,230	105,502	83,680	87,635	83,133	89,360
1998	97,730	103,200	116,933	128,926	157,101	153,615	105,108	67,001	62,859	61,153	81,476	93,663
1999	99,961	105,304	106,360	103,458	119,413	157,770	151,496	125,313	99,147	80,618	94,333	118,796
2000	118,796	119,439	123,837	134,703	157,275	157,689	120,707	85,710	81,196	80,060	78,699	74,936
2001	74,287	72,767	80,833	83,286	78,179	66,008	26,919	10,449	8,110	19,275	43,369	54,438
2002	73,690	80,316	80,196	91,759	112,566	149,459	115,642	78,645	74,914	70,869	70,805	69,849
2003	88,950	80,637	85,362	94,211	108,276	112,739	74,585	41,119	37,954	52,458	77,949	80,044
2004	84,683	80,172	81,006	105,926	122,320	127,924	80,687	49,803	57,645	63,639	80,404	82,364
2005	93,063	94,146	98,059	104,596	82,443	56,525	15,787	10,725	9,781	14,148	27,988	38,650
2006	58,111	64,656	67,293	84,611	99,427	95,504	70,204	46,467	44,064	36,358	80,230	80,301
2007	80,120	80,283	105,827	128,657	155,656	153,137	105,395	66,356	62,390	68,432	75,542	79,942
2008	79,826	80,154	79,738	76,687	130,658	157,796	129,680	95,178	79,212	78,037	91,146	80,257
2009	113,375	113,806	116,260	124,794	155,975	155,064	108,670	70,115	66,469	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	73,936	78,663	128,112
1926	154,954	172,460	194,725	217,803	185,591	120,647	38,511	-24,629	-71,076	-70,976	-59,520	-41,505
1927	-33,816	-26,820	-20,723	674	57,022	116,572	117,016	80,183	19,888	17,302	74,911	124,269
1928	172,909	177,866	197,886	214,316	238,524	235,776	207,442	160,529	90,804	69,131	73,619	77,091
1929	79,350	81,638	92,457	92,258	128,903	146,566	66,061	-4,733	-55,492	-74,782	-76,966	-73,852
1930	-71,758	-53,237	-35,076	-2,049	5,495	-23,785	-79,867	-140,037	-187,945	-197,637	-191,377	-188,921
1931	-182,315	-170,695	-149,848	-127,956	-85,033	-91,612	-120,118	-152,768	-199,830	-196,708	-185,182	-178,719
1932	-167,807	-143,074	-101,105	-43,721	24,421	69,579	72,768	36,012	-22,245	-43,845	16,076	67,083
1933	115,333	134,789	143,878	171,607	205,102	238,980	233,184	201,196	161,388	187,178	203,025	203,025
1934	203,025	220,437	217,330	238,033	238,030	214,498	172,136	120,842	53,013	62,381	95,516	128,124
1935	176,826	189,919	204,764	208,320	237,044	238,980	217,995	178,964	112,538	83,129	84,892	88,710
1936	98,029	104,686	128,382	175,406	236,591	238,469	201,037	155,299	87,279	80,997	80,047	92,681
1937	96,656	102,939	114,737	148,983	194,294	226,027	208,499	173,487	106,455	100,164	142,257	187,311
1938	199,996	205,014	203,773	207,269	237,556	237,521	199,826	159,340	90,282	60,371	70,470	101,761
1939	145,708	157,408	175,760	204,249	230,387	216,874	175,264	118,702	52,907	52,217	59,926	84,432
1940	91,143	111,074	144,132	185,073	202,916	161,256	87,816	18,097	-29,049	-41,414	-36,454	-24,357
1941	-19,337	-15,950	275	20,057	14,556	-23,198	-82,875	-141,412	-181,812	-180,574	-165,934	-148,175
1942	-143,298	-138,335	-129,972	-98,395	-83,614	-79,463	-102,858	-136,640	-185,215	-198,518	-183,535	-166,407
1943	-154,516	-147,276	-134,609	-81,939	-19,434	32,566	42,973	10,827	-46,592	-71,793	-67,804	-51,239
1944	-47,509	-40,719	-30,629	-11,007	1,598	-24,621	-83,708	-141,875	-185,191	-198,237	-193,188	-182,959
1945	-156,476	-140,688	-131,243	-116,978	-53,052	-32,863	-64,975	-98,883	-144,575	-152,984	-137,827	-125,312
1946	-111,891	-106,091	-94,178	-49,875	41,309	94,357	101,799	81,014	18,334	16,364	29,379	83,673
1947	126,358	161,315	188,754	220,439	238,771	229,558	203,286	171,152	104,812	104,185	155,185	184,039
1948	193,211	202,516	192,614	187,583	207,090	238,980	217,544	185,938	134,699	120,823	139,856	163,811
1949	171,967	182,528	188,344	191,528	232,565	238,872	234,686	207,198	160,691	158,287	203,025	203,025
1950	203,025	208,267	184,104	180,343	198,325	238,980	234,414	201,052	157,280	171,374	203,025	203,025
1951	203,025	216,491	197,882	201,601	235,843	238,852	209,496	173,451	109,164	105,012	129,237	142,335
1952	146,903	157,385	166,653	196,986	230,757	227,142	215,314	178,450	111,207	108,068	106,809	107,427
1953	147,427	181,173	191,774	205,783	230,039	238,980	219,491	183,392	130,846	108,176	130,738	187,226
1954	203,025	213,064	194,197	190,710	213,736	238,980	233,597	203,084	160,725	161,140	189,534	203,025
1955	203,025	216,138	206,073	196,572	213,106	238,980	238,286	206,173	162,379	184,380	203,025	203,025
1956	203,025	197,459	163,019	170,761	207,600	238,980	228,913	188,011	145,233	148,287	173,888	203,025
1957	203,025	209,319	209,985	211,216	238,395	223,346	173,531	135,075	67,798	41,759	46,461	61,677
1958	71,827	96,205	115,988	159,026	208,797	195,911	166,929	114,283	49,793	40,264	94,488	155,150
1959	190,257	200,134	206,482	207,910	233,877	238,980	218,976	179,630	153,945	186,911	202,871	203,025
1960	203,025	212,844	212,442	216,737	238,735	237,791	203,959	162,027	96,273	76,161	119,546	129,809
1961	167,053	198,066	201,096	200,739	232,374	238,147	216,304	175,445	108,930	95,499	113,284	141,644
1962	179,509	195,445	202,775	228,821	236,841	238,596	211,785	185,685	121,964	108,596	147,693	193,058
1963	203,025	226,452	234,759	237,729	238,980	224,265	187,048	145,733	79,111	77,207	88,803	96,768
1964	113,213	121,115	136,548	165,129	202,655	238,980	229,299	195,999	157,197	159,185	175,813	203,025
1965	203,025	222,154	207,828	211,651	238,095	235,908	216,210	181,653	114,851	89,195	99,511	109,447
1966	121,089	124,655	137,164	180,193	211,867	209,895	202,004	172,416	107,927	85,877	94,297	135,575
1967	178,224	195,853	206,268	194,347	222,391	238,980	225,644	175,600	109,528	135,515	176,437	203,025
1968	203,025	229,321	233,656	230,268	238,793	232,769	213,174	171,846	110,959	103,785	143,528	173,664
1969	190,303	194,739	200,738	200,588	235,676	233,432	197,607	154,936	90,967	67,752	71,924	76,179
1970	87,706	98,692	121,249	147,928	190,397	210,957	192,312	143,120	75,393	75,966	87,308	93,665
1971	123,657	171,198	181,773	185,915	211,177	238,980	238,090	199,981	160,616	163,207	195,892	203,025
1972	203,025	197,253	170,868	167,275	198,915	238,980	233,964	211,186	174,499	172,164	186,236	203,025
1973	203,025	207,411	214,413	215,834	211,851	196,630	166,278	108,636	46,757	44,194	52,666	66,228
1974	113,678	145,392	168,966	168,248	190,653	238,980	238,785	206,365	163,138	159,378	169,035	203,025
1975	203,025	212,901	197,896	191,130	213,298	238,980	222,439	190,909	148,815	139,413	191,932	203,025
1976	203,025	216,911	201,391	198,693	229,531	238,980	229,801	209,600	163,891	143,354	153,768	173,040
1977	187,994	198,991	203,251	202,460	152,605	101,506	27,844	-30,814	-74,590	-85,118	-50,607	26,634
1978	46,366	57,881	90,973	137,034	174,992	176,453	156,335	118,014	55,824	26,896	33,138	42,082
1979	46,411	55,388	82,592	111,071	168,084	170,992	130,864	90,289	28,325	17,654	19,281	54,711
1980	61,851	74,350	100,002	152,326	184,378	175,855	156,510	114,896	50,478	49,924	70,553	133,166
1981	172,068	196,183	208,870	228,056	230,533	223,555	189,617	136,109	69,102	75,674	82,804	93,053
1982	116,310	169,992	191,242	198,268	223,679	238,980	219,571	184,865	135,978	122,191	137,360	170,452
1983	198,974	212,059	208,543	208,329	229,774	221,551	222,126	204,006	140,307	115,483	158,203	170,894
1984	203,025	214,423	210,585	208,994	235,322	238,980	221,418	187,311	134,149	114,165	134,956	146,617
1985	149,558	152,253	162,854	200,504	238,438	230,942	178,609	128,615	62,698	80,855	129,163	136,932
1986	144,630	170,531	201,195	219,542	235,147	218,275	172,233	122,284	57,800	57,963	88,626	100,595
1987	106,193	112,702	152,051	196,410	221,808	195,399	152,779	99,314	33,552	10,020	10,597	17,856
1988	21,565	33,879	54,842	106,619	162,632	170,533	118,406	77,883	19,948	22,749	44,980	67,045
1989	105,180	120,319	136,610	187,760	213,938	212,320	181,801	135,630	67,924	66,755	95,905	140,050
1990	178,209	196,896	209,326	224,880	238,638	238,753	211,070	170,897	104,874	112,553	197,992	203,025
1991	203,025	227,068	216,429	226,968	238,795	238,702	217,492	193,673	129,877	100,980	125,745	174,166
1992	192,510	208,725	229,746	238,980	225,220	179,063	117,944	46,842	-2,721	-18,157	-6,083	2,004
1993	12,042	17,566	34,793	65,682	129,666	102,350	33,084	-25,711	-73,883	-90,428	-89,889	-84,852
1994	-70,857	-63,890	-44,971	-12,691	2,849	-30,786	-87,501	-145,202	-192,451	-192,129	-179,138	-158,406
1995	-146,738	-104,056	-59,472	-22,670	38,729	36,932	7,896	-23,599	-75,012	-55,400	30,653	72,862
1996	125,023	181,241	201,713	228,962	238,729	230,824	220,416	187,393	122,315	109,185	147,718	170,833
1997	190,873	199,872	174,275	180,294	218,656	238,980	225,030	188,584	150,130	172,966	203,025	203,025
1998	203,025	212,410	211,655	212,376	238,384	229,758	206,950	166,123	96,996	70,729	93,376	131,863
1999	177,514	189,980	191,546	188,867	203,594	238,980	235,257	211,961	170,090	165,520	203,025	203,025
2000	203,025	207,045	209,071	218,203	238,545	238,736	203,141	153,339	96,940	84,069	88,670	90,876
2001	93,949	96,277	108,869	126,989	161,382	111,241	29,678	-24,590	-70,894	-76,907	-54,480	-40,487
2002	-18,325	-5,968	16,182	71,756	142,052	192,036	187,415	138,672	69,291	40,026	43,117	46,511
2003	68,025	107,637	153,394	184,550	198,175	185,928	157,069	111,837	47,977	55,558	80,387	95,839
2004	111,871	130,969	168,237	199,096	214,754	198,926	164,699	116,531	59,960	65,932	83,798	126,179
2005	167,162	179,612	188,078	193,661	171,366	104,473	25,510	-29,966	-77,846	-88,390	-75,834	-64,103
2006	-41,262	-31,175	-24,479	7,181	77,765	111,862	90,619	59,753	11,386	7,034	56,652	73,864
2007	104,210	130,947	186,050	211,893	237,872	228,584	204,250	161,576	93,193	69,173	77,747	101,615
2008	107,799	117,630	131,560	137,323	206,933	238,791	209,481	163,685	115,246	116,599	162,861	192,047
2009	203,025	207,722	208,913	208,562	237,344	232,713	200,645	165,736	105,132	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	141,192	140,623	186,093
1926	204,782	214,579	261,297	346,434	362,330	270,150	128,179	24,954	16,113	47,477	69,333	104,397
1927	112,898	115,816	120,883	172,828	302,226	436,950	357,305	176,009	167,985	212,095	286,649	310,998
1928	314,194	319,501	349,487	351,642	435,244	431,475	306,675	122,266	100,515	117,716	119,626	118,191
1929	113,469	108,081	120,212	131,966	253,522	325,245	238,804	108,144	77,008	69,860	61,778	57,747
1930	51,026	74,473	106,985	205,529	258,564	252,181	154,910	39,593	18,845	22,049	27,684	25,908
1931	35,091	54,882	87,037	136,707	259,906	250,369	132,543	26,568	15,636	18,435	42,466	46,122
1932	68,297	128,276	211,645	296,369	430,750	436,950	330,428	152,246	133,199	125,671	224,457	275,471
1933	306,010	307,787	309,751	309,751	325,757	436,950	424,814	303,679	298,579	373,132	345,442	379,144
1934	352,913	372,922	382,844	433,526	436,823	375,078	234,175	79,257	63,925	87,948	161,714	189,653
1935	267,934	302,571	325,533	329,530	430,064	436,950	360,293	193,011	177,393	171,350	165,913	160,889
1936	163,017	160,564	175,801	277,375	428,478	435,500	321,634	148,372	128,617	122,266	113,628	121,870
1937	118,366	117,211	127,738	164,505	303,853	436,950	353,559	189,756	169,661	168,357	211,723	244,962
1938	261,769	263,172	273,676	325,853	431,856	436,950	324,940	147,536	119,549	110,486	117,980	142,028
1939	173,282	179,423	201,647	283,578	415,582	406,835	274,981	111,589	89,959	87,381	100,529	141,675
1940	145,702	156,847	191,656	270,865	386,537	360,004	232,568	93,201	60,854	63,537	67,014	85,520
1941	86,739	85,953	123,053	193,712	227,902	193,995	89,618	18,949	27,023	54,099	87,887	129,215
1942	132,829	134,999	144,368	213,334	271,808	292,567	178,099	43,875	22,623	16,021	33,853	59,005
1943	78,551	86,753	106,426	214,021	342,345	436,950	388,113	225,564	203,800	190,281	189,011	214,737
1944	212,660	215,777	230,665	267,608	337,258	332,551	217,570	88,043	75,724	79,960	87,813	106,801
1945	157,881	188,180	199,451	219,519	370,200	394,428	231,611	73,640	58,600	67,193	89,430	102,867
1946	119,513	123,058	134,603	206,173	414,313	436,950	368,736	205,514	185,212	178,717	186,217	242,601
1947	268,690	298,197	342,184	391,207	436,109	425,478	300,378	129,764	115,231	168,243	222,035	244,692
1948	252,949	259,382	266,557	267,924	346,197	436,950	373,883	230,699	211,459	222,407	234,096	247,779
1949	246,703	253,580	266,869	270,759	412,547	436,516	383,115	229,799	215,820	236,487	310,998	310,998
1950	310,998	317,470	304,379	289,626	294,547	436,950	425,175	317,599	302,452	335,303	335,370	335,370
1951	334,373	383,670	336,075	334,045	427,021	436,950	348,341	184,131	164,908	191,691	214,850	225,562
1952	225,347	230,006	235,057	310,769	435,298	425,861	313,801	140,634	121,361	111,090	103,325	98,112
1953	148,183	200,830	215,716	257,394	392,791	436,950	388,203	253,211	234,854	235,339	252,546	300,740
1954	310,998	320,535	318,778	312,088	350,219	436,950	424,488	325,018	318,250	324,728	324,371	323,813
1955	321,638	336,758	337,861	310,297	384,323	394,131	369,173	219,833	206,429	238,400	310,998	310,998
1956	310,998	311,082	263,340	258,442	332,746	436,950	413,756	290,945	276,202	301,034	310,998	318,931
1957	318,490	321,344	334,030	339,666	434,793	408,316	277,217	116,043	95,072	88,813	90,205	103,705
1958	111,249	129,256	152,977	200,796	402,506	424,666	271,196	97,767	84,753	107,970	184,247	262,042
1959	310,998	326,382	338,473	340,121	429,727	436,950	375,145	211,619	230,924	297,812	360,350	348,917
1960	330,095	336,892	344,803	361,003	435,982	436,201	328,785	159,375	140,623	145,285	172,794	177,450
1961	208,159	257,277	294,527	302,995	413,729	436,060	346,757	180,078	166,703	178,455	187,101	204,212
1962	261,662	289,736	296,692	390,018	435,997	436,950	352,903	193,250	172,845	184,936	249,388	285,878
1963	306,850	356,785	380,875	411,323	436,950	408,505	280,664	125,995	107,109	105,216	119,373	128,217
1964	147,887	151,605	158,437	189,722	297,165	436,950	408,553	295,830	284,724	297,320	305,233	310,998
1965	313,589	345,008	352,258	348,373	433,743	431,262	334,498	181,520	163,743	164,563	181,392	188,094
1966	191,703	190,181	200,050	270,284	404,326	425,681	312,846	132,907	110,096	115,913	124,648	176,691
1967	208,087	232,980	242,010	243,264	361,033	373,574	285,900	131,107	115,392	160,492	205,930	271,216
1968	310,998	371,016	409,110	414,202	436,950	423,413	295,201	152,726	150,536	170,402	212,412	234,998
1969	266,080	267,863	277,211	302,470	425,278	425,886	306,717	137,193	119,254	129,489	137,575	139,076
1970	143,875	147,785	162,407	184,286	308,594	357,966	251,550	101,988	89,302	87,959	99,124	104,545
1971	138,301	188,840	200,174	231,946	342,583	436,950	435,851	319,033	306,468	313,376	315,108	315,108
1972	315,108	353,310	313,147	276,728	313,976	436,950	427,121	323,716	321,041	326,406	324,979	323,355
1973	323,355	326,791	332,316	346,996	386,890	342,848	200,174	64,532	54,439	61,926	77,446	97,568
1974	167,150	184,849	200,394	200,394	267,694	436,950	436,950	346,698	340,586	335,429	327,569	326,420
1975	326,420	334,850	328,091	313,677	346,056	436,950	393,920	287,382	273,310	285,104	310,998	349,786
1976	344,319	362,089	341,984	334,027	407,559	436,950	419,283	335,470	326,647	326,514	324,703	323,937
1977	323,063	338,100	341,672	370,152	336,113	274,750	137,245	31,188	24,986	28,885	89,999	208,663
1978	218,700	226,429	272,470	332,479	434,306	436,950	334,737	183,056	182,353	180,660	195,781	200,415
1979	197,707	199,932	235,192	268,267	403,198	373,506	234,812	80,033	67,966	67,212	68,123	146,905
1980	154,577	162,635	187,298	274,643	398,029	421,573	276,460	108,270	93,549	90,864	128,948	252,117
1981	283,412	327,071	349,982	394,356	424,311	364,028	237,776	96,032	85,845	96,946	109,371	116,617
1982	134,233	198,224	231,592	264,866	385,989	436,950	383,930	232,938	221,122	232,281	239,318	268,715
1983	310,998	330,300	350,216	347,969	431,001	436,950	361,840	201,883	194,315	189,892	230,842	237,293
1984	310,998	329,215	343,704	343,704	414,638	436,950	386,910	236,063	223,590	228,932	241,998	246,942
1985	243,443	241,432	248,242	324,574	436,240	421,474	293,717	130,200	115,839	140,885	183,837	180,338
1986	187,539	227,433	292,938	342,488	432,058	400,243	265,363	103,854	87,953	86,484	131,093	139,921
1987	139,639	140,816	182,184	264,594	389,238	340,007	197,298	56,535	39,646	33,181	29,269	36,493
1988	35,230	46,713	79,974	184,580	303,570	331,485	230,401	83,841	70,604	97,722	143,061	176,134
1989	205,295	217,016	229,136	325,415	427,919	410,310	282,660	126,397	104,749	99,993	147,151	198,167
1990	226,192	247,139	273,266	379,509	435,642	436,950	347,805	195,240	177,773	217,367	366,623	340,662
1991	335,319	395,942	377,141	406,084	436,193	436,950	374,084	217,194	198,476	191,261	211,959	246,827
1992	271,744	301,767	357,505	428,783	431,128	336,371	203,101	74,264	54,235	52,211	65,280	70,001
1993	79,376	84,690	110,624	162,605	319,148	320,955	223,411	101,919	70,380	62,821	58,125	57,562
1994	67,078	69,608	104,510	194,450	292,450	273,661	173,260	48,534	26,748	33,658	50,528	83,077
1995	97,551	186,683	229,902	281,196	434,439	436,950	324,616	156,567	139,741	178,244	369,055	344,811
1996	341,405	399,421	370,858	395,668	435,961	432,521	326,264	171,930	157,333	164,616	198,232	216,096
1997	244,766	278,895	289,417	278,732	364,308	436,950	405,549	285,132	285,063	341,235	339,231	329,658
1998	328,006	336,678	347,448	347,448	434,754	424,685	299,121	130,044	105,136	100,297	126,616	164,131
1999	217,996	230,641	242,702	261,445	312,990	436,950	436,146	351,281	338,534	343,016	344,567	341,379
2000	328,513	328,733	334,691	360,932	435,316	436,950	337,594	172,903	159,949	170,123	168,455	162,798
2001	159,408	154,583	168,715	197,704	283,878	254,682	150,620	37,537	17,170	25,562	79,063	100,329
2002	144,186	161,056	180,678	257,510	390,671	436,950	354,097	190,398	170,532	161,962	163,210	163,858
2003	193,803	228,559	276,531	331,924	420,271	413,062	256,491	94,214	80,463	114,666	168,877	190,448
2004	203,013	217,400	261,408	343,109	436,902	395,377	242,673	106,596	115,480	125,949	164,179	215,504
2005	288,346	304,794	320,084	351,854	371,823	286,191	162,687	39,768	18,433	28,490	45,540	68,004
2006	108,441	121,110	127,820	185,368	357,579	436,950	316,630	136,650	113,774	76,932	191,150	206,429
2007	234,218	260,375	351,909	384,520	436,374	418,489	295,289	122,824	98,297	100,886	112,710	149,497
2008	151,912	155,372	165,069	172,147	359,194	436,950	359,735	215,664	197,042	197,572	270,054	285,424
2009	318,358	321,299	326,128	330,377	431,113	425,680	308,100	138,362	118,119	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,971	2,058	7,873
1926	11,265	11,666	15,597	33,968	33,970	32,400	26,075	17,835	7,476	7,295	10,365	15,000
1927	14,993	15,244	14,222	15,701	27,188	33,970	31,457	20,663	16,859	14,978	15,222	15,000
1928	15,126	14,446	15,000	15,000	36,004	33,970	29,848	20,482	17,068	13,479	10,801	6,642
1929	2,062	1,715	2,133	3,517	32,688	33,970	29,783	20,386	14,185	8,179	2,078	2,243
1930	1,465	8,242	8,517	29,484	33,970	33,970	27,815	19,656	11,924	5,390	1,959	1,590
1931	5,268	7,501	9,832	20,304	33,970	33,970	29,848	20,412	13,962	8,297	8,733	6,231
1932	6,018	11,319	15,000	15,000	32,049	33,970	31,457	20,764	17,141	11,088	15,851	14,949
1933	14,981	13,221	11,075	15,000	15,858	34,845	33,963	21,791	18,075	16,128	15,027	30,521
1934	17,174	19,238	18,845	32,908	33,929	33,970	29,848	20,335	15,619	16,548	15,782	15,000
1935	15,267	18,999	15,008	15,000	31,837	33,970	30,632	20,717	17,246	12,696	7,978	3,168
1936	1,882	1,891	2,121	15,000	32,559	33,970	30,234	20,544	17,168	11,998	6,094	3,731
1937	1,654	1,705	2,070	7,108	28,604	34,373	31,667	20,677	15,572	11,016	15,191	15,161
1938	15,085	14,315	12,440	16,779	35,599	33,970	30,234	20,401	14,984	10,357	5,826	6,476
1939	6,676	3,689	4,280	21,401	34,001	33,970	29,463	20,525	15,845	9,165	3,970	13,033
1940	14,423	17,184	21,730	33,491	33,964	33,970	29,848	20,335	13,659	8,737	6,543	9,506
1941	7,131	4,709	6,731	20,096	33,970	33,902	26,614	13,830	5,939	2,612	6,260	15,000
1942	13,821	8,462	5,059	17,955	33,964	33,970	29,848	20,484	15,671	9,441	15,000	15,000
1943	14,959	13,874	14,457	16,269	23,426	34,049	32,892	20,969	16,716	11,153	6,884	10,385
1944	5,357	3,121	3,689	8,966	32,290	33,970	28,005	20,230	13,985	7,759	3,437	2,177
1945	11,413	17,891	14,706	15,105	34,193	33,970	29,698	20,468	15,749	10,026	8,975	9,325
1946	13,417	9,350	7,022	15,000	26,962	33,970	32,892	21,062	15,819	14,723	15,000	15,244
1947	15,000	18,298	15,000	22,334	33,708	33,970	29,848	20,561	16,874	16,119	15,139	15,000
1948	13,614	14,041	14,791	15,000	27,909	33,970	31,667	20,749	17,107	12,965	11,894	11,838
1949	7,014	4,392	8,139	15,000	29,806	33,970	30,632	20,585	16,870	15,000	21,003	15,000
1950	15,000	15,057	15,000	15,000	16,965	36,010	33,970	22,458	18,218	15,656	16,001	17,755
1951	15,338	16,118	14,560	15,028	30,895	33,970	30,835	20,664	16,014	15,178	15,000	14,441
1952	10,297	10,301	7,480	15,953	33,457	33,970	29,848	20,367	15,224	8,833	2,937	1,709
1953	15,153	18,566	13,369	15,000	31,053	33,970	33,257	21,076	16,003	11,435	11,342	15,000
1954	15,000	14,312	14,954	15,000	20,233	33,970	33,970	22,960	18,367	15,103	15,000	14,935
1955	13,043	10,281	6,060	3,205	15,000	33,970	29,848	20,538	17,333	15,740	15,562	15,448
1956	15,000	13,483	11,325	15,224	35,188	35,796	33,963	21,301	17,333	15,015	14,965	15,237
1957	12,360	10,631	13,389	15,066	33,462	33,970	29,848	20,420	15,259	10,645	6,490	5,794
1958	7,526	10,243	11,336	15,000	42,875	33,970	29,848	20,432	15,680	11,997	15,279	16,050
1959	15,444	15,289	14,290	15,809	31,733	33,970	31,457	20,672	17,627	15,671	17,332	15,394
1960	15,000	16,778	15,000	17,161	33,669	33,970	30,234	20,501	15,573	10,972	15,000	14,780
1961	15,000	16,330	15,030	15,030	26,781	33,970	30,234	20,637	16,481	13,536	11,165	15,000
1962	14,977	15,326	13,046	22,047	33,673	33,970	30,632	20,565	16,208	14,271	16,758	15,197
1963	14,396	23,611	23,288	27,379	33,970	33,970	29,848	20,434	15,248	9,917	9,897	11,335
1964	15,000	12,718	8,957	9,448	16,019	33,970	33,708	21,202	17,048	13,580	14,138	15,640
1965	15,427	17,243	14,923	17,336	32,975	33,970	29,848	20,459	16,008	10,898	8,671	6,266
1966	3,086	1,945	2,373	15,661	33,638	33,970	29,848	20,436	15,866	10,551	9,254	15,000
1967	15,000	16,001	14,241	12,978	26,496	35,285	29,848	20,426	15,937	15,509	15,000	15,000
1968	15,107	24,551	24,036	27,540	33,969	33,970	29,848	20,664	17,300	15,206	15,418	14,674
1969	14,565	11,819	9,474	15,000	30,763	33,970	29,848	20,393	16,931	13,556	12,180	7,851
1970	11,029	10,985	12,346	14,724	31,316	33,970	29,848	20,394	15,649	10,233	10,783	14,360
1971	15,000	15,629	14,671	15,000	21,526	33,970	33,970	23,035	18,367	14,999	14,597	12,453
1972	12,217	16,435	16,126	15,201	27,994	34,595	33,970	22,926	18,496	13,663	13,058	16,306
1973	15,020	13,726	11,053	14,089	33,970	33,970	29,848	20,370	15,233	9,858	15,000	15,000
1974	16,852	14,835	15,000	15,000	16,788	45,682	33,970	24,111	18,883	14,169	12,391	15,000
1975	15,000	15,000	14,586	14,091	18,220	33,970	33,079	21,218	17,311	15,000	15,000	15,863
1976	15,488	15,529	13,337	15,000	28,976	33,970	33,831	23,248	18,825	13,655	7,776	3,120
1977	2,475	2,305	1,961	8,979	18,941	28,217	23,280	16,605	7,788	4,143	15,135	15,282
1978	14,107	12,627	15,000	16,450	33,428	33,970	30,632	20,668	17,331	12,998	8,697	3,904
1979	1,826	2,168	7,123	9,779	33,957	33,970	29,848	20,526	15,724	11,400	6,005	15,625
1980	15,032	18,401	14,716	23,379	33,680	33,970	29,848	20,511	16,932	11,879	15,000	32,975
1981	15,255	26,651	27,904	33,899	33,970	33,970	29,848	20,457	16,613	12,664	12,204	14,999
1982	13,330	20,225	15,091	15,000	23,271	35,701	31,877	20,704	17,333	15,097	13,137	15,025
1983	15,056	16,238	15,200	15,000	36,217	33,970	29,848	20,519	17,333	11,951	14,951	14,633
1984	15,243	17,420	15,053	15,048	30,552	33,970	32,086	20,772	15,987	11,931	8,711	3,891
1985	1,824	1,864	2,098	14,939	33,748	33,970	29,848	20,363	16,772	15,000	14,647	9,235
1986	10,532	19,923	18,420	32,068	36,661	33,970	29,848	20,388	16,600	11,848	15,725	14,069
1987	11,640	12,245	15,102	33,011	33,945	33,970	29,848	20,343	14,765	8,561	2,481	2,755
1988	2,506	2,349	5,871	23,041	33,790	33,970	29,848	20,352	15,476	10,944	14,961	15,000
1989	14,812	13,091	13,671	22,747	33,746	33,970	29,848	20,438	15,991	10,131	11,549	14,857
1990	15,115	16,361	15,000	19,623	33,563	33,970	30,632	20,640	16,919	15,401	24,332	15,000
1991	15,000	22,689	14,938	19,904	33,734	33,970	31,457	20,771	15,990	9,900	11,380	13,477
1992	14,092	17,518	27,436	33,965	33,970	31,722	25,264	19,381	12,828	6,273	2,700	1,746
1993	2,871	1,866	7,096	15,048	33,948	33,970	29,848	20,372	14,201	6,065	1,597	1,671
1994	2,232	2,060	6,198	23,702	33,970	33,970	28,761	20,379	14,782	10,842	8,959	15,000
1995	15,303	20,675	15,362	15,065	33,226	33,970	31,041	20,594	16,295	14,934	34,053	15,694
1996	15,428	19,439	15,309	21,904	33,662	33,970	29,848	20,588	16,762	13,061	15,000	15,000
1997	15,149	15,149	16,698	16,005	32,311	33,970	33,423	21,079	17,585	18,893	15,369	15,016
1998	15,000	14,813	15,000	15,386	33,288	33,970	29,848	20,443	15,643	10,875	15,000	16,495
1999	15,000	14,647	14,549	15,000	19,705	33,970	33,970	24,050	19,112	13,980	17,527	15,204
2000	14,457	14,294	13,299	16,511	33,463	33,970	30,431	20,568	17,230	13,165	7,674	2,783
2001	1,794	1,702	3,466	7,781	33,970	33,970	28,022	20,467	14,666	2,365	10,096	12,270
2002	14,997	16,117	14,934	16,098	27,793	33,970	31,041	20,652	15,833	10,702	5,286	2,519
2003	17,523	19,089	15,572	26,169	34,037	33,970	29,848	20,435	15,334	13,484	15,000	13,542
2004	14,015	14,459	16,511	33,238	33,953	33,970	29,848	20,549	17,268	14,456	14,795	15,034
2005	16,276	15,193	14,844	24,181	33,970	33,255	27,716	20,369	15,057	9,926	8,862	15,000
2006	15,451	16,021	13,717	15,066	29,883	33,970	30,632	20,563	16,486	11,864	15,758	15,000
2007	14,837	16,902	18,085	21,011	33,790	33,970	29,848	20,410	15,541	12,841	14,614	15,000
2008	13,669	11,242	8,946	8,564	27,612	34,147	32,086	20,765	16,869	12,357	15,027	14,317
2009	15,000	13,564	11,652	15,000	33,492	33,970	29,848	20,434	16,449	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	26,621	28,544	48,796
1926	59,797	72,475	92,370	127,629	150,963	157,011	147,023	87,025	10,000	23,532	36,913	59,502
1927	71,930	85,405	99,549	124,483	165,184	198,000	191,036	168,582	64,674	77,148	109,007	129,025
1928	129,025	140,735	151,989	149,231	197,064	198,000	180,272	157,561	44,167	26,484	34,877	41,675
1929	46,162	46,666	52,987	62,770	103,360	143,689	157,272	141,877	63,128	60,057	56,931	57,271
1930	58,824	77,146	95,946	135,144	162,099	180,922	172,664	135,312	75,895	73,930	77,600	78,173
1931	83,075	92,298	104,837	133,515	184,437	198,000	173,724	131,332	63,335	57,640	63,927	70,715
1932	80,632	96,365	129,960	138,688	185,597	198,000	191,036	168,712	45,086	24,734	64,888	87,257
1933	103,590	112,084	121,480	113,884	136,509	198,000	197,956	175,166	70,958	58,155	85,194	169,032
1934	137,705	162,810	157,458	196,124	197,929	198,000	178,671	145,839	62,019	52,514	96,209	118,867
1935	129,025	150,213	146,494	139,460	182,853	198,000	189,169	167,837	60,151	21,990	22,579	27,398
1936	32,534	33,828	43,786	82,169	155,678	198,000	184,860	163,949	68,738	50,942	54,105	56,408
1937	58,433	58,518	64,885	85,381	130,679	198,000	191,536	168,924	76,450	56,198	78,653	105,123
1938	129,025	140,397	134,610	137,160	195,209	198,000	184,860	157,496	46,142	22,585	30,527	45,274
1939	56,605	64,203	78,115	110,221	153,907	174,464	178,494	149,534	55,209	37,171	42,672	61,287
1940	72,811	88,264	112,465	143,184	186,794	198,000	181,623	152,112	92,935	89,632	95,075	110,304
1941	118,733	125,147	139,925	165,576	185,252	189,394	154,319	97,148	47,246	51,427	65,314	95,221
1942	105,576	112,720	121,949	148,996	178,635	198,000	176,926	138,882	65,731	61,269	80,316	103,062
1943	119,663	132,298	121,834	127,977	165,719	198,000	194,706	169,360	49,232	24,521	33,961	47,315
1944	53,630	60,749	72,746	87,942	110,144	124,761	121,102	83,632	25,131	28,441	34,166	40,917
1945	60,511	80,126	89,829	102,812	149,421	177,414	178,522	145,701	73,356	72,878	83,559	94,965
1946	110,323	118,790	122,789	114,172	174,964	198,000	193,521	161,662	62,222	28,074	49,969	99,909
1947	117,886	140,537	153,313	166,576	197,538	198,000	183,789	159,020	59,941	64,329	91,733	110,019
1948	126,059	142,161	116,645	102,763	140,519	198,000	191,536	168,760	64,642	47,975	60,941	72,629
1949	80,630	90,455	103,816	106,989	177,394	198,000	189,169	167,284	62,670	32,248	63,411	84,976
1950	100,856	118,824	103,706	92,456	120,016	198,000	198,000	182,674	81,397	77,915	115,674	129,025
1951	129,025	159,719	125,250	126,295	191,576	198,000	189,615	168,435	67,784	59,423	75,011	92,091
1952	102,094	116,409	128,708	156,514	197,094	198,000	183,789	164,512	63,384	45,375	50,477	51,794
1953	84,697	114,127	128,075	134,311	175,744	198,000	195,747	169,329	55,972	23,314	35,210	63,659
1954	81,592	95,468	113,874	109,640	147,071	198,000	198,000	187,228	93,023	65,329	83,604	96,231
1955	107,166	118,109	126,797	123,472	142,602	198,000	187,532	166,060	61,088	56,717	97,159	129,025
1956	129,025	129,078	69,783	65,407	137,620	198,000	197,955	170,499	69,919	39,987	54,218	87,342
1957	98,720	109,661	129,401	144,724	196,817	198,000	180,268	149,174	45,347	25,107	33,658	46,891
1958	60,630	78,634	96,622	123,655	196,532	198,000	178,648	149,143	54,878	36,047	76,210	129,025
1959	129,025	146,661	139,598	138,389	171,080	198,000	191,036	168,043	92,246	108,171	130,316	130,144
1960	130,078	147,867	150,492	162,772	197,469	198,000	185,439	168,035	65,538	31,750	51,512	63,546
1961	86,319	122,780	130,569	127,168	170,414	198,000	188,322	168,095	64,460	34,871	45,904	62,402
1962	91,137	107,636	119,061	163,251	188,485	198,000	189,169	167,511	68,703	58,465	98,826	129,025
1963	129,025	169,775	187,532	197,667	198,000	198,000	180,236	154,471	75,490	62,782	74,316	87,487
1964	104,411	116,117	126,584	119,262	137,145	198,000	197,117	173,312	71,282	53,010	62,701	95,454
1965	126,767	158,952	141,875	145,558	190,770	198,000	187,532	167,666	73,203	43,877	55,858	64,796
1966	71,330	72,628	80,085	110,533	161,007	191,098	183,789	158,760	64,308	28,245	39,351	64,244
1967	83,401	101,773	114,902	125,077	168,724	198,000	184,677	166,057	77,201	83,199	106,442	129,025
1968	129,025	176,546	184,743	196,575	198,000	198,000	184,215	169,296	89,576	71,485	105,740	122,858
1969	129,025	139,941	130,028	125,280	191,607	198,000	183,126	158,441	70,372	50,556	61,395	70,282
1970	88,308	101,563	120,567	138,707	186,538	198,000	180,281	149,828	75,953	66,848	78,989	93,773
1971	117,650	152,486	114,592	100,481	144,163	198,000	198,000	185,625	87,983	47,532	58,022	68,833
1972	84,579	112,962	89,729	70,811	122,636	198,000	198,000	188,785	115,176	88,692	101,649	129,025
1973	129,025	140,325	151,810	166,291	192,211	198,000	178,595	143,704	71,347	54,647	75,117	97,237
1974	129,025	136,875	82,237	67,687	105,311	198,000	198,000	195,155	106,276	65,930	76,806	95,358
1975	129,025	146,987	125,028	111,056	143,940	198,000	195,233	170,643	70,149	40,964	63,384	129,025
1976	129,025	150,533	130,969	124,587	174,306	198,000	197,746	191,476	105,667	73,358	82,336	87,628
1977	93,122	94,652	96,402	109,749	117,411	131,232	119,815	72,493	18,552	24,707	46,557	129,025
1978	129,025	141,379	149,124	155,932	193,660	198,000	189,169	169,177	101,446	76,370	85,704	93,101
1979	95,367	101,453	118,972	133,082	179,311	198,000	178,642	146,547	62,885	38,905	45,121	69,259
1980	82,413	94,407	117,062	163,506	197,489	198,000	180,258	150,870	73,468	58,937	78,848	129,025
1981	129,025	166,141	189,093	197,876	198,000	198,000	180,270	148,237	66,177	71,169	82,599	100,896
1982	119,858	163,482	134,718	123,448	164,107	198,000	192,048	168,369	82,774	55,709	67,402	89,310
1983	123,324	144,958	144,044	139,191	194,741	198,000	187,532	169,707	85,723	53,049	76,662	88,857
1984	129,025	150,975	146,832	141,814	174,206	198,000	192,570	168,891	88,334	67,139	80,052	87,773
1985	90,418	91,373	99,649	129,915	175,523	198,000	179,736	150,518	81,534	73,725	88,552	95,840
1986	106,765	135,381	170,484	196,549	197,964	198,000	180,231	149,393	75,964	63,714	81,978	91,975
1987	100,502	111,609	141,829	175,867	197,958	197,960	178,511	144,629	44,325	32,104	36,692	50,605
1988	56,581	68,312	87,438	128,364	173,926	198,000	178,579	146,477	59,439	44,308	61,608	77,121
1989	89,724	98,905	115,220	160,467	197,605	198,000	179,883	151,288	60,268	51,011	67,477	92,700
1990	123,104	137,994	144,735	163,518	196,516	198,000	189,169	168,579	61,540	41,705	82,469	103,565
1991	125,745	164,506	156,524	166,060	197,237	198,000	191,036	168,778	63,238	24,540	42,270	59,217
1992	73,909	94,282	119,749	151,642	181,029	187,422	178,563	152,064	84,120	88,020	94,217	95,336
1993	96,671	98,352	113,652	136,332	191,543	198,000	180,248	146,747	74,851	75,733	75,020	74,838
1994	81,950	83,174	99,926	130,808	163,694	174,657	167,852	122,442	52,674	44,396	57,892	82,519
1995	100,980	159,270	149,347	146,244	196,624	198,000	187,238	162,120	85,018	100,658	152,884	132,762
1996	131,910	169,738	149,528	168,373	197,457	198,000	187,532	167,596	79,162	53,151	68,238	85,414
1997	126,005	134,699	90,228	85,457	152,910	198,000	196,238	170,156	101,839	131,196	131,432	130,305
1998	129,785	143,876	148,562	146,948	196,796	198,000	183,401	158,932	57,086	33,455	49,495	78,541
1999	109,849	124,348	114,759	102,410	130,116	198,000	198,000	195,063	110,500	92,528	129,025	129,025
2000	129,025	143,764	143,883	155,554	197,104	198,000	187,437	167,955	80,292	54,303	60,069	64,914
2001	65,851	66,075	71,994	84,591	114,445	123,139	118,845	89,284	10,843	13,698	34,503	48,504
2002	79,270	93,721	110,384	130,447	169,146	198,000	190,075	169,423	69,794	31,903	38,157	44,310
2003	71,566	104,606	136,473	167,202	197,913	198,000	178,993	149,833	63,641	53,847	65,392	77,346
2004	89,004	101,039	122,486	156,122	197,973	198,000	180,257	150,645	77,516	71,315	83,992	103,537
2005	129,025	140,918	153,646	173,929	197,848	198,000	178,512	125,683	47,224	50,978	62,018	80,121
2006	114,597	133,072	134,477	128,022	188,301	198,000	181,371	149,853	39,556	22,573	86,941	112,311
2007	129,025	150,297	153,626	167,661	197,683	198,000	180,234	157,643	46,266	24,831	38,590	67,460
2008	78,192	88,052	100,827	115,454	179,129	197,732	192,570	168,482	70,659	52,733	83,288	95,968
2009	129,025	140,996	143,407	139,637	194,802	198,000	183,789	160,129	52,149	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	325,952	329,363	456,504
1926	510,858	551,504	662,904	845,131	824,111	640,389	357,462	114,329	-27,989	31,761	91,435	186,085
1927	218,721	244,745	271,987	385,806	641,108	894,811	775,594	498,278	326,960	395,943	583,596	665,346
1928	718,720	740,395	817,670	848,451	1,064,090	1,054,836	830,909	529,076	315,525	300,281	312,893	315,347
1929	308,576	302,319	336,990	347,117	598,635	729,374	539,305	276,897	106,801	69,011	47,544	49,859
1930	47,691	133,195	214,916	436,369	518,505	488,307	286,669	62,901	-74,816	-86,362	-70,550	-71,836
1931	-40,440	11,922	96,664	225,152	472,914	468,221	270,176	50,465	-85,032	-94,805	-38,722	-21,805
1932	34,109	157,228	338,185	492,842	770,642	848,166	704,754	432,018	225,038	172,970	419,300	539,953
1933	630,196	648,015	666,292	693,070	792,973	1,066,545	1,040,018	817,662	646,373	738,001	767,484	905,319
1934	829,614	906,103	910,769	1,057,312	1,062,647	957,889	698,549	409,421	234,908	277,562	449,697	532,980
1935	694,204	776,915	816,586	816,842	1,035,836	1,065,670	921,558	645,099	445,932	365,634	356,012	354,132
1936	375,502	381,249	429,942	645,722	1,008,465	1,063,403	851,030	562,085	371,987	332,670	314,649	350,216
1937	349,656	356,309	389,760	486,178	760,387	1,043,527	901,704	629,439	440,860	408,346	541,214	638,833
1938	700,308	717,225	722,366	810,455	1,056,425	1,063,622	852,181	556,539	337,697	267,187	298,665	377,180
1939	462,413	484,758	543,442	725,793	968,734	976,154	756,985	458,919	268,991	241,460	269,287	380,770
1940	403,462	453,637	553,125	727,975	920,411	841,972	578,607	295,569	146,486	129,036	146,602	206,853
1941	218,559	224,923	307,104	449,305	489,554	406,079	197,657	-3,011	-86,988	-44,991	35,262	148,198
1942	166,687	176,837	204,976	360,716	476,639	524,180	338,711	91,139	-59,048	-97,342	-21,807	58,857
1943	114,820	144,854	176,219	365,534	605,533	807,043	739,439	481,530	274,831	203,444	213,327	290,523
1944	292,972	311,364	354,317	429,742	554,289	528,090	296,977	60,994	-55,284	-69,744	-52,084	-7,882
1945	125,637	212,145	243,818	299,206	595,246	652,175	432,386	169,711	35,339	33,733	96,790	145,265
1946	203,793	219,679	250,486	371,153	779,508	904,133	808,771	544,623	355,095	317,964	360,915	533,425
1947	615,067	698,686	794,602	931,218	1,063,647	1,041,359	824,002	545,178	359,482	433,547	569,499	634,025
1948	669,951	705,677	681,329	675,338	844,317	1,065,670	943,670	698,540	508,058	484,107	529,215	576,244
1949	586,095	615,289	657,790	690,618	999,793	1,065,092	974,843	725,689	535,795	523,713	695,983	727,763
1950	748,675	783,664	705,488	671,650	743,556	1,069,294	1,042,842	841,415	651,616	684,198	764,481	803,971
1951	800,558	909,980	786,991	794,221	1,038,911	1,065,466	897,657	626,078	433,422	451,826	514,357	554,421
1952	564,258	594,125	618,205	782,885	1,036,949	1,037,194	855,805	577,098	381,182	339,657	323,068	313,579
1953	483,889	618,610	657,861	733,084	974,658	1,065,670	973,064	724,587	516,715	458,508	510,666	656,243
1954	710,380	748,421	751,035	732,892	860,624	1,065,847	1,041,105	858,996	689,124	646,349	697,019	719,066
1955	730,147	776,520	774,323	736,137	884,142	1,022,855	976,568	731,264	540,628	586,327	744,070	777,292
1956	776,808	765,016	582,923	591,339	837,370	1,067,496	1,021,437	779,940	592,950	584,630	634,205	743,331
1957	751,391	771,352	811,883	838,342	1,060,581	1,013,424	761,615	481,731	279,742	220,219	232,744	287,404
1958	328,005	396,666	457,201	583,148	969,625	973,858	724,301	426,336	248,595	254,461	460,172	662,680
1959	762,956	812,163	821,465	826,318	1,016,850	1,065,670	945,863	670,857	582,783	699,864	831,269	816,276
1960	796,994	839,762	851,734	889,740	1,063,335	1,063,278	863,295	585,809	391,707	344,902	439,219	465,624
1961	557,452	699,110	757,929	762,251	993,623	1,063,579	901,813	623,880	433,810	402,610	437,694	506,195
1962	641,217	711,952	737,607	942,920	1,044,276	1,065,112	905,218	648,690	458,045	446,268	606,703	711,392
1963	753,266	899,960	958,529	1,019,742	1,065,306	1,014,851	777,472	505,535	331,027	309,394	361,009	395,314
1964	460,676	481,663	510,751	563,364	764,634	1,065,670	1,016,179	802,875	625,981	603,167	639,738	714,579
1965	770,446	871,931	840,883	851,058	1,052,371	1,055,671	886,008	629,610	442,067	384,402	425,553	448,648
1966	467,208	468,652	501,179	671,301	937,330	1,000,451	832,750	548,617	357,563	303,362	338,505	476,123
1967	573,712	650,212	686,212	681,019	913,322	1,003,609	850,935	576,144	393,961	483,315	583,946	724,717
1968	776,951	948,912	1,001,712	1,016,860	1,065,319	1,042,262	829,962	583,508	444,276	441,174	558,441	626,388
1969	694,255	708,285	714,865	759,495	1,037,492	1,046,660	826,832	542,047	368,631	336,528	360,202	370,186
1970	411,174	439,090	497,056	561,097	818,975	930,187	744,115	470,282	309,624	295,663	342,512	374,313
1971	479,325	612,847	599,072	630,353	846,837	1,065,670	1,062,762	850,213	670,940	619,628	663,855	686,960
1972	718,324	798,850	705,234	624,387	777,865	1,066,295	1,042,886	863,455	728,945	680,844	706,336	774,666
1973	786,458	804,980	829,628	866,330	948,015	893,966	653,461	382,852	232,040	217,864	273,773	341,302
1974	517,952	562,077	547,303	531,896	685,838	1,077,690	1,065,161	901,947	733,971	654,709	665,863	731,056
1975	788,780	830,406	778,840	735,864	851,126	1,065,670	982,532	774,355	589,413	561,971	672,733	816,495
1976	810,653	872,438	804,706	786,409	986,139	1,065,670	1,024,347	871,734	702,622	636,362	648,739	668,466
1977	701,936	738,128	747,659	799,527	685,831	583,411	320,301	96,830	-13,406	-14,385	156,017	466,849
1978	488,304	518,500	613,551	723,817	921,815	945,656	784,444	541,520	410,561	348,836	380,935	405,019
1979	405,849	429,145	524,163	607,699	876,445	857,243	641,078	376,682	212,612	173,329	175,124	362,209
1980	393,992	430,702	499,263	709,342	923,916	943,271	720,069	442,307	283,234	257,388	363,471	655,714
1981	690,559	832,262	899,668	992,881	1,026,496	968,275	738,263	459,211	290,948	316,733	352,012	397,837
1982	467,270	650,332	684,401	715,225	937,618	1,067,401	959,420	702,874	537,300	505,737	537,270	623,563
1983	753,304	817,385	842,776	835,032	1,034,449	1,038,390	918,316	674,479	517,138	448,091	561,995	591,834
1984	777,087	836,940	843,159	834,824	1,008,303	1,065,670	965,041	706,818	541,732	502,259	545,745	565,252
1985	563,464	564,337	593,725	780,689	1,037,389	1,038,859	790,096	497,676	343,762	394,354	499,730	500,125
1986	529,567	647,177	802,549	924,926	1,053,489	996,368	745,281	452,948	293,039	274,732	399,407	426,555
1987	436,820	457,523	571,375	776,729	975,583	887,397	634,182	358,716	167,052	114,438	106,509	142,687
1988	151,261	197,572	291,626	532,261	770,146	817,779	620,268	365,140	199,798	222,938	332,731	416,967
1989	496,534	529,365	574,899	807,131	1,009,482	1,000,215	773,462	495,836	308,011	284,380	402,224	525,933
1990	630,844	701,683	757,995	928,145	1,061,736	1,065,307	897,811	634,434	436,752	471,171	803,321	781,048
1991	797,885	955,385	898,348	962,681	1,063,505	1,065,256	937,786	685,313	484,998	400,564	473,520	574,632
1992	650,647	733,512	864,037	1,002,410	1,012,476	847,195	587,455	315,045	173,179	147,992	188,082	205,530
1993	236,101	249,306	329,178	463,404	761,790	726,377	500,200	253,984	92,880	60,516	52,833	62,017
1994	105,744	118,002	208,743	410,041	561,014	501,240	294,133	57,618	-88,575	-85,906	-29,310	74,825
1995	127,944	351,277	415,595	500,542	786,522	784,237	612,751	351,179	197,664	290,495	705,846	675,517
1996	726,642	907,690	865,767	959,333	1,063,284	1,048,813	878,324	622,725	450,116	422,405	511,841	567,999
1997	674,478	742,343	660,762	654,659	903,713	1,065,670	1,001,470	770,452	638,298	751,925	772,189	767,364
1998	773,545	810,977	839,599	851,085	1,060,324	1,040,029	824,428	542,544	337,720	276,509	365,963	484,693
1999	620,321	664,920	669,915	671,180	785,817	1,065,670	1,054,869	907,669	737,384	695,662	788,476	807,429
2000	793,816	813,275	824,782	885,904	1,061,703	1,065,345	879,310	600,475	435,608	401,721	403,567	396,307
2001	395,289	391,404	433,876	500,350	671,854	589,039	354,084	133,147	-20,105	-16,006	112,552	175,054
2002	293,819	345,242	402,374	567,570	842,229	1,010,414	878,270	597,789	400,364	315,462	320,575	327,048
2003	439,867	540,529	667,334	804,057	958,671	943,699	696,987	417,437	245,369	290,014	407,605	457,219
2004	502,586	544,038	649,647	837,491	1,005,902	954,197	698,165	444,124	327,870	341,291	427,169	542,617
2005	693,871	734,663	774,710	848,222	857,450	678,443	410,212	166,579	12,649	15,152	68,573	137,672
2006	255,338	303,685	318,828	420,248	752,955	876,286	689,457	413,285	225,267	154,761	430,732	487,905
2007	562,409	638,803	815,496	913,743	1,061,375	1,032,180	815,016	528,810	315,687	276,163	319,202	413,514
2008	431,399	452,451	486,140	510,175	903,525	1,065,416	923,551	663,774	479,028	457,298	622,377	668,014
2009	778,783	797,388	806,360	818,370	1,052,726	1,045,427	831,052	554,776	358,319	NA	NA	NA

Appendix C-6
Scenario IP3A (CEPR Only)

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP3A - CEPR (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	3,075	755	1,540	1,559	89.6%	395	105	89.0%	358	89	9	5
Avg. WY 1982 to 2009	2,951	661	1,538	1,513	88.9%	372	102	88.6%	332	85	25	15
1941 (Dry Year)	1,706	241	982	883	23.2%	116	9	23.5%	137	16	0	0
1994 (Dry Year)	1,819	258	1,081	924	30.2%	110	21	30.4%	70	12	0	0
2001 (Dry Year)	1,911	197	1,222	1,041	44.6%	138	51	44.6%	107	44	0	0
2005 (Dry Year)	1,943	176	1,262	1,071	47.6%	165	45	49.7%	148	45	8	8

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,952	231	1,249	1,025	46.0%	111	14	46.0%	110	16	0	0
1927	3,125	687	1,609	1,632	100.0%	439	107	100.0%	464	96	0	0
1928	3,082	752	1,609	1,515	100.0%	329	108	100.0%	304	85	0	0
1929	2,147	220	1,388	1,172	62.5%	165	40	59.8%	131	36	0	0
1930	1,940	273	1,186	983	39.1%	110	9	38.7%	77	6	0	0
1931	1,907	280	1,153	978	38.9%	109	10	38.4%	79	8	0	0
1932	3,101	683	1,609	1,610	100.0%	416	115	100.0%	344	86	0	0
1933	3,870	1,207	1,609	2,023	100.0%	661	159	100.0%	613	136	0	0
1934	2,949	742	1,571	1,385	93.3%	247	65	91.2%	209	61	0	0
1935	3,203	743	1,609	1,648	100.0%	460	134	100.0%	391	107	0	0
1936	3,364	1,003	1,569	1,542	92.9%	386	113	91.2%	354	107	0	0
1937	2,987	540	1,591	1,659	100.0%	464	126	98.9%	428	120	0	0
1938	3,448	1,094	1,609	1,537	100.0%	353	112	100.0%	289	84	0	0
1939	2,547	328	1,549	1,433	98.8%	281	85	96.5%	249	82	0	0
1940	2,288	310	1,445	1,200	71.3%	159	40	68.7%	133	37	0	0
1941	1,706	241	982	883	23.2%	116	9	23.5%	137	16	0	0
1942	2,191	285	1,384	1,130	60.8%	142	24	58.9%	103	19	49	0
1943	3,482	1,000	1,609	1,749	100.0%	484	121	100.0%	411	93	0	0
1944	2,002	199	1,289	1,094	53.1%	147	35	50.1%	131	33	0	0
1945	2,365	292	1,476	1,282	73.1%	217	51	71.0%	185	47	0	0
1946	3,497	982	1,609	1,745	100.0%	511	135	100.0%	432	107	0	0
1947	3,107	733	1,609	1,562	100.0%	375	117	100.0%	355	96	0	0
1948	3,928	1,404	1,609	1,744	100.0%	523	145	100.0%	500	124	0	0
1949	4,053	1,506	1,609	1,761	100.0%	550	164	100.0%	509	144	0	0
1950	4,311	1,647	1,609	2,082	100.0%	666	151	100.0%	656	133	0	0
1951	3,809	1,362	1,609	1,642	100.0%	448	130	100.0%	423	108	0	0
1952	2,930	548	1,609	1,571	100.0%	382	120	100.0%	307	93	0	0
1953	3,149	617	1,609	1,793	100.0%	530	138	100.0%	472	114	0	0
1954	4,046	1,345	1,609	2,114	100.0%	704	156	100.0%	648	131	0	0
1955	3,472	913	1,609	1,844	100.0%	554	163	100.0%	535	149	0	0
1956	4,880	2,276	1,609	1,954	100.0%	607	145	100.0%	551	121	0	0
1957	3,237	943	1,610	1,466	100.0%	296	95	100.0%	235	69	0	0
1958	2,898	620	1,608	1,449	100.0%	281	81	100.0%	270	67	0	0
1959	3,539	942	1,609	1,812	100.0%	597	159	100.0%	621	151	0	0
1960	3,174	768	1,609	1,595	100.0%	407	119	100.0%	342	94	0	0
1961	3,628	1,184	1,609	1,635	100.0%	448	132	100.0%	406	111	0	0
1962	3,031	558	1,609	1,662	100.0%	473	139	100.0%	443	117	0	0
1963	2,737	418	1,587	1,494	97.5%	344	100	95.0%	314	96	0	0
1964	3,432	794	1,609	1,980	100.0%	641	160	100.0%	614	138	0	0
1965	3,423	972	1,609	1,645	100.0%	457	135	100.0%	396	108	0	0
1966	2,834	454	1,609	1,573	100.0%	385	122	100.0%	314	95	0	0
1967	3,144	762	1,585	1,586	96.8%	405	120	92.9%	402	122	0	0
1968	2,872	415	1,609	1,648	100.0%	459	123	100.0%	419	102	0	0
1969	3,617	1,236	1,609	1,571	100.0%	386	118	100.0%	356	95	0	0
1970	2,911	603	1,582	1,475	94.3%	330	94	92.4%	312	93	0	0
1971	3,954	1,267	1,609	2,035	100.0%	686	157	100.0%	618	131	0	0
1972	4,828	2,090	1,609	2,123	100.0%	744	162	100.0%	698	138	0	0
1973	2,310	185	1,502	1,321	77.3%	234	58	75.8%	208	54	0	0
1974	4,653	1,907	1,609	2,225	100.0%	749	156	100.0%	680	130	0	0
1975	3,900	1,299	1,609	1,944	100.0%	604	146	100.0%	545	123	0	0
1976	3,858	1,145	1,609	2,022	100.0%	717	149	100.0%	655	121	0	0
1977	1,939	183	1,252	1,063	47.1%	141	20	47.2%	121	21	0	0
1978	3,127	630	1,609	1,708	100.0%	496	124	100.0%	439	97	0	0
1979	2,442	261	1,527	1,365	81.6%	258	72	80.0%	212	60	0	0
1980	2,799	543	1,578	1,437	99.1%	289	78	96.7%	267	77	0	0
1981	2,558	296	1,554	1,437	88.0%	307	89	86.5%	327	93	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP3A - CEPR (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,510	963	1,609	1,783	100.0%	552	146	100.0%	501	123	89	89
1983	3,436	907	1,609	1,741	100.0%	531	147	100.0%	469	121	0	0
1984	3,314	760	1,609	1,795	100.0%	556	145	100.0%	508	118	0	0
1985	2,874	533	1,590	1,522	100.0%	362	99	99.2%	340	98	0	0
1986	2,655	379	1,571	1,444	92.1%	309	86	91.1%	288	86	0	0
1987	2,420	381	1,501	1,246	76.1%	172	50	74.5%	127	38	97	97
1988	2,451	347	1,511	1,288	78.2%	202	44	77.1%	176	37	298	0
1989	2,823	521	1,609	1,470	100.0%	302	95	100.0%	241	69	0	0
1990	3,170	727	1,609	1,633	100.0%	451	125	100.0%	417	106	0	0
1991	3,060	568	1,609	1,691	100.0%	500	139	100.0%	425	110	216	216
1992	2,232	249	1,442	1,211	69.3%	183	38	68.6%	156	35	0	0
1993	2,200	282	1,404	1,160	65.1%	140	33	62.6%	109	29	0	0
1994	1,819	258	1,081	924	30.2%	110	21	30.4%	70	12	0	0
1995	2,977	603	1,609	1,566	100.0%	379	104	100.0%	386	89	0	0
1996	3,252	807	1,609	1,642	100.0%	465	134	100.0%	407	108	0	0
1997	4,607	1,955	1,609	1,929	100.0%	653	150	100.0%	695	142	0	0
1998	3,193	852	1,609	1,528	100.0%	352	114	100.0%	295	87	0	0
1999	4,060	1,326	1,609	2,126	100.0%	752	158	100.0%	708	132	0	0
2000	3,335	891	1,609	1,632	100.0%	450	126	100.0%	409	103	0	0
2001	1,911	197	1,222	1,041	44.6%	138	51	44.6%	107	44	0	0
2002	3,344	877	1,609	1,660	100.0%	470	136	100.0%	401	107	0	0
2003	2,680	417	1,573	1,428	92.3%	301	88	91.9%	278	85	0	0
2004	2,638	332	1,591	1,513	100.0%	352	94	98.8%	336	93	0	0
2005	1,943	176	1,262	1,071	47.6%	165	45	49.7%	148	45	8	8
2006	3,198	848	1,609	1,538	100.0%	352	104	100.0%	278	76	0	0
2007	3,042	717	1,609	1,516	100.0%	332	111	100.0%	278	86	0	0
2008	3,207	734	1,609	1,722	100.0%	474	135	100.0%	411	111	0	0
2009	3,269	908	1,570	1,549	93.9%	399	125	92.0%	NA	NA	0	0
Average	3,075	755	1,540	1,559	89.6%	395	105	89.0%	358	89	9	5

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP3A - CEPR (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	35.1%	61.6%	92.8%	90.3%	18.4%
	0 -10% Above Target[1]	44.0%	25.7%	3.3%	0.1%	60.9%
	0-10% Below Target	1.0%	0.1%	2.1%	0.3%	1.5%
	> 10% Below Target	19.9%	12.6%	1.8%	9.3%	19.2%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	57.6%	76.8%	73.1%	7.0%
	0 -10% Above Target	8.0%	3.2%	3.8%	73.7%
	0-10% Below Target	7.3%	2.3%	3.8%	3.4%
	> 10% Below Target	27.1%	17.7%	19.3%	15.9%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			0.0%	
	0 -10% Above Target			3.1%	
	0-10% Below Target			3.7%	
	> 10% Below Target			93.2%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				16.4%	
	0 -10% Above Target				28.8%	
	0-10% Below Target				38.7%	
	> 10% Below Target				16.1%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				100.0%	
	0 -10% Above Target				0.0%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	13.3%	31.8%		6.0%
	0 -10% Above Target	1.1%	2.8%		1.6%
	0-10% Below Target	7.4%	3.1%		21.2%
	> 10% Below Target	78.2%	62.3%		71.2%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			45.6%	20.3%	17.8%
	0 -10% Above Target			22.7%	6.2%	1.9%
	0-10% Below Target			9.8%	7.1%	3.8%
	> 10% Below Target			21.9%	66.4%	76.5%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.8%	94.2%	89.7%
	0 -10% Above Target			0.1%	2.5%	3.7%
	0-10% Below Target			0.1%	1.7%	2.9%
	> 10% Below Target			0.0%	1.6%	3.7%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			59.1%	
	0 -10% Above Target			4.0%	
	0-10% Below Target			3.7%	
	> 10% Below Target			33.2%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.9%	94.2%	89.5%
	0 -10% Above Target			0.9%	1.9%	4.0%
	0-10% Below Target			0.2%	1.6%	2.3%
	> 10% Below Target			0.0%	2.3%	4.2%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP3A - CEPR (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	16.4%	40.0%	96.3%		17.7%
	0 -10% Above Target	61.1%	41.1%	2.9%		62.5%
	0-10% Below Target	0.0%	0.3%	0.0%		0.4%
	> 10% Below Target	22.5%	18.6%	0.8%		19.4%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	16.0%			
	0 -10% Above Target	1.0%			
	0-10% Below Target	1.2%			
	> 10% Below Target	81.8%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	70.9%			
	0 -10% Above Target	3.8%			
	0-10% Below Target	4.1%			
	> 10% Below Target	21.2%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP3A

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	33.5	2.0	0.9	0.9	0.8	0.9	3.4	26.1	26.3	56.4	60.6	47.1	259.1
1927	4.8	0.9	0.9	0.9	0.8	0.9	0.9	4.7	6.0	14.3	17.3	70.4	123.0
1928	22.1	0.9	0.9	0.9	0.9	5.9	21.4	30.1	22.5	29.8	35.1	72.5	242.9
1929	29.5	2.0	2.3	2.3	1.5	1.1	13.7	10.8	12.1	30.1	52.7	51.9	210.1
1930	7.1	3.6	3.2	1.1	0.8	0.9	1.7	14.9	13.5	24.3	52.0	39.7	162.8
1931	4.4	1.9	2.7	2.0	0.8	0.9	3.3	7.5	12.4	22.1	48.3	42.7	149.0
1932	5.5	1.4	1.0	0.9	1.0	0.9	0.9	4.4	2.3	19.3	26.0	71.3	134.9
1933	31.2	0.9	0.9	0.9	0.8	3.8	23.6	25.8	26.2	33.1	20.6	70.3	238.1
1934	26.7	0.9	59.4	35.2	1.8	49.6	26.9	24.5	26.5	42.5	47.4	68.6	410.1
1935	6.2	0.9	0.9	0.9	0.8	0.9	0.9	11.2	33.9	29.8	19.4	71.7	177.7
1936	31.1	1.9	2.4	0.9	0.9	1.2	2.3	11.8	38.0	36.0	32.3	70.5	229.3
1937	8.4	2.8	1.7	1.4	0.9	0.9	2.0	7.9	8.5	30.3	28.3	69.9	163.1
1938	6.6	1.0	0.9	0.9	0.8	0.9	20.8	16.1	25.9	32.8	29.1	69.1	204.9
1939	30.3	0.9	0.9	0.9	0.8	0.9	1.3	6.5	14.0	40.5	41.6	67.4	206.2
1940	4.9	1.8	0.9	1.4	0.9	0.9	2.4	12.8	21.0	38.7	63.9	49.0	198.6
1941	6.0	2.1	1.0	1.4	1.0	0.9	3.7	14.6	11.1	20.9	46.5	33.7	142.8
1942	2.1	1.0	0.9	0.9	0.8	1.0	3.6	18.3	8.8	12.5	33.5	52.5	135.9
1943	7.0	1.1	0.9	0.9	0.8	0.9	1.1	7.0	5.6	12.0	15.4	69.6	122.2
1944	29.7	1.5	1.2	1.2	0.9	1.3	7.0	19.3	15.1	27.6	52.3	48.8	205.8
1945	5.2	1.9	1.3	0.9	0.8	1.0	4.5	8.7	11.6	23.5	30.1	65.7	155.3
1946	5.6	0.9	1.2	0.9	0.8	0.9	0.9	1.2	10.9	32.7	23.2	68.2	147.4
1947	30.3	1.5	0.9	0.9	0.8	3.8	22.0	26.2	22.8	29.6	28.8	68.6	236.2
1948	27.5	0.9	0.9	0.9	0.9	0.9	10.2	40.5	30.1	30.9	18.2	66.0	227.9
1949	26.4	1.2	0.9	0.9	0.8	0.9	18.9	32.6	36.2	20.2	11.6	67.0	217.9
1950	26.9	0.9	0.9	13.3	4.6	44.0	22.2	30.1	26.8	33.5	23.8	68.4	295.5
1951	26.3	0.9	0.9	13.7	18.5	29.2	28.0	20.2	28.9	29.8	23.0	65.9	285.4
1952	27.1	1.0	1.3	1.3	0.9	0.9	1.0	6.9	12.2	22.9	36.0	69.9	181.3
1953	29.6	2.9	3.0	1.1	0.8	0.9	4.7	6.3	11.6	32.9	23.3	69.2	186.5
1954	27.0	1.7	0.9	0.9	0.8	1.5	26.7	31.9	25.7	38.9	23.0	69.5	248.7
1955	28.0	1.1	1.0	0.9	0.8	0.9	3.3	19.4	34.7	30.7	15.2	68.6	204.7
1956	22.4	0.9	18.2	10.1	12.7	44.0	27.6	39.6	21.0	32.6	24.7	67.7	321.6
1957	27.4	1.0	0.9	0.9	0.8	6.2	26.2	27.2	27.6	39.5	33.2	67.4	258.4
1958	28.3	2.0	1.0	0.9	0.8	0.9	1.4	7.5	11.8	27.9	37.8	67.9	188.2
1959	22.7	0.9	0.9	0.9	0.8	0.9	27.7	14.7	34.5	29.5	19.3	67.1	220.0
1960	20.4	17.1	29.9	8.4	1.1	15.7	25.9	15.7	31.2	33.2	29.2	67.7	295.3
1961	28.7	1.0	1.4	1.0	0.8	0.9	26.3	18.7	36.1	26.5	24.2	68.5	234.1
1962	26.4	1.5	1.1	0.9	0.8	0.9	1.4	18.9	24.1	30.8	17.6	66.5	190.9
1963	27.3	1.2	0.9	0.9	0.8	0.9	2.0	21.7	20.7	35.0	32.6	68.4	212.6
1964	5.4	1.4	1.4	0.9	0.9	0.9	3.6	8.1	27.1	40.4	19.8	66.7	176.7
1965	29.0	1.2	0.9	0.9	0.8	22.0	31.8	11.8	30.7	25.7	21.7	68.4	244.9
1966	29.7	2.1	2.1	1.5	1.5	0.9	2.3	8.8	10.9	18.8	24.7	65.0	168.3
1967	28.1	1.5	0.9	0.9	0.8	0.9	8.1	9.4	20.9	19.0	43.0	68.1	201.7
1968	2.2	0.9	0.9	18.5	6.4	17.6	17.5	18.9	23.3	24.2	34.7	67.8	232.8
1969	26.3	0.9	0.9	0.9	1.1	0.9	5.5	27.1	36.4	35.2	27.2	66.9	229.3
1970	28.3	2.2	2.2	1.4	0.8	0.9	7.1	6.8	5.1	22.4	41.0	69.7	187.9
1971	3.6	2.0	2.2	1.0	0.8	0.9	2.2	40.9	21.1	32.9	25.8	65.3	198.5
1972	28.1	0.9	0.9	0.9	14.4	72.3	25.0	40.5	19.7	33.2	20.2	65.1	321.3
1973	27.4	1.0	0.9	0.9	0.8	2.4	13.0	28.1	19.3	32.7	55.6	63.1	245.2
1974	7.4	1.8	1.0	0.9	0.8	0.9	0.9	23.8	32.5	37.3	26.2	70.1	203.7
1975	28.9	1.5	1.0	0.9	0.8	9.6	20.0	30.7	28.7	37.3	22.7	66.8	248.8
1976	26.5	0.9	18.4	28.8	1.5	24.8	24.7	22.2	24.8	29.0	23.1	70.2	295.1
1977	29.8	1.6	1.3	0.9	0.8	3.6	10.0	38.6	19.2	50.5	53.2	41.0	250.5
1978	2.1	0.9	0.9	0.9	0.8	0.9	1.3	7.2	6.7	21.7	21.0	65.8	130.3
1979	29.9	2.8	1.8	1.8	1.4	0.9	4.6	8.8	14.8	30.0	39.4	66.3	202.4
1980	13.7	2.3	1.0	0.9	0.9	0.9	0.9	9.1	12.1	18.2	41.0	65.7	166.7
1981	4.6	1.2	0.9	0.9	0.8	0.9	3.7	13.8	11.7	34.5	57.2	70.9	201.2
1982	2.8	1.4	1.0	1.1	0.8	0.9	4.5	23.2	31.6	30.7	17.7	69.7	185.6
1983	27.3	1.0	0.9	0.9	0.8	7.6	22.5	16.2	19.5	20.9	16.9	68.8	203.4
1984	27.9	0.9	0.9	0.9	0.9	13.6	19.0	8.7	37.8	31.1	20.5	69.0	231.2
1985	29.9	1.0	1.5	2.0	2.1	0.9	3.0	4.3	27.1	42.5	36.8	69.7	220.6
1986	2.6	0.9	1.4	1.3	1.1	0.9	2.7	12.3	28.0	45.5	44.6	66.9	208.2
1987	4.0	1.1	0.9	1.6	1.0	0.9	0.9	7.0	24.5	44.5	54.7	68.2	209.5
1988	13.7	2.7	2.0	2.1	1.0	0.9	1.2	7.2	12.7	28.3	34.5	64.9	171.1
1989	9.5	0.9	0.9	0.9	0.8	0.9	1.1	5.4	7.4	26.6	35.5	70.1	160.0
1990	29.6	1.0	0.9	0.9	0.8	0.9	1.5	17.0	35.3	32.7	28.8	69.7	219.4
1991	26.8	0.9	7.4	21.0	8.1	25.0	19.1	21.4	23.1	29.5	18.4	69.3	269.9
1992	31.5	1.2	0.9	0.9	0.9	0.9	1.4	20.4	32.4	53.9	68.9	54.9	268.3
1993	5.6	0.9	0.9	1.0	0.8	0.9	1.4	6.9	14.7	31.3	57.1	49.4	171.0
1994	5.9	3.1	1.4	0.9	0.8	1.0	2.0	10.9	12.5	21.2	45.4	45.9	151.1
1995	10.7	0.9	0.9	0.9	0.8	0.9	1.8	4.9	7.6	14.8	19.0	71.8	134.9
1996	26.7	0.9	0.9	31.8	22.5	30.4	20.4	23.7	25.6	26.2	28.6	68.0	305.8
1997	28.2	0.9	0.9	0.9	0.8	46.3	31.9	36.9	31.1	35.3	22.7	70.8	306.9
1998	20.1	0.9	0.9	0.9	0.8	8.7	23.1	17.3	22.7	29.1	28.9	71.3	224.8
1999	31.7	1.3	1.0	0.9	0.8	0.9	18.9	31.6	22.3	34.4	22.1	70.9	236.9
2000	31.5	0.9	0.9	2.5	2.1	7.7	26.2	20.1	32.7	33.8	27.2	69.9	255.6
2001	29.4	1.6	2.3	2.1	1.8	1.3	7.2	10.6	17.7	31.0	52.4	49.6	206.9
2002	9.8	1.2	0.9	0.9	0.8	0.9	0.9	1.4	27.4	32.2	18.9	71.3	166.6
2003	31.5	2.6	2.6	1.9	0.8	0.9	2.3	12.1	13.3	36.6	41.8	70.5	217.1
2004	7.6	0.9	0.9	1.4	0.9	0.9	3.0	13.8	15.8	37.2	40.6	69.9	192.8
2005	5.8	0.9	0.9	1.0	0.8	1.8	7.7	23.3	21.4	36.7	52.2	50.2	202.7
2006	4.0	0.9	1.6	0.9	0.8	0.9	1.1	6.3	9.2	22.6	22.8	67.6	138.7
2007	32.0	0.9	1.2	0.9	0.8	0.9	6.7	27.8	28.1	30.8	30.7	70.1	230.8
2008	32.9	1.4	1.7	1.6	0.9	1.2	8.1	3.7	9.1	37.4	25.4	68.6	192.0
2009	31.1	0.9	1.0	0.9	0.8	0.9	9.0	22.8	30.6	31.5	27.4	67.0	224.1
Average	19.8	1.6	2.8	3.2	1.9	6.6	10.1	17.1	21.1	30.8	32.6	64.9	212.3

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A - CEPR (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A - CEPR (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A - CEPR (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A - CEPR (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A - CEPR (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	16,553	-	-	-	-	-	9,245	37,964	39,032	44,231	42,370	13,613	203,010
1927	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1928	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1929	16,553	-	-	-	-	-	9,166	39,746	40,743	53,433	53,163	16,285	229,089
1930	23	-	-	-	-	-	9,311	34,410	34,014	37,886	36,633	12,189	164,467
1931	23	-	-	-	-	-	8,019	34,189	33,871	37,958	36,369	12,116	162,546
1932	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1933	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1934	16,553	-	-	-	-	-	9,311	39,841	40,559	53,621	56,367	40,066	256,318
1935	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1936	16,553	-	-	-	-	-	7,998	39,743	40,743	53,630	56,367	40,040	255,076
1937	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,851	40,664	239,807
1938	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1939	16,553	-	-	-	-	-	9,328	36,739	40,765	53,483	56,036	40,586	253,489
1940	23	-	-	-	-	-	9,311	38,655	40,743	49,733	52,866	17,023	208,353
1941	23	-	-	-	-	-	7,810	22,337	21,593	23,374	23,913	8,731	107,782
1942	23	-	-	-	-	-	9,317	39,584	40,787	53,184	52,229	16,069	211,194
1943	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1944	16,553	-	-	-	-	-	9,346	40,246	40,968	48,374	44,985	13,655	214,129
1945	23	-	-	-	-	-	7,389	39,966	40,743	50,605	47,734	32,562	219,023
1946	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1947	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1948	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1949	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1950	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1951	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1952	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1953	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1954	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1955	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1956	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1957	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1958	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1959	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1960	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1961	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1962	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1963	16,553	-	-	-	-	-	9,311	39,743	40,743	53,489	56,107	40,458	256,403
1964	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1965	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1966	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1967	16,553	-	-	-	-	-	9,311	39,743	40,743	53,544	56,275	40,257	256,426
1968	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1969	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1970	16,553	-	-	-	-	-	9,311	39,743	40,743	53,570	56,303	40,210	256,433
1971	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1972	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1973	16,553	-	-	-	-	-	7,153	39,893	40,743	52,305	50,595	34,459	241,702
1974	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1975	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1976	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1977	16,553	-	-	-	-	-	8,163	38,897	39,652	45,636	43,152	13,825	205,878
1978	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1979	16,553	-	-	-	-	-	7,642	39,758	40,743	53,595	53,114	36,096	247,501
1980	23	-	-	-	-	-	9,311	39,679	39,889	53,478	55,997	40,602	238,979
1981	23	-	-	-	-	-	8,031	39,743	40,743	53,877	56,397	38,644	237,459
1982	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1983	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1984	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1985	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,860	40,674	256,355
1986	23	-	-	-	-	-	9,311	39,743	40,743	53,664	56,403	40,006	239,894
1987	23	-	-	-	-	-	9,311	39,135	40,743	51,894	49,873	33,995	224,973
1988	23	-	-	-	-	-	9,311	39,399	40,743	52,529	50,990	34,900	227,895
1989	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1990	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1991	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1992	16,553	-	-	-	-	-	6,832	40,103	40,743	53,704	54,154	16,954	229,042
1993	23	-	-	-	-	-	9,323	38,847	40,743	53,665	54,469	16,847	213,918
1994	23	-	-	-	-	-	9,309	28,378	27,094	29,779	29,937	10,391	134,911
1995	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1996	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1997	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1998	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1999	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2000	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2001	16,553	-	-	-	-	-	7,912	37,250	38,109	43,299	41,175	13,304	197,602
2002	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2003	16,553	-	-	-	-	-	9,311	39,743	40,743	53,653	56,377	40,139	256,520
2004	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,841	40,662	239,795
2005	23	-	-	-	-	-	8,248	39,192	39,801	46,193	44,286	14,295	192,039
2006	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2007	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2008	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2009	16,553	-	-	-	-	-	9,203	39,284	40,273	52,976	55,764	39,912	253,966
Average	10,256	-	-	-	-	-	9,103	39,141	40,100	51,879	53,460	35,607	239,546

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A - CEPR (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	18,681	-	-	-	-	8,883	29,970	28,036	32,907	33,625	32,870	21,149	206,122
1927	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1928	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1929	18,681	-	-	-	-	8,883	25,109	36,475	45,001	44,181	42,404	27,381	248,115
1930	986	-	-	-	-	8,883	30,437	25,299	28,026	28,246	27,862	17,829	167,569
1931	986	-	-	-	-	8,883	21,569	23,485	27,890	28,292	27,629	17,663	156,398
1932	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1933	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1934	18,681	-	-	-	-	8,883	30,437	42,162	47,217	54,304	53,686	35,739	291,109
1935	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1936	18,681	-	-	-	-	8,883	30,574	42,047	47,350	54,315	53,691	35,734	291,277
1937	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,615	273,036
1938	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1939	18,681	-	-	-	-	8,883	30,554	39,733	47,491	54,222	53,517	35,676	288,758
1940	986	-	-	-	-	8,883	30,445	41,681	48,353	50,363	48,493	31,336	260,541
1941	986	-	-	-	-	8,883	28,741	15,066	16,717	16,387	17,191	10,925	114,896
1942	986	-	-	-	-	8,883	30,556	35,499	42,772	42,980	41,482	26,989	230,147
1943	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1944	18,681	-	-	-	-	8,883	20,811	29,418	36,437	37,366	35,747	23,000	210,343
1945	986	-	-	-	-	8,883	30,394	41,852	48,121	51,711	49,783	32,027	263,758
1946	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1947	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1948	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1949	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1950	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1951	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1952	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1953	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1954	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1955	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1956	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1957	18,681	-	-	-	-	8,883	30,443	42,030	47,350	54,222	53,512	35,446	290,567
1958	18,681	-	-	-	-	8,883	30,636	42,030	47,350	54,222	53,512	35,446	290,761
1959	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1960	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1961	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1962	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1963	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,532	35,729	290,864
1964	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1965	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1966	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1967	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,226	53,570	35,756	290,933
1968	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1969	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1970	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,249	53,586	35,760	290,976
1971	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1972	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1973	18,681	-	-	-	-	8,883	29,406	42,242	47,659	54,511	53,002	33,553	287,938
1974	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1975	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1976	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1977	18,681	-	-	-	-	8,883	19,147	27,171	33,691	34,843	33,556	21,647	197,621
1978	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1979	18,681	-	-	-	-	8,883	30,645	42,512	47,367	55,506	54,740	34,556	292,892
1980	986	-	-	-	-	8,883	30,437	42,043	46,532	54,222	53,515	35,669	272,287
1981	986	-	-	-	-	8,883	30,422	42,089	47,350	54,750	54,200	35,458	274,139
1982	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1983	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1984	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1985	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,606	290,722
1986	986	-	-	-	-	8,883	30,437	42,030	47,350	54,354	53,744	35,728	273,513
1987	986	-	-	-	-	8,883	30,525	41,467	47,774	53,756	52,256	33,226	268,874
1988	986	-	-	-	-	8,883	30,595	42,070	47,535	54,820	53,586	33,895	272,372
1989	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1990	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1991	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1992	18,681	-	-	-	-	8,883	27,716	40,311	48,477	49,125	47,985	31,193	272,372
1993	986	-	-	-	-	8,883	30,957	37,913	46,381	45,958	44,153	28,688	243,919
1994	986	-	-	-	-	8,883	30,624	20,390	21,646	21,551	22,153	14,064	140,299
1995	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1996	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1997	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1998	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1999	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2000	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2001	18,681	-	-	-	-	8,883	18,960	25,851	31,915	32,849	31,827	20,442	189,409
2002	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2003	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,341	53,684	35,747	291,155
2004	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,615	273,036
2005	986	-	-	-	-	8,883	19,389	27,415	33,944	35,318	34,571	22,751	183,258
2006	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2007	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2008	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2009	18,681	-	-	-	-	8,758	30,006	41,434	46,680	53,498	52,863	36,292	288,212
Average	11,940	-	-	-	-	8,882	29,695	39,922	45,344	51,144	50,364	33,216	270,507

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A - CEPR (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	25,229	-	-	-	-	6,232	45,733	74,396	72,414	79,012	74,256	50,155	427,427
1927	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1928	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1929	25,229	-	-	-	-	6,232	46,754	88,185	84,371	90,886	83,841	53,182	478,680
1930	21,815	-	-	-	-	6,232	51,572	72,125	67,586	72,961	69,222	48,541	410,054
1931	21,815	-	-	-	-	6,232	40,271	71,449	67,452	73,014	68,989	48,460	397,681
1932	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1933	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1934	25,229	-	-	-	-	6,232	51,572	99,848	104,957	113,528	104,966	60,091	566,424
1935	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1936	25,229	-	-	-	-	6,232	50,597	101,401	106,584	113,517	104,936	60,064	568,560
1937	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,703	61,756	574,022
1938	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1939	25,229	-	-	-	-	6,232	50,532	83,732	107,507	113,698	107,158	61,243	555,332
1940	21,815	-	-	-	-	6,232	51,512	87,059	90,548	97,838	89,960	55,179	500,143
1941	21,815	-	-	-	-	6,232	42,588	59,282	56,402	59,627	58,488	45,186	349,619
1942	21,815	-	-	-	-	6,232	50,418	85,827	82,173	89,534	82,907	52,992	471,899
1943	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1944	25,229	-	-	-	-	6,232	45,173	79,080	75,913	83,221	77,149	51,054	443,051
1945	21,815	-	-	-	-	6,232	48,906	96,871	91,892	99,395	91,259	55,609	511,979
1946	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1947	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1948	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1949	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1950	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1951	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1952	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1953	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1954	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1955	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1956	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1957	25,229	-	-	-	-	6,232	51,542	101,401	109,844	113,698	108,774	74,355	591,076
1958	25,229	-	-	-	-	6,232	50,276	101,401	109,844	113,698	108,774	74,355	589,811
1959	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1960	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1961	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1962	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1963	25,229	-	-	-	-	6,232	51,572	101,401	108,951	113,698	106,927	60,917	574,927
1964	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1965	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1966	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1967	25,229	-	-	-	-	6,232	51,572	101,401	109,541	113,635	105,902	60,429	573,942
1968	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1969	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1970	25,229	-	-	-	-	6,232	51,572	101,401	108,741	113,604	105,613	60,326	572,720
1971	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1972	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1973	25,229	-	-	-	-	6,232	48,457	97,740	94,695	102,894	94,582	56,673	526,502
1974	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1975	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1976	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1977	25,229	-	-	-	-	6,232	44,820	76,187	73,189	80,385	74,943	50,396	431,381
1978	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1979	25,229	-	-	-	-	6,232	49,112	99,798	97,675	106,297	97,512	57,590	539,445
1980	21,815	-	-	-	-	6,232	51,572	99,859	105,521	113,698	107,281	61,299	567,278
1981	21,815	-	-	-	-	6,232	49,687	101,371	102,774	111,428	102,056	59,019	554,382
1982	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1983	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1984	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1985	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,703	61,844	577,524
1986	21,815	-	-	-	-	6,232	51,572	101,401	105,553	113,464	104,636	60,030	564,703
1987	21,815	-	-	-	-	6,232	51,075	96,077	93,965	101,889	93,743	56,413	521,209
1988	21,815	-	-	-	-	6,232	50,568	96,046	95,531	103,510	95,292	56,963	525,957
1989	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1990	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1991	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1992	25,229	-	-	-	-	6,232	46,164	93,323	89,142	96,445	89,443	55,103	501,081
1993	21,815	-	-	-	-	6,232	45,388	85,974	85,840	92,885	85,596	53,818	477,548
1994	21,815	-	-	-	-	6,232	48,411	66,100	61,276	65,429	63,480	46,712	379,456
1995	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1996	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1997	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1998	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1999	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2000	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2001	25,229	-	-	-	-	6,232	44,201	74,488	71,433	78,140	73,208	49,809	422,739
2002	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2003	25,229	-	-	-	-	6,232	51,572	101,401	106,252	113,492	104,971	60,215	569,365
2004	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,722	61,759	574,044
2005	21,815	-	-	-	-	6,232	44,968	76,502	73,439	80,919	75,949	50,931	430,756
2006	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2007	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2008	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2009	25,229	-	-	-	-	6,232	51,572	101,401	106,626	113,587	105,394	60,243	570,284
Average	23,929	-	-	-	-	6,232	50,512	96,986	102,733	107,635	102,027	67,097	557,150

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A - CEPR (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	33,266	-	-	-	-	10,226	38,343	55,211	59,102	61,115	60,354	50,828	368,446
1927	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1928	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1929	33,266	-	-	-	-	10,226	40,386	57,726	63,499	65,365	64,322	52,534	387,324
1930	24,263	-	-	-	-	10,226	41,928	55,219	57,058	58,841	58,271	49,915	355,721
1931	24,263	-	-	-	-	10,226	37,298	56,024	57,000	58,871	58,174	49,870	351,726
1932	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1933	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1934	33,266	-	-	-	-	10,226	41,928	58,536	64,727	70,121	69,813	55,799	404,415
1935	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1936	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,106	69,802	55,788	403,256
1937	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,255	56,403	395,372
1938	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1939	33,266	-	-	-	-	10,226	41,447	50,848	64,535	70,157	70,213	56,206	396,897
1940	24,263	-	-	-	-	10,226	41,870	52,988	64,075	67,872	66,855	53,622	381,771
1941	24,263	-	-	-	-	10,226	37,088	52,223	52,323	53,824	53,853	48,019	331,819
1942	24,263	-	-	-	-	10,226	41,031	57,053	63,164	64,856	63,936	52,430	376,960
1943	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1944	33,266	-	-	-	-	10,226	40,409	57,253	60,786	62,481	61,552	51,336	377,310
1945	24,263	-	-	-	-	10,226	40,478	57,867	64,147	68,273	67,392	53,847	386,493
1946	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1947	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1948	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1949	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1950	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1951	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1952	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1953	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1954	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1955	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1956	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1957	33,266	-	-	-	-	10,226	41,556	57,867	65,148	70,157	70,467	59,068	407,756
1958	33,294	-	-	-	-	10,226	41,104	58,396	65,148	70,157	70,467	59,068	407,860
1959	32,779	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,765
1960	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1961	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1962	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1963	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,173	56,089	403,980
1964	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1965	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1966	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1967	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,155	70,072	55,916	403,704
1968	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1969	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1970	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,155	70,001	55,880	403,596
1971	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1972	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1973	33,266	-	-	-	-	10,226	40,430	57,867	64,559	68,774	68,448	54,393	397,964
1974	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1975	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1976	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1977	33,266	-	-	-	-	10,226	40,566	56,957	59,573	61,488	60,639	50,964	373,680
1978	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1979	33,266	-	-	-	-	10,226	40,335	57,867	65,071	68,723	68,637	54,816	398,942
1980	24,263	-	-	-	-	10,226	41,053	58,007	63,277	70,157	70,222	56,227	393,433
1981	24,263	-	-	-	-	10,226	40,352	57,867	65,148	69,236	68,924	55,418	391,434
1982	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1983	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1984	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1985	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,258	56,438	404,414
1986	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,038	69,703	55,774	394,073
1987	24,263	-	-	-	-	10,226	41,598	57,100	64,389	68,771	68,258	54,266	388,872
1988	24,263	-	-	-	-	10,226	41,185	56,950	64,756	68,756	68,558	54,533	389,228
1989	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1990	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1991	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1992	33,266	-	-	-	-	10,226	39,260	57,867	63,994	67,452	66,642	53,581	392,287
1993	24,263	-	-	-	-	10,226	38,934	55,246	63,813	66,116	65,049	52,880	376,527
1994	24,263	-	-	-	-	10,226	40,077	54,058	54,387	56,037	55,894	48,882	343,825
1995	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1996	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1997	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1998	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1999	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2000	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2001	33,266	-	-	-	-	10,226	40,260	56,684	58,734	60,748	59,920	50,632	370,470
2002	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2003	33,266	-	-	-	-	10,226	41,928	57,974	65,148	70,067	69,805	55,839	404,254
2004	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,256	56,403	395,374
2005	24,263	-	-	-	-	10,226	40,638	57,001	59,677	61,664	61,058	51,267	365,795
2006	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2007	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2008	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2009	33,266	-	-	-	-	10,179	40,863	57,599	64,847	69,828	69,640	55,751	401,972
Average	29,831	-	-	-	-	10,226	40,861	57,437	64,185	68,675	68,699	56,965	396,878

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A - CEPR (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	3,644	-	-	-	-	421	4,196	12,696	16,423	18,181	18,141	15,474	89,176
1927	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1928	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1929	3,644	-	-	-	-	421	3,486	13,084	16,423	18,347	18,395	15,552	89,353
1930	798	-	-	-	-	421	4,768	12,850	16,396	17,770	17,731	15,355	86,089
1931	798	-	-	-	-	421	2,903	13,084	16,395	17,777	17,712	15,347	84,437
1932	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1933	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1934	3,644	-	-	-	-	421	4,768	12,863	16,212	18,347	18,395	15,600	90,250
1935	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1936	3,644	-	-	-	-	421	4,386	13,084	16,423	18,347	18,395	15,600	90,300
1937	798	-	-	-	-	421	4,768	13,084	16,425	18,950	18,421	15,612	88,480
1938	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1939	3,644	-	-	-	-	421	4,686	10,785	16,137	18,347	18,395	15,608	88,024
1940	798	-	-	-	-	421	4,761	11,217	16,423	18,347	18,395	15,566	85,928
1941	798	-	-	-	-	421	3,976	12,930	15,974	16,790	16,833	14,956	82,678
1942	798	-	-	-	-	421	4,694	12,978	16,423	18,347	18,395	15,551	87,607
1943	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1944	3,644	-	-	-	-	421	3,007	13,084	16,423	18,347	18,365	15,516	88,807
1945	798	-	-	-	-	421	4,134	13,084	16,423	18,347	18,395	15,569	87,172
1946	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1947	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1948	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1949	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1950	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1951	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1952	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1953	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1954	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1955	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1956	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1957	3,644	-	-	-	-	421	4,767	13,084	16,425	18,950	19,461	15,860	92,612
1958	3,644	-	-	-	-	421	4,643	13,084	16,425	18,950	19,461	15,860	92,488
1959	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1960	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1961	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1962	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1963	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,606	90,689
1964	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1965	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1966	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1967	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,603	90,687
1968	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1969	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1970	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,602	90,685
1971	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1972	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1973	3,644	-	-	-	-	421	4,000	13,084	16,423	18,347	18,395	15,577	89,890
1974	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1975	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1976	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1977	3,644	-	-	-	-	421	2,857	13,084	16,423	18,227	18,196	15,486	88,338
1978	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1979	3,644	-	-	-	-	421	4,218	13,084	16,423	18,347	18,395	15,583	90,115
1980	798	-	-	-	-	421	4,768	12,865	15,851	18,347	18,395	15,609	87,054
1981	798	-	-	-	-	421	4,331	13,084	16,423	18,347	18,395	15,593	87,393
1982	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1983	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1984	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1985	3,644	-	-	-	-	421	4,768	13,084	16,425	18,427	18,395	15,613	90,776
1986	798	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,600	87,837
1987	798	-	-	-	-	421	4,738	12,554	16,423	18,347	18,395	15,575	87,251
1988	798	-	-	-	-	421	4,701	12,776	16,423	18,347	18,395	15,579	87,440
1989	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1990	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1991	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1992	3,644	-	-	-	-	421	3,714	13,084	16,423	18,347	18,395	15,566	89,594
1993	798	-	-	-	-	421	4,244	12,402	16,423	18,347	18,395	15,557	86,586
1994	798	-	-	-	-	421	4,493	12,923	16,224	17,229	17,249	15,147	84,483
1995	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1996	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1997	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1998	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1999	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2000	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2001	3,644	-	-	-	-	421	2,757	13,084	16,421	18,103	18,057	15,455	87,942
2002	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2003	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,602	90,684
2004	798	-	-	-	-	421	4,768	13,084	16,425	18,935	18,478	15,612	88,522
2005	798	-	-	-	-	421	2,883	13,084	16,423	18,257	18,274	15,511	85,651
2006	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2007	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2008	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2009	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,602	90,684
Average	2,560	-	-	-	-	421	4,565	12,999	16,404	18,676	18,984	15,729	90,336

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A - CEPR (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	7,393	-	-	-	-	20	10,526	13,324	14,230	13,127	14,194	12,849	85,662
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1929	7,393	-	-	-	-	20	10,718	13,656	14,230	13,127	14,194	12,849	86,186
1930	5,536	-	-	-	-	20	11,828	13,422	13,121	11,427	13,468	12,611	81,432
1931	5,536	-	-	-	-	20	9,552	13,399	13,121	11,427	13,468	12,611	79,133
1932	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	15,316	15,575	14,771	14,735	13,329	92,966
1935	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1936	7,393	-	-	-	-	20	11,409	14,763	15,572	14,065	14,735	13,329	91,287
1937	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,362	15,376	99,546
1938	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1939	7,393	-	-	-	-	20	11,597	12,903	15,635	17,070	17,346	15,376	97,339
1940	5,536	-	-	-	-	20	11,812	13,421	14,527	14,065	14,735	13,329	87,446
1941	5,536	-	-	-	-	20	10,169	12,413	11,508	10,903	12,167	11,798	74,514
1942	5,536	-	-	-	-	20	11,493	13,520	14,230	13,127	14,194	12,849	84,968
1943	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1944	7,393	-	-	-	-	20	10,539	13,571	14,230	13,127	14,194	12,849	85,922
1945	5,536	-	-	-	-	20	10,737	13,791	14,527	14,065	14,735	13,329	86,741
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1947	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1948	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1953	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,821	15,543	16,253	17,629	17,780	15,757	102,195
1958	7,393	-	-	-	-	20	11,468	15,543	16,253	17,629	17,780	15,757	101,842
1959	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1960	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1961	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1962	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1963	7,393	-	-	-	-	20	11,828	15,543	15,850	17,070	17,346	15,376	100,425
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1966	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1967	7,393	-	-	-	-	20	11,828	15,543	16,134	17,070	17,346	14,712	100,044
1968	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1969	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1970	7,393	-	-	-	-	20	11,828	15,543	15,949	17,070	16,527	13,329	97,658
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,724	13,791	14,527	14,065	14,735	13,329	88,585
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,570	13,571	14,230	13,127	14,194	12,849	85,953
1978	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1979	7,393	-	-	-	-	20	10,686	13,791	14,527	14,065	14,735	13,329	88,547
1980	5,536	-	-	-	-	20	11,828	15,319	15,433	17,070	17,346	15,376	97,928
1981	5,536	-	-	-	-	20	11,037	14,755	14,527	14,065	14,735	13,329	88,004
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,828	15,543	16,253	17,185	17,346	15,376	100,942
1986	5,536	-	-	-	-	20	11,828	15,543	14,876	14,065	14,735	13,329	89,932
1987	5,536	-	-	-	-	20	11,678	14,808	14,527	14,065	14,735	13,329	88,698
1988	5,536	-	-	-	-	20	11,525	13,884	14,527	14,065	14,735	13,329	87,621
1989	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1990	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1991	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1992	7,393	-	-	-	-	20	10,209	13,791	14,527	14,065	14,735	13,329	88,070
1993	5,536	-	-	-	-	20	10,520	13,392	14,462	13,240	14,194	12,849	84,213
1994	5,536	-	-	-	-	20	11,051	12,985	12,155	11,120	12,579	12,125	77,571
1995	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1996	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1997	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1998	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1999	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2000	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2001	7,393	-	-	-	-	20	10,504	13,571	13,272	12,605	14,194	12,696	84,255
2002	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2003	7,393	-	-	-	-	20	11,828	15,319	15,045	14,065	14,735	13,329	91,733
2004	5,536	-	-	-	-	20	11,828	15,543	16,253	17,598	17,395	15,376	99,548
2005	5,536	-	-	-	-	20	10,588	13,571	14,230	13,127	14,194	12,849	84,114
2006	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2007	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2008	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2009	7,393	-	-	-	-	20	11,828	15,241	15,174	17,070	15,142	13,329	95,196
Average	6,685	-	-	-	-	20	11,576	15,033	15,621	16,344	16,690	14,869	96,838

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3A (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	60,787	63,245	92,052
1926	100,763	107,688	126,281	144,924	118,132	77,218	33,043	10,426	10,962	26,776	36,694	51,043
1927	55,066	57,451	60,406	74,688	107,147	140,530	108,299	62,751	67,267	84,131	118,796	118,796
1928	118,796	119,176	130,324	130,706	157,253	153,981	104,854	57,803	52,355	62,881	63,528	61,488
1929	57,442	54,185	59,236	52,504	84,327	91,541	39,316	9,753	7,417	5,155	3,366	6,332
1930	8,220	27,688	40,891	71,971	74,287	56,383	12,332	8,936	7,033	10,469	14,302	12,487
1931	18,856	28,352	45,223	63,033	91,211	74,299	24,710	9,614	7,429	11,919	25,862	28,386
1932	41,512	58,912	86,198	113,727	148,371	157,681	114,709	66,463	63,859	65,932	118,796	118,796
1933	118,796	120,983	113,530	109,215	123,083	157,770	148,970	101,939	105,994	136,623	118,796	120,627
1934	118,796	130,697	134,293	156,721	155,936	131,047	79,995	33,244	30,299	48,137	75,772	91,050
1935	118,796	128,468	127,008	124,532	153,996	157,770	121,234	73,202	70,079	67,962	66,282	65,807
1936	72,268	73,313	81,822	108,639	155,159	157,282	104,204	58,202	54,686	51,006	45,630	60,515
1937	59,637	61,042	66,875	81,966	113,056	149,440	115,242	66,194	62,206	62,103	96,793	114,273
1938	118,796	118,689	119,606	123,394	156,205	156,367	104,369	59,644	54,691	51,032	61,507	81,992
1939	102,554	105,902	113,927	136,359	157,322	138,870	82,894	40,251	36,923	37,385	44,211	66,630
1940	67,388	76,956	93,647	118,898	130,437	94,610	40,810	11,108	8,367	8,800	14,754	27,629
1941	28,741	29,959	43,244	57,896	54,923	36,756	11,336	9,519	15,692	29,359	43,672	58,874
1942	59,694	60,927	65,502	87,081	84,886	79,691	41,215	11,470	9,895	8,537	26,707	42,346
1943	50,312	53,354	62,261	96,104	123,854	150,089	127,027	77,794	74,288	70,786	72,898	90,985
1944	90,538	94,143	99,416	105,291	108,380	85,726	30,904	11,381	15,523	16,034	19,424	29,034
1945	56,161	70,488	74,916	81,444	121,689	110,529	54,542	13,200	17,351	26,977	43,027	53,878
1946	62,890	65,030	72,129	93,909	150,775	157,770	129,260	77,988	75,814	84,036	88,701	118,796
1947	118,796	130,947	131,160	143,604	157,521	149,067	106,192	60,883	58,762	81,960	110,375	118,796
1948	118,796	122,255	107,517	102,067	122,602	157,770	124,203	78,782	78,533	84,089	93,461	101,828
1949	103,840	108,393	102,892	106,341	147,482	157,672	134,673	84,226	82,000	95,499	118,796	118,796
1950	118,796	124,046	98,299	94,224	113,704	157,770	150,514	105,494	102,759	119,014	118,796	118,796
1951	118,796	133,981	113,224	117,253	153,576	157,650	113,960	69,716	65,707	79,636	89,890	93,827
1952	93,370	97,309	100,091	124,444	157,270	150,271	112,552	65,809	61,694	54,226	47,481	42,512
1953	82,165	104,789	109,804	119,020	142,694	153,122	130,472	80,401	76,045	77,271	89,426	118,796
1954	118,796	124,072	109,232	105,454	129,364	157,770	149,685	107,266	107,889	111,517	118,796	118,796
1955	118,796	128,757	122,095	111,481	128,985	157,770	151,409	90,715	86,659	108,946	118,796	118,796
1956	118,760	113,915	75,456	82,984	124,215	157,770	144,516	92,202	89,969	103,545	116,495	118,796
1957	118,796	120,397	125,078	127,669	157,113	142,342	89,577	48,789	44,077	41,666	43,853	57,270
1958	64,705	78,192	84,415	106,576	143,511	126,463	74,967	33,695	31,679	45,093	89,154	118,796
1959	118,796	124,038	122,621	124,089	149,323	157,770	125,500	75,939	95,707	123,559	125,926	118,796
1960	118,796	125,382	128,997	132,066	157,481	156,687	107,116	63,573	61,496	68,532	90,317	93,417
1961	111,809	135,229	116,707	116,319	150,325	156,992	119,035	70,855	68,136	75,116	83,297	98,236
1962	118,796	128,590	130,421	145,103	150,915	157,418	115,718	72,950	70,041	76,743	103,196	118,796
1963	118,796	142,106	149,892	156,028	157,770	142,990	89,753	50,922	46,187	46,396	60,805	63,753
1964	73,528	75,085	79,920	90,120	122,134	157,770	144,649	100,403	102,234	109,080	117,787	118,796
1965	118,796	133,204	123,999	128,141	156,788	154,884	116,039	71,068	66,684	68,297	75,108	78,928
1966	82,869	82,126	87,931	114,887	143,410	140,027	107,605	63,163	58,184	61,594	69,808	97,585
1967	118,796	133,096	125,845	108,820	137,052	157,770	122,177	65,292	58,160	78,761	94,026	118,796
1968	118,796	147,477	150,167	148,275	157,608	151,055	106,391	62,926	69,941	81,441	101,534	112,407
1969	118,796	118,248	116,318	116,156	154,168	152,554	101,234	60,832	60,506	64,599	66,759	66,638
1970	72,853	76,409	86,651	92,740	125,641	138,691	93,544	47,098	45,615	46,949	58,713	60,524
1971	82,324	104,515	106,135	100,261	127,387	157,770	156,619	110,144	107,855	114,451	118,796	118,796
1972	118,796	128,092	124,567	103,845	114,343	157,770	148,935	107,893	113,429	114,066	118,796	118,796
1973	118,796	119,491	122,607	124,219	121,612	109,932	67,985	28,528	27,089	30,089	36,494	48,228
1974	86,109	93,571	82,883	80,833	105,392	157,770	157,482	117,260	114,997	112,544	116,106	118,796
1975	118,796	124,086	113,239	105,910	129,612	157,770	133,656	88,437	86,130	94,979	118,796	118,796
1976	118,796	127,376	117,025	114,103	145,766	157,770	142,218	103,724	102,129	101,114	106,203	115,039
1977	118,796	127,592	127,565	133,160	94,355	70,847	29,410	9,112	11,631	15,145	57,080	110,496
1978	114,359	119,034	128,847	135,323	150,788	146,354	105,373	65,308	68,263	66,594	72,463	80,442
1979	79,538	85,257	102,952	116,819	144,541	121,284	68,974	28,277	26,101	25,237	22,317	60,176
1980	63,356	68,005	77,442	109,665	127,800	113,097	82,449	38,471	39,483	36,489	60,863	110,598
1981	117,561	142,975	150,578	157,712	147,611	141,871	87,549	43,139	38,027	45,117	49,951	57,199
1982	74,058	108,353	119,340	113,643	140,572	157,770	127,245	80,060	80,950	86,580	94,189	111,355
1983	118,796	127,673	124,773	124,542	142,716	136,754	115,945	72,976	73,951	72,218	96,718	100,178
1984	118,796	124,907	126,986	125,263	153,586	157,770	128,561	78,683	76,810	80,468	90,612	94,385
1985	92,356	91,384	96,236	129,039	157,561	150,668	91,194	49,897	48,915	69,852	93,297	91,495
1986	94,553	113,555	139,951	152,128	157,762	137,882	89,605	42,146	39,830	39,872	71,604	74,313
1987	73,524	75,244	94,001	129,654	147,870	111,089	55,617	17,896	15,637	12,471	10,385	18,280
1988	18,824	29,776	46,958	85,831	116,454	100,959	45,060	11,334	9,911	22,795	43,701	61,281
1989	79,542	84,385	91,119	133,327	152,376	142,051	89,626	50,098	47,045	43,149	73,589	95,032
1990	117,517	132,585	125,622	140,378	157,376	157,557	113,815	64,263	60,744	81,639	130,219	118,796
1991	118,796	145,179	133,317	143,665	157,547	157,513	120,226	75,366	71,220	67,695	85,380	108,756
1992	118,796	130,298	148,679	157,770	144,002	110,508	66,927	23,305	27,552	28,306	41,851	47,555
1993	57,666	60,468	77,879	104,659	132,157	102,264	37,548	10,530	7,893	6,888	8,429	14,602
1994	28,406	31,434	48,752	80,862	89,485	70,547	27,582	11,856	10,117	17,866	32,988	53,174
1995	61,389	96,385	112,386	128,154	153,449	135,472	97,552	53,893	49,963	70,401	129,947	118,796
1996	118,673	140,534	128,726	144,426	157,475	148,479	113,799	69,655	68,684	81,071	100,132	107,755
1997	118,796	121,124	96,923	94,171	135,529	157,770	137,807	88,234	89,079	112,091	118,796	118,796
1998	118,796	124,266	128,145	128,926	157,101	148,675	105,695	60,166	55,829	54,131	77,664	103,444
1999	118,796	124,139	106,360	103,458	119,413	157,770	151,091	115,277	111,548	113,399	118,796	118,796
2000	118,796	119,439	123,837	134,703	157,275	157,551	111,152	66,557	66,990	73,045	72,772	69,175
2001	68,676	67,238	76,189	88,647	111,915	86,613	38,090	10,817	8,523	19,739	44,234	55,303
2002	74,556	82,561	91,443	119,600	151,606	157,770	123,777	74,689	70,546	66,514	66,815	66,225
2003	86,867	100,770	123,927	141,958	148,538	133,908	80,822	40,258	36,154	49,407	73,707	78,955
2004	86,852	91,202	107,150	132,527	143,784	129,806	77,957	37,945	45,971	51,965	69,310	90,711
2005	115,265	119,521	123,014	131,565	114,927	76,716	30,638	11,165	10,264	15,061	28,911	39,720
2006	59,181	65,726	68,363	91,982	132,284	137,741	94,072	52,397	49,240	43,566	90,581	95,201
2007	107,406	118,182	131,459	142,621	157,603	147,768	103,005	58,555	54,390	58,005	65,185	77,139
2008	77,304	80,043	84,238	79,437	140,838	157,770	120,512	72,592	69,855	66,473	97,832	105,134
2009	118,796	119,227	121,681	124,794	155,975	151,643	102,434	62,755	58,795	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3A (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	96,325	100,838	127,634
1926	140,195	151,040	173,304	199,108	191,276	173,112	117,530	57,474	14,267	23,666	35,114	53,129
1927	60,818	67,814	73,911	95,383	136,473	182,470	182,434	168,707	107,160	103,385	141,765	166,529
1928	193,648	198,605	213,666	214,345	238,524	237,509	211,871	177,428	108,465	86,766	91,105	94,396
1929	96,487	98,715	109,555	111,774	145,712	166,211	143,887	91,642	39,909	33,818	31,701	35,073
1930	37,659	56,180	74,342	107,225	116,481	117,876	99,003	47,314	8,842	8,335	14,360	16,388
1931	23,010	34,629	55,477	76,478	109,549	114,927	98,069	51,587	9,675	10,043	21,430	27,879
1932	38,789	63,494	96,521	130,072	173,949	212,664	208,510	184,608	114,866	89,736	136,983	163,395
1933	187,050	194,182	198,164	194,181	207,096	238,980	234,310	220,909	158,671	159,866	186,590	203,025
1934	203,025	220,437	217,330	238,033	238,030	219,772	178,788	132,579	65,473	74,841	102,646	120,836
1935	158,876	171,969	186,814	202,658	237,044	238,980	221,141	203,783	134,442	105,526	107,149	110,760
1936	119,694	125,670	140,374	176,222	236,591	238,638	210,617	180,773	112,638	106,318	105,052	117,553
1937	121,427	127,693	138,053	157,067	194,039	234,606	216,711	192,487	125,529	119,230	147,413	167,872
1938	180,556	185,575	194,966	207,269	237,556	238,335	208,959	180,450	111,508	82,923	93,021	111,605
1939	133,492	141,908	156,006	184,767	218,100	224,554	191,961	150,809	85,131	84,434	91,982	112,221
1940	117,276	128,522	147,764	175,686	197,315	188,370	151,516	88,515	40,088	38,231	43,472	55,653
1941	60,817	64,372	80,597	100,191	102,988	100,012	80,917	36,432	9,364	19,387	34,004	51,763
1942	56,640	61,603	69,949	94,025	102,960	114,425	107,385	75,453	24,495	19,639	34,566	51,693
1943	63,584	70,825	83,491	123,412	161,139	198,903	203,093	189,262	120,589	92,809	96,679	113,208
1944	116,893	123,681	133,606	147,463	157,728	156,537	131,181	79,730	34,585	33,411	37,951	48,063
1945	74,546	90,334	99,760	112,032	150,994	161,617	141,903	112,304	50,629	53,008	68,147	80,578
1946	93,999	99,800	110,291	138,247	204,961	238,980	223,071	202,024	134,926	115,190	123,804	157,511
1947	178,360	194,127	214,438	226,092	238,771	234,866	210,328	183,342	117,390	111,613	138,934	152,553
1948	161,726	171,030	179,254	187,583	207,090	238,980	222,780	207,896	144,845	125,435	137,593	150,939
1949	156,733	167,295	177,890	191,528	232,565	238,933	236,995	229,423	164,218	150,263	180,721	202,771
1950	203,025	208,267	184,104	180,343	198,325	238,980	235,199	217,454	151,124	140,644	168,081	199,061
1951	203,025	216,491	197,882	201,601	235,843	238,896	215,354	193,351	129,512	116,401	130,109	139,163
1952	143,813	150,923	157,857	186,194	224,088	236,556	222,481	188,083	120,153	91,385	90,100	90,704
1953	124,943	151,548	162,149	180,505	215,768	238,184	224,404	204,957	138,302	115,714	126,706	158,599
1954	175,575	185,764	194,197	190,710	213,736	238,980	234,961	220,746	155,750	133,828	150,667	159,087
1955	165,719	178,954	186,669	195,885	213,105	238,980	238,719	229,472	163,309	160,715	197,553	203,025
1956	203,025	197,459	163,019	169,968	207,600	238,980	231,245	210,102	144,737	130,259	142,739	191,975
1957	199,221	205,657	209,985	211,216	238,395	230,829	194,556	161,957	95,129	70,136	74,684	89,892
1958	100,042	116,489	127,998	153,268	200,349	206,878	182,504	145,454	81,016	71,125	111,862	147,928
1959	174,384	184,261	200,231	207,910	233,501	238,980	223,555	207,941	159,490	167,861	203,025	203,025
1960	203,025	212,844	212,442	216,737	238,735	238,423	211,888	184,979	119,367	99,253	120,486	127,473
1961	147,238	175,497	194,803	200,739	232,374	238,557	220,833	197,988	131,940	114,542	124,138	140,255
1962	166,783	182,719	190,049	225,882	235,650	238,774	217,436	202,573	138,683	120,341	147,022	167,792
1963	181,729	205,452	219,227	234,272	238,980	231,286	199,010	166,788	100,094	98,185	109,719	117,624
1964	132,952	139,447	150,162	167,670	203,955	238,980	232,148	221,695	160,286	139,783	149,570	171,871
1965	193,541	214,622	207,828	211,651	238,095	237,552	219,280	200,952	134,716	109,055	116,814	123,013
1966	130,776	134,329	143,297	172,409	206,942	220,302	209,728	185,798	121,740	99,690	108,075	135,235
1967	159,646	177,274	187,689	188,979	218,988	238,980	228,773	186,846	119,719	137,803	154,997	189,830
1968	203,025	229,321	233,656	230,268	238,793	236,057	216,188	184,353	123,415	109,131	129,828	147,943
1969	164,632	169,257	177,696	200,588	235,676	236,267	207,521	181,772	118,426	95,185	99,150	103,197
1970	111,968	119,205	131,943	146,074	182,152	216,826	202,285	161,605	94,448	95,016	106,245	112,454
1971	137,392	162,718	172,499	185,915	211,177	238,980	238,322	218,646	156,591	135,593	149,388	160,342
1972	179,730	196,307	170,868	167,113	198,915	238,980	234,861	221,722	162,428	139,642	147,619	175,265
1973	192,029	196,553	203,823	207,268	206,059	202,268	173,363	119,533	58,042	55,455	63,827	77,380
1974	112,926	126,058	139,977	167,248	190,653	238,980	238,800	222,215	156,274	129,699	136,054	159,781
1975	186,672	196,910	197,896	191,130	213,298	238,980	226,690	210,645	146,454	129,867	158,584	203,025
1976	203,025	216,911	201,391	198,693	229,531	238,980	231,248	217,720	149,059	121,427	127,509	138,530
1977	153,484	164,481	171,842	183,554	162,749	157,358	108,423	57,557	19,783	23,453	57,963	114,100
1978	122,831	129,749	150,216	173,292	198,722	219,349	204,589	185,804	124,023	95,070	101,144	110,013
1979	114,266	123,190	142,779	160,661	195,221	201,539	175,601	136,453	71,939	60,798	61,997	97,382
1980	104,522	112,011	126,273	160,486	187,242	193,418	180,660	141,926	77,611	77,028	97,621	148,808
1981	163,115	187,234	199,920	221,062	229,891	237,651	210,105	155,729	88,547	95,098	102,147	112,387
1982	130,052	164,309	184,261	198,268	223,679	238,980	224,733	211,187	145,707	126,823	133,975	149,909
1983	178,175	191,260	208,543	208,329	229,774	232,716	223,174	210,334	146,650	121,815	143,656	151,766
1984	191,790	204,031	210,585	208,994	235,322	238,980	225,294	210,382	144,998	121,837	132,420	140,423
1985	143,614	146,477	155,726	190,112	232,063	234,999	200,257	164,961	99,063	113,253	137,759	141,621
1986	148,580	169,291	199,161	219,119	238,980	228,720	190,905	150,531	86,409	86,530	112,723	120,058
1987	125,308	131,459	152,108	187,452	219,482	209,933	167,810	116,375	49,742	36,760	36,798	43,828
1988	47,393	59,696	80,659	119,719	151,557	160,563	138,548	105,575	43,995	46,118	68,349	86,382
1989	106,112	114,990	124,891	164,313	196,090	214,561	195,025	163,212	94,924	68,100	90,461	113,180
1990	136,919	155,606	172,493	219,516	238,638	238,830	216,867	190,803	124,818	120,101	190,976	203,025
1991	203,025	227,068	216,429	226,968	238,795	238,823	221,501	205,995	138,946	110,040	125,402	149,228
1992	167,574	183,789	204,810	228,499	228,022	202,310	153,543	88,290	38,160	35,970	48,062	56,149
1993	66,279	71,804	89,030	115,195	155,850	156,369	134,405	80,465	32,534	28,045	28,903	34,144
1994	48,148	55,222	74,165	106,217	125,232	126,202	109,508	65,529	21,048	19,203	32,195	52,926
1995	64,594	100,136	120,471	141,779	180,679	191,394	182,403	168,787	104,008	99,088	174,033	200,222
1996	203,025	223,091	212,192	228,962	238,729	235,842	222,159	198,574	134,174	116,505	136,238	149,745
1997	169,063	188,369	174,275	180,294	218,656	238,980	228,476	211,454	150,197	153,976	170,419	180,670
1998	193,042	202,563	211,655	212,376	238,384	234,716	210,110	182,338	113,680	87,404	106,841	131,736
1999	160,451	172,916	183,961	188,867	203,594	238,980	235,703	222,761	158,335	133,419	160,556	195,085
2000	203,025	207,045	209,071	218,203	238,545	238,874	212,919	187,213	126,010	105,983	109,544	111,585
2001	114,507	116,753	128,460	144,260	169,954	168,154	140,064	95,007	50,935	51,370	74,159	88,151
2002	110,314	121,291	134,438	168,868	215,368	238,980	221,932	203,981	135,608	106,330	109,056	112,085
2003	132,056	149,454	176,778	198,752	215,809	221,115	191,363	153,891	88,344	95,512	120,341	131,440
2004	142,537	151,665	172,589	201,450	219,974	220,012	184,821	150,616	93,806	98,813	116,099	139,039
2005	166,192	175,470	183,937	195,259	186,887	170,966	138,116	91,310	44,960	47,273	59,818	71,403
2006	94,244	104,331	111,027	136,386	181,483	206,201	190,007	168,274	104,006	75,765	121,005	132,077
2007	148,807	163,820	204,916	226,581	238,847	234,106	208,254	178,615	111,026	88,631	97,134	113,538
2008	119,468	127,028	136,317	141,107	203,235	238,980	218,866	197,821	135,300	110,481	138,493	149,522
2009	182,842	187,687	195,550	208,562	237,344	235,781	209,084	184,628	124,757	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3A (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	149,760	149,190	194,660
1926	213,349	223,147	269,864	354,004	371,089	276,238	150,461	34,644	24,100	55,543	77,399	112,463
1927	120,964	123,882	128,949	181,360	310,925	451,480	374,007	188,760	179,244	223,354	297,908	325,592
1928	328,627	333,934	363,920	366,075	449,838	445,961	316,117	127,024	103,949	121,150	123,060	121,625
1929	116,903	111,516	123,558	128,953	248,652	316,889	204,084	62,408	44,790	40,101	34,400	32,828
1930	28,566	54,235	89,206	189,791	247,279	242,260	133,484	27,759	16,104	19,308	24,943	23,167
1931	32,350	52,141	84,296	135,652	261,862	258,297	144,988	31,164	20,317	23,116	47,147	50,804
1932	72,978	132,957	216,326	300,853	445,343	451,480	360,529	187,694	167,859	169,081	267,867	318,881
1933	325,592	327,369	328,876	328,876	340,351	451,480	439,343	307,568	302,038	376,591	359,570	392,506
1934	367,441	387,449	397,438	448,120	451,417	388,774	244,753	85,222	68,315	92,338	166,104	194,043
1935	272,324	306,961	329,923	344,124	444,658	451,480	373,942	193,013	176,954	171,945	166,509	161,484
1936	163,612	161,160	176,453	278,304	443,072	450,002	334,383	148,160	127,819	121,468	112,831	121,073
1937	117,568	116,414	126,940	163,719	303,073	451,480	370,689	204,330	183,857	182,552	225,919	259,157
1938	275,965	277,368	287,871	340,447	446,450	451,480	338,290	150,582	121,990	115,674	123,168	147,217
1939	178,471	184,612	206,836	288,769	421,123	414,356	282,891	109,009	86,597	84,019	97,167	138,313
1940	142,340	153,485	188,294	267,491	382,676	337,976	190,519	52,822	32,607	37,749	43,606	64,572
1941	68,251	69,686	109,246	181,914	224,577	195,599	92,544	19,750	28,469	55,544	89,333	130,661
1942	134,275	136,445	145,837	215,973	280,819	297,630	183,208	46,505	32,939	26,336	44,168	69,320
1943	88,866	97,068	116,741	224,336	353,960	451,480	403,233	239,406	217,115	209,469	208,199	233,925
1944	231,848	234,966	249,422	285,216	351,865	332,678	191,085	53,494	51,120	55,357	62,793	81,782
1945	132,861	163,161	174,462	197,041	347,401	374,888	230,371	72,888	67,584	76,178	98,415	111,852
1946	128,498	132,042	143,588	215,158	428,907	451,480	396,941	235,881	216,277	227,192	234,692	291,076
1947	317,164	346,672	369,268	407,541	450,703	440,050	308,440	133,285	117,951	170,963	224,755	247,412
1948	255,668	262,102	269,277	272,906	360,791	451,480	388,013	236,298	216,526	227,474	239,163	252,846
1949	251,770	258,647	274,209	285,353	427,203	451,046	397,789	237,098	222,334	243,001	321,887	325,592
1950	325,592	332,063	318,973	304,220	309,141	451,480	439,712	323,012	307,599	340,449	342,771	342,771
1951	342,771	396,556	350,602	348,589	441,614	451,480	362,423	187,859	167,956	194,739	217,897	228,610
1952	228,394	233,053	238,105	313,817	448,586	441,666	328,074	154,158	132,709	118,149	110,384	105,171
1953	155,242	207,889	222,774	261,503	396,886	451,480	402,008	261,112	242,281	242,943	260,151	308,344
1954	325,592	335,128	333,372	326,682	364,813	451,480	439,018	330,509	323,606	330,084	330,239	330,239
1955	330,212	345,430	347,626	321,688	395,740	407,700	382,608	235,475	222,164	254,135	325,592	325,592
1956	325,592	325,676	277,933	272,907	347,340	451,480	428,289	297,794	282,542	307,374	325,592	333,209
1957	332,817	335,673	348,359	354,260	449,387	422,874	281,995	115,399	93,354	88,963	90,355	103,855
1958	111,399	129,406	153,127	200,946	402,656	439,271	287,386	108,475	92,767	113,524	187,421	262,756
1959	309,917	323,232	339,474	342,691	444,321	451,480	388,705	211,677	230,855	297,744	376,254	364,011
1960	344,771	351,568	359,397	375,597	450,576	450,733	340,537	163,043	143,630	148,293	175,802	180,457
1961	211,167	260,284	297,535	317,589	428,323	450,411	358,336	179,649	166,029	177,780	186,426	203,537
1962	260,988	289,061	296,017	389,403	450,591	451,480	366,793	198,701	177,571	189,662	254,114	290,604
1963	311,576	361,511	385,601	416,282	451,480	422,842	292,830	121,558	102,277	100,384	114,541	123,385
1964	143,055	146,773	153,605	185,393	293,916	451,480	423,065	296,960	285,540	298,136	306,049	325,592
1965	328,480	359,899	366,959	363,009	448,336	445,833	347,876	183,176	164,705	165,525	182,354	189,056
1966	192,665	191,143	201,012	271,330	405,852	440,393	328,545	141,750	118,433	124,249	132,985	185,027
1967	216,424	241,317	250,347	251,964	370,451	385,852	295,803	145,901	130,332	175,432	220,870	286,156
1968	325,592	385,610	423,704	428,796	451,480	437,498	304,955	160,455	157,844	177,710	219,720	242,306
1969	273,388	275,171	284,519	317,064	439,872	440,463	319,033	134,938	116,241	126,476	134,562	136,063
1970	140,862	144,772	159,394	182,463	306,938	368,051	263,289	110,526	96,029	94,686	105,851	111,272
1971	145,028	195,567	206,902	238,673	357,177	451,480	450,381	322,688	310,474	317,382	325,592	325,592
1972	325,592	364,656	327,522	291,282	332,667	451,480	441,651	331,677	328,389	333,754	333,946	333,419
1973	333,419	337,214	342,664	356,726	396,349	352,302	205,806	69,852	58,669	66,156	81,675	101,798
1974	171,380	189,079	209,566	209,566	282,288	451,480	451,480	356,263	349,938	344,782	339,763	339,140
1975	339,140	347,569	341,981	328,103	360,650	451,480	408,403	295,954	281,734	293,528	325,592	363,777
1976	358,745	376,516	356,564	348,617	422,013	451,480	433,741	345,937	337,635	337,501	336,733	336,339
1977	335,820	350,857	351,648	376,214	334,385	269,407	147,215	37,732	35,956	39,855	100,969	219,634
1978	229,670	237,399	283,441	343,449	444,639	451,480	352,624	192,129	189,829	188,135	203,257	207,890
1979	205,182	207,408	242,668	276,801	412,573	383,932	249,940	91,772	76,503	73,290	71,821	148,143
1980	153,356	159,112	181,316	266,281	387,770	410,360	252,459	95,847	80,944	78,259	116,344	239,512
1981	270,807	314,466	337,377	383,324	438,679	377,195	249,560	106,149	94,818	105,920	118,345	125,590
1982	143,206	207,198	240,566	273,840	400,583	451,480	398,047	236,203	223,861	235,020	242,057	271,454
1983	322,532	342,076	364,316	362,299	445,595	451,480	376,115	214,781	207,067	202,644	243,594	250,046
1984	325,592	343,808	358,298	358,298	429,231	451,480	401,061	241,831	229,289	234,631	247,697	252,642
1985	249,142	247,131	253,941	330,606	450,834	436,367	303,337	126,231	111,393	136,439	179,391	175,892
1986	183,094	222,987	288,493	338,379	429,719	415,829	272,793	105,769	88,926	87,458	132,067	140,894
1987	140,612	141,789	183,158	265,568	392,605	349,365	213,860	63,870	46,199	39,735	35,822	43,046
1988	41,783	53,267	86,527	191,133	310,230	336,033	231,231	84,608	70,978	98,096	143,436	176,508
1989	205,669	217,391	229,510	325,789	431,861	425,366	291,728	120,018	95,758	89,505	136,664	187,680
1990	215,705	236,652	262,778	388,159	450,236	451,480	361,863	203,956	186,152	225,746	383,701	355,401
1991	349,974	410,597	391,737	420,679	450,786	451,480	388,096	228,286	209,072	201,857	222,555	257,423
1992	282,340	312,363	368,101	438,754	438,322	327,013	173,705	45,924	38,635	39,071	54,520	61,700
1993	73,534	81,070	109,463	163,696	322,644	302,763	171,578	42,638	24,711	19,611	17,295	19,192
1994	31,167	35,919	73,281	165,076	269,236	250,934	149,308	36,428	24,793	31,703	48,574	81,122
1995	95,596	184,728	227,948	279,241	444,650	450,226	331,988	152,300	132,685	171,188	364,944	358,433
1996	355,481	413,914	385,451	410,262	450,555	447,055	339,524	179,449	163,784	171,067	204,682	222,547
1997	251,216	285,345	298,676	290,921	376,195	451,480	420,057	291,988	291,686	347,859	351,385	343,554
1998	342,215	350,896	361,667	361,667	449,348	439,261	309,580	131,459	105,728	100,889	127,209	164,724
1999	218,588	231,234	243,294	276,039	327,584	451,480	450,676	363,668	350,547	355,028	357,603	355,270
2000	342,971	343,191	349,148	375,526	449,910	451,480	350,600	171,518	157,884	168,058	166,390	160,733
2001	157,344	152,518	166,650	194,673	288,652	257,766	148,551	45,602	32,144	40,144	94,617	115,883
2002	159,739	176,609	196,232	273,064	406,224	451,480	380,693	199,005	177,962	169,392	170,640	171,289
2003	201,233	235,989	283,962	339,354	427,382	427,355	281,051	112,503	95,764	127,508	179,338	198,450
2004	208,556	220,642	262,190	342,027	440,867	413,087	260,286	112,955	121,125	131,593	169,823	221,148
2005	293,990	310,438	324,840	357,396	383,155	288,300	157,800	42,123	28,091	38,148	55,198	77,661
2006	118,098	130,768	137,477	195,025	367,237	451,480	334,821	151,690	126,503	116,001	227,839	240,659
2007	265,988	289,924	366,502	398,638	450,967	432,931	305,089	127,628	101,867	107,667	119,492	156,279
2008	158,694	162,154	171,881	177,697	364,794	451,480	374,048	217,198	195,800	193,472	265,954	281,324
2009	325,592	328,817	333,646	344,971	445,707	439,572	320,200	139,679	121,535	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3A (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,971	2,058	7,873
1926	11,265	11,666	15,597	33,968	33,970	32,385	26,054	18,765	13,596	14,862	15,000	15,000
1927	14,993	15,244	14,222	15,701	27,188	33,970	31,457	20,663	16,859	14,978	15,222	15,000
1928	15,126	14,446	15,000	15,000	36,004	33,970	29,848	20,482	17,068	13,479	10,802	6,643
1929	2,062	1,715	2,133	3,517	32,688	33,970	29,972	20,604	14,941	8,936	2,625	2,246
1930	1,465	8,242	8,517	29,484	33,970	33,970	27,377	19,938	14,431	7,570	3,308	1,604
1931	5,268	7,501	9,833	20,305	33,970	33,970	28,519	20,390	13,947	8,285	8,720	6,219
1932	6,007	11,308	15,000	15,000	32,049	33,970	31,457	20,764	17,141	11,185	15,869	14,949
1933	14,981	13,221	11,075	15,000	15,858	34,845	33,963	22,068	18,075	16,128	15,027	30,521
1934	17,174	19,238	18,845	32,908	33,929	33,970	29,848	20,335	15,619	16,548	15,782	15,000
1935	15,267	18,999	15,008	15,000	31,837	33,970	30,632	20,717	17,246	12,696	7,978	3,168
1936	1,882	1,891	2,121	15,000	32,559	33,970	30,234	20,544	17,168	11,998	6,094	3,731
1937	1,654	1,705	2,070	7,108	28,604	34,373	31,667	20,677	15,572	11,016	15,191	15,161
1938	15,085	14,315	12,440	16,779	35,599	33,970	30,234	20,401	14,984	10,357	5,826	6,476
1939	6,676	3,689	4,280	21,401	34,001	33,970	29,462	20,525	15,845	9,165	3,970	13,033
1940	14,423	17,184	21,730	33,491	33,964	33,970	29,848	20,335	14,102	9,176	6,940	9,903
1941	7,454	4,985	7,007	20,371	33,970	33,899	26,773	13,594	8,549	4,901	8,433	15,000
1942	13,822	8,465	5,061	17,958	33,964	33,970	29,848	20,484	16,225	9,986	15,000	15,000
1943	14,959	13,874	14,457	16,269	23,426	34,049	32,892	20,969	16,716	11,169	6,896	10,397
1944	5,366	3,129	3,692	8,968	32,292	33,970	27,986	20,516	14,951	8,948	3,738	2,227
1945	11,427	17,904	14,706	15,105	34,193	33,970	29,635	20,468	17,176	11,452	10,373	10,673
1946	14,431	10,364	8,036	15,000	26,962	33,970	32,892	21,062	15,819	14,723	15,000	15,244
1947	15,000	18,298	15,000	22,334	33,708	33,970	29,848	20,561	16,874	16,119	15,139	15,000
1948	13,614	14,041	14,791	15,000	27,909	33,970	31,667	20,749	17,107	12,965	11,894	11,838
1949	7,014	4,392	8,139	15,000	29,806	33,970	30,632	20,585	16,870	15,000	21,003	15,000
1950	15,000	15,057	15,000	15,000	16,965	36,010	33,970	22,914	18,367	15,677	16,004	17,755
1951	15,338	16,118	14,560	15,028	30,895	33,970	30,835	20,664	16,014	15,178	15,000	14,441
1952	10,297	10,301	7,480	15,953	33,457	33,970	29,848	20,367	15,224	8,945	3,053	1,711
1953	15,153	18,566	13,369	15,000	31,053	33,970	33,257	21,076	16,003	11,435	11,343	15,000
1954	15,000	14,312	14,954	15,000	20,233	33,970	33,970	23,433	18,883	15,137	15,000	14,935
1955	13,043	10,281	6,060	3,271	15,000	33,970	29,848	20,538	17,333	15,740	15,562	15,448
1956	15,000	13,483	11,325	15,224	35,188	35,796	33,963	21,301	17,333	15,015	14,965	15,237
1957	12,360	10,631	13,389	15,066	33,462	33,970	29,848	20,420	15,259	10,645	6,490	5,794
1958	7,526	10,243	11,336	15,000	42,875	33,970	29,848	20,432	15,680	11,997	15,279	16,050
1959	15,444	15,289	14,290	15,809	31,733	33,970	31,457	20,672	17,627	15,671	17,332	15,394
1960	15,000	16,778	15,000	17,161	33,669	33,970	30,234	20,502	15,573	10,972	15,000	14,780
1961	15,000	16,330	15,030	15,030	26,781	33,970	30,039	20,615	16,481	13,536	11,165	15,000
1962	14,977	15,326	13,046	22,047	33,673	33,970	30,632	20,565	16,208	14,271	16,758	15,197
1963	14,396	23,611	23,288	27,379	33,970	33,970	29,848	20,434	15,248	9,917	9,897	11,335
1964	15,000	12,718	8,957	9,448	16,019	33,970	33,708	21,691	17,850	13,797	14,355	15,640
1965	15,427	17,243	14,923	17,336	32,975	33,970	29,848	20,459	16,008	10,898	8,671	6,266
1966	3,086	1,945	2,373	15,661	33,638	33,970	29,848	20,436	15,866	10,551	9,254	15,000
1967	15,000	16,001	14,241	12,978	26,496	35,285	29,848	20,426	15,937	15,509	15,000	15,000
1968	15,107	24,551	24,036	27,540	33,969	33,970	29,848	20,666	17,300	15,206	15,418	14,674
1969	14,565	11,819	9,474	15,000	30,763	33,970	29,848	20,393	16,931	13,556	12,180	7,851
1970	11,029	10,985	12,346	14,724	31,316	33,970	29,848	20,394	15,649	10,232	10,783	14,360
1971	15,000	15,629	14,671	15,000	21,526	33,970	33,970	23,228	18,473	14,999	14,597	12,453
1972	12,217	16,435	16,126	15,201	27,994	34,595	33,970	23,503	19,025	13,846	13,242	16,363
1973	15,020	13,726	11,053	14,089	33,970	33,970	29,848	20,370	15,233	9,858	15,000	15,000
1974	16,852	14,835	15,000	15,000	16,788	45,682	33,970	24,635	19,400	14,369	12,591	15,000
1975	15,000	15,000	14,586	14,091	18,220	33,970	33,079	21,218	17,311	15,000	15,000	15,863
1976	15,488	15,529	13,337	15,000	28,976	33,970	33,840	23,639	18,883	13,695	7,808	3,139
1977	2,475	2,305	1,961	8,979	18,941	28,211	23,269	17,631	14,509	9,865	16,122	15,302
1978	14,107	12,627	15,000	16,450	33,428	33,970	30,632	20,668	17,331	12,998	8,697	3,904
1979	1,826	2,168	7,123	9,779	33,957	33,970	29,848	20,526	15,724	11,399	6,003	15,625
1980	15,032	18,401	14,716	23,379	33,680	33,970	29,848	20,511	16,932	11,879	15,000	32,975
1981	15,255	26,651	27,904	33,899	33,970	33,970	29,848	20,457	16,613	12,663	12,204	14,999
1982	13,330	20,225	15,091	15,000	23,271	35,701	31,877	20,704	17,333	15,097	13,137	15,025
1983	15,056	16,238	15,200	15,000	36,217	33,970	29,848	20,519	17,333	11,951	14,951	14,633
1984	15,243	17,420	15,053	15,048	30,552	33,970	32,086	20,772	15,987	11,931	8,711	3,891
1985	1,824	1,864	2,098	14,939	33,748	33,970	29,848	20,363	16,772	15,000	14,647	9,235
1986	10,532	19,923	18,420	32,068	36,661	33,970	29,848	20,388	16,600	11,848	15,725	14,069
1987	11,640	12,245	15,102	33,011	33,945	33,970	29,848	20,343	14,765	8,687	2,555	2,775
1988	2,506	2,349	5,871	23,041	33,790	33,970	29,848	20,352	15,476	10,943	14,961	15,000
1989	14,812	13,091	13,671	22,747	33,746	33,970	29,848	20,425	15,991	10,389	11,809	14,857
1990	15,115	16,361	15,000	19,623	33,563	33,970	30,632	20,640	16,919	15,401	24,332	15,000
1991	15,000	22,689	14,938	19,904	33,734	33,970	31,457	20,771	15,990	9,900	11,380	13,477
1992	14,092	17,518	27,436	33,965	33,970	31,723	25,315	19,616	14,318	7,606	3,478	1,755
1993	2,872	1,866	7,096	15,048	33,948	33,970	28,642	20,372	14,799	8,629	2,338	1,675
1994	2,232	2,060	6,198	23,702	33,970	33,970	28,749	20,379	14,790	12,132	10,192	15,000
1995	15,303	20,675	15,362	15,065	33,226	33,970	29,848	20,455	16,276	14,936	34,054	15,694
1996	15,428	19,439	15,309	21,904	33,662	33,970	29,848	20,588	16,762	13,062	15,000	15,000
1997	15,149	15,149	16,698	16,005	32,311	33,970	33,423	21,079	17,585	18,893	15,369	15,016
1998	15,000	14,813	15,000	15,386	33,288	33,970	29,848	20,443	15,643	10,875	15,000	16,495
1999	15,000	14,647	14,549	15,000	19,705	33,970	33,970	24,578	19,400	14,082	17,527	15,204
2000	14,457	14,294	13,299	16,511	33,463	33,970	30,431	20,568	17,230	13,165	7,674	2,783
2001	1,794	1,702	3,466	7,781	33,970	33,970	28,008	20,467	14,666	8,299	14,283	14,797
2002	15,000	16,119	14,934	16,098	27,793	33,970	31,041	20,652	15,833	10,702	5,286	2,519
2003	17,523	19,089	15,572	26,169	34,037	33,970	29,848	20,435	15,334	13,390	15,000	13,542
2004	14,015	14,459	16,511	33,238	33,953	33,970	29,848	20,549	17,268	14,456	14,795	15,034
2005	16,276	15,193	14,844	24,181	33,970	33,243	27,697	20,369	15,308	10,306	9,227	15,000
2006	15,451	16,021	13,717	15,066	29,883	33,970	30,632	20,563	16,486	11,864	15,758	15,000
2007	14,837	16,902	18,085	21,011	33,790	33,970	29,848	20,410	15,541	12,841	14,614	15,000
2008	13,669	11,242	8,946	8,564	27,612	34,147	32,086	20,765	16,869	13,230	15,030	14,317
2009	15,000	13,564	11,652	15,000	33,492	33,970	29,848	20,434	16,449	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3A (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	26,621	28,544	48,796
1926	59,797	72,475	92,370	127,628	150,959	157,002	146,885	125,708	48,155	38,277	51,703	74,291
1927	86,720	100,194	114,339	126,584	165,184	198,000	191,036	169,038	68,052	81,707	113,566	129,025
1928	129,025	140,735	151,989	149,231	197,064	198,000	182,801	159,882	47,205	29,560	37,953	44,750
1929	49,237	49,742	56,062	65,901	106,489	146,817	160,392	141,072	57,767	36,087	34,494	36,462
1930	38,520	56,843	75,642	114,837	141,806	160,567	162,265	130,613	63,562	40,575	44,431	45,481
1931	51,040	60,263	72,802	101,426	152,346	169,079	162,946	130,761	57,473	36,613	42,899	49,688
1932	59,604	75,337	108,931	138,688	185,405	198,000	191,036	169,059	52,501	24,541	64,695	87,064
1933	103,397	111,891	121,480	113,884	136,509	198,000	197,962	179,779	76,195	63,392	90,431	168,809
1934	137,702	162,807	157,458	196,124	197,929	198,000	178,671	150,511	66,824	57,328	101,023	123,680
1935	129,025	150,213	146,494	139,460	182,853	198,000	189,169	168,944	61,768	21,990	22,579	27,398
1936	32,534	33,828	43,786	82,151	155,660	198,000	185,952	169,031	73,567	55,786	58,949	61,252
1937	63,277	63,362	69,729	90,225	135,523	198,000	191,536	169,551	76,799	56,544	78,999	105,468
1938	129,025	140,397	134,610	137,160	195,209	198,000	184,860	161,080	50,140	22,585	30,528	45,275
1939	56,606	64,203	78,116	110,221	153,907	174,157	179,663	150,651	56,264	38,225	43,726	62,341
1940	73,865	89,318	113,519	144,238	187,848	198,000	178,559	138,589	63,998	46,146	53,003	68,232
1941	76,735	83,196	97,974	123,679	143,258	150,575	139,453	104,844	54,224	46,299	60,302	90,209
1942	100,564	107,709	116,938	143,985	173,623	197,947	176,926	138,179	58,310	36,214	55,288	78,034
1943	94,635	107,269	116,417	127,977	165,719	198,000	194,706	169,463	55,402	24,373	33,816	47,171
1944	53,489	60,608	72,610	87,271	109,473	124,060	119,805	96,221	30,654	15,974	23,537	30,539
1945	50,167	69,782	79,485	92,298	138,908	166,902	169,109	145,875	64,725	43,964	54,673	66,129
1946	81,486	89,954	104,720	114,084	174,964	198,000	194,706	169,617	68,260	28,024	49,920	99,860
1947	117,837	140,488	153,313	166,576	197,538	198,000	183,789	162,740	64,133	68,521	95,925	114,211
1948	129,025	144,954	116,650	102,763	140,569	198,000	191,536	169,414	65,651	48,984	61,950	73,638
1949	81,639	91,464	104,602	106,989	177,394	198,000	189,169	168,845	64,857	34,435	65,598	87,163
1950	103,043	121,011	103,730	92,458	120,016	198,000	198,000	187,151	86,380	82,973	120,731	129,025
1951	129,025	159,719	125,250	126,295	191,538	198,000	189,615	169,090	68,832	60,470	76,058	93,138
1952	103,141	117,457	129,756	156,514	197,094	198,000	186,119	168,367	52,420	22,430	27,536	28,983
1953	61,896	91,326	105,274	125,925	172,619	198,000	195,747	169,901	56,946	23,877	35,773	64,222
1954	82,155	96,031	114,090	109,658	147,071	198,000	198,000	191,670	97,634	70,251	88,525	101,152
1955	112,087	123,030	131,718	123,510	142,602	198,000	187,532	168,711	64,810	60,439	100,881	129,025
1956	129,025	129,078	69,783	65,373	137,620	198,000	197,955	173,080	72,907	42,975	57,205	90,330
1957	101,708	112,649	132,388	144,724	196,817	198,000	180,268	151,619	48,369	25,108	33,659	46,892
1958	60,631	78,634	96,622	123,657	196,532	198,000	180,291	150,486	59,594	43,047	83,210	129,025
1959	129,025	146,661	139,598	138,389	171,080	198,000	191,036	169,080	93,556	109,481	135,386	131,046
1960	130,246	148,035	150,493	162,772	197,469	198,000	188,056	168,929	66,856	33,068	52,830	64,864
1961	87,637	124,098	130,610	127,169	170,414	198,000	187,920	169,124	65,574	35,985	47,017	63,516
1962	92,251	108,750	120,175	164,365	189,599	198,000	189,169	168,493	70,128	59,889	100,250	129,025
1963	129,025	169,775	187,532	197,667	198,000	198,000	180,236	159,579	80,422	67,720	79,254	92,425
1964	109,349	121,055	130,247	119,269	137,145	198,000	197,139	176,702	74,649	56,962	66,653	99,406
1965	129,153	160,023	141,875	145,558	190,770	198,000	187,532	168,578	74,573	45,247	57,228	66,166
1966	72,699	73,998	81,455	111,903	162,376	192,468	183,789	165,215	71,083	35,020	46,126	71,019
1967	90,176	108,548	121,677	130,637	168,724	198,000	186,618	168,853	80,595	86,601	109,844	129,025
1968	129,025	176,546	184,743	196,575	198,000	198,000	186,896	169,731	90,399	72,308	106,564	123,681
1969	129,025	139,941	130,028	125,280	191,607	198,000	183,789	161,018	73,429	53,613	64,452	73,339
1970	91,365	104,620	123,624	139,214	186,538	198,000	180,281	152,142	77,937	68,843	80,984	95,767
1971	119,645	153,852	114,593	100,481	144,163	198,000	198,000	190,070	92,113	51,724	62,213	73,024
1972	88,771	117,153	89,807	70,813	122,636	198,000	198,000	193,221	120,235	94,097	107,054	129,025
1973	129,025	140,325	151,810	166,285	192,205	198,000	178,595	146,814	74,978	58,290	78,760	100,880
1974	129,044	136,880	82,237	67,687	105,311	198,000	198,000	196,176	107,970	67,940	78,817	97,368
1975	129,025	146,987	125,028	111,056	143,940	198,000	195,233	172,769	72,455	43,269	65,690	129,025
1976	129,025	150,533	130,969	124,587	174,306	198,000	197,831	195,303	109,529	77,257	86,242	91,547
1977	97,059	98,590	100,340	113,816	121,472	135,289	125,801	108,085	58,904	42,916	64,771	132,081
1978	130,422	142,773	149,358	155,932	193,660	198,000	189,169	169,406	96,953	67,910	77,245	84,641
1979	86,908	92,994	110,514	124,473	170,704	191,608	180,289	151,191	67,326	45,899	52,114	76,252
1980	89,406	101,400	124,055	169,794	197,489	198,000	180,258	151,320	73,659	59,128	79,039	129,025
1981	129,025	166,141	189,093	197,876	198,000	198,000	180,270	150,853	68,674	73,694	85,125	103,422
1982	122,384	163,862	134,718	123,448	164,107	198,000	192,048	169,250	84,052	56,987	68,681	90,589
1983	124,603	146,236	144,046	139,191	194,741	198,000	187,532	170,204	86,475	53,804	77,417	89,612
1984	129,025	150,975	146,832	141,814	174,206	198,000	192,570	169,682	89,180	67,986	80,898	88,620
1985	91,265	92,219	100,495	130,762	176,370	198,000	180,271	154,580	85,382	77,577	92,405	99,692
1986	110,617	139,234	170,486	196,549	197,964	198,000	180,231	151,124	77,274	65,033	83,296	93,294
1987	101,820	112,928	143,148	177,185	197,958	198,000	178,511	146,805	45,648	22,206	26,369	40,169
1988	46,153	57,884	77,010	117,936	163,498	190,821	178,579	145,593	61,394	46,940	64,240	79,753
1989	92,356	101,537	117,852	163,099	197,605	198,000	180,277	155,948	48,525	23,189	39,669	64,892
1990	95,295	110,186	129,281	163,518	196,516	198,000	189,169	169,327	62,677	42,843	87,828	108,946
1991	129,025	167,535	156,524	166,060	197,237	198,000	191,036	169,471	64,346	25,648	43,378	60,325
1992	75,017	95,390	120,857	152,732	182,119	188,512	178,608	146,743	64,299	45,808	52,561	54,366
1993	55,709	57,391	72,690	95,448	149,452	167,876	166,211	138,845	59,632	40,582	41,920	42,763
1994	49,881	51,108	67,860	98,776	131,552	142,396	139,820	111,013	39,727	21,952	35,506	60,133
1995	78,593	136,883	149,323	146,244	196,624	198,000	183,789	162,361	75,998	81,275	155,950	132,783
1996	131,916	169,738	149,528	168,373	197,457	198,000	187,532	169,017	81,268	55,259	70,346	87,522
1997	128,113	134,975	90,239	85,457	152,910	198,000	196,238	172,229	104,286	133,645	131,452	130,307
1998	129,786	143,878	148,562	146,948	196,796	198,000	183,789	162,855	61,555	37,924	53,963	83,009
1999	114,317	128,816	114,813	102,413	130,116	198,000	198,000	195,999	112,170	94,384	129,025	129,025
2000	129,025	143,764	143,883	155,554	197,104	198,000	188,738	169,162	82,034	56,045	61,811	66,656
2001	67,593	67,817	73,736	86,342	116,192	124,884	120,511	105,742	31,639	14,645	35,361	49,361
2002	80,128	94,579	111,241	130,447	169,146	198,000	190,075	168,804	69,751	31,860	38,114	44,267
2003	71,523	104,563	136,431	167,160	197,913	198,000	180,257	150,773	65,294	57,562	69,106	81,060
2004	92,718	104,753	126,200	159,687	197,973	198,000	180,257	151,504	73,373	65,857	78,534	98,078
2005	128,704	141,055	153,783	174,058	197,972	198,000	176,841	139,908	66,767	47,078	58,135	76,252
2006	110,727	129,202	134,221	128,022	188,302	198,000	186,010	161,437	55,931	22,564	86,932	112,301
2007	129,025	150,297	153,626	167,661	197,683	198,000	183,414	159,505	48,759	24,832	38,591	67,462
2008	78,193	88,053	100,828	115,455	179,129	198,000	192,570	169,123	56,532	22,461	53,017	65,696
2009	102,487	114,715	127,095	139,637	194,802	198,000	183,789	166,717	77,172	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3A (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3A (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	340,463	343,875	471,016
1926	525,370	566,015	677,416	859,632	865,426	715,954	473,973	247,017	111,080	159,124	215,910	305,926
1927	338,561	364,586	391,827	493,715	746,917	1,006,450	887,234	609,919	438,582	507,555	687,257	754,942
1928	785,221	806,897	874,899	875,356	1,078,683	1,069,422	845,491	542,619	329,043	313,835	326,448	328,902
1929	322,131	315,874	350,544	362,648	617,869	755,428	577,652	325,480	164,825	124,097	106,586	112,941
1930	114,431	203,188	288,598	513,308	613,823	611,055	434,462	234,560	109,971	86,257	101,344	99,127
1931	130,524	182,886	267,629	396,895	648,938	650,571	459,233	243,514	108,843	89,975	146,058	162,975
1932	218,890	342,009	522,977	698,339	985,117	1,053,795	906,242	628,588	416,226	360,476	604,210	703,085
1933	749,815	767,647	773,125	761,155	822,897	1,081,075	1,054,548	832,262	660,972	752,600	770,414	915,487
1934	844,138	920,627	925,363	1,071,906	1,077,241	971,563	712,055	421,890	246,530	289,192	461,327	544,610
1935	694,287	776,610	805,247	825,774	1,050,387	1,080,200	936,118	659,659	460,490	380,119	370,497	368,617
1936	389,991	395,862	444,555	660,316	1,023,041	1,077,892	865,390	576,711	385,878	346,577	328,556	364,123
1937	363,563	370,216	403,667	500,085	774,294	1,067,900	925,846	653,239	463,962	431,445	564,314	661,932
1938	719,427	736,344	749,494	825,049	1,071,018	1,078,152	866,711	572,156	353,312	282,572	314,050	392,565
1939	477,798	500,314	559,165	741,517	984,452	985,907	766,871	471,247	280,759	253,228	281,056	392,538
1940	415,291	465,466	564,954	739,804	932,240	852,925	591,252	311,369	159,163	140,103	161,774	225,988
1941	241,998	252,198	338,068	484,052	559,716	516,841	351,023	184,139	116,297	155,490	235,743	346,507
1942	364,996	375,148	403,287	559,022	676,252	723,663	538,583	292,091	141,864	100,713	175,729	256,393
1943	312,356	342,390	393,367	588,098	828,097	1,032,521	960,951	696,893	484,110	408,606	418,489	495,685
1944	498,134	516,526	558,746	634,209	759,737	732,971	500,961	261,341	146,833	129,724	147,444	191,645
1945	325,162	411,670	443,329	497,920	793,185	847,906	625,560	364,734	217,465	211,578	274,635	323,110
1946	381,303	397,189	438,763	576,398	986,568	1,080,200	976,870	706,573	511,095	469,166	512,117	682,487
1947	747,156	830,532	883,179	966,147	1,078,241	1,055,953	838,596	560,811	375,110	449,175	585,127	647,972
1948	678,828	714,382	687,488	680,320	858,961	1,080,200	958,200	713,139	522,662	498,948	544,061	591,090
1949	600,995	630,189	667,732	705,212	1,014,449	1,079,622	989,258	740,177	550,281	538,199	708,004	749,321
1950	765,456	800,444	720,106	686,245	758,150	1,082,240	1,057,395	856,026	666,228	698,758	766,383	807,409
1951	808,955	922,865	801,518	808,765	1,053,466	1,079,996	912,187	640,679	448,020	466,423	528,955	569,179
1952	579,016	609,042	633,289	796,921	1,060,494	1,060,463	879,074	596,784	382,200	295,135	278,554	269,080
1953	439,399	574,119	613,370	701,953	959,021	1,074,756	985,888	737,447	529,577	471,240	523,399	664,961
1954	717,118	755,308	765,844	747,504	875,218	1,080,200	1,055,635	873,625	703,763	660,816	703,227	724,209
1955	739,857	786,451	794,169	755,834	895,431	1,036,420	990,117	744,912	554,276	599,975	758,383	791,885
1956	791,402	779,610	597,516	606,456	851,964	1,082,026	1,035,967	794,480	607,488	599,169	656,997	749,548
1957	764,903	785,006	829,199	852,935	1,075,175	1,028,015	776,244	498,184	296,188	236,517	249,042	303,702
1958	344,302	412,964	473,498	599,447	985,923	1,004,582	754,996	458,542	280,737	284,786	486,927	674,556
1959	747,566	793,481	816,215	828,887	1,029,957	1,080,200	960,253	685,309	597,235	714,316	857,923	832,272
1960	811,838	854,607	866,329	904,334	1,077,929	1,077,814	877,831	601,028	406,922	360,117	454,434	480,992
1961	572,851	711,437	754,684	776,845	1,008,217	1,077,931	916,164	638,232	448,160	416,959	452,043	520,544
1962	653,795	724,446	749,708	946,800	1,060,427	1,079,642	919,748	663,282	472,632	460,905	621,341	721,414
1963	755,521	902,454	965,540	1,031,627	1,080,200	1,029,089	791,678	519,281	344,229	322,603	374,217	408,522
1964	473,884	495,078	522,891	571,899	773,167	1,080,200	1,030,709	817,450	640,558	617,758	654,413	731,305
1965	785,397	884,990	855,584	865,694	1,066,965	1,070,239	900,576	644,233	456,687	399,022	440,173	463,429
1966	482,095	483,540	516,068	686,190	952,218	1,027,159	859,515	576,362	385,306	331,105	366,248	503,866
1967	600,042	676,237	699,798	693,377	921,711	1,015,887	863,219	587,317	404,743	494,105	594,736	738,807
1968	791,545	963,506	1,016,305	1,031,454	1,079,849	1,056,579	844,280	598,131	458,899	455,796	573,064	641,011
1969	700,406	714,436	718,034	774,089	1,052,086	1,061,253	841,425	558,952	385,533	353,430	377,103	387,087
1970	428,076	455,992	513,958	575,214	832,585	955,538	769,247	491,765	329,677	315,727	362,575	394,376
1971	499,389	632,282	614,798	640,330	861,431	1,080,200	1,077,292	864,776	685,506	634,149	670,586	690,207
1972	725,105	822,644	728,890	648,255	796,556	1,080,825	1,057,416	878,016	743,506	695,405	720,657	772,867
1973	788,289	807,308	831,957	868,588	950,194	896,471	655,598	385,096	234,011	219,848	275,757	343,286
1974	516,311	560,423	529,664	540,333	700,432	1,091,912	1,079,732	916,549	748,579	669,335	683,330	730,085
1975	788,632	830,552	792,730	750,291	865,720	1,080,200	997,062	789,023	604,084	576,642	683,661	830,486
1976	825,080	886,865	819,285	800,999	1,000,592	1,080,200	1,038,877	886,322	717,236	650,994	664,495	684,594
1977	707,634	743,825	753,357	815,724	731,904	661,112	434,118	230,118	140,782	131,235	296,905	591,614
1978	611,389	641,582	726,862	824,445	1,021,237	1,049,153	882,387	633,316	496,399	430,707	462,806	486,891
1979	487,721	511,017	606,034	688,533	956,995	932,333	704,652	428,218	257,595	216,623	214,251	397,577
1980	425,671	458,929	523,801	729,604	933,980	948,844	725,675	448,076	288,630	262,783	368,866	660,918
1981	695,763	837,466	904,872	993,873	1,048,151	988,687	757,332	476,327	306,680	332,493	367,772	413,597
1982	483,030	663,946	693,975	724,198	952,212	1,081,931	973,950	717,404	551,904	520,507	552,040	638,333
1983	759,161	823,484	856,878	849,361	1,049,043	1,052,920	932,615	688,814	531,477	462,432	576,335	606,235
1984	780,446	841,142	857,753	849,418	1,022,897	1,080,200	979,571	721,348	556,263	516,853	560,339	579,960
1985	578,201	579,075	608,495	795,459	1,050,576	1,054,004	804,908	516,031	361,525	412,122	517,498	517,935
1986	547,376	664,990	816,512	938,242	1,061,086	1,014,401	763,384	469,959	309,039	290,740	415,415	442,628
1987	452,904	473,665	587,517	792,871	991,861	902,357	645,647	365,288	171,991	119,859	111,929	148,098
1988	156,659	202,971	297,025	537,660	775,529	822,346	623,266	367,463	201,754	224,893	334,686	418,924
1989	498,490	531,393	577,043	809,275	1,011,678	1,013,948	786,506	509,702	302,244	234,332	352,192	475,641
1990	580,552	651,391	705,174	931,194	1,076,330	1,079,837	912,346	648,989	451,310	485,730	817,057	801,167
1991	815,820	973,069	912,943	977,276	1,078,099	1,079,786	952,316	699,889	499,574	415,140	488,096	589,209
1992	657,819	739,358	869,883	1,011,720	1,026,435	860,066	598,099	323,878	182,965	156,761	200,471	221,525
1993	256,059	272,598	356,159	494,047	794,051	763,242	538,384	292,851	139,568	103,754	98,885	112,377
1994	159,836	175,743	270,255	474,633	649,476	624,050	454,967	245,205	110,475	102,856	159,455	262,356
1995	315,475	538,808	625,489	710,483	1,008,628	1,009,062	825,581	557,796	378,930	436,888	858,928	825,929
1996	824,524	966,716	891,206	973,927	1,077,878	1,063,346	892,863	637,283	464,673	436,963	526,398	582,569
1997	682,337	744,962	676,810	666,848	915,600	1,080,200	1,016,000	784,982	652,834	766,464	787,420	788,344
1998	798,839	836,416	865,028	865,303	1,074,918	1,054,623	839,022	557,261	352,434	291,223	380,677	499,407
1999	627,153	671,752	662,977	685,777	800,411	1,080,200	1,069,440	922,283	752,000	710,312	783,507	813,381
2000	808,274	827,732	839,239	900,497	1,076,297	1,079,875	893,840	615,018	450,149	416,296	418,191	410,931
2001	409,913	406,028	448,501	521,702	720,683	671,386	475,225	277,635	137,908	134,197	262,654	323,495
2002	439,737	491,158	548,288	708,077	970,138	1,080,200	947,518	667,130	469,700	384,798	389,911	396,384
2003	509,203	609,865	736,670	873,394	1,023,679	1,014,348	763,342	477,860	300,890	343,378	457,492	503,447
2004	544,678	582,721	684,640	868,930	1,036,551	994,875	733,169	473,569	351,543	362,684	448,561	564,010
2005	720,428	761,678	800,419	882,460	916,911	767,225	531,092	304,875	165,389	157,867	211,289	280,036
2006	397,701	446,048	464,806	566,482	899,189	1,027,392	835,542	554,361	352,166	269,760	542,114	595,238
2007	666,063	739,125	874,588	956,512	1,078,890	1,046,774	829,610	544,713	331,583	291,977	335,015	429,417
2008	447,328	468,520	502,210	522,259	915,607	1,080,377	938,081	677,498	474,355	406,119	570,326	615,995
2009	744,716	764,011	789,624	832,964	1,067,319	1,058,965	845,355	574,214	398,708	NA	NA	NA

Appendix C-7
Scenario IP3 (KKC, KDRPP, and CEPR)

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP3 (EPOR)

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
Avg. WY 1926 to 2009	3,055	750	1,554	1,560	91.3%	357	60	90.8%	322	46	517	83
Avg. WY 1982 to 2009	2,930	656	1,554	1,521	90.9%	338	58	90.5%	302	42	869	250
1941 (Dry Year)	1,678	234	1,185	986	43.1%	-85	-181	44.0%	-62	-184	262	0
1994 (Dry Year)	1,805	248	1,251	1,013	47.5%	-88	-193	48.4%	-119	-200	966	364
2001 (Dry Year)	1,910	177	1,408	1,180	67.0%	-18	-71	66.2%	-41	-84	9	9
2005 (Dry Year)	1,920	156	1,421	1,195	67.8%	13	-80	69.3%	6	-92	7,004	6,174

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
1926	1,952	207	1,416	1,176	70.0%	-24	-69	70.0%	-16	-77	5,449	0
1927	3,027	665	1,609	1,537	100.0%	343	22	100.0%	369	12	403	0
1928	3,041	712	1,609	1,515	100.0%	328	97	100.0%	303	73	0	0
1929	2,145	214	1,443	1,362	70.0%	117	-53	70.0%	89	-70	0	0
1930	1,907	254	1,336	1,078	58.0%	-72	-187	56.9%	-94	-200	209	0
1931	1,887	266	1,196	999	43.1%	-85	-200	43.3%	-106	-200	1,276	0
1932	3,017	688	1,596	1,419	100.0%	239	-22	100.0%	170	-47	2,217	0
1933	3,777	1,114	1,609	2,023	100.0%	661	163	100.0%	613	153	0	0
1934	2,949	740	1,571	1,385	93.3%	248	57	91.4%	210	52	0	0
1935	3,225	765	1,609	1,648	100.0%	460	118	100.0%	390	90	0	0
1936	3,364	1,004	1,569	1,542	92.9%	385	90	91.1%	353	84	0	0
1937	2,986	546	1,590	1,652	100.0%	457	109	98.3%	421	104	102	0
1938	3,433	1,080	1,609	1,537	100.0%	353	97	100.0%	288	69	0	0
1939	2,546	331	1,549	1,432	98.8%	277	53	96.0%	245	50	0	0
1940	2,285	315	1,445	1,197	70.9%	152	-27	67.8%	129	-40	151	0
1941	1,678	234	1,185	986	43.1%	-85	-181	44.0%	-62	-184	262	0
1942	2,118	282	1,390	1,133	62.8%	-59	-185	61.0%	-95	-200	21	0
1943	3,399	979	1,609	1,538	100.0%	289	-47	100.0%	219	-73	678	0
1944	1,829	195	1,302	1,101	56.2%	-51	-187	53.7%	-65	-200	0	0
1945	2,302	300	1,453	1,289	70.0%	39	-146	70.0%	10	-161	273	0
1946	3,407	941	1,609	1,582	100.0%	368	18	100.0%	293	8	928	0
1947	3,031	657	1,609	1,562	100.0%	375	112	100.0%	355	92	6,415	0
1948	3,926	1,403	1,609	1,744	100.0%	523	138	100.0%	499	123	0	0
1949	4,056	1,508	1,609	1,761	100.0%	550	164	100.0%	509	149	0	0
1950	4,311	1,647	1,609	2,084	100.0%	666	159	100.0%	656	152	0	0
1951	3,809	1,362	1,609	1,642	100.0%	448	115	100.0%	423	93	0	0
1952	2,930	551	1,609	1,568	100.0%	379	113	100.0%	304	84	0	0
1953	3,146	612	1,609	1,798	100.0%	531	134	100.0%	473	109	0	0
1954	4,046	1,344	1,609	2,114	100.0%	704	162	100.0%	647	149	0	0
1955	3,469	911	1,609	1,844	100.0%	554	165	100.0%	535	162	0	0
1956	4,880	2,276	1,609	1,954	100.0%	607	147	100.0%	551	128	0	0
1957	3,236	944	1,610	1,466	100.0%	294	75	100.0%	233	49	0	0
1958	2,897	627	1,608	1,441	100.0%	271	59	100.0%	260	45	0	0
1959	3,545	949	1,609	1,812	100.0%	597	159	100.0%	621	163	0	0
1960	3,174	768	1,609	1,595	100.0%	407	101	100.0%	342	75	0	0
1961	3,641	1,198	1,609	1,635	100.0%	448	114	100.0%	406	94	0	0
1962	3,033	560	1,609	1,662	100.0%	473	128	100.0%	443	108	0	0
1963	2,739	420	1,587	1,494	97.5%	344	86	95.0%	313	82	0	0
1964	3,432	794	1,609	1,980	100.0%	641	158	100.0%	614	148	0	0
1965	3,423	972	1,609	1,645	100.0%	457	121	100.0%	396	94	0	0
1966	2,834	460	1,609	1,566	100.0%	379	115	100.0%	307	88	0	0
1967	3,151	769	1,585	1,586	96.8%	405	112	92.9%	403	114	0	0
1968	2,872	416	1,609	1,648	100.0%	459	113	100.0%	419	91	7	0
1969	3,626	1,246	1,609	1,571	100.0%	384	99	100.0%	354	75	0	0
1970	2,910	608	1,578	1,467	93.6%	324	82	91.8%	307	81	0	0
1971	3,954	1,267	1,609	2,035	100.0%	685	162	100.0%	618	148	0	0
1972	4,819	2,081	1,609	2,123	100.0%	743	175	100.0%	698	163	0	0
1973	2,320	186	1,507	1,329	78.1%	238	50	76.6%	213	46	0	0
1974	4,682	1,935	1,609	2,225	100.0%	749	164	100.0%	680	149	0	0
1975	3,901	1,300	1,609	1,944	100.0%	604	151	100.0%	545	127	21	0
1976	3,858	1,145	1,609	2,022	100.0%	717	164	100.0%	655	143	248	0
1977	1,950	170	1,429	1,213	69.6%	-6	-74	68.8%	-17	-86	74	0
1978	3,015	589	1,609	1,620	100.0%	426	57	100.0%	371	29	351	0
1979	2,370	263	1,495	1,301	75.9%	220	30	74.1%	174	18	0	0
1980	2,781	531	1,571	1,436	98.6%	288	66	96.3%	266	65	0	0
1981	2,558	294	1,554	1,439	88.2%	308	74	86.7%	329	79	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP3 (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,519	972	1,609	1,783	100.0%	552	140	100.0%	501	119	89	89
1983	3,436	908	1,609	1,741	100.0%	531	141	100.0%	469	116	170	0
1984	3,314	760	1,609	1,795	100.0%	556	138	100.0%	508	112	0	0
1985	2,874	535	1,590	1,522	100.0%	359	69	99.0%	338	68	0	0
1986	2,654	379	1,571	1,444	92.1%	308	66	91.0%	287	66	0	0
1987	2,419	378	1,502	1,245	76.0%	173	38	74.5%	128	13	97	97
1988	2,451	345	1,512	1,289	78.3%	203	19	77.3%	177	13	0	0
1989	2,824	523	1,589	1,469	99.4%	320	76	97.7%	299	74	0	0
1990	3,230	787	1,609	1,633	100.0%	451	109	100.0%	417	90	72	0
1991	3,060	568	1,609	1,691	100.0%	499	132	100.0%	425	104	242	216
1992	2,240	263	1,442	1,409	69.5%	178	0	68.6%	154	-15	0	0
1993	2,175	280	1,431	1,330	70.0%	97	-73	70.0%	73	-88	442	0
1994	1,805	248	1,251	1,013	47.5%	-88	-193	48.4%	-119	-200	966	364
1995	2,825	604	1,569	1,354	97.1%	211	-75	95.9%	252	-65	3,964	0
1996	3,241	796	1,609	1,642	100.0%	465	127	100.0%	407	101	0	0
1997	4,602	1,950	1,609	1,929	100.0%	653	152	100.0%	695	156	130	0
1998	3,183	842	1,609	1,528	100.0%	352	103	100.0%	295	76	0	0
1999	4,072	1,338	1,609	2,126	100.0%	752	170	100.0%	708	156	0	0
2000	3,335	891	1,609	1,632	100.0%	450	100	100.0%	408	81	0	0
2001	1,910	177	1,408	1,180	67.0%	-18	-71	66.2%	-41	-84	9	9
2002	3,199	789	1,609	1,605	100.0%	414	69	100.0%	345	41	44	44
2003	2,621	431	1,547	1,368	86.6%	256	51	86.3%	233	47	0	0
2004	2,593	312	1,582	1,477	98.5%	333	63	96.8%	320	62	97	0
2005	1,920	156	1,421	1,195	67.8%	13	-80	69.3%	6	-92	7,004	6,174
2006	3,073	816	1,608	1,399	100.0%	237	11	100.0%	172	6	3,952	0
2007	2,998	673	1,609	1,516	100.0%	330	101	100.0%	277	75	7,041	0
2008	3,206	732	1,609	1,721	100.0%	474	117	100.0%	411	92	0	0
2009	3,274	916	1,572	1,549	94.3%	397	111	92.2%	NA	NA	0	0
Average	3,055	750	1,554	1,560	91.3%	357	60	90.8%	322	46	517	83

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP3 (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	5.0%	49.4%	4.3%	4.3%	2.9%
	0 -10% Above Target[1]	75.0%	38.0%	1.7%	0.2%	76.4%
	0-10% Below Target	0.5%	0.3%	53.7%	83.4%	2.6%
	> 10% Below Target	19.5%	12.3%	40.3%	12.1%	18.1%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	57.0%	75.4%	73.1%	6.4%
	0 -10% Above Target	8.3%	3.4%	3.6%	75.3%
	0-10% Below Target	7.6%	2.3%	3.8%	5.1%
	> 10% Below Target	27.1%	18.9%	19.5%	13.2%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			3.7%	
	0 -10% Above Target			3.3%	
	0-10% Below Target			9.5%	
	> 10% Below Target			83.5%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				27.4%	
	0 -10% Above Target				26.2%	
	0-10% Below Target				33.8%	
	> 10% Below Target				12.6%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				100.0%	
	0 -10% Above Target				0.0%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	12.7%	31.6%		5.8%
	0 -10% Above Target	1.2%	2.7%		1.7%
	0-10% Below Target	7.6%	2.8%		21.6%
	> 10% Below Target	78.5%	62.9%		70.9%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			42.9%	20.4%	17.9%
	0 -10% Above Target			22.5%	6.0%	1.9%
	0-10% Below Target			9.8%	6.2%	3.6%
	> 10% Below Target			24.8%	67.4%	76.6%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.4%	93.6%	88.3%
	0 -10% Above Target			0.4%	2.4%	4.4%
	0-10% Below Target			0.3%	1.5%	3.0%
	> 10% Below Target			0.9%	2.5%	4.3%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			59.7%	
	0 -10% Above Target			3.9%	
	0-10% Below Target			2.9%	
	> 10% Below Target			33.5%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			97.6%	93.7%	88.3%
	0 -10% Above Target			0.9%	2.0%	4.6%
	0-10% Below Target			0.5%	1.3%	2.3%
	> 10% Below Target			1.0%	3.0%	4.8%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP3 (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	16.5%	40.3%	96.3%		18.7%
	0 -10% Above Target	63.3%	42.9%	2.7%		64.2%
	0-10% Below Target	0.0%	0.0%	0.0%		0.1%
	> 10% Below Target	20.2%	16.8%	1.0%		17.0%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	16.4%			
	0 -10% Above Target	1.1%			
	0-10% Below Target	1.2%			
	> 10% Below Target	81.3%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	70.4%			
	0 -10% Above Target	4.1%			
	0-10% Below Target	4.8%			
	> 10% Below Target	20.7%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP3

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	37.6	3.9	0.9	0.9	0.8	0.9	6.3	51.7	75.9	97.7	66.5	50.4	393.7
1927	14.1	0.9	0.9	0.9	0.8	0.9	1.0	4.1	16.3	37.3	51.7	70.3	199.3
1928	20.9	0.9	0.9	0.9	0.9	0.9	6.1	30.1	24.2	54.9	68.6	73.9	283.4
1929	30.2	4.0	4.4	4.4	2.4	1.4	16.5	12.8	34.6	103.3	92.0	50.9	356.9
1930	20.3	3.7	3.4	1.6	0.8	0.9	1.5	17.0	44.9	61.5	60.6	49.3	265.5
1931	14.8	1.7	2.3	2.0	0.8	0.9	2.4	6.2	25.3	34.4	34.4	46.6	171.7
1932	2.7	1.3	1.0	0.9	0.9	0.9	0.9	4.7	19.5	35.8	51.7	60.7	181.0
1933	27.7	0.9	0.9	0.9	0.8	0.9	1.1	5.6	24.8	51.5	62.3	71.5	248.9
1934	26.7	23.8	97.7	55.2	2.1	70.2	26.9	24.5	31.5	66.3	73.3	70.3	568.5
1935	6.2	0.9	0.9	0.9	0.8	0.9	17.5	16.9	33.9	54.9	61.5	72.8	268.2
1936	32.3	3.5	4.4	0.9	0.9	1.6	2.2	14.4	38.2	69.2	70.8	71.2	309.5
1937	9.0	5.2	2.5	2.1	1.1	0.9	1.9	8.4	17.4	55.2	61.6	70.7	236.1
1938	6.8	1.2	0.9	2.1	1.0	14.4	29.6	16.1	26.7	64.5	59.9	70.0	293.1
1939	31.9	0.9	0.9	0.9	0.8	0.9	1.6	14.5	38.4	76.6	78.4	68.3	314.3
1940	5.0	3.0	0.9	2.1	0.9	0.9	2.8	16.7	61.5	84.2	95.1	47.9	321.0
1941	16.5	2.4	1.1	1.5	1.1	0.9	3.5	23.4	46.5	61.5	60.6	47.2	266.3
1942	10.9	1.0	0.9	0.9	0.8	0.9	2.6	12.7	20.7	28.8	35.3	50.2	165.7
1943	15.3	1.0	0.9	0.9	0.8	0.9	1.0	5.3	15.2	30.4	45.7	59.1	176.6
1944	27.1	1.4	1.1	1.2	0.9	1.1	6.4	17.1	40.7	61.4	59.2	47.1	264.8
1945	16.6	1.4	1.2	0.9	0.8	0.9	2.5	6.4	24.1	36.0	34.0	49.7	174.6
1946	16.4	0.9	1.1	0.9	0.8	0.9	0.9	1.3	15.7	33.8	47.2	63.9	183.9
1947	14.2	2.7	0.9	0.9	0.8	0.9	2.0	20.6	28.1	50.9	55.7	69.7	247.4
1948	27.5	0.9	0.9	0.9	0.9	27.2	23.6	40.5	30.1	55.1	56.1	67.1	330.8
1949	26.5	1.8	0.9	0.9	0.8	8.7	29.4	32.6	36.3	40.5	53.7	68.4	300.7
1950	26.9	5.0	23.0	17.0	4.6	68.6	22.2	30.1	27.1	49.3	62.6	69.6	406.1
1951	26.3	14.6	35.6	28.4	27.3	51.4	28.0	20.2	28.9	58.2	56.7	67.0	442.7
1952	27.1	1.2	2.1	2.0	0.9	0.9	1.0	11.4	28.7	45.0	63.3	71.1	254.7
1953	33.0	5.9	5.7	1.5	0.8	0.9	7.5	11.0	23.6	53.6	61.5	70.3	275.3
1954	27.1	3.1	0.9	5.2	1.0	29.2	26.7	31.9	25.7	58.3	62.8	70.7	342.6
1955	28.0	1.9	4.2	7.6	1.0	18.7	22.0	20.1	34.7	45.3	60.0	70.0	313.4
1956	22.4	26.5	38.1	13.1	15.9	68.6	28.4	41.7	21.0	53.6	67.4	68.8	465.5
1957	27.4	1.2	34.1	10.1	1.0	9.9	26.2	27.2	35.1	74.2	59.9	68.5	374.6
1958	29.3	3.7	1.0	0.9	0.8	0.9	1.5	10.6	31.4	56.3	67.0	68.5	272.1
1959	22.8	0.9	0.9	0.9	0.8	25.1	33.9	14.7	34.5	52.2	64.0	68.1	318.8
1960	20.4	53.9	43.1	9.6	1.1	20.4	25.9	15.7	31.8	64.9	64.5	68.6	420.0
1961	28.7	1.1	2.3	1.1	0.8	22.8	32.6	18.7	36.5	52.4	64.5	69.7	331.4
1962	26.5	2.6	1.4	0.9	0.8	0.9	14.3	20.8	25.3	59.0	48.0	67.8	268.4
1963	27.6	1.7	0.9	11.0	1.1	6.4	14.1	25.1	28.0	62.4	61.1	69.1	308.5
1964	5.6	2.2	2.0	0.9	0.9	0.9	4.1	9.2	30.2	65.9	66.1	67.9	255.9
1965	29.6	2.3	9.6	22.6	2.8	41.7	31.8	11.8	32.4	50.6	57.7	69.7	362.5
1966	29.8	4.1	3.8	2.5	2.5	0.9	2.7	11.8	26.5	40.0	50.7	66.3	241.6
1967	28.1	2.5	0.9	0.9	0.8	1.8	23.9	11.2	25.1	40.6	73.9	69.4	279.1
1968	2.2	0.9	21.1	39.4	8.2	29.1	17.5	18.9	26.6	47.3	67.9	68.4	347.5
1969	26.3	0.9	0.9	1.0	1.6	5.9	28.5	27.1	39.2	65.3	62.5	68.2	327.4
1970	28.8	4.3	4.0	2.3	0.8	0.9	8.8	8.2	19.7	51.0	67.9	71.0	267.8
1971	3.7	3.5	3.8	1.1	0.8	0.9	14.5	40.9	21.1	43.1	67.6	66.3	267.4
1972	28.1	0.9	8.7	20.3	43.1	97.9	25.1	44.6	19.7	46.9	53.9	66.3	455.4
1973	27.4	1.2	18.5	17.7	1.0	4.1	15.2	31.2	29.6	57.5	74.3	64.5	342.2
1974	8.0	3.2	1.0	1.0	0.8	1.8	33.7	28.4	32.5	50.4	64.9	71.1	296.7
1975	29.2	3.7	4.6	27.8	1.2	37.8	20.0	30.7	28.7	60.1	60.7	67.6	372.0
1976	26.5	0.9	74.1	49.4	1.8	38.1	24.7	22.2	24.8	46.1	54.2	71.1	434.0
1977	30.3	3.4	2.2	0.9	0.8	11.5	22.6	67.8	64.4	83.6	61.0	47.1	395.7
1978	16.3	0.9	0.9	0.9	0.8	0.9	2.2	12.3	25.9	42.7	48.7	67.0	219.4
1979	30.7	6.0	3.3	3.4	2.2	0.9	3.9	11.0	33.9	45.9	53.6	64.9	259.8
1980	13.2	3.7	1.0	0.9	0.9	0.9	0.9	10.5	27.1	34.6	60.5	66.9	221.1
1981	5.4	1.7	0.9	0.9	0.9	0.9	6.0	21.9	25.2	65.7	78.8	72.0	280.3
1982	3.2	2.2	1.1	1.5	0.8	0.9	18.3	23.2	31.6	54.8	60.0	70.9	268.5
1983	27.3	1.2	1.0	0.9	0.8	41.9	22.5	16.2	30.7	35.3	46.0	69.5	293.3
1984	28.4	0.9	0.9	13.1	2.0	33.4	19.0	8.7	37.8	51.6	61.3	70.1	327.3
1985	30.5	1.0	2.5	3.9	3.9	0.9	3.8	9.7	37.7	83.4	71.7	70.4	319.5
1986	2.6	0.9	2.2	2.0	1.5	0.9	4.7	17.3	35.3	74.5	76.3	68.0	286.2
1987	4.8	1.5	0.9	2.6	1.2	0.9	0.9	14.8	44.2	61.8	83.2	68.4	285.2
1988	28.0	4.3	2.9	3.8	1.1	0.9	1.2	7.7	33.1	63.2	54.9	61.7	262.9
1989	8.7	0.9	0.9	0.9	0.8	1.0	1.2	11.7	27.5	57.4	70.4	70.2	251.6
1990	4.2	1.0	0.9	0.9	0.8	7.3	33.0	22.4	35.4	60.9	63.7	70.5	301.1
1991	26.8	10.1	36.5	31.7	12.5	42.4	19.1	21.4	23.2	55.1	49.5	70.3	398.7
1992	31.8	1.7	0.9	0.9	0.9	0.9	18.5	32.3	45.9	90.7	101.1	57.5	383.3
1993	18.8	0.9	0.9	1.3	0.8	0.9	1.5	8.3	51.2	95.3	72.6	49.7	302.2
1994	17.9	3.4	1.6	1.0	1.0	1.0	1.8	14.6	47.9	61.4	59.3	48.7	259.7
1995	7.9	0.9	0.9	0.9	0.8	0.9	2.2	6.8	25.6	34.8	37.3	58.4	177.5
1996	2.2	1.7	9.5	7.0	1.5	18.8	11.6	23.7	30.6	46.9	58.6	69.3	281.3
1997	28.2	0.9	0.9	0.9	16.1	82.4	33.7	36.9	31.1	53.3	64.7	71.8	421.0
1998	20.1	5.7	11.6	13.3	1.0	18.6	23.1	17.3	27.7	49.2	63.3	72.5	323.5
1999	32.0	1.9	1.0	0.9	0.8	21.2	26.5	31.6	22.3	50.7	56.7	72.1	317.7
2000	31.8	7.2	43.1	14.0	3.1	7.7	26.2	20.1	32.8	66.7	73.0	71.0	396.7
2001	29.4	2.9	4.2	4.1	3.0	1.9	10.3	21.3	67.2	102.7	68.6	51.9	367.5
2002	16.3	1.5	0.9	0.9	0.8	0.9	1.0	2.2	11.3	44.1	74.0	73.1	227.0
2003	31.7	5.3	4.9	3.3	0.8	0.9	3.1	15.6	30.9	55.1	63.3	70.3	285.3
2004	7.6	0.9	0.9	2.1	0.9	0.9	3.3	16.6	31.8	57.7	70.9	70.4	264.0
2005	4.9	1.0	0.9	1.2	0.8	2.6	13.9	38.0	74.6	98.8	61.4	51.8	349.9
2006	16.9	0.9	1.4	0.9	0.8	0.9	1.0	5.3	23.6	39.4	42.6	51.4	185.2
2007	13.3	0.9	1.3	0.9	0.8	0.9	2.5	14.1	32.7	52.2	62.0	71.5	253.1
2008	36.2	2.3	3.0	2.7	0.9	1.7	8.6	3.9	17.7	66.3	71.7	69.7	284.9
2009	33.1	1.0	1.2	0.9	0.8	6.8	22.4	22.8	34.0	58.9	59.4	68.1	309.3
Average	20.8	3.6	7.5	6.0	2.6	12.4	13.0	19.1	32.0	57.0	62.2	65.2	301.5

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	355	847	72
1927	229	16	15	15	15	15	16	-	-	-	-	-	20
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	29	855	53
1930	330	62	56	25	15	15	26	-	486	1,000	985	828	233
1931	241	29	37	32	15	15	41	100	424	559	559	783	172
1932	44	21	16	15	16	15	15	31	-	-	-	367	32
1933	450	7	-	-	-	-	-	-	-	-	-	-	28
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	437	26
1941	268	40	17	25	20	14	-	-	415	1,000	986	793	217
1942	177	16	15	15	15	15	43	206	347	469	574	843	166
1943	249	17	15	15	15	15	17	87	87	-	-	800	79
1944	441	23	18	19	15	18	107	261	615	998	963	792	260
1945	270	24	20	15	15	15	43	105	404	585	554	835	175
1946	266	16	18	15	15	15	15	11	-	-	-	-	23
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	507	792	78
1978	265	12	-	-	-	-	-	-	-	-	-	-	17
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	286	15	7	-	-	-	-	-	-	-	414	835	94
1994	292	58	27	16	17	16	31	67	689	999	964	819	242
1995	128	15	15	15	15	15	37	32	-	-	446	982	102
1996	35	4	-	-	-	-	-	-	-	-	-	-	2
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	449	872	79
2002	264	25	15	15	15	5	-	-	-	-	-	-	21
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	537	870	85
2006	274	16	23	15	15	15	17	-	-	-	-	-	23
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	54	5	4	3	3	2	5	11	41	67	99	159	27

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	38	34	370	232	80	-	-	-	56	247	33	-	66
1927	-	-	-	-	-	-	-	238	400	381	190	13	74
1928	-	330	400	323	-	-	-	-	-	400	400	13	114
1929	12	35	36	37	17	4	-	80	323	220	318	-	66
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	134	8	-	-	-	9
1932	-	-	-	-	-	142	400	400	400	387	220	13	119
1933	-	213	400	400	228	37	155	-	-	280	400	400	152
1934	400	177	354	325	6	335	-	-	-	400	367	13	146
1935	-	106	234	148	-	-	13	-	-	367	400	74	82
1936	12	29	36	7	14	153	157	-	-	396	400	13	74
1937	11	47	14	13	3	24	255	129	-	400	400	13	80
1938	3	257	400	-	-	-	-	-	-	400	400	13	90
1939	15	0	210	359	62	22	-	-	-	400	400	13	91
1940	2	23	95	39	151	225	211	-	107	224	365	1	87
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	110	-	66	-	-	-	10
1943	-	-	-	-	-	-	213	370	400	400	196	13	97
1944	-	-	-	-	-	-	87	-	-	-	-	-	5
1945	-	-	-	-	-	-	-	361	364	-	-	-	44
1946	-	-	-	-	-	23	275	400	400	400	399	13	116
1947	35	98	335	355	346	69	-	-	-	400	397	13	124
1948	91	398	248	-	-	-	-	-	-	315	400	219	102
1949	96	126	173	26	-	-	-	-	-	307	400	340	89
1950	188	253	-	57	-	400	-	-	4	246	400	400	118
1951	400	278	61	174	158	360	-	-	-	373	400	13	135
1952	146	180	81	10	62	41	-	-	-	400	400	13	81
1953	25	53	47	105	400	14	-	-	-	245	400	256	92
1954	0	218	400	-	-	6	-	-	-	295	400	400	104
1955	363	211	118	-	-	0	-	-	-	232	400	400	105
1956	400	80	235	48	55	400	27	21	-	303	400	400	144
1957	285	224	185	31	-	-	-	-	-	400	399	13	94
1958	6	31	1	-	148	135	301	39	-	400	280	13	82
1959	1	227	400	65	-	174	1	-	-	311	400	400	120
1960	400	217	217	20	-	77	-	-	-	400	400	13	107
1961	1	375	71	287	10	56	2	-	-	397	400	13	98
1962	76	156	204	142	-	-	-	-	-	381	400	26	85
1963	87	218	400	-	-	-	-	-	-	400	394	13	92
1964	3	14	11	24	28	77	189	-	-	368	400	400	92
1965	376	135	201	-	-	197	-	-	-	400	400	13	106
1966	2	79	92	81	18	58	189	-	-	400	394	13	81
1967	0	17	255	224	-	-	-	-	-	308	400	40	76
1968	129	399	158	125	31	188	-	-	-	400	393	13	112
1969	129	320	195	1	6	-	-	-	-	400	400	13	89
1970	9	39	33	60	67	160	220	85	-	400	342	13	87
1971	3	27	29	105	329	-	-	-	-	162	400	400	87
1972	384	317	45	-	110	400	5	65	-	208	400	400	142
1973	333	109	102	-	-	23	-	-	-	374	295	13	77
1974	9	24	1	194	322	157	53	58	-	215	383	400	109
1975	375	93	212	-	-	198	-	-	-	302	400	387	120
1976	117	400	330	334	5	216	-	-	-	254	400	400	149
1977	123	105	150	-	-	77	-	-	-	146	-	-	37
1978	-	-	343	179	83	205	400	274	-	258	145	13	116
1979	14	58	26	28	16	137	165	400	236	36	227	13	82
1980	1	30	-	2	88	185	304	103	-	374	294	13	85
1981	13	8	181	232	0	-	-	-	-	400	400	13	77
1982	8	14	2	134	329	-	34	-	-	314	400	301	92
1983	86	138	280	0	-	159	-	-	-	400	400	13	90
1984	8	350	75	54	6	154	-	-	-	277	400	226	94
1985	64	173	78	28	30	23	40	-	-	400	400	13	76
1986	65	400	78	24	73	-	-	-	-	400	400	13	88
1987	13	86	80	22	12	304	86	-	-	372	399	13	85
1988	19	36	19	30	3	-	200	400	301	63	213	13	79
1989	0	-	60	299	114	106	206	-	-	400	400	13	97
1990	4	101	348	151	-	-	-	-	-	372	400	13	85
1991	202	400	291	175	79	283	-	-	-	362	400	77	138
1992	6	167	400	0	-	-	-	-	-	381	400	13	84
1993	-	-	-	4	0	-	76	400	135	252	170	-	63
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	129	394	268	396	93	-	9	-	78
1996	-	200	400	400	262	323	27	-	-	400	400	13	148
1997	87	316	156	-	-	400	30	-	-	237	400	400	123
1998	310	276	8	-	-	-	-	-	-	400	400	13	86
1999	5	77	229	219	-	116	-	-	-	258	400	400	104
2000	336	273	124	59	17	0	-	-	-	382	400	101	103
2001	117	40	35	34	24	24	87	293	-	282	116	-	64
2002	-	-	-	-	25	146	357	400	173	400	400	13	117
2003	3	51	44	48	400	300	167	-	-	323	275	13	97
2004	1	-	13	65	153	247	71	-	-	375	333	13	77
2005	-	1	303	228	43	14	-	4	13	265	9	-	54
2006	-	-	-	-	-	-	104	400	400	194	177	13	78
2007	87	77	102	221	211	228	-	-	-	400	400	13	106
2008	30	16	146	23	42	83	-	91	-	324	400	239	85
2009	19	308	289	35	-	-	-	-	-	400	400	13	89
Average	78	122	139	84	57	99	65	66	46	299	316	96	89

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	370	232	80	-	-	-	56	-	-	-	45
1927	-	-	-	-	-	-	-	238	400	381	-	-	62
1928	-	330	400	323	-	-	-	-	-	390	85	-	93
1929	-	-	-	-	-	-	-	80	323	-	-	-	24
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	134	8	-	-	-	9
1932	-	-	-	-	-	142	400	400	400	387	-	-	105
1933	-	213	400	400	228	37	155	-	-	128	127	387	125
1934	400	53	-	-	-	-	-	-	-	129	32	-	38
1935	-	106	234	148	-	-	13	-	-	366	82	61	62
1936	-	-	-	7	14	146	157	-	-	357	51	-	45
1937	-	-	-	-	-	24	255	129	-	400	151	-	58
1938	-	253	400	-	-	-	-	-	-	369	103	-	69
1939	-	-	210	359	62	22	-	-	-	164	-	-	50
1940	-	-	95	27	151	225	211	-	107	55	-	-	52
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	110	-	66	-	-	-	10
1943	-	-	-	-	-	-	213	370	400	400	12	-	85
1944	-	-	-	-	-	-	87	-	-	-	-	-	5
1945	-	-	-	-	-	-	-	361	364	-	-	-	44
1946	-	-	-	-	-	23	275	400	400	397	168	-	101
1947	0	76	335	355	346	69	-	-	-	268	134	-	95
1948	91	398	248	-	-	-	-	-	-	304	109	205	82
1949	94	116	173	26	-	-	-	-	-	265	98	326	67
1950	188	252	-	-	-	-	-	-	4	121	161	387	67
1951	400	278	-	-	-	-	-	-	-	364	135	-	72
1952	146	177	70	-	62	41	-	-	-	397	117	-	61
1953	-	-	-	99	400	14	-	-	-	214	110	243	64
1954	-	195	400	-	-	-	-	-	-	106	135	387	74
1955	363	202	116	-	-	-	-	-	-	71	87	387	74
1956	400	80	-	-	-	-	27	21	-	164	103	387	72
1957	285	221	95	-	-	-	-	-	-	58	48	-	43
1958	-	-	-	-	148	135	301	39	-	400	-	-	61
1959	-	227	400	65	-	-	1	-	-	306	72	387	88
1960	400	110	3	-	-	-	-	-	-	366	75	-	58
1961	-	373	57	285	10	-	2	-	-	391	59	-	72
1962	75	137	199	142	-	-	-	-	-	372	176	13	68
1963	82	208	400	-	-	-	-	-	-	280	62	-	63
1964	-	-	-	24	28	77	189	-	-	153	75	387	56
1965	367	122	201	-	-	-	-	-	-	382	84	-	71
1966	-	44	62	65	0	58	189	-	-	400	189	-	61
1967	-	-	255	224	-	-	-	-	-	308	145	27	59
1968	129	399	158	0	-	-	-	-	-	399	69	-	70
1969	129	320	195	-	-	-	-	-	-	325	56	-	62
1970	-	-	-	45	67	160	220	85	-	400	113	-	66
1971	-	-	-	103	329	-	-	-	-	16	163	387	59
1972	384	317	45	-	-	-	5	65	-	126	201	387	93
1973	333	107	100	-	-	-	-	-	-	374	-	-	56
1974	-	-	-	194	322	157	53	58	-	8	170	387	80
1975	372	69	209	-	-	-	-	-	-	207	109	373	81
1976	117	400	26	-	-	-	-	-	-	235	221	387	84
1977	116	81	139	-	-	-	-	-	-	-	-	-	21
1978	-	-	343	179	83	205	400	274	-	258	-	-	106
1979	-	-	-	-	-	137	165	400	236	36	-	-	59
1980	-	-	-	2	88	185	304	103	-	374	-	-	64
1981	-	-	181	232	-	-	-	-	-	339	41	-	49
1982	-	-	-	128	329	-	34	-	-	302	81	288	69
1983	86	135	279	-	-	-	-	-	-	400	182	-	66
1984	-	350	75	3	-	-	-	-	-	276	91	212	61
1985	53	172	63	0	-	23	40	-	-	133	-	-	29
1986	65	400	67	13	67	-	-	-	-	45	4	-	39
1987	-	80	80	4	8	304	86	-	-	229	-	-	48
1988	-	-	-	-	-	-	200	400	301	52	-	-	58
1989	-	-	60	299	114	106	206	-	-	295	23	-	67
1990	-	100	348	151	-	-	-	-	-	364	88	-	64
1991	202	307	5	5	-	-	-	-	-	362	187	63	69
1992	-	158	400	-	-	-	-	-	-	76	-	-	39
1993	-	-	-	-	-	-	76	400	135	-	-	-	37
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	129	394	268	396	93	-	-	-	77
1996	-	187	314	304	254	33	27	-	-	400	164	-	102
1997	87	316	156	-	-	-	30	-	-	200	93	387	77
1998	310	276	8	-	-	-	-	-	-	380	104	-	66
1999	-	67	227	219	-	-	-	-	-	134	215	387	76
2000	332	268	4	2	-	-	-	-	-	312	20	87	62
2001	117	17	-	-	-	15	87	293	-	-	-	-	32
2002	-	-	-	-	25	146	357	400	173	387	78	-	95
2003	-	-	-	21	400	300	167	-	-	323	-	-	72
2004	-	-	13	53	153	247	71	-	-	365	-	-	55
2005	-	-	303	225	43	-	-	4	13	-	-	-	36
2006	-	-	-	-	-	-	104	400	400	194	-	-	66
2007	-	77	98	221	211	228	-	-	-	240	47	-	68
2008	-	-	124	4	42	75	-	91	-	230	29	226	50
2009	-	307	287	35	-	-	-	-	-	354	100	-	66
Average	73	108	112	62	50	44	65	66	46	223	67	85	61

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	38	34	-	-	-	-	-	-	-	247	33	-	22
1927	-	-	-	-	-	-	-	-	-	-	190	13	12
1928	-	-	-	-	-	-	-	-	-	10	315	13	21
1929	12	35	36	37	17	4	-	-	-	220	318	-	42
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	0	220	13	14
1933	-	-	-	-	-	-	-	-	-	153	273	13	27
1934	-	124	354	325	6	335	-	-	-	271	335	13	108
1935	-	-	-	-	-	-	-	-	-	1	318	13	20
1936	12	29	36	0	-	7	-	-	-	39	349	13	30
1937	11	47	14	13	3	-	-	-	-	0	249	13	21
1938	3	3	-	-	-	-	-	-	-	31	297	13	21
1939	15	0	-	-	-	-	-	-	-	236	400	13	41
1940	2	23	-	13	-	-	-	-	-	169	365	1	35
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	184	13	12
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	3	232	13	15
1947	34	22	-	-	-	-	-	-	-	132	263	13	29
1948	-	-	-	-	-	-	-	-	-	11	291	13	19
1949	2	10	0	-	-	-	-	-	-	42	302	13	23
1950	-	1	-	57	-	400	-	-	-	125	239	13	51
1951	0	-	61	174	158	360	-	-	-	9	265	13	63
1952	-	3	11	10	-	-	-	-	-	3	283	13	20
1953	25	53	47	5	-	-	-	-	-	31	290	13	29
1954	0	24	-	-	-	6	-	-	-	189	265	13	30
1955	-	9	2	-	-	0	-	-	-	161	312	13	30
1956	-	-	235	48	55	400	-	-	-	139	297	13	73
1957	-	3	90	31	-	-	-	-	-	342	351	13	51
1958	6	31	1	-	-	-	-	-	-	-	280	13	20
1959	1	-	-	-	-	174	-	-	-	5	328	13	32
1960	-	107	214	20	-	77	-	-	-	34	325	13	48
1961	1	3	14	2	-	56	-	-	-	6	341	13	27
1962	1	19	5	-	-	-	-	-	-	9	224	13	17
1963	5	9	-	-	-	-	-	-	-	120	331	13	29
1964	3	14	11	-	-	-	-	-	-	215	325	13	36
1965	9	13	-	-	-	197	-	-	-	18	316	13	35
1966	2	36	29	16	18	0	-	-	-	-	205	13	19
1967	0	17	-	-	-	-	-	-	-	0	255	13	17
1968	-	0	-	125	31	188	-	-	-	1	324	13	42
1969	-	-	-	1	6	-	-	-	-	75	343	13	27
1970	9	39	33	15	-	-	-	-	-	-	229	13	21
1971	3	27	29	2	-	-	-	-	-	146	237	13	28
1972	-	-	-	-	110	400	-	-	-	82	199	13	49
1973	0	3	2	-	-	23	-	-	-	-	295	13	21
1974	9	24	1	1	-	-	-	-	-	206	213	13	29
1975	3	25	2	-	-	198	-	-	-	96	291	13	39
1976	-	-	304	334	5	216	-	-	-	20	179	13	66
1977	7	24	10	-	-	77	-	-	-	146	-	-	16
1978	-	-	-	-	-	-	-	-	-	-	145	13	10
1979	14	58	26	28	16	-	-	-	-	-	227	13	23
1980	1	30	-	-	-	-	-	-	-	-	294	13	21
1981	13	8	-	-	0	-	-	-	-	61	359	13	28
1982	8	14	2	6	-	-	-	-	-	13	319	13	23
1983	-	3	0	0	-	159	-	-	-	-	218	13	24
1984	8	0	-	51	6	154	-	-	-	1	309	13	33
1985	11	2	15	27	30	-	-	-	-	267	400	13	47
1986	-	-	12	10	6	-	-	-	-	355	396	13	49
1987	13	6	-	18	4	-	-	-	-	143	399	13	37
1988	19	36	19	30	3	-	-	-	-	11	213	13	21
1989	0	-	-	-	-	1	-	-	-	105	377	13	30
1990	4	2	-	-	-	-	-	-	-	8	312	13	21
1991	-	93	285	170	79	283	-	-	-	-	213	13	69
1992	6	9	-	0	-	-	-	-	-	305	400	13	45
1993	-	-	-	4	0	-	-	-	-	252	170	-	26
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	9	-	1
1996	-	13	86	96	8	291	-	-	-	-	236	13	46
1997	-	-	-	-	-	400	-	-	-	37	307	13	47
1998	-	0	-	-	-	-	-	-	-	20	296	13	20
1999	5	11	1	-	-	116	-	-	-	124	185	13	28
2000	4	5	120	56	17	0	-	-	-	70	380	13	41
2001	-	23	35	34	24	9	-	-	-	282	116	-	32
2002	-	-	-	-	-	-	-	-	-	13	322	13	21
2003	3	51	44	27	-	-	-	-	-	1	275	13	25
2004	1	-	0	13	-	-	-	-	-	10	333	13	23
2005	-	1	-	3	-	14	-	-	-	265	9	-	18
2006	-	-	-	-	-	-	-	-	-	-	177	13	12
2007	87	0	4	-	-	-	-	-	-	160	353	13	38
2008	30	16	22	19	-	7	-	-	-	94	371	13	35
2009	19	1	2	-	-	-	-	-	-	46	300	13	23
Average	5	14	26	22	7	54	-	-	-	76	249	11	28

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	16,553	-	-	-	-	-	9,256	39,011	40,743	53,679	54,854	18,172	232,267
1927	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1928	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1929	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
1930	23	-	-	-	-	-	9,311	39,519	40,985	51,908	50,893	15,735	208,374
1931	23	-	-	-	-	-	8,495	37,077	36,965	41,907	39,974	12,922	177,363
1932	-	-	-	-	-	-	9,311	39,296	40,237	53,472	55,740	40,407	238,462
1933	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1934	16,553	-	-	-	-	-	9,311	39,841	40,559	53,621	56,368	40,098	256,351
1935	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1936	16,553	-	-	-	-	-	7,998	39,743	40,743	53,630	56,365	40,023	255,056
1937	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,821	40,616	239,730
1938	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1939	16,553	-	-	-	-	-	9,328	36,735	40,700	53,483	56,051	40,551	253,403
1940	23	-	-	-	-	-	9,311	38,655	40,743	51,548	54,084	16,862	211,226
1941	23	-	-	-	-	-	7,999	36,205	36,979	41,740	40,613	13,262	176,822
1942	23	-	-	-	-	-	9,317	39,584	40,743	53,490	53,603	16,530	213,291
1943	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,614	40,311	239,217
1944	16,553	-	-	-	-	-	9,405	40,006	41,109	50,667	47,834	14,325	219,898
1945	23	-	-	-	-	-	7,096	40,138	40,743	53,643	54,804	18,172	214,620
1946	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,634	40,093	239,019
1947	10,138	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	249,554
1948	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1949	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1950	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1951	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1952	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1953	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1954	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1955	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1956	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1957	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1958	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1959	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1960	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1961	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1962	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1963	16,553	-	-	-	-	-	9,311	39,743	40,743	53,489	56,109	40,455	256,403
1964	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1965	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1966	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1967	16,553	-	-	-	-	-	9,311	39,743	40,743	53,544	56,275	40,258	256,428
1968	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,732	40,407	239,432
1969	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1970	16,553	-	-	-	-	-	9,311	39,743	40,743	53,601	56,340	40,145	256,435
1971	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1972	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1973	16,553	-	-	-	-	-	7,194	39,862	40,743	52,549	51,046	34,760	242,706
1974	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1975	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,719	40,407	255,948
1976	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,598	40,301	255,721
1977	16,553	-	-	-	-	-	9,158	39,743	40,743	53,690	54,865	18,105	232,857
1978	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1979	16,553	-	-	-	-	-	7,351	39,898	40,743	51,837	49,698	33,801	239,882
1980	23	-	-	-	-	-	9,311	39,650	39,823	53,481	56,027	40,573	238,888
1981	23	-	-	-	-	-	8,034	39,743	40,743	53,867	56,431	38,722	237,564
1982	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1983	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,645	40,332	255,799
1984	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1985	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,863	40,669	256,354
1986	23	-	-	-	-	-	9,311	39,743	40,743	53,669	56,408	39,989	239,885
1987	23	-	-	-	-	-	9,311	39,387	40,743	51,853	49,811	33,978	225,104
1988	23	-	-	-	-	-	9,311	39,398	40,743	52,586	51,314	35,058	228,433
1989	23	-	-	-	-	-	9,311	39,743	40,743	53,475	55,944	40,637	239,876
1990	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,685	40,389	239,367
1991	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,714	40,407	255,943
1992	16,553	-	-	-	-	-	6,864	40,133	40,743	53,697	54,154	16,963	229,108
1993	23	-	-	-	-	-	9,394	37,210	40,743	53,643	54,362	18,172	213,547
1994	23	-	-	-	-	-	9,312	39,285	39,832	45,580	44,073	14,073	192,178
1995	23	-	-	-	-	-	9,322	39,743	40,403	52,452	55,802	40,385	238,131
1996	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1997	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,675	40,342	255,838
1998	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1999	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2000	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2001	16,553	-	-	-	-	-	9,163	39,743	40,743	53,847	54,771	17,494	232,314
2002	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2003	16,553	-	-	-	-	-	9,311	38,847	40,743	53,949	56,171	38,571	254,144
2004	23	-	-	-	-	-	9,385	39,800	40,743	53,478	55,976	40,504	239,910
2005	23	-	-	-	-	-	9,158	39,743	40,743	53,824	54,869	18,126	216,487
2006	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	36,471	235,502
2007	10,032	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	249,448
2008	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2009	16,553	-	-	-	-	-	9,203	39,284	40,273	52,960	55,740	39,932	253,945
Average	9,708	-	-	-	-	-	9,145	39,558	40,620	52,989	54,747	35,740	242,507

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	18,681	-	-	-	-	8,883	29,964	39,142	48,460	49,483	48,363	31,571	274,548
1927	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1928	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1929	18,681	-	-	-	-	8,883	26,488	39,776	48,460	49,896	48,680	31,571	272,436
1930	986	-	-	-	-	8,883	30,437	33,233	40,031	41,050	40,317	26,090	221,028
1931	986	-	-	-	-	8,883	22,294	25,773	30,828	31,651	30,780	19,882	171,078
1932	986	-	-	-	-	8,883	30,437	41,709	46,961	54,222	53,512	35,446	272,157
1933	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1934	18,681	-	-	-	-	8,883	30,437	42,162	47,217	54,304	53,677	35,743	291,105
1935	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1936	18,681	-	-	-	-	8,883	30,574	42,048	47,350	54,315	53,692	35,731	291,275
1937	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,630	273,051
1938	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1939	18,681	-	-	-	-	8,883	30,554	39,729	47,470	54,222	53,520	35,689	288,749
1940	986	-	-	-	-	8,883	30,445	41,681	48,401	50,089	48,187	30,990	259,663
1941	986	-	-	-	-	8,883	29,001	25,920	30,841	31,505	31,350	20,322	178,810
1942	986	-	-	-	-	8,883	30,557	36,562	44,481	44,411	42,896	27,949	236,726
1943	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1944	18,681	-	-	-	-	8,883	21,928	31,340	39,137	39,636	38,285	24,683	222,573
1945	986	-	-	-	-	8,883	29,322	40,525	48,460	49,896	48,680	31,571	258,324
1946	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1947	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1948	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1949	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1950	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1951	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1952	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1953	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1954	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1955	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1956	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1957	18,681	-	-	-	-	8,883	30,443	42,030	47,350	54,222	53,512	35,446	290,567
1958	18,681	-	-	-	-	8,883	30,636	42,030	47,350	54,222	53,512	35,446	290,761
1959	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1960	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1961	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1962	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1963	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,533	35,730	290,866
1964	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1965	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1966	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1967	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,226	53,570	35,756	290,933
1968	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1969	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1970	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,279	53,633	35,752	291,046
1971	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1972	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1973	18,681	-	-	-	-	8,883	29,566	42,331	47,578	54,841	53,445	33,758	289,084
1974	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1975	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1976	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1977	18,681	-	-	-	-	8,883	26,590	39,776	48,455	49,297	48,282	31,448	271,412
1978	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1979	18,681	-	-	-	-	8,883	30,186	42,116	47,821	53,674	52,055	33,064	286,479
1980	986	-	-	-	-	8,883	30,045	42,025	46,452	54,222	53,518	35,680	271,813
1981	986	-	-	-	-	8,883	30,421	42,076	47,350	54,729	54,177	35,476	274,099
1982	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1983	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1984	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1985	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,611	290,727
1986	986	-	-	-	-	8,883	30,437	42,030	47,350	54,359	53,752	35,726	273,524
1987	986	-	-	-	-	8,883	30,525	41,627	47,788	53,682	52,184	33,212	268,889
1988	986	-	-	-	-	8,883	30,595	42,074	47,531	54,884	53,681	33,942	272,578
1989	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,648	273,068
1990	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1991	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1992	18,681	-	-	-	-	8,883	27,791	40,397	48,479	49,217	48,064	31,212	272,725
1993	986	-	-	-	-	8,883	30,980	40,063	48,460	49,896	48,680	31,571	259,520
1994	986	-	-	-	-	8,883	30,684	29,108	33,965	34,780	34,366	22,219	194,991
1995	986	-	-	-	-	8,883	30,457	42,030	47,423	53,318	53,519	35,688	272,305
1996	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1997	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1998	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1999	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2000	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2001	18,681	-	-	-	-	8,883	25,609	38,516	47,841	47,311	46,157	30,198	263,198
2002	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2003	18,681	-	-	-	-	8,883	30,437	41,477	47,350	54,899	54,286	35,432	291,446
2004	986	-	-	-	-	8,883	30,545	42,176	47,350	54,222	53,515	35,668	273,345
2005	986	-	-	-	-	8,883	26,639	39,192	48,191	48,016	47,715	31,488	251,110
2006	986	-	-	-	-	8,883	30,440	42,030	47,350	54,222	53,512	35,446	272,870
2007	18,679	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,560
2008	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2009	18,681	-	-	-	-	8,758	30,006	41,434	46,680	53,483	52,837	36,475	288,354
Average	11,519	-	-	-	-	8,882	29,973	40,924	46,680	52,471	51,691	34,107	276,247

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	25,229	-	-	-	-	6,232	45,759	88,692	89,080	96,848	89,818	55,333	496,991
1927	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1928	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1929	25,229	-	-	-	-	6,232	47,281	92,309	89,080	97,312	90,146	55,333	502,922
1930	21,815	-	-	-	-	6,232	51,572	82,460	79,467	87,363	81,737	52,557	463,204
1931	21,815	-	-	-	-	6,232	40,760	74,395	70,358	76,793	72,153	49,536	412,042
1932	21,815	-	-	-	-	6,232	51,572	97,839	105,277	113,698	108,774	74,355	579,564
1933	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1934	25,229	-	-	-	-	6,232	51,572	99,848	104,957	113,528	105,014	60,132	566,513
1935	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1936	25,229	-	-	-	-	6,232	50,597	101,401	106,589	113,517	104,931	60,044	568,541
1937	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,588	61,622	573,773
1938	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1939	25,229	-	-	-	-	6,232	50,532	83,724	107,282	113,698	107,110	61,149	554,957
1940	21,815	-	-	-	-	6,232	51,512	87,059	90,274	97,530	89,657	54,981	499,061
1941	21,815	-	-	-	-	6,232	43,202	72,637	70,371	76,627	72,721	49,753	413,358
1942	21,815	-	-	-	-	6,232	50,419	87,197	83,862	91,144	84,329	53,458	478,457
1943	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1944	25,229	-	-	-	-	6,232	45,608	81,555	78,580	85,773	79,697	51,873	454,549
1945	21,815	-	-	-	-	6,232	48,395	94,143	89,080	97,312	90,146	55,333	502,456
1946	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1947	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1948	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1949	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1950	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1951	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1952	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1953	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1954	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1955	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1956	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1957	25,229	-	-	-	-	6,232	51,542	101,401	109,844	113,698	108,774	74,355	591,076
1958	25,229	-	-	-	-	6,232	50,276	101,401	109,844	113,698	108,774	74,355	589,811
1959	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1960	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1961	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1962	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1963	25,229	-	-	-	-	6,232	51,572	101,401	108,938	113,698	106,918	60,909	574,899
1964	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1965	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1966	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1967	25,229	-	-	-	-	6,232	51,572	101,401	109,541	113,635	105,902	60,432	573,945
1968	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1969	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1970	25,229	-	-	-	-	6,232	51,572	101,401	108,490	113,565	105,262	60,206	571,958
1971	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1972	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1973	25,229	-	-	-	-	6,232	48,533	98,084	95,236	103,499	95,106	56,841	528,761
1974	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1975	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1976	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1977	25,229	-	-	-	-	6,232	47,538	92,309	89,054	96,639	89,735	55,239	501,975
1978	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1979	25,229	-	-	-	-	6,232	48,692	97,565	93,662	101,783	93,543	56,303	523,009
1980	21,815	-	-	-	-	6,232	48,863	99,687	105,170	113,698	107,191	61,209	563,865
1981	21,815	-	-	-	-	6,232	49,690	101,375	102,904	111,580	102,192	59,063	554,850
1982	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1983	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1984	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1985	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,688	61,797	577,462
1986	21,815	-	-	-	-	6,232	51,572	101,401	105,559	113,457	104,590	60,010	564,637
1987	21,815	-	-	-	-	6,232	51,075	96,764	93,876	101,795	93,669	56,403	521,629
1988	21,815	-	-	-	-	6,232	50,568	96,060	95,560	103,631	95,416	57,007	526,289
1989	21,815	-	-	-	-	6,232	51,572	101,401	109,640	113,698	107,419	61,483	573,260
1990	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1991	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1992	25,229	-	-	-	-	6,232	45,809	93,475	89,235	96,549	89,523	55,112	501,164
1993	21,815	-	-	-	-	6,232	46,257	85,893	89,080	97,312	90,146	55,333	492,068
1994	21,815	-	-	-	-	6,232	48,834	76,789	73,460	80,312	75,755	50,675	433,871
1995	21,815	-	-	-	-	6,232	51,338	101,401	103,099	108,821	107,262	61,145	561,114
1996	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1997	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1998	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1999	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2000	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2001	25,229	-	-	-	-	6,232	46,806	90,785	87,445	94,405	87,604	54,555	493,062
2002	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2003	25,229	-	-	-	-	6,232	51,572	95,774	102,538	110,372	101,540	58,977	552,234
2004	21,815	-	-	-	-	6,232	50,315	98,717	109,014	113,698	107,319	61,323	568,434
2005	21,815	-	-	-	-	6,232	47,597	91,583	87,913	95,198	89,154	55,269	494,760
2006	21,815	-	-	-	-	6,232	51,556	101,401	109,844	113,698	108,774	74,355	587,677
2007	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2008	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2009	25,229	-	-	-	-	6,232	51,572	101,401	106,834	113,604	105,563	60,289	570,726
Average	23,847	-	-	-	-	6,232	50,583	98,071	103,842	109,012	103,256	67,192	562,035

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	33,266	-	-	-	-	10,226	38,346	55,590	60,062	61,272	57,368	49,555	365,686
1927	24,007	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,993
1928	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1929	33,266	-	-	-	-	10,226	40,392	57,737	63,554	65,462	64,452	52,607	387,696
1930	24,054	-	-	-	-	10,226	41,928	54,679	55,982	57,704	57,371	49,561	351,506
1931	23,128	-	-	-	-	10,226	37,280	55,804	56,488	58,520	57,799	49,751	348,995
1932	22,070	-	-	-	-	10,226	41,928	57,498	63,661	70,157	70,467	59,068	395,074
1933	32,779	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,765
1934	33,266	-	-	-	-	10,226	41,928	58,536	64,727	70,121	69,822	55,813	404,439
1935	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1936	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,106	69,801	55,781	403,248
1937	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,247	56,350	395,311
1938	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1939	33,266	-	-	-	-	10,226	41,447	50,844	64,430	70,157	70,202	56,173	396,744
1940	24,263	-	-	-	-	10,226	41,870	52,988	64,060	67,791	66,729	53,363	381,291
1941	24,001	-	-	-	-	10,226	37,477	51,660	52,034	53,973	53,719	48,011	331,102
1942	24,242	-	-	-	-	10,226	41,032	56,856	60,996	62,279	61,470	51,377	368,479
1943	23,807	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,793
1944	33,266	-	-	-	-	10,226	40,313	55,864	57,068	58,543	57,906	49,770	362,957
1945	23,990	-	-	-	-	10,226	40,478	57,867	63,952	66,858	65,793	53,181	382,346
1946	23,755	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,741
1947	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1948	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1949	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1950	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1951	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1952	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1953	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1954	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1955	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1956	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1957	33,266	-	-	-	-	10,226	41,556	57,867	65,148	70,157	70,467	59,068	407,756
1958	33,294	-	-	-	-	10,226	41,105	58,720	65,148	70,157	70,467	59,068	408,185
1959	32,779	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,765
1960	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1961	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1962	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1963	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,172	56,087	403,976
1964	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1965	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1966	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1967	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,155	70,072	55,917	403,705
1968	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1969	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1970	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,145	69,901	55,838	403,444
1971	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1972	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1973	33,266	-	-	-	-	10,226	40,430	57,867	64,688	68,756	68,538	54,474	398,246
1974	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1975	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1976	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1977	33,266	-	-	-	-	10,226	40,579	57,271	60,560	61,818	61,222	51,337	376,279
1978	23,912	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,898
1979	33,266	-	-	-	-	10,226	40,357	57,867	64,332	68,760	68,207	54,210	397,226
1980	24,263	-	-	-	-	10,226	39,714	58,384	63,184	70,157	70,210	56,194	392,332
1981	24,263	-	-	-	-	10,226	40,351	57,867	65,148	69,264	68,948	55,435	391,503
1982	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1983	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1984	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1985	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,256	56,420	404,393
1986	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,025	69,689	55,768	394,039
1987	24,263	-	-	-	-	10,226	41,598	57,571	64,370	68,764	68,242	54,261	389,295
1988	24,263	-	-	-	-	10,226	41,185	56,950	64,763	68,752	68,568	54,555	389,262
1989	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,236	56,295	395,246
1990	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1991	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1992	33,266	-	-	-	-	10,226	38,951	57,867	63,998	67,487	66,675	53,586	392,056
1993	24,263	-	-	-	-	10,226	39,446	52,086	63,659	65,631	64,824	52,819	372,956
1994	23,677	-	-	-	-	10,226	40,308	53,047	53,533	55,537	55,160	48,612	340,100
1995	20,666	-	-	-	-	10,226	41,781	59,101	63,593	67,894	70,209	56,174	389,644
1996	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1997	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1998	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1999	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2000	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2001	33,266	-	-	-	-	10,226	40,270	57,120	59,721	60,949	60,372	50,939	372,864
2002	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2003	33,266	-	-	-	-	10,226	41,928	55,711	65,148	69,079	68,850	55,402	399,610
2004	24,263	-	-	-	-	10,226	41,185	57,181	65,148	70,157	70,229	56,234	394,624
2005	24,263	-	-	-	-	10,226	40,638	57,169	59,949	61,276	60,345	51,354	365,222
2006	24,248	-	-	-	-	10,226	41,908	59,101	65,975	70,157	70,467	59,068	401,149
2007	32,903	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,890
2008	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2009	33,266	-	-	-	-	10,179	40,863	57,599	64,847	69,830	69,686	55,768	402,037
Average	29,489	-	-	-	-	10,226	40,885	57,372	64,081	68,518	68,526	56,825	395,922

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	3,644	-	-	-	-	421	4,199	12,698	16,423	18,191	18,212	15,054	88,842
1927	660	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,630
1928	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1929	3,644	-	-	-	-	421	3,578	13,084	16,423	18,347	18,395	15,553	89,445
1930	798	-	-	-	-	421	4,768	12,866	16,358	17,555	17,550	15,290	85,606
1931	798	-	-	-	-	421	2,853	13,084	16,377	17,714	17,637	15,325	84,209
1932	798	-	-	-	-	421	4,768	12,580	15,788	18,950	19,461	15,860	88,626
1933	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1934	3,644	-	-	-	-	421	4,768	12,863	16,212	18,347	18,395	15,601	90,251
1935	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1936	3,644	-	-	-	-	421	4,386	13,084	16,423	18,347	18,395	15,600	90,300
1937	798	-	-	-	-	421	4,768	13,084	16,425	18,414	18,395	15,611	87,916
1938	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1939	3,644	-	-	-	-	421	4,686	10,784	16,113	18,347	18,395	15,608	87,998
1940	798	-	-	-	-	421	4,761	11,217	16,423	18,347	18,395	15,564	85,927
1941	798	-	-	-	-	421	4,030	12,840	15,937	16,820	16,807	14,955	82,608
1942	798	-	-	-	-	421	4,694	12,979	16,423	18,347	18,354	15,519	87,535
1943	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1944	3,644	-	-	-	-	421	2,507	13,084	16,402	17,709	17,659	15,330	86,756
1945	798	-	-	-	-	421	3,987	13,084	16,423	18,347	18,395	15,560	87,015
1946	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1947	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1948	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1949	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1950	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1951	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1952	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1953	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1954	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1955	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1956	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1957	3,644	-	-	-	-	421	4,767	13,084	16,425	18,950	19,461	15,860	92,612
1958	3,644	-	-	-	-	421	4,643	13,084	16,425	18,950	19,461	15,860	92,489
1959	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1960	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1961	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1962	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1963	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,606	90,689
1964	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1965	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1966	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1967	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,603	90,687
1968	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1969	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1970	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,601	90,684
1971	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1972	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1973	3,644	-	-	-	-	421	4,023	13,084	16,423	18,347	18,395	15,578	89,915
1974	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1975	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1976	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1977	3,644	-	-	-	-	421	3,043	13,084	16,423	18,283	18,317	15,516	88,731
1978	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1979	3,644	-	-	-	-	421	4,100	13,084	16,423	18,347	18,395	15,574	89,988
1980	798	-	-	-	-	421	4,527	12,841	15,827	18,347	18,395	15,608	86,764
1981	798	-	-	-	-	421	4,332	13,084	16,423	18,347	18,395	15,594	87,394
1982	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1983	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1984	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1985	3,644	-	-	-	-	421	4,768	13,084	16,425	18,427	18,395	15,612	90,776
1986	798	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,600	87,837
1987	798	-	-	-	-	421	4,738	12,695	16,423	18,347	18,395	15,575	87,392
1988	798	-	-	-	-	421	4,701	12,776	16,423	18,347	18,395	15,579	87,440
1989	798	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,610	87,849
1990	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1991	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1992	3,644	-	-	-	-	421	3,711	13,084	16,423	18,347	18,395	15,566	89,590
1993	798	-	-	-	-	421	4,321	11,222	16,423	18,347	18,395	15,555	85,483
1994	798	-	-	-	-	421	4,530	12,820	16,123	17,130	17,100	15,090	84,012
1995	798	-	-	-	-	421	4,750	13,084	15,405	17,601	18,395	15,608	86,061
1996	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1997	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1998	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1999	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2000	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2001	3,644	-	-	-	-	421	2,818	13,084	16,423	18,137	18,143	15,483	88,153
2002	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2003	3,644	-	-	-	-	421	4,768	12,381	16,423	18,347	18,395	15,593	89,972
2004	798	-	-	-	-	421	4,639	12,773	16,423	18,347	18,395	15,609	87,405
2005	798	-	-	-	-	421	2,969	13,084	16,423	18,193	18,270	15,518	85,676
2006	798	-	-	-	-	421	4,767	13,084	16,425	18,950	19,461	15,860	89,767
2007	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2008	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2009	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,602	90,684
Average	2,490	-	-	-	-	421	4,558	12,966	16,381	18,628	18,947	15,714	90,104

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	7,393	-	-	-	-	20	10,529	13,536	14,527	14,065	14,735	13,329	88,133
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1929	7,393	-	-	-	-	20	10,718	13,791	14,527	14,065	14,735	13,329	88,578
1930	5,536	-	-	-	-	20	11,828	13,615	14,230	13,127	14,194	12,849	85,398
1931	5,536	-	-	-	-	20	9,551	13,458	13,121	12,286	13,468	12,611	80,050
1932	5,536	-	-	-	-	20	11,828	15,023	15,597	17,629	17,780	15,757	99,170
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	15,316	15,575	14,771	14,735	13,329	92,966
1935	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1936	7,393	-	-	-	-	20	11,409	14,763	15,572	14,065	14,735	13,329	91,287
1937	5,536	-	-	-	-	20	11,828	15,543	16,253	17,173	17,346	15,376	99,074
1938	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1939	7,393	-	-	-	-	20	11,597	12,902	15,591	17,070	17,346	15,376	97,294
1940	5,536	-	-	-	-	20	11,812	13,421	14,527	14,065	14,735	13,329	87,446
1941	5,536	-	-	-	-	20	10,285	13,197	13,121	12,206	14,194	12,692	81,251
1942	5,536	-	-	-	-	20	11,493	13,526	14,230	13,127	14,194	12,849	84,975
1943	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1944	7,393	-	-	-	-	20	10,537	13,571	14,230	13,127	14,194	12,849	85,920
1945	5,536	-	-	-	-	20	10,737	13,791	14,527	14,065	14,735	13,329	86,741
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1947	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1948	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1953	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,821	15,543	16,253	17,629	17,780	15,757	102,195
1958	7,393	-	-	-	-	20	11,468	15,543	16,253	17,629	17,780	15,757	101,843
1959	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1960	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1961	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1962	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1963	7,393	-	-	-	-	20	11,828	15,543	15,850	17,070	17,346	15,376	100,425
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1966	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1967	7,393	-	-	-	-	20	11,828	15,543	16,134	17,070	17,346	14,783	100,115
1968	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1969	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1970	7,393	-	-	-	-	20	11,828	15,543	15,709	15,967	14,735	13,329	94,524
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,724	13,791	14,527	14,065	14,735	13,329	88,585
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,780	13,791	14,527	14,065	14,735	13,329	88,641
1978	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1979	7,393	-	-	-	-	20	10,693	13,791	14,527	14,065	14,735	13,329	88,553
1980	5,536	-	-	-	-	20	11,054	15,294	15,285	17,070	17,346	15,376	96,980
1981	5,536	-	-	-	-	20	11,037	14,755	14,527	14,065	14,735	13,329	88,004
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,828	15,543	16,253	17,185	17,346	15,376	100,942
1986	5,536	-	-	-	-	20	11,828	15,543	14,876	14,065	14,735	13,329	89,932
1987	5,536	-	-	-	-	20	11,678	14,898	14,527	14,065	14,735	13,329	88,788
1988	5,536	-	-	-	-	20	11,525	13,884	14,527	14,065	14,735	13,329	87,621
1989	5,536	-	-	-	-	20	11,828	15,543	16,047	17,070	17,346	15,376	98,764
1990	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1991	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1992	7,393	-	-	-	-	20	10,091	13,791	14,527	14,065	14,735	13,329	87,951
1993	5,536	-	-	-	-	20	10,707	13,246	14,527	14,065	14,735	13,329	86,165
1994	5,536	-	-	-	-	20	11,157	13,541	14,230	13,127	14,194	12,849	84,654
1995	5,536	-	-	-	-	20	11,786	15,543	15,273	16,426	17,346	15,376	97,305
1996	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1997	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1998	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1999	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2000	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2001	7,393	-	-	-	-	20	10,692	13,791	14,527	14,065	14,735	13,329	88,553
2002	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2003	7,393	-	-	-	-	20	11,828	14,354	14,551	14,065	14,735	13,329	90,274
2004	5,536	-	-	-	-	20	11,614	15,052	15,644	17,070	17,346	15,376	97,657
2005	5,536	-	-	-	-	20	10,797	13,791	14,527	14,065	14,735	13,329	86,801
2006	5,536	-	-	-	-	20	11,824	15,543	16,253	17,629	17,780	15,757	100,342
2007	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2008	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2009	7,393	-	-	-	-	20	11,828	15,297	15,350	17,070	15,953	13,329	96,239
Average	6,641	-	-	-	-	20	11,575	15,040	15,669	16,440	16,758	14,919	97,062

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3 (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	77,300	79,559	85,630
1926	80,060	82,525	101,118	121,556	93,164	60,928	18,177	9,194	9,574	24,468	34,378	48,727
1927	52,751	55,135	58,090	72,147	89,474	109,335	78,787	53,264	57,977	74,841	97,808	86,054
1928	89,152	89,533	104,993	119,948	157,253	155,628	107,145	68,711	63,445	73,948	74,459	72,256
1929	68,058	64,750	69,732	57,133	80,195	79,913	47,536	11,246	7,991	5,714	3,740	6,456
1930	8,139	26,574	38,548	68,265	58,005	44,338	11,046	8,301	6,394	9,835	13,520	11,375
1931	18,407	27,902	44,773	62,479	79,535	77,332	53,571	24,234	21,179	16,846	30,651	33,162
1932	46,286	63,659	82,218	86,039	97,343	109,462	78,901	54,522	52,096	55,682	98,369	95,534
1933	90,623	80,134	80,108	82,829	110,165	157,770	150,100	115,831	97,373	103,407	118,796	123,596
1934	118,796	130,697	134,293	156,721	155,936	136,709	84,084	44,152	41,336	59,175	80,475	81,335
1935	106,740	116,800	126,374	124,532	154,039	157,770	123,760	84,878	78,604	76,490	74,685	74,025
1936	80,040	80,280	79,849	97,398	155,159	157,459	113,263	73,919	70,182	66,466	60,787	75,543
1937	74,570	75,957	80,331	80,204	103,887	149,189	117,610	77,762	73,889	73,779	93,390	86,276
1938	94,433	94,326	97,867	123,394	156,205	157,180	112,296	71,739	66,715	63,619	74,092	81,640
1939	80,142	80,036	86,725	109,447	138,485	145,926	100,390	60,176	56,677	57,131	63,789	80,343
1940	79,385	80,267	83,142	96,189	111,022	88,914	49,379	12,142	8,304	8,696	14,525	25,983
1941	25,396	25,169	37,225	49,967	27,313	11,979	9,980	8,474	14,615	27,468	41,759	56,961
1942	57,781	59,014	63,594	78,754	75,409	79,092	56,666	24,410	22,014	14,188	32,301	47,941
1943	55,907	58,949	67,855	88,955	93,477	105,474	80,746	54,872	51,736	49,376	51,369	69,419
1944	68,927	72,530	77,939	76,091	72,407	60,517	12,632	10,798	14,901	11,740	15,096	24,589
1945	51,716	66,043	70,482	78,077	94,200	79,215	57,442	28,772	32,196	36,607	52,639	63,406
1946	72,418	74,558	80,249	85,683	121,960	140,842	111,781	75,333	73,472	80,364	80,350	91,998
1947	87,134	80,338	95,351	130,664	157,521	154,360	106,710	65,145	63,087	80,671	85,407	80,275
1948	84,118	87,577	90,722	102,067	122,602	157,770	129,042	92,397	80,151	79,936	82,428	80,187
1949	80,584	85,137	91,425	106,341	147,482	157,734	137,253	100,836	79,743	81,691	98,340	114,557
1950	118,796	124,046	98,299	94,224	113,704	159,354	151,283	117,631	92,266	83,948	94,778	118,796
1951	118,796	133,981	113,224	117,253	153,576	157,693	119,408	79,437	75,591	80,522	80,260	79,994
1952	79,636	80,024	80,306	104,699	142,594	153,985	115,120	75,201	72,072	67,030	60,072	54,894
1953	88,429	88,838	92,966	104,609	136,401	157,770	136,366	97,578	79,039	80,251	80,830	89,618
1954	99,766	105,042	109,232	105,454	129,364	157,947	151,049	120,706	98,760	80,049	84,510	81,348
1955	85,561	95,522	97,817	102,873	128,985	157,774	151,766	118,708	93,446	91,138	118,229	118,796
1956	118,760	113,915	75,456	81,505	124,215	157,770	146,850	109,184	84,261	80,306	80,136	118,796
1957	118,796	120,397	125,078	127,669	157,113	149,808	100,767	61,123	56,371	54,149	56,200	69,609
1958	77,044	82,328	80,278	84,707	122,324	124,893	79,200	46,794	44,423	57,834	88,408	97,644
1959	117,918	123,273	122,621	124,089	149,323	157,770	129,030	90,675	87,824	91,081	118,796	118,796
1960	118,796	125,382	128,997	132,066	157,481	157,317	114,903	75,897	73,725	80,759	80,368	80,039
1961	80,920	106,845	116,707	116,319	150,325	157,403	120,866	80,296	77,906	80,249	80,241	82,937
1962	96,541	106,420	108,644	141,347	150,392	157,596	120,749	81,699	78,323	80,000	94,038	88,233
1963	99,970	123,337	132,075	145,626	156,559	150,026	99,591	59,210	54,377	54,581	68,939	71,835
1964	80,165	80,108	80,225	79,868	113,433	157,770	147,506	116,536	95,735	80,072	81,854	90,257
1965	112,432	129,369	123,999	128,141	156,788	156,552	118,095	78,488	74,436	76,045	80,123	80,045
1966	80,002	79,259	81,507	97,624	129,398	142,432	106,802	66,853	62,122	65,532	73,713	85,815
1967	94,675	109,280	114,468	109,200	137,523	157,770	124,866	82,963	75,902	88,600	80,137	106,451
1968	118,796	147,477	150,167	148,275	157,608	154,126	108,160	69,790	76,720	80,296	81,343	80,196
1969	94,284	93,938	97,430	116,156	154,168	155,377	109,563	71,138	71,162	75,232	77,211	76,907
1970	80,257	80,065	80,488	75,370	104,556	132,227	92,920	56,840	55,216	56,545	68,205	69,878
1971	85,324	89,267	93,230	100,261	127,387	157,770	156,851	122,540	97,507	80,514	80,236	88,235
1972	104,090	118,890	115,365	94,373	114,343	157,770	149,832	116,851	99,742	79,918	80,413	102,955
1973	116,033	116,728	120,025	122,932	122,546	120,982	78,273	44,894	43,546	46,525	52,840	64,566
1974	90,544	80,126	80,705	80,567	105,392	158,077	157,456	129,619	105,088	79,803	80,062	91,249
1975	115,306	120,664	113,239	105,910	129,612	157,770	137,868	104,210	79,835	81,491	91,419	118,796
1976	118,796	127,376	117,025	114,103	145,766	157,770	143,684	111,946	87,598	79,482	80,156	80,741
1977	95,283	104,079	104,364	108,138	60,538	47,416	12,155	7,373	9,872	13,013	54,948	87,244
1978	80,106	80,184	85,984	81,927	86,077	100,848	74,000	51,430	54,432	52,737	58,433	66,335
1979	65,352	71,016	80,283	85,441	91,912	82,098	66,831	39,425	37,851	38,296	36,734	75,850
1980	80,153	80,909	80,186	95,489	110,556	113,778	78,440	47,424	48,472	45,459	69,809	108,431
1981	101,131	126,547	134,150	148,050	146,689	154,395	106,241	63,866	58,702	65,768	70,511	77,748
1982	86,676	102,722	117,369	113,643	140,572	157,770	131,992	95,996	80,093	80,460	80,053	80,061
1983	105,216	114,093	124,773	124,542	142,716	147,919	116,895	78,318	79,413	77,671	81,337	80,156
1984	118,796	124,907	126,986	125,263	153,586	157,770	132,113	93,837	79,672	80,092	80,029	80,028
1985	78,251	77,470	80,884	112,292	155,479	154,555	108,267	68,063	67,000	83,971	83,613	77,799
1986	80,100	95,417	121,813	136,423	153,964	146,441	98,166	57,592	55,283	55,288	82,228	79,996
1987	78,868	80,151	80,209	110,724	136,444	120,345	74,683	36,317	33,185	29,044	25,957	33,475
1988	33,888	44,829	62,012	88,961	95,554	83,986	62,673	36,225	33,969	46,853	67,758	81,667
1989	81,523	80,034	80,263	110,293	135,107	144,713	98,414	61,229	58,224	55,638	80,142	80,159
1990	93,343	108,411	120,787	140,615	157,376	157,634	119,173	79,116	75,683	84,144	131,906	118,796
1991	118,796	145,179	133,317	143,665	157,547	157,634	123,771	85,036	77,416	73,884	82,165	80,946
1992	98,392	111,220	129,602	149,249	142,449	111,753	62,059	21,970	24,195	19,125	31,448	35,923
1993	44,623	46,313	62,494	83,467	87,278	70,964	33,213	10,662	7,335	6,330	7,984	12,802
1994	25,345	27,055	43,084	73,769	67,647	48,968	11,556	11,401	9,617	17,283	32,406	52,591
1995	60,806	88,662	80,456	80,707	83,504	78,383	61,980	35,713	31,840	52,278	119,420	109,415
1996	112,876	137,865	128,359	144,426	157,475	153,498	114,867	76,038	75,365	82,391	82,654	80,656
1997	98,409	114,452	90,447	94,171	135,529	157,770	141,238	105,510	83,688	87,635	83,746	89,973
1998	98,343	103,813	117,546	128,926	157,101	153,624	106,157	68,181	64,038	62,333	81,866	93,663
1999	103,410	108,752	106,360	103,458	119,413	157,770	151,496	125,318	99,152	80,618	94,333	118,796
2000	118,796	119,439	123,837	134,703	157,275	157,689	120,708	85,711	81,196	80,060	78,706	74,956
2001	74,319	72,807	80,833	83,159	77,643	65,348	25,996	10,434	8,099	19,266	43,391	54,460
2002	73,713	80,316	80,196	91,759	112,565	149,448	115,619	78,622	74,891	70,846	70,783	69,828
2003	88,950	80,637	85,362	94,259	108,293	112,750	74,728	42,275	37,959	51,211	75,511	79,984
2004	84,564	80,092	80,836	102,693	117,759	122,487	77,334	48,436	56,279	62,272	79,609	82,364
2005	93,063	94,939	98,838	104,872	81,513	55,352	14,502	10,686	9,744	14,111	27,951	38,612
2006	58,072	64,618	67,254	84,611	99,410	95,441	70,097	46,430	44,012	36,569	80,230	80,301
2007	80,120	80,283	105,827	128,659	155,692	153,154	105,412	66,373	62,407	68,538	75,660	79,944
2008	79,834	80,154	79,734	75,464	131,471	157,796	129,680	95,178	79,212	77,431	90,536	80,257
2009	111,251	111,682	114,136	124,794	155,975	154,944	108,561	70,006	66,360	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3 (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	79,087	83,800	133,305
1926	160,147	175,451	197,716	220,611	187,231	122,730	41,066	-22,784	-69,325	-69,223	-57,767	-39,752
1927	-32,063	-25,067	-18,970	2,424	58,780	118,300	118,764	82,337	21,646	19,061	77,091	126,450
1928	173,404	178,361	198,381	214,316	238,524	235,780	209,579	166,196	96,566	74,890	79,364	82,820
1929	85,062	87,342	98,157	97,616	134,513	151,730	69,731	-2,222	-52,987	-72,277	-74,465	-71,340
1930	-69,245	-50,724	-32,563	459	7,696	-22,345	-78,426	-138,660	-186,678	-197,637	-191,378	-188,927
1931	-182,323	-170,703	-149,856	-127,993	-85,365	-92,377	-121,512	-154,014	-199,830	-196,708	-185,183	-178,720
1932	-167,809	-143,076	-101,322	-43,938	24,184	69,588	72,773	36,630	-21,740	-43,285	16,655	67,663
1933	115,913	135,709	144,798	172,526	205,605	238,980	233,180	202,590	162,903	188,693	203,025	203,025
1934	203,025	220,437	217,330	238,033	238,030	214,848	174,728	125,117	57,133	66,501	100,641	133,249
1935	180,363	193,456	208,301	208,320	237,044	238,980	218,595	183,683	117,619	88,273	90,021	93,817
1936	103,198	109,854	133,534	178,824	236,591	238,461	201,559	157,885	89,859	83,575	82,612	95,241
1937	99,211	105,494	117,314	151,553	195,935	227,584	209,389	176,438	109,476	103,185	146,445	191,500
1938	203,025	207,900	203,773	207,269	237,556	237,521	201,032	166,289	97,228	67,960	78,059	109,581
1939	153,527	165,227	180,494	208,965	234,314	216,393	172,205	118,831	53,102	52,413	60,129	86,234
1940	92,943	112,875	145,934	186,047	203,813	160,790	92,102	20,287	-26,927	-39,281	-34,296	-22,200
1941	-17,181	-13,796	2,429	22,196	16,159	-22,247	-81,928	-140,594	-181,159	-179,912	-165,272	-147,513
1942	-142,636	-137,674	-129,311	-97,740	-83,136	-79,619	-103,029	-136,766	-185,348	-198,518	-183,535	-166,408
1943	-154,516	-147,276	-134,609	-81,945	-19,827	32,176	42,593	10,450	-46,973	-72,141	-68,152	-51,586
1944	-47,856	-41,066	-30,976	-11,344	1,026	-25,799	-84,905	-143,278	-186,790	-199,302	-194,254	-184,025
1945	-157,543	-141,754	-132,309	-118,077	-54,588	-34,830	-67,021	-100,586	-146,215	-154,624	-139,466	-126,952
1946	-113,531	-107,730	-95,832	-51,529	39,656	92,717	100,262	79,786	17,706	16,187	29,480	83,774
1947	126,459	161,416	188,855	220,538	238,771	229,573	208,255	178,775	112,499	112,336	163,335	192,190
1948	201,362	210,666	192,614	187,583	207,090	238,980	217,941	189,661	138,486	124,609	143,636	167,591
1949	174,998	185,560	188,344	191,528	232,565	238,872	235,549	210,469	164,022	161,617	203,025	203,025
1950	203,025	208,267	184,104	180,343	198,325	238,980	234,414	202,381	158,675	172,768	203,025	203,025
1951	203,025	216,491	197,882	201,601	235,843	238,852	209,906	178,698	114,510	110,397	134,621	147,713
1952	152,263	162,764	172,032	200,328	233,704	229,694	218,082	180,916	112,558	81,984	80,912	81,724
1953	122,082	170,902	182,389	197,958	228,557	238,980	219,527	186,340	133,897	111,253	133,822	190,310
1954	203,025	213,064	194,197	190,710	213,736	238,980	233,597	204,148	161,796	162,212	190,603	203,025
1955	203,025	216,138	206,073	196,577	213,105	238,980	238,327	208,762	164,989	186,990	203,025	203,025
1956	203,025	197,459	163,019	170,761	207,600	238,980	228,911	189,619	146,914	149,967	175,567	203,025
1957	203,025	209,319	209,985	211,216	238,395	223,363	176,978	142,165	75,095	49,417	54,101	69,317
1958	79,467	104,116	123,899	166,900	213,289	200,219	172,070	122,957	58,694	48,805	103,029	163,691
1959	194,114	203,991	206,482	207,910	233,501	238,980	220,024	184,352	158,718	191,684	202,942	203,025
1960	203,025	212,844	212,442	216,737	238,735	237,794	204,102	166,356	100,631	80,519	123,928	134,189
1961	171,433	200,259	201,096	200,739	232,374	238,147	219,003	180,447	114,012	101,251	119,036	147,396
1962	182,651	198,586	205,916	228,832	236,736	238,596	212,405	191,675	128,034	114,664	153,762	199,126
1963	203,025	226,452	234,759	237,693	238,980	224,033	188,990	152,491	85,924	84,019	95,605	103,561
1964	120,335	128,237	143,669	171,923	207,087	238,980	229,292	197,149	158,378	160,370	176,996	203,025
1965	203,025	222,154	207,828	211,651	238,095	235,884	217,225	187,393	120,683	95,027	105,518	115,437
1966	127,075	130,625	143,150	183,146	214,687	212,422	205,227	179,512	114,942	92,892	101,310	144,145
1967	182,320	199,948	209,532	195,047	223,188	238,980	226,061	177,808	111,777	137,763	178,685	203,025
1968	203,025	229,321	233,656	230,268	238,793	232,766	214,429	173,488	112,665	106,307	146,050	176,185
1969	192,822	197,246	200,738	200,588	235,676	233,444	199,193	162,765	98,861	75,642	79,788	84,018
1970	95,654	106,640	129,197	154,691	194,571	214,624	196,091	149,611	81,951	82,524	93,857	100,204
1971	131,497	175,070	184,852	185,915	211,177	238,980	238,090	201,119	161,808	164,399	197,084	203,025
1972	203,025	197,253	170,868	167,275	198,915	238,980	233,964	211,745	175,075	172,750	186,822	203,025
1973	203,025	207,411	214,399	215,615	211,291	197,244	166,581	112,165	49,999	47,434	55,895	69,456
1974	116,906	147,917	170,616	168,248	190,653	238,980	238,785	207,061	163,955	160,195	169,852	203,025
1975	203,025	212,901	197,896	191,130	213,298	238,980	222,479	193,010	150,956	141,561	194,080	203,025
1976	203,025	216,911	201,391	198,693	229,531	238,980	229,782	209,756	164,058	143,526	153,941	173,213
1977	188,167	199,164	203,396	202,513	152,514	101,900	28,830	-29,887	-73,814	-84,341	-49,831	27,426
1978	47,158	58,673	91,764	137,821	174,979	176,444	156,581	118,941	56,768	27,841	34,088	43,034
1979	47,366	56,344	84,361	112,745	169,688	170,943	131,284	91,910	29,621	18,950	20,575	56,005
1980	63,252	75,785	101,437	153,760	185,512	176,707	170,486	130,283	65,592	65,029	85,645	147,940
1981	176,510	200,627	213,313	232,136	232,827	227,093	192,878	141,492	74,030	80,605	87,746	97,997
1982	123,592	176,098	196,050	198,268	223,679	238,980	219,986	188,723	139,944	126,157	141,326	174,418
1983	202,677	215,763	208,543	208,329	229,774	221,551	222,224	204,908	141,277	116,453	159,127	171,818
1984	203,025	214,423	210,585	208,994	235,322	238,980	221,742	190,555	137,504	117,519	138,311	149,963
1985	152,873	155,545	166,199	202,177	238,808	231,112	180,059	134,427	68,610	86,767	135,074	142,907
1986	150,610	175,002	204,872	222,791	237,693	220,162	177,892	130,379	65,944	66,102	97,088	109,300
1987	114,876	121,407	160,755	201,238	225,475	196,233	159,768	104,368	38,329	12,258	12,821	20,070
1988	23,767	36,080	57,043	108,027	163,945	170,424	117,327	77,019	19,400	22,356	44,587	66,291
1989	104,426	119,565	135,856	187,455	212,961	211,325	185,598	143,485	75,826	74,656	102,953	147,097
1990	180,137	198,825	209,326	224,880	238,638	238,753	211,506	175,042	109,072	116,789	202,231	203,025
1991	203,025	227,068	216,429	226,968	238,795	238,702	217,956	195,878	132,431	103,533	128,299	176,719
1992	195,064	211,278	232,300	238,980	226,616	187,322	125,129	52,267	373	-15,064	-2,990	5,098
1993	15,134	20,659	37,885	68,527	132,424	104,487	34,104	-24,893	-73,069	-89,614	-89,076	-84,040
1994	-70,045	-63,078	-44,158	-11,885	3,425	-30,973	-87,868	-145,747	-193,082	-192,130	-179,138	-158,407
1995	-146,739	-104,056	-59,515	-22,713	38,686	36,886	7,878	-23,498	-74,938	-55,326	30,727	72,889
1996	125,050	181,254	201,726	228,962	238,729	230,822	221,102	192,038	127,195	114,885	153,418	176,533
1997	195,850	199,872	174,275	180,294	218,656	238,980	225,044	190,579	152,165	175,008	203,025	203,025
1998	203,025	212,410	211,655	212,376	238,384	229,767	209,648	171,974	102,907	76,639	100,076	138,954
1999	181,157	193,622	191,546	188,867	203,594	238,980	235,257	212,325	170,490	165,920	203,025	203,025
2000	203,025	207,045	209,071	218,203	238,545	238,736	203,363	156,478	100,140	87,269	91,863	94,056
2001	97,117	99,437	112,069	129,900	163,010	111,729	29,197	-24,964	-71,326	-77,337	-54,876	-40,884
2002	-18,721	-6,342	15,807	71,382	141,679	191,672	187,313	138,741	69,362	40,097	43,187	46,581
2003	68,073	107,685	153,443	184,551	198,152	185,902	157,519	115,500	50,920	58,089	82,918	94,741
2004	109,146	127,072	163,200	195,954	211,600	195,590	162,986	119,014	62,516	68,488	85,782	127,367
2005	168,350	180,007	188,461	193,570	170,684	102,369	23,680	-31,746	-79,651	-90,195	-77,639	-65,907
2006	-43,065	-32,979	-26,282	5,339	75,940	110,082	88,988	58,375	11,068	6,926	56,755	73,967
2007	104,313	131,050	186,154	211,994	237,938	228,605	205,900	169,498	101,232	77,403	85,965	109,943
2008	116,119	125,958	139,864	144,154	211,679	238,791	209,698	166,847	117,392	91,805	138,071	166,650
2009	202,094	206,939	208,913	208,562	237,344	232,459	202,939	171,048	110,898	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3 (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	150,490	149,920	195,390
1926	214,079	223,877	270,594	355,858	373,163	280,909	136,403	26,987	16,842	48,205	70,062	105,125
1927	113,627	116,545	121,612	173,567	302,998	451,480	371,823	189,645	181,555	225,665	300,219	325,592
1928	328,627	333,934	363,920	366,075	449,838	446,044	316,117	128,060	106,143	123,344	125,254	123,819
1929	119,097	113,710	125,845	137,945	259,701	331,741	246,348	115,540	84,380	77,232	69,150	65,119
1930	58,398	81,845	114,357	212,907	265,697	258,368	160,210	42,565	20,219	23,423	29,058	27,282
1931	36,465	56,256	88,411	138,138	261,373	252,562	135,252	27,511	15,973	18,771	42,803	46,459
1932	68,633	128,613	211,981	296,705	445,343	451,480	344,741	165,343	146,179	138,726	237,512	288,525
1933	319,065	320,842	322,939	322,939	340,351	451,480	439,343	313,046	307,948	382,501	359,519	393,635
1934	367,502	387,510	397,438	448,120	451,417	388,036	244,723	85,331	69,879	93,902	167,667	195,607
1935	273,887	308,525	331,486	344,124	444,658	451,480	373,932	202,284	186,572	180,634	175,198	170,173
1936	172,301	169,849	185,106	286,784	443,072	450,002	334,384	155,134	135,323	128,972	120,335	128,576
1937	125,072	123,918	134,444	171,216	310,566	451,480	368,610	202,403	182,159	180,854	224,221	257,460
1938	274,267	275,670	286,173	340,447	446,450	451,480	338,290	153,094	125,111	117,508	125,002	149,051
1939	180,304	186,446	208,669	290,602	422,869	415,100	287,556	118,411	96,664	94,086	107,234	148,380
1940	152,407	163,552	198,361	277,571	393,324	368,015	231,244	90,389	57,918	60,601	64,078	82,584
1941	83,803	83,017	120,117	190,794	225,155	192,184	88,054	18,671	26,911	53,987	87,775	129,103
1942	132,717	134,887	144,258	213,324	272,169	294,559	179,692	44,665	23,095	16,493	34,325	59,476
1943	79,023	87,225	106,898	214,493	342,953	451,480	402,638	240,011	218,215	204,670	203,400	229,126
1944	227,049	230,166	245,054	281,733	350,430	344,272	227,833	96,388	83,816	88,052	95,905	114,893
1945	165,973	196,272	207,543	227,646	378,291	402,667	238,771	77,902	62,723	71,316	93,554	106,990
1946	123,636	127,181	138,726	210,296	428,907	451,480	383,191	216,643	195,970	191,468	198,968	255,352
1947	281,440	310,948	354,934	405,800	450,703	440,049	309,963	134,668	120,029	173,041	226,833	249,490
1948	257,746	264,179	271,355	274,669	360,791	451,480	388,013	241,460	222,117	233,065	244,754	258,437
1949	257,361	264,238	278,576	285,353	427,203	451,046	396,655	240,778	226,718	247,385	325,592	325,592
1950	325,592	332,063	318,973	304,220	309,141	451,480	439,705	326,646	311,352	344,202	346,482	346,482
1951	346,475	398,091	350,663	348,634	441,614	451,480	362,423	193,259	173,873	200,656	223,815	234,527
1952	234,312	238,970	244,022	319,734	449,892	441,336	327,208	150,976	130,005	111,526	103,761	98,548
1953	148,619	201,267	216,152	255,241	390,634	451,480	402,699	264,711	246,223	246,761	263,969	312,163
1954	325,592	335,128	333,372	326,682	364,813	451,480	439,018	334,584	327,439	333,917	334,014	334,005
1955	333,548	348,668	350,595	324,276	398,327	407,865	382,703	230,612	217,167	249,137	325,592	325,592
1956	325,592	325,676	277,933	272,907	347,340	451,480	428,289	301,996	287,133	311,965	325,592	333,209
1957	332,817	335,673	348,359	354,260	449,387	422,874	288,366	122,256	100,934	95,410	96,803	110,303
1958	117,847	135,853	159,575	207,394	409,104	439,254	285,342	108,573	93,425	114,182	188,079	263,414
1959	310,575	323,890	339,930	342,691	444,321	451,480	388,705	221,379	240,597	307,485	377,504	363,673
1960	344,716	351,512	359,397	375,597	450,576	450,733	340,537	170,024	151,225	155,888	183,397	188,052
1961	218,762	267,879	305,129	317,589	428,323	450,411	358,336	188,613	175,095	186,847	195,493	212,604
1962	270,054	298,127	305,084	398,445	450,591	451,480	366,793	201,649	181,146	193,237	257,688	294,179
1963	315,150	365,086	389,175	419,678	451,480	422,735	292,688	127,757	108,753	106,860	121,017	129,861
1964	149,531	153,249	160,081	191,674	299,766	451,480	423,065	306,089	294,669	307,265	315,178	325,592
1965	328,223	359,643	366,877	362,977	448,336	445,833	347,876	190,012	172,081	172,900	189,729	196,431
1966	200,040	198,519	208,387	278,661	412,924	440,322	327,130	141,216	118,540	124,357	133,093	185,135
1967	216,532	241,425	250,454	253,490	371,463	385,853	295,803	139,912	124,094	169,194	214,632	279,918
1968	325,592	385,610	423,704	428,796	451,480	437,717	304,946	164,498	162,128	181,993	224,004	246,589
1969	277,672	279,455	288,803	317,064	439,872	440,463	319,033	142,891	124,844	135,079	143,165	144,666
1970	149,464	153,375	167,996	189,944	314,332	369,244	262,634	109,364	96,359	95,017	106,181	111,602
1971	145,358	195,897	207,232	239,003	357,177	451,480	450,381	328,672	315,769	322,677	325,592	325,592
1972	325,592	364,656	327,515	291,281	327,624	451,480	441,651	333,380	330,485	335,850	335,774	334,978
1973	334,978	338,413	343,964	358,701	398,912	354,197	209,056	68,846	58,571	66,058	81,578	101,700
1974	171,282	188,981	209,566	209,566	282,288	451,480	451,480	360,036	353,483	348,326	341,448	340,469
1975	340,469	348,899	342,473	328,220	360,650	451,480	408,403	298,230	284,088	295,882	325,592	364,401
1976	358,918	376,688	356,578	348,621	422,017	451,480	433,741	346,202	338,018	337,884	337,020	336,594
1977	336,036	351,073	354,681	383,291	349,474	286,596	145,877	33,972	26,157	30,056	91,170	209,834
1978	219,871	227,600	273,641	333,649	435,634	451,480	349,146	196,369	195,632	193,938	209,059	213,693
1979	210,985	213,211	248,470	281,445	416,309	386,117	245,812	86,745	74,484	73,729	74,641	153,423
1980	161,094	169,152	193,815	281,160	404,632	425,320	265,604	98,526	84,330	81,645	119,730	242,898
1981	274,193	317,852	340,764	386,484	438,685	377,236	249,951	103,932	93,555	104,656	117,081	124,327
1982	141,943	205,934	239,302	272,576	400,583	451,480	398,047	243,440	231,352	242,511	249,548	278,945
1983	325,592	344,894	364,810	362,563	445,595	451,480	376,115	215,154	207,374	202,951	243,901	250,353
1984	325,592	343,808	358,298	358,298	429,231	451,480	401,061	247,149	234,527	239,869	252,935	257,880
1985	254,380	252,369	259,179	335,648	450,834	436,367	306,950	137,035	122,501	147,547	190,499	187,000
1986	194,201	234,095	299,601	349,091	439,307	415,829	276,319	111,199	95,092	93,623	138,232	147,060
1987	146,778	147,955	189,323	271,733	397,275	353,224	202,516	60,416	43,366	36,901	32,989	40,213
1988	38,949	50,433	83,693	188,299	307,344	336,823	236,415	88,386	75,077	102,194	147,534	180,607
1989	209,768	221,489	233,608	329,888	433,027	424,615	291,662	128,439	106,656	101,900	149,058	200,074
1990	228,100	249,047	275,173	394,103	450,236	451,480	361,860	205,310	187,754	227,348	381,114	355,250
1991	349,910	410,533	391,735	420,677	450,786	451,480	388,096	229,234	210,266	203,051	223,749	258,617
1992	283,534	313,557	369,295	440,977	440,471	339,849	204,742	74,924	54,692	52,668	65,736	70,457
1993	79,832	85,147	111,080	163,065	319,627	323,339	227,026	105,672	74,119	66,560	61,864	61,301
1994	70,817	73,347	108,249	198,203	296,137	277,490	177,232	51,596	29,718	36,628	53,498	86,047
1995	100,521	189,653	232,872	284,165	449,033	451,480	339,077	166,479	149,553	188,056	378,532	359,176
1996	355,880	413,977	385,451	410,262	450,555	447,054	339,506	180,634	165,626	172,910	206,525	224,390
1997	253,059	287,188	299,552	291,322	376,555	451,480	420,057	296,269	296,106	352,278	352,929	344,007
1998	342,469	351,144	361,915	361,915	449,348	439,261	309,580	135,318	110,308	105,469	131,788	169,303
1999	223,168	235,813	247,874	276,039	327,584	451,480	450,676	364,899	352,018	356,500	358,395	355,635
2000	343,042	343,262	349,219	375,526	449,910	451,480	350,600	183,791	170,731	180,905	179,236	173,580
2001	170,190	165,364	179,496	208,442	293,858	264,045	159,090	42,234	19,375	27,589	81,031	102,297
2002	146,154	163,024	182,646	259,478	392,638	451,480	368,377	202,112	182,196	173,626	174,874	175,523
2003	205,467	240,223	288,195	343,588	432,006	427,225	267,708	101,590	85,516	117,260	169,090	188,202
2004	198,308	210,394	251,942	331,739	431,029	409,620	253,217	110,746	119,502	129,970	168,200	219,525
2005	292,367	308,815	324,132	355,888	376,574	291,861	168,301	42,670	19,688	29,745	46,795	69,259
2006	109,696	122,365	129,075	186,623	358,834	451,480	330,898	148,177	125,146	87,944	202,162	217,441
2007	245,230	271,387	366,502	399,115	450,967	433,044	305,035	129,087	104,362	107,199	119,024	155,811
2008	158,226	161,686	171,412	177,196	364,291	451,480	374,048	226,324	205,499	201,243	273,725	289,095
2009	325,592	328,817	333,646	344,971	445,707	439,536	320,168	144,468	126,689	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3 (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,971	2,058	7,873
1926	11,265	11,666	15,597	33,968	33,970	32,401	26,076	17,837	9,131	7,889	10,949	15,000
1927	14,993	15,244	14,222	15,701	27,188	33,970	31,457	20,663	16,859	14,978	15,222	15,000
1928	15,126	14,446	15,000	15,000	36,004	33,970	29,848	20,482	17,068	13,479	10,802	6,643
1929	2,062	1,715	2,133	3,517	32,688	33,970	29,783	20,386	14,185	8,179	2,078	2,243
1930	1,465	8,242	8,517	29,484	33,970	33,970	27,682	19,522	11,792	5,275	1,939	1,589
1931	5,268	7,501	9,832	20,304	33,970	33,970	29,848	20,412	13,962	8,297	8,733	6,231
1932	6,018	11,319	15,000	15,000	32,049	33,970	31,457	20,764	17,141	11,087	15,851	14,949
1933	14,981	13,221	11,075	15,000	15,858	34,845	33,963	22,068	18,075	16,128	15,027	30,521
1934	17,174	19,238	18,845	32,908	33,929	33,970	29,848	20,335	15,619	16,548	15,782	15,000
1935	15,267	18,999	15,008	15,000	31,837	33,970	30,632	20,717	17,246	12,696	7,978	3,168
1936	1,882	1,891	2,121	15,000	32,559	33,970	30,234	20,544	17,168	11,998	6,094	3,731
1937	1,654	1,705	2,070	7,108	28,604	34,373	31,667	20,677	15,572	11,016	15,191	15,161
1938	15,085	14,315	12,440	16,779	35,599	33,970	30,234	20,401	14,984	10,357	5,826	6,476
1939	6,676	3,689	4,280	21,401	34,001	33,970	29,462	20,525	15,845	9,165	3,970	13,033
1940	14,423	17,184	21,730	33,491	33,964	33,970	29,848	20,335	13,660	8,738	6,544	9,507
1941	7,132	4,710	6,732	20,096	33,970	33,902	26,681	13,895	5,990	2,650	6,282	15,000
1942	13,821	8,462	5,059	17,955	33,964	33,970	29,848	20,484	15,671	9,441	15,000	15,000
1943	14,959	13,874	14,457	16,269	23,426	34,049	32,892	20,969	16,716	11,153	6,884	10,385
1944	5,357	3,121	3,689	8,966	32,290	33,970	28,004	20,230	13,986	7,764	3,441	2,177
1945	11,413	17,891	14,706	15,105	34,193	33,970	29,634	20,468	15,749	10,026	8,975	9,325
1946	13,417	9,350	7,022	15,000	26,962	33,970	32,892	21,062	15,819	14,723	15,000	15,244
1947	15,000	18,298	15,000	22,334	33,708	33,970	29,848	20,561	16,874	16,119	15,139	15,000
1948	13,614	14,041	14,791	15,000	27,909	33,970	31,667	20,749	17,107	12,965	11,894	11,838
1949	7,014	4,392	8,139	15,000	29,806	33,970	30,632	20,585	16,870	15,000	21,003	15,000
1950	15,000	15,057	15,000	15,000	16,965	36,010	33,970	22,914	18,367	15,677	16,004	17,755
1951	15,338	16,118	14,560	15,028	30,895	33,970	30,835	20,664	16,014	15,178	15,000	14,441
1952	10,297	10,301	7,480	15,953	33,457	33,970	29,848	20,367	15,224	8,945	3,053	1,711
1953	15,153	18,566	13,369	15,000	31,053	33,970	33,257	21,076	16,003	11,435	11,343	15,000
1954	15,000	14,312	14,954	15,000	20,233	33,970	33,970	23,430	18,883	15,137	15,000	14,935
1955	13,043	10,281	6,060	3,271	15,000	33,970	29,848	20,538	17,333	15,740	15,562	15,448
1956	15,000	13,483	11,325	15,224	35,188	35,796	33,963	21,301	17,333	15,015	14,965	15,237
1957	12,360	10,631	13,389	15,066	33,462	33,970	29,848	20,420	15,259	10,645	6,490	5,794
1958	7,526	10,243	11,336	15,000	42,875	33,970	29,848	20,432	15,680	11,997	15,279	16,050
1959	15,444	15,289	14,290	15,809	31,733	33,970	31,457	20,672	17,627	15,671	17,332	15,394
1960	15,000	16,778	15,000	17,161	33,669	33,970	30,234	20,502	15,573	10,972	15,000	14,780
1961	15,000	16,330	15,030	15,030	26,781	33,970	30,039	20,615	16,481	13,536	11,165	15,000
1962	14,977	15,326	13,046	22,047	33,673	33,970	30,632	20,565	16,208	14,271	16,758	15,197
1963	14,396	23,611	23,288	27,379	33,970	33,970	29,848	20,434	15,248	9,917	9,897	11,335
1964	15,000	12,718	8,957	9,448	16,019	33,970	33,708	21,691	17,850	13,797	14,355	15,640
1965	15,427	17,243	14,923	17,336	32,975	33,970	29,848	20,459	16,008	10,898	8,671	6,266
1966	3,086	1,945	2,373	15,661	33,638	33,970	29,848	20,436	15,866	10,551	9,254	15,000
1967	15,000	16,001	14,241	12,978	26,496	35,285	29,848	20,426	15,937	15,509	15,000	15,000
1968	15,107	24,551	24,036	27,540	33,969	33,970	29,848	20,664	17,300	15,206	15,418	14,674
1969	14,565	11,819	9,474	15,000	30,763	33,970	29,848	20,393	16,931	13,556	12,180	7,851
1970	11,029	10,985	12,346	14,724	31,316	33,970	29,848	20,394	15,649	10,232	10,783	14,360
1971	15,000	15,629	14,671	15,000	21,526	33,970	33,970	23,227	18,470	14,999	14,597	12,453
1972	12,217	16,435	16,126	15,201	27,994	34,595	33,970	23,503	19,025	13,846	13,242	16,363
1973	15,020	13,726	11,053	14,089	33,970	33,970	29,848	20,370	15,233	9,858	15,000	15,000
1974	16,852	14,835	15,000	15,000	16,788	45,682	33,970	24,634	19,400	14,369	12,591	15,000
1975	15,000	15,000	14,586	14,091	18,220	33,970	33,079	21,218	17,311	15,000	15,000	15,863
1976	15,488	15,529	13,337	15,000	28,976	33,970	33,840	23,639	18,883	13,695	7,808	3,139
1977	2,475	2,305	1,961	8,979	18,941	28,217	23,280	16,607	7,793	4,147	15,135	15,282
1978	14,107	12,627	15,000	16,450	33,428	33,970	30,632	20,668	17,331	12,998	8,697	3,904
1979	1,826	2,168	7,123	9,779	33,957	33,970	29,848	20,526	15,724	11,400	6,004	15,625
1980	15,032	18,401	14,716	23,379	33,680	33,970	29,848	20,511	16,932	11,879	15,000	32,975
1981	15,255	26,651	27,904	33,899	33,970	33,970	29,848	20,457	16,613	12,663	12,203	14,999
1982	13,330	20,225	15,091	15,000	23,271	35,701	31,877	20,704	17,333	15,097	13,137	15,025
1983	15,056	16,238	15,200	15,000	36,217	33,970	29,848	20,519	17,333	11,951	14,951	14,633
1984	15,243	17,420	15,053	15,048	30,552	33,970	32,086	20,772	15,987	11,931	8,711	3,891
1985	1,824	1,864	2,098	14,939	33,748	33,970	29,848	20,363	16,772	15,000	14,647	9,235
1986	10,532	19,923	18,420	32,068	36,661	33,970	29,848	20,388	16,600	11,848	15,725	14,069
1987	11,640	12,245	15,102	33,011	33,945	33,970	29,848	20,343	14,765	8,561	2,481	2,755
1988	2,506	2,349	5,871	23,041	33,790	33,970	29,848	20,352	15,476	10,943	14,961	15,000
1989	14,812	13,091	13,671	22,747	33,746	33,970	29,848	20,418	15,991	10,130	11,549	14,857
1990	15,115	16,361	15,000	19,623	33,563	33,970	30,632	20,640	16,919	15,401	24,332	15,000
1991	15,000	22,689	14,938	19,904	33,734	33,970	31,457	20,771	15,990	9,900	11,380	13,477
1992	14,092	17,518	27,436	33,965	33,970	31,723	25,266	19,383	12,832	6,277	2,702	1,746
1993	2,871	1,866	7,096	15,048	33,948	33,970	29,848	20,372	14,201	6,065	1,597	1,671
1994	2,232	2,060	6,198	23,702	33,970	33,970	28,761	20,379	14,783	10,842	8,959	15,000
1995	15,303	20,675	15,362	15,065	33,226	33,970	31,041	20,594	16,295	14,934	34,053	15,694
1996	15,428	19,439	15,309	21,904	33,662	33,970	29,848	20,588	16,762	13,061	15,000	15,000
1997	15,149	15,149	16,698	16,005	32,311	33,970	33,423	21,079	17,585	18,893	15,369	15,016
1998	15,000	14,813	15,000	15,386	33,288	33,970	29,848	20,438	15,643	10,875	15,000	16,495
1999	15,000	14,647	14,549	15,000	19,705	33,970	33,970	24,577	19,400	14,082	17,527	15,204
2000	14,457	14,294	13,299	16,511	33,463	33,970	30,431	20,568	17,230	13,165	7,674	2,783
2001	1,794	1,702	3,466	7,781	33,970	33,970	28,021	20,467	14,666	2,373	10,098	12,271
2002	14,997	16,117	14,934	16,098	27,793	33,970	31,041	20,836	16,451	11,320	5,704	2,784
2003	17,713	19,112	15,572	26,169	34,037	33,970	29,848	20,435	15,334	13,390	15,000	13,542
2004	14,015	14,459	16,511	33,238	33,953	33,970	29,848	20,549	17,268	14,456	14,795	15,034
2005	16,276	15,193	14,844	24,181	33,970	33,255	27,716	20,369	15,058	9,926	8,862	15,000
2006	15,451	16,021	13,717	15,066	29,883	33,970	30,632	20,563	16,486	11,864	15,758	15,000
2007	14,837	16,902	18,085	21,011	33,790	33,970	29,848	20,410	15,541	12,841	14,614	15,000
2008	13,669	11,242	8,946	8,564	27,612	34,147	32,086	20,765	16,869	13,231	15,030	14,317
2009	15,000	13,564	11,652	15,000	33,492	33,970	29,848	20,434	16,449	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3 (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	26,621	28,544	48,796
1926	59,797	72,475	92,370	127,629	150,963	157,011	146,961	91,258	10,000	23,553	36,944	59,533
1927	71,961	85,436	99,580	124,514	165,184	198,000	191,036	168,643	65,192	77,667	109,526	129,025
1928	129,025	140,735	151,989	149,231	197,064	198,000	182,801	157,852	44,525	26,879	35,272	42,070
1929	46,557	47,062	53,382	63,129	103,719	144,048	157,631	142,616	63,788	60,718	57,597	57,937
1930	59,491	77,814	96,613	135,811	162,767	181,569	172,984	135,869	76,576	74,618	78,261	78,794
1931	83,692	92,915	105,454	134,128	185,049	198,000	173,772	132,372	63,518	57,823	64,110	70,899
1932	80,815	96,549	130,143	138,688	185,919	198,000	191,036	168,804	45,354	24,734	64,888	87,257
1933	103,590	112,084	121,480	113,884	136,509	198,000	197,962	178,633	74,578	61,775	88,814	169,011
1934	137,705	162,810	157,458	196,124	197,929	198,000	178,671	148,572	63,965	54,469	98,164	120,822
1935	129,025	150,213	146,494	139,460	182,853	198,000	189,169	167,985	60,337	21,990	22,579	27,398
1936	32,534	33,828	43,786	82,151	155,660	198,000	185,949	168,036	72,201	54,420	57,583	59,886
1937	61,911	61,996	68,363	88,859	134,157	198,000	191,536	169,032	76,150	55,889	78,344	104,813
1938	129,025	140,397	134,610	137,160	195,209	198,000	184,860	160,014	48,659	22,585	30,527	45,274
1939	56,605	64,203	78,115	110,221	153,907	174,182	176,890	149,738	55,064	37,026	42,527	61,142
1940	72,666	88,119	112,319	143,039	186,648	198,000	183,762	158,559	98,712	95,412	100,881	116,110
1941	124,540	130,953	145,731	171,382	191,058	193,924	158,223	99,283	48,708	52,912	66,815	96,722
1942	107,077	114,221	123,450	150,497	180,136	198,000	176,926	139,172	66,067	61,608	80,655	103,400
1943	120,001	132,636	121,836	127,977	165,719	198,000	194,706	169,366	49,273	24,521	33,961	47,315
1944	53,630	60,749	72,746	87,894	110,097	124,706	120,668	82,178	22,896	26,257	31,982	38,737
1945	58,331	77,946	87,649	100,609	147,218	175,211	177,416	146,679	74,439	73,961	84,642	96,049
1946	111,406	119,873	122,863	114,176	174,964	198,000	193,521	164,676	65,018	28,073	49,969	99,908
1947	117,885	140,537	153,313	166,576	197,538	198,000	183,789	161,385	62,347	66,735	94,139	112,425
1948	128,465	144,567	116,649	102,763	140,569	198,000	191,536	168,834	64,758	48,091	61,057	72,745
1949	80,746	90,571	103,914	106,989	177,394	198,000	189,169	167,454	62,874	32,452	63,615	85,180
1950	101,060	119,028	103,710	92,457	120,016	198,000	198,000	186,389	85,499	82,092	119,851	129,025
1951	129,025	159,719	125,250	126,295	191,538	198,000	189,615	168,582	67,995	59,633	75,221	92,301
1952	102,304	116,620	128,919	156,514	197,094	198,000	185,338	166,014	49,032	22,430	27,536	28,982
1953	61,895	91,325	105,273	125,925	172,618	198,000	195,747	169,385	56,059	23,314	35,210	63,659
1954	81,592	95,468	113,874	109,640	147,071	198,000	198,000	190,683	96,798	69,414	87,689	100,315
1955	111,251	122,194	130,882	123,508	142,602	198,000	187,532	166,258	61,306	56,935	97,377	129,025
1956	129,025	129,078	69,783	65,373	137,620	198,000	197,955	172,352	71,819	41,887	56,117	89,242
1957	100,620	111,561	131,300	144,724	196,817	198,000	180,268	150,264	46,577	25,107	33,658	46,891
1958	60,630	78,634	96,622	123,656	196,532	198,000	180,288	149,712	58,445	41,898	82,061	129,025
1959	129,025	146,661	139,598	138,389	171,080	198,000	191,036	168,181	92,419	108,344	133,132	130,988
1960	130,245	148,034	150,493	162,772	197,469	198,000	188,056	168,144	65,666	31,878	51,640	63,674
1961	86,447	122,908	130,569	127,168	170,414	198,000	187,920	168,219	64,625	35,036	46,069	62,568
1962	91,302	107,801	119,226	163,416	188,650	198,000	189,169	167,650	68,882	58,643	99,004	129,025
1963	129,025	169,775	187,532	197,667	198,000	198,000	180,236	159,022	79,573	66,871	78,404	91,575
1964	108,500	120,206	129,848	119,268	137,145	198,000	197,139	175,972	73,910	56,224	65,914	98,667
1965	129,025	160,563	141,875	145,558	190,770	198,000	187,532	167,857	73,456	44,129	56,111	65,049
1966	71,582	72,881	80,338	110,786	161,259	191,351	183,789	161,965	67,459	31,396	42,502	67,395
1967	86,552	104,924	118,053	128,228	168,724	198,000	186,614	166,349	77,141	83,146	106,389	129,025
1968	129,025	176,546	184,743	196,575	198,000	198,000	186,896	169,398	89,792	71,700	105,956	123,073
1969	129,025	139,941	130,028	125,280	191,607	198,000	183,789	160,308	72,282	52,466	63,305	72,191
1970	90,218	103,472	122,477	139,026	186,538	198,000	180,281	150,068	75,277	66,180	78,320	93,104
1971	116,981	151,860	114,591	100,481	144,163	198,000	198,000	189,150	91,876	51,485	61,974	72,785
1972	88,532	116,914	89,799	70,813	122,636	198,000	198,000	192,512	119,153	93,015	105,972	129,025
1973	129,025	140,325	151,810	166,262	192,182	198,000	178,595	143,983	71,134	54,481	74,952	97,072
1974	129,025	136,875	82,237	67,687	105,311	198,000	198,000	195,158	106,604	66,575	77,452	96,003
1975	129,025	146,987	125,028	111,056	143,940	198,000	195,233	172,322	71,856	42,669	65,090	129,025
1976	129,025	150,533	130,969	124,587	174,306	198,000	197,831	194,735	108,618	76,327	85,312	90,616
1977	96,128	97,659	99,409	112,707	120,368	134,190	122,556	77,834	23,926	30,082	51,932	129,025
1978	129,025	141,379	149,124	155,932	193,660	198,000	189,169	169,196	101,484	76,407	85,742	93,138
1979	95,405	101,491	119,010	133,087	179,316	198,000	178,642	146,630	62,194	38,297	44,513	68,650
1980	81,804	93,798	116,453	162,898	197,489	198,000	180,258	150,294	72,421	57,891	77,802	129,025
1981	129,025	166,141	189,093	197,876	198,000	198,000	180,270	148,348	65,395	70,417	81,847	100,144
1982	119,106	163,265	134,718	123,448	164,107	198,000	192,048	168,470	83,034	55,969	67,662	89,570
1983	123,584	145,218	144,045	139,191	194,741	198,000	187,532	169,884	86,034	53,350	76,963	89,158
1984	129,025	150,975	146,832	141,814	174,206	198,000	192,570	168,985	88,519	67,324	80,237	87,958
1985	90,603	91,558	99,834	130,100	175,708	198,000	179,779	154,004	84,572	76,766	91,594	98,882
1986	109,807	138,423	170,486	196,549	197,964	198,000	180,231	149,510	75,281	63,039	81,302	91,300
1987	99,827	110,934	141,154	175,191	197,958	198,000	178,511	144,486	43,015	33,461	38,049	51,961
1988	57,936	69,668	88,794	129,720	175,282	198,000	178,579	146,614	58,825	43,575	60,875	76,388
1989	88,991	98,171	114,487	159,734	197,605	198,000	180,277	154,985	63,630	54,380	70,846	96,069
1990	126,472	141,363	144,801	163,518	196,516	198,000	189,169	168,697	61,690	41,851	83,750	104,844
1991	127,024	165,785	156,524	166,060	197,237	198,000	191,036	168,897	63,396	24,696	42,426	59,373
1992	74,065	94,438	119,905	151,784	181,172	187,565	178,779	152,534	85,764	89,666	95,865	96,985
1993	98,319	100,001	115,300	137,980	193,191	198,000	180,248	146,726	74,784	75,666	74,955	74,773
1994	81,885	83,110	99,861	130,743	163,630	174,578	167,030	121,415	51,295	42,419	55,915	80,542
1995	99,002	157,293	149,347	146,244	196,624	198,000	187,238	165,804	87,911	103,547	153,221	132,761
1996	131,909	169,738	149,528	168,373	197,457	198,000	187,532	167,900	79,638	53,627	68,714	85,890
1997	126,481	134,777	90,237	85,457	152,910	198,000	196,238	171,506	103,240	132,593	131,443	130,306
1998	129,786	143,877	148,562	146,948	196,796	198,000	183,789	161,195	59,385	35,755	51,794	80,840
1999	112,148	126,647	114,792	102,412	130,116	198,000	198,000	195,106	110,880	93,094	129,025	129,025
2000	129,025	143,764	143,883	155,554	197,104	198,000	188,738	168,077	80,460	54,470	60,237	65,081
2001	66,019	66,243	72,161	84,711	114,566	123,260	118,911	88,938	10,782	13,776	34,581	48,582
2002	79,349	93,800	110,462	130,447	169,146	198,000	190,075	171,522	71,509	33,617	40,071	46,377
2003	73,699	106,739	138,606	169,335	197,913	198,000	180,257	149,887	66,638	58,937	70,481	82,435
2004	94,093	106,128	127,575	161,186	197,973	198,000	180,257	150,807	77,433	71,227	83,904	103,448
2005	129,025	140,918	153,646	173,836	197,754	198,000	178,393	126,015	47,803	51,557	62,597	80,700
2006	115,176	133,651	134,508	128,022	188,301	198,000	181,371	150,794	40,153	22,572	86,940	112,310
2007	129,025	150,297	153,626	167,661	197,683	198,000	183,414	158,089	46,792	24,831	38,590	67,460
2008	78,192	88,052	100,827	115,454	179,129	197,732	192,570	168,364	55,365	22,461	53,017	65,696
2009	102,487	114,715	127,095	139,637	194,802	198,000	183,789	166,419	76,199	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3 (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3 (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	340,469	343,881	470,994
1926	525,348	565,994	677,394	859,621	838,492	653,978	368,684	122,493	-23,779	34,893	94,566	188,633
1927	221,269	247,293	274,534	388,353	643,625	911,085	791,868	514,552	343,230	412,213	599,866	682,121
1928	735,334	757,009	834,284	864,570	1,078,683	1,069,422	845,490	541,301	327,747	312,540	325,152	327,607
1929	320,835	314,578	349,249	359,339	610,817	741,402	551,030	287,566	117,357	79,567	58,100	60,414
1930	58,247	143,750	225,471	446,926	528,135	495,901	293,496	67,596	-71,697	-84,486	-68,600	-69,887
1931	-38,491	13,871	98,614	227,056	474,562	469,487	270,932	50,516	-85,198	-94,970	-38,887	-21,970
1932	33,944	157,063	338,020	492,494	784,838	862,500	718,909	446,063	239,030	186,944	433,275	553,928
1933	644,171	661,990	680,400	707,178	808,487	1,081,075	1,054,548	832,167	660,877	752,504	785,181	919,789
1934	844,202	920,691	925,363	1,071,906	1,077,241	971,563	712,055	423,508	247,933	290,595	462,730	546,012
1935	705,282	787,993	827,664	831,436	1,050,430	1,080,200	936,088	659,546	460,379	380,083	370,461	368,581
1936	389,954	395,702	444,395	660,157	1,023,041	1,077,892	865,389	575,517	384,733	345,431	327,410	362,977
1937	362,417	369,070	402,521	498,939	773,148	1,060,627	918,812	646,312	457,246	424,723	557,591	655,209
1938	715,835	732,608	734,863	825,049	1,071,018	1,078,152	866,711	571,537	352,696	282,029	313,507	392,022
1939	477,255	499,600	558,284	740,636	983,575	985,571	766,503	467,681	277,352	249,822	277,649	389,132
1940	411,823	461,998	561,486	736,336	928,772	849,689	586,336	301,712	151,667	134,166	151,732	211,984
1941	223,689	230,052	312,234	454,435	493,655	409,741	201,010	-271	-84,934	-42,895	37,358	150,273
1942	168,761	178,911	207,050	362,791	478,541	526,002	340,103	91,964	-58,500	-96,789	-21,254	59,410
1943	115,374	145,408	176,436	365,749	605,748	821,179	753,576	495,667	288,968	217,579	227,462	304,659
1944	307,108	325,499	368,452	443,339	566,250	537,666	304,232	66,317	-51,192	-65,489	-47,830	-3,629
1945	129,891	216,399	248,071	303,360	599,314	656,234	436,242	173,234	38,892	37,286	100,343	148,817
1946	207,345	223,232	253,029	373,626	792,448	917,009	821,647	557,499	367,983	330,815	373,766	546,276
1947	627,918	711,537	807,454	945,912	1,078,241	1,055,953	838,565	560,534	374,836	448,901	584,853	649,379
1948	685,305	721,031	686,130	682,083	858,961	1,080,200	958,200	713,102	522,618	498,667	543,769	590,798
1949	600,703	629,897	670,398	705,212	1,014,449	1,079,622	989,258	740,122	550,227	538,146	711,574	743,354
1950	763,473	798,461	720,086	686,244	758,150	1,083,824	1,057,372	855,961	666,158	698,688	780,140	815,084
1951	812,659	924,400	801,578	808,810	1,053,466	1,079,996	912,187	640,639	447,982	466,386	528,917	568,975
1952	578,812	608,679	632,759	797,229	1,056,741	1,056,985	875,596	593,475	378,891	291,915	275,334	265,859
1953	436,178	570,898	610,150	698,733	959,263	1,080,200	987,597	739,091	531,221	473,015	525,174	670,750
1954	724,974	763,015	765,629	747,486	875,218	1,080,377	1,055,635	873,550	703,676	660,729	711,816	733,629
1955	746,428	792,801	791,427	750,504	898,019	1,036,589	990,177	744,878	554,242	599,941	759,785	791,885
1956	791,402	779,610	597,516	605,770	851,964	1,082,026	1,035,967	794,452	607,461	599,141	652,378	759,509
1957	767,618	787,581	828,111	852,935	1,075,175	1,028,015	776,227	496,228	294,236	234,728	247,253	301,913
1958	342,513	411,174	471,709	597,657	984,124	996,335	746,748	448,468	270,667	274,716	476,857	669,825
1959	767,075	813,103	822,921	828,887	1,029,957	1,080,200	960,253	685,259	597,185	714,266	849,705	831,876
1960	811,782	854,550	866,329	904,334	1,077,929	1,077,814	877,831	600,923	406,820	360,015	454,332	480,734
1961	572,562	714,220	768,532	776,845	1,008,217	1,077,931	916,164	638,190	448,119	416,919	452,003	520,504
1962	655,526	726,261	751,916	954,088	1,060,042	1,079,642	919,748	663,239	472,593	460,815	621,250	725,761
1963	761,566	908,260	966,829	1,028,042	1,078,989	1,028,764	791,354	518,915	343,875	322,248	373,862	408,167
1964	473,530	494,516	522,780	572,182	773,450	1,080,200	1,030,709	817,437	640,542	617,727	654,296	733,181
1965	788,132	888,971	855,502	865,661	1,066,965	1,070,239	900,576	644,209	456,665	399,000	440,151	463,229
1966	481,785	483,228	515,755	685,877	951,906	1,020,498	852,796	569,982	378,929	324,729	359,871	497,490
1967	595,078	671,578	706,747	698,943	927,394	1,015,887	863,193	587,458	404,851	494,213	594,843	733,419
1968	791,545	963,506	1,016,305	1,031,454	1,079,849	1,056,579	844,280	597,838	458,605	455,502	572,770	640,717
1969	708,369	722,399	726,472	774,089	1,052,086	1,061,253	841,425	557,495	384,079	351,976	375,649	385,633
1970	426,622	454,538	512,504	573,754	831,313	948,065	761,774	486,277	324,452	310,498	357,346	389,147
1971	494,159	627,724	614,575	640,660	861,431	1,080,200	1,077,292	864,708	685,429	634,074	679,483	702,090
1972	733,455	814,149	719,673	638,943	791,512	1,080,825	1,057,416	877,991	743,481	695,380	722,222	786,345
1973	798,081	816,602	841,251	877,599	958,900	904,393	662,354	390,258	238,484	224,356	280,265	347,794
1974	524,609	568,735	558,124	541,068	700,432	1,092,220	1,079,691	916,508	748,531	669,268	681,404	745,746
1975	802,825	844,451	793,222	750,408	865,720	1,080,200	997,062	788,990	604,046	576,603	691,181	831,110
1976	825,252	887,037	819,300	801,003	1,000,596	1,080,200	1,038,877	886,278	717,175	650,913	664,237	684,304
1977	718,090	754,281	763,812	815,628	701,836	598,319	332,699	105,899	-6,066	-7,043	163,354	468,812
1978	490,266	520,462	615,513	725,779	923,778	960,741	799,529	556,605	425,646	363,921	396,019	420,104
1979	420,934	444,230	539,247	622,497	891,183	871,129	652,416	385,236	219,874	180,672	182,467	369,553
1980	401,336	438,045	506,607	716,686	931,868	947,774	724,636	447,038	287,748	261,903	367,986	661,269
1981	696,115	837,817	905,224	998,445	1,050,171	990,694	759,187	478,096	308,295	334,110	369,389	415,214
1982	484,647	668,244	702,529	722,935	952,212	1,081,931	973,950	717,332	551,757	520,194	551,726	638,019
1983	772,124	836,206	857,371	849,626	1,049,043	1,052,920	932,615	688,783	531,433	462,375	576,278	606,118
1984	791,681	851,533	857,753	849,418	1,022,897	1,080,200	979,571	721,297	556,209	516,737	560,223	579,720
1985	577,931	578,805	608,193	795,157	1,054,578	1,054,004	804,904	513,893	359,455	410,051	515,427	515,823
1986	545,251	662,860	815,192	936,923	1,065,589	1,014,402	762,457	469,069	308,200	289,901	414,575	441,723
1987	451,989	472,692	586,544	791,898	991,099	901,772	645,326	365,930	172,660	120,225	112,296	148,474
1988	157,047	203,359	297,413	538,048	775,915	823,203	624,843	368,597	202,746	225,922	335,715	419,953
1989	499,519	532,351	577,884	810,116	1,012,446	1,012,623	785,801	508,556	320,327	296,704	414,547	538,256
1990	643,167	714,006	765,086	942,739	1,076,330	1,079,837	912,341	648,805	451,118	485,532	823,333	796,915
1991	813,755	971,255	912,941	977,275	1,078,099	1,079,786	952,316	699,817	499,499	415,063	488,019	589,132
1992	665,146	748,011	878,537	1,014,955	1,024,677	858,212	595,975	321,079	177,855	152,672	192,762	210,209
1993	240,780	253,985	333,857	468,086	766,468	730,761	504,438	258,538	97,370	65,007	57,324	66,507
1994	110,235	122,493	213,233	414,533	564,809	504,033	296,712	59,044	-87,669	-84,957	-28,361	75,774
1995	128,893	352,226	418,522	503,469	801,072	798,719	627,214	365,093	210,662	303,489	715,951	689,936
1996	741,144	922,273	880,373	973,927	1,077,878	1,063,345	892,856	637,198	464,586	436,875	526,311	582,469
1997	688,948	751,437	671,208	667,250	915,961	1,080,200	1,016,000	784,942	652,784	766,408	786,512	782,328
1998	788,623	826,057	854,678	865,551	1,074,918	1,054,623	839,022	557,106	352,282	291,070	380,524	499,254
1999	634,882	679,481	675,120	685,776	800,411	1,080,200	1,069,399	922,225	751,940	710,214	802,305	821,686
2000	808,345	827,804	839,310	900,497	1,076,297	1,079,875	893,840	614,625	449,757	415,870	417,716	410,456
2001	409,438	405,553	448,026	513,993	683,048	598,352	361,216	137,108	-18,404	-14,333	114,225	176,727
2002	295,491	346,914	404,046	569,164	843,822	1,024,570	892,425	611,834	414,409	329,507	334,620	341,093
2003	453,902	554,396	681,179	817,902	970,400	957,847	710,061	429,686	256,368	298,886	413,001	458,904
2004	500,126	538,145	640,064	824,809	992,314	959,667	703,642	449,552	332,997	346,413	432,290	547,739
2005	699,081	739,873	779,920	852,347	860,496	680,837	412,592	167,994	12,641	15,144	68,565	137,664
2006	255,329	303,676	318,272	419,661	752,368	888,974	701,986	424,339	236,866	165,875	441,846	499,019
2007	573,524	649,919	830,193	928,440	1,076,071	1,046,774	829,610	543,458	330,334	290,814	333,852	428,158
2008	446,041	467,093	500,783	520,831	914,181	1,079,946	938,081	677,478	474,337	406,171	570,378	616,017
2009	756,424	775,718	795,442	832,964	1,067,319	1,058,909	845,306	572,376	396,596	NA	NA	NA

Appendix C-8
Scenario IP4 Small (KKC, KDRPP, CEPR, and WDR at 120 kaf)

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP4 Small 400 cfs WDC1

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	3,024	742	1,553	1,567	91.3%	444	78	90.7%	406	62	80	5
Avg. WY 1982 to 2009	2,901	649	1,553	1,531	91.2%	426	77	90.6%	385	59	156	14
1941 (Dry Year)	1,664	256	1,220	1,006	47.0%	-100	-157	46.1%	-78	-159	23	0
1994 (Dry Year)	1,799	262	1,297	1,049	53.0%	-92	-171	52.7%	-132	-187	0	0
2001 (Dry Year)	1,894	199	1,425	1,280	70.0%	50	-29	70.0%	19	-42	493	0
2005 (Dry Year)	1,820	186	1,419	1,223	70.0%	14	-70	70.0%	0	-82	0	0

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,919	240	1,422	1,261	70.0%	26	-34	70.0%	26	-42	0	0
1927	2,972	616	1,609	1,532	100.0%	407	63	100.0%	431	53	0	0
1928	3,028	705	1,609	1,517	100.0%	442	111	100.0%	417	89	0	0
1929	2,121	226	1,441	1,458	70.0%	207	-12	70.0%	171	-29	0	0
1930	1,901	283	1,389	1,132	65.4%	-77	-150	62.2%	-108	-165	0	0
1931	1,814	285	1,164	979	41.0%	-97	-187	40.3%	-127	-200	0	0
1932	2,964	651	1,586	1,393	100.0%	281	-12	100.0%	211	-36	138	0
1933	3,706	1,050	1,609	2,001	100.0%	774	173	100.0%	726	162	0	0
1934	2,944	749	1,569	1,413	93.5%	356	83	90.9%	318	80	0	0
1935	3,173	717	1,609	1,648	100.0%	578	135	100.0%	507	108	0	0
1936	3,350	1,002	1,571	1,534	92.4%	493	115	90.2%	461	111	0	0
1937	2,958	530	1,609	1,635	100.0%	548	131	100.0%	470	103	0	0
1938	3,371	1,026	1,609	1,537	100.0%	465	116	100.0%	400	89	0	0
1939	2,520	353	1,540	1,402	93.4%	354	93	89.9%	321	92	0	0
1940	2,231	334	1,446	1,450	70.0%	199	-10	70.0%	168	-23	0	0
1941	1,664	256	1,220	1,006	47.0%	-100	-157	46.1%	-78	-159	23	0
1942	2,001	314	1,348	1,096	59.5%	-81	-188	56.2%	-126	-200	203	0
1943	3,358	949	1,609	1,511	100.0%	312	-46	100.0%	241	-71	53	0
1944	1,744	204	1,315	1,113	59.1%	-51	-181	56.2%	-70	-195	1,306	0
1945	2,228	321	1,440	1,265	70.0%	15	-163	69.3%	-19	-178	95	0
1946	3,337	877	1,592	1,538	100.0%	422	-5	99.4%	386	-8	330	0
1947	2,986	667	1,609	1,524	100.0%	440	109	100.0%	420	90	0	0
1948	3,889	1,371	1,609	1,744	100.0%	638	149	100.0%	614	135	0	0
1949	4,030	1,487	1,609	1,761	100.0%	665	166	100.0%	623	151	55	0
1950	4,305	1,643	1,609	2,084	100.0%	783	168	100.0%	772	163	0	0
1951	3,805	1,361	1,609	1,642	100.0%	564	136	100.0%	539	115	0	0
1952	2,905	538	1,609	1,571	100.0%	487	130	100.0%	412	102	0	0
1953	3,117	593	1,609	1,792	100.0%	643	145	100.0%	584	121	0	0
1954	4,021	1,322	1,609	2,114	100.0%	821	171	100.0%	765	159	0	0
1955	3,431	876	1,609	1,858	100.0%	671	168	100.0%	652	166	137	0
1956	4,876	2,274	1,609	1,954	100.0%	725	161	100.0%	667	138	0	0
1957	3,210	924	1,609	1,491	100.0%	409	99	100.0%	347	74	0	0
1958	2,875	626	1,609	1,430	100.0%	370	93	100.0%	359	80	0	0
1959	3,526	932	1,609	1,812	100.0%	714	178	100.0%	736	183	0	0
1960	3,166	766	1,609	1,594	100.0%	522	127	100.0%	456	101	0	0
1961	3,618	1,182	1,609	1,635	100.0%	560	135	100.0%	517	114	0	0
1962	3,003	538	1,609	1,658	100.0%	585	142	100.0%	556	121	0	0
1963	2,719	429	1,586	1,502	96.4%	437	103	93.6%	403	99	0	0
1964	3,380	746	1,609	1,980	100.0%	758	173	100.0%	732	163	0	0
1965	3,415	970	1,609	1,648	100.0%	571	138	100.0%	510	111	0	0
1966	2,813	484	1,609	1,539	100.0%	455	117	100.0%	383	91	0	0
1967	3,096	715	1,585	1,596	97.1%	525	134	92.8%	521	137	0	0
1968	2,866	417	1,609	1,653	100.0%	573	135	100.0%	533	114	0	0
1969	3,606	1,231	1,609	1,576	100.0%	500	120	100.0%	469	97	0	0
1970	2,887	586	1,577	1,473	93.7%	445	105	91.5%	426	105	0	0
1971	3,944	1,260	1,609	2,035	100.0%	802	172	100.0%	735	159	0	0
1972	4,813	2,078	1,609	2,123	100.0%	861	178	100.0%	815	166	0	0
1973	2,291	198	1,488	1,349	75.3%	339	81	73.2%	312	79	0	0
1974	4,640	1,896	1,609	2,225	100.0%	866	172	100.0%	797	158	0	0
1975	3,891	1,292	1,609	1,944	100.0%	722	161	100.0%	662	137	0	0
1976	3,851	1,141	1,609	2,022	100.0%	835	169	100.0%	772	142	4	0
1977	1,920	199	1,428	1,305	70.0%	59	-42	70.0%	38	-55	0	0
1978	3,018	589	1,609	1,628	100.0%	543	95	100.0%	488	68	0	0
1979	2,351	292	1,487	1,297	76.5%	305	60	74.4%	259	48	40	0
1980	2,712	547	1,541	1,371	91.3%	347	72	88.5%	325	71	0	0
1981	2,491	279	1,542	1,414	85.7%	395	99	84.0%	413	104	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP4 Small 400 cfs WDC1

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,478	938	1,609	1,783	100.0%	666	153	100.0%	614	132	89	89
1983	3,430	908	1,609	1,738	100.0%	645	150	100.0%	581	125	0	0
1984	3,310	763	1,609	1,795	100.0%	670	149	100.0%	621	123	0	0
1985	2,860	531	1,609	1,531	100.0%	452	101	100.0%	389	74	0	0
1986	2,570	331	1,559	1,442	89.7%	404	95	88.4%	383	95	0	0
1987	2,384	385	1,477	1,264	72.6%	276	68	70.4%	229	37	97	97
1988	2,453	355	1,508	1,281	77.5%	280	43	75.9%	253	38	0	0
1989	2,751	495	1,575	1,459	96.7%	412	98	94.6%	389	98	0	0
1990	3,188	750	1,609	1,633	100.0%	567	133	100.0%	532	115	5	0
1991	3,056	570	1,609	1,690	100.0%	615	141	100.0%	540	113	216	216
1992	2,214	272	1,443	1,502	70.0%	266	19	70.0%	239	3	0	0
1993	2,213	294	1,437	1,412	70.0%	168	-48	70.0%	136	-63	0	0
1994	1,799	262	1,297	1,049	53.0%	-92	-171	52.7%	-132	-187	0	0
1995	2,798	582	1,565	1,342	95.5%	288	-64	92.9%	326	-54	2,593	0
1996	3,247	807	1,609	1,643	100.0%	580	144	100.0%	522	119	0	0
1997	4,600	1,958	1,609	1,929	100.0%	763	166	100.0%	804	170	0	0
1998	3,177	843	1,609	1,540	100.0%	465	115	100.0%	408	90	0	0
1999	4,062	1,332	1,609	2,126	100.0%	868	174	100.0%	823	160	7	0
2000	3,312	875	1,609	1,632	100.0%	563	129	100.0%	521	110	0	0
2001	1,894	199	1,425	1,280	70.0%	50	-29	70.0%	19	-42	493	0
2002	3,189	749	1,609	1,625	100.0%	504	105	100.0%	434	77	815	0
2003	2,599	429	1,562	1,410	100.0%	353	93	100.0%	289	67	0	0
2004	2,497	354	1,534	1,415	92.8%	365	74	90.2%	351	75	0	0
2005	1,820	186	1,419	1,223	70.0%	14	-70	70.0%	0	-82	0	0
2006	3,004	773	1,608	1,380	100.0%	274	8	100.0%	201	-16	58	0
2007	2,927	651	1,609	1,476	100.0%	402	102	100.0%	350	79	0	0
2008	3,138	679	1,593	1,705	100.0%	600	137	99.5%	577	138	0	0
2009	3,268	915	1,573	1,558	94.5%	511	127	92.0%	NA	NA	0	0
Average	3,024	742	1,553	1,567	91.3%	444	78	90.7%	406	62	80	5

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP4 Small 400 cfs WDC1

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	98.5%	97.9%	4.4%	3.5%	84.6%
	0 -10% Above Target[1]	1.0%	2.1%	1.3%	2.6%	3.6%
	0-10% Below Target	0.2%	0.0%	86.9%	84.1%	2.9%
	> 10% Below Target	0.3%	0.0%	7.4%	9.8%	8.9%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	66.2%	78.1%	68.5%	17.7%
	0 -10% Above Target	32.9%	19.5%	30.0%	70.5%
	0-10% Below Target	#N/A	0.1%	0.8%	4.0%
	> 10% Below Target	#N/A	2.3%	0.7%	7.8%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			5.1%	
	0 -10% Above Target			4.5%	
	0-10% Below Target			10.9%	
	> 10% Below Target			79.5%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				55.4%	
	0 -10% Above Target				30.3%	
	0-10% Below Target				13.0%	
	> 10% Below Target				1.3%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				100.0%	
	0 -10% Above Target				0.0%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	12.1%	31.6%		4.8%
	0 -10% Above Target	1.3%	3.2%		1.0%
	0-10% Below Target	7.3%	35.1%		10.4%
	> 10% Below Target	79.3%	30.1%		83.8%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			47.9%	22.0%	18.1%
	0 -10% Above Target			21.0%	8.5%	2.8%
	0-10% Below Target			16.8%	8.2%	7.2%
	> 10% Below Target			14.3%	61.3%	71.9%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			100.0%	100.0%	100.0%
	0 -10% Above Target			0.0%	0.0%	0.0%
	0-10% Below Target			0.0%	0.0%	0.0%
	> 10% Below Target			0.0%	0.0%	0.0%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			61.1%	
	0 -10% Above Target			3.4%	
	0-10% Below Target			3.1%	
	> 10% Below Target			32.4%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.3%	94.9%	90.4%
	0 -10% Above Target			0.7%	2.3%	3.9%
	0-10% Below Target			0.0%	1.6%	2.4%
	> 10% Below Target			0.0%	1.2%	3.3%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP4 Small 400 cfs WDC1

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	95.0%	96.3%	99.9%		88.7%
	0 -10% Above Target	0.0%	0.5%	0.1%		2.6%
	0-10% Below Target	0.0%	0.0%	0.0%		0.1%
	> 10% Below Target	5.0%	3.2%	0.0%		8.6%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	14.2%			
	0 -10% Above Target	84.7%			
	0-10% Below Target	0.1%			
	> 10% Below Target	1.0%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	70.3%			
	0 -10% Above Target	4.5%			
	0-10% Below Target	4.2%			
	> 10% Below Target	21.0%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP4

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	35.3	4.4	0.9	0.9	0.8	0.9	6.2	38.5	56.5	69.0	93.5	50.2	357.2
1927	14.2	1.1	0.9	0.9	1.0	0.9	1.5	5.0	8.1	32.7	53.7	71.3	191.4
1928	20.8	0.9	0.9	0.9	0.9	0.9	10.3	30.1	22.4	35.8	72.4	72.8	269.1
1929	28.3	4.6	5.0	5.0	2.9	1.0	13.4	11.8	32.5	79.7	85.9	53.2	323.3
1930	20.9	8.1	7.5	2.8	0.8	0.9	1.5	14.9	38.5	65.4	61.3	50.5	273.1
1931	17.8	3.4	6.9	5.7	0.8	0.9	2.1	6.1	24.8	34.1	37.4	48.5	188.6
1932	18.7	1.6	1.2	1.0	1.1	0.9	0.9	5.3	7.5	32.2	49.3	64.0	183.8
1933	27.0	0.9	0.9	0.9	0.8	0.9	2.9	4.8	6.3	37.1	63.7	71.5	217.8
1934	26.1	21.3	97.6	54.8	2.0	69.8	26.9	24.7	19.9	49.6	74.7	69.9	537.4
1935	4.1	0.9	0.9	0.9	0.8	9.8	19.0	16.9	33.9	36.4	64.5	72.5	260.6
1936	31.2	4.1	5.0	1.2	0.9	1.3	1.6	16.2	38.5	50.4	66.5	71.1	288.1
1937	7.5	5.8	2.9	2.7	1.3	0.9	3.6	8.8	10.3	39.7	64.7	71.0	219.4
1938	29.3	1.3	0.9	0.9	0.8	0.9	26.4	16.1	25.9	41.9	66.2	69.4	280.1
1939	29.9	1.1	0.9	0.9	0.8	0.9	3.2	16.6	24.8	57.5	72.6	68.3	277.6
1940	3.7	3.6	0.9	2.6	0.9	0.9	2.8	17.6	53.3	82.9	84.0	51.7	304.9
1941	16.0	2.2	1.3	3.3	2.2	0.9	3.5	21.3	43.9	61.7	60.8	48.1	265.2
1942	10.9	1.2	0.9	1.1	0.9	0.9	2.4	11.9	23.3	38.0	41.6	49.9	183.1
1943	13.1	1.2	0.9	0.9	0.8	0.9	1.0	5.6	5.5	26.2	46.9	59.3	162.4
1944	26.2	1.7	1.3	1.4	0.9	0.9	5.9	16.8	35.3	57.8	59.5	47.4	255.2
1945	17.2	3.5	1.5	0.9	0.8	0.9	2.2	6.7	24.7	35.8	33.7	49.6	177.6
1946	16.4	1.0	1.3	0.9	1.0	0.9	0.9	1.4	5.5	33.5	48.3	63.2	174.5
1947	5.3	3.2	0.9	0.9	0.8	0.9	3.0	17.1	18.0	34.9	57.5	69.2	211.9
1948	26.0	0.9	0.9	0.9	0.9	0.9	19.9	40.5	30.1	38.7	63.6	67.2	290.5
1949	25.0	2.2	1.0	0.9	0.8	9.2	29.4	32.6	36.2	33.7	60.5	67.8	299.5
1950	26.3	1.2	23.2	13.5	4.6	67.8	22.2	30.1	27.1	43.7	60.7	70.0	390.4
1951	24.9	14.9	34.8	27.2	26.7	50.8	28.0	20.4	28.8	35.4	62.1	66.8	420.8
1952	26.6	1.4	2.7	2.6	0.9	0.9	2.6	11.8	20.6	33.2	65.2	69.9	238.3
1953	31.6	6.4	6.3	1.6	0.8	0.9	7.0	13.6	23.7	42.7	63.8	70.2	268.9
1954	26.5	3.7	0.9	3.9	1.0	28.8	26.7	32.0	25.7	52.4	62.7	71.4	335.5
1955	27.5	2.2	3.3	7.6	1.0	18.7	23.1	19.0	34.6	44.9	63.1	69.1	314.1
1956	21.8	25.9	35.0	12.0	15.5	68.6	28.4	41.7	21.0	46.2	64.7	68.9	449.8
1957	26.9	1.5	36.4	9.2	1.0	9.9	26.2	27.2	24.5	54.1	68.0	67.9	352.7
1958	27.4	4.3	1.1	1.0	0.8	0.9	4.1	11.2	18.4	44.4	69.1	68.0	250.8
1959	21.8	0.9	0.9	3.6	1.3	22.9	33.9	15.0	34.1	35.2	66.0	68.5	304.0
1960	19.9	62.2	42.5	8.6	1.1	18.6	25.5	16.1	31.2	39.9	64.7	68.2	398.5
1961	28.1	1.3	2.9	1.2	0.8	34.9	32.6	18.8	36.1	33.1	64.3	69.6	323.8
1962	26.0	3.2	1.7	0.9	0.8	0.9	17.5	22.1	24.6	36.2	61.6	67.4	262.9
1963	27.1	1.9	0.9	9.2	1.1	6.4	15.2	24.8	19.6	44.1	65.6	69.2	285.2
1964	4.1	2.7	2.6	0.9	0.9	0.9	5.4	9.8	32.0	58.0	63.4	68.0	248.8
1965	29.0	2.8	12.2	22.6	2.8	40.5	31.8	11.8	30.3	29.9	64.3	69.4	347.4
1966	29.3	4.7	4.4	3.1	3.1	1.0	3.4	12.0	15.4	31.5	63.0	66.2	237.1
1967	27.6	3.0	0.9	0.9	0.8	0.9	15.3	11.1	24.7	27.6	59.0	68.5	240.4
1968	2.0	1.0	33.2	40.8	7.5	28.7	17.5	20.1	21.0	33.3	64.0	68.6	337.7
1969	25.7	0.9	0.9	4.7	2.2	15.5	28.5	27.1	35.7	45.8	65.1	67.7	320.0
1970	28.3	4.9	4.6	2.7	0.8	0.9	9.0	8.8	10.9	33.5	67.9	70.7	243.1
1971	2.5	4.1	4.4	1.2	0.8	0.9	20.8	40.9	21.1	42.6	59.2	66.6	265.2
1972	27.5	0.9	10.3	20.3	42.3	97.9	25.1	43.8	19.7	40.8	59.5	66.9	455.0
1973	26.9	1.6	11.6	17.7	1.0	3.0	13.1	23.9	20.9	46.2	73.9	62.8	302.6
1974	6.3	4.4	1.6	1.2	0.8	4.7	33.4	28.4	32.5	51.4	58.7	71.5	294.7
1975	28.6	4.3	3.9	27.8	1.2	33.1	20.0	30.7	28.7	49.2	62.7	67.9	358.0
1976	26.0	0.9	77.0	48.6	1.7	35.7	24.7	22.3	24.7	36.3	60.2	71.9	430.1
1977	29.7	4.0	2.7	0.9	0.8	8.6	17.7	52.1	45.3	68.3	78.6	47.2	355.9
1978	16.4	0.9	0.9	0.9	0.8	0.9	4.9	13.4	13.7	31.9	55.2	66.8	206.7
1979	30.2	6.6	3.9	4.0	2.7	0.9	4.0	12.4	17.2	31.5	47.1	64.1	224.6
1980	13.3	6.2	1.5	0.9	0.9	0.9	1.2	11.7	14.4	36.7	53.3	65.9	206.8
1981	5.7	2.0	0.9	0.9	0.9	0.9	5.7	20.7	18.7	37.4	81.9	71.1	246.9
1982	2.9	2.7	1.3	1.7	0.8	0.9	16.3	23.3	31.6	37.7	65.0	70.8	255.0
1983	26.7	1.5	1.1	2.8	1.1	39.0	22.5	16.5	19.8	28.9	56.7	69.8	286.3
1984	27.9	0.9	0.9	0.9	0.9	25.8	19.0	8.7	37.8	36.4	66.9	70.2	296.3
1985	29.8	1.1	3.0	4.5	4.4	1.0	3.9	8.6	32.0	59.7	66.8	70.6	285.6
1986	28.7	0.9	2.7	2.3	1.7	0.9	3.1	19.3	25.0	59.4	74.7	67.8	286.5
1987	4.5	1.7	0.9	3.1	1.5	0.9	1.7	12.8	26.1	63.3	70.8	66.8	254.2
1988	32.9	5.8	4.4	5.0	1.4	0.9	1.1	8.6	15.9	52.0	55.4	65.4	248.8
1989	7.4	0.9	0.9	0.9	0.9	1.5	1.0	12.0	14.9	39.5	70.5	70.2	220.7
1990	2.9	1.1	0.9	0.9	0.8	5.4	33.0	22.3	35.4	36.8	65.9	70.4	276.0
1991	26.3	25.7	35.3	30.8	11.9	41.4	19.1	21.4	23.2	32.4	63.3	70.4	401.1
1992	31.3	2.0	0.9	1.1	0.9	0.9	14.1	28.3	37.0	63.9	90.3	82.6	353.3
1993	24.4	1.0	0.9	1.7	0.9	0.9	3.0	9.2	21.6	68.5	83.7	49.8	265.7
1994	19.0	8.1	2.7	1.0	1.1	1.0	1.8	16.0	44.8	66.8	60.5	49.7	272.5
1995	17.6	0.9	0.9	0.9	0.8	0.9	1.7	7.4	10.6	31.8	56.2	59.5	189.4
1996	2.3	0.9	0.9	2.4	1.5	28.2	20.4	23.7	25.7	35.3	61.0	69.4	271.7
1997	27.7	0.9	0.9	0.9	11.1	80.8	33.7	36.9	31.1	42.7	65.6	72.0	404.4
1998	18.6	7.8	11.6	13.3	1.0	18.6	23.1	17.3	22.0	36.3	68.7	72.4	310.6
1999	31.4	2.2	1.2	0.9	0.8	21.6	26.5	31.6	22.3	47.4	57.1	72.3	315.4
2000	31.1	3.4	41.7	13.1	3.6	7.4	26.3	20.1	32.7	45.6	63.9	70.6	359.5
2001	28.8	3.4	4.8	4.7	3.6	2.1	8.4	19.5	51.2	81.5	83.1	52.7	344.0
2002	16.5	1.0	0.9	0.9	0.8	0.9	0.9	2.7	6.0	42.6	73.2	72.6	219.1
2003	31.2	5.9	5.5	3.8	0.8	0.9	2.0	16.5	17.0	44.3	69.3	70.8	267.9
2004	6.0	0.9	1.0	2.6	0.9	0.9	4.9	15.6	19.1	53.7	70.2	70.9	246.6
2005	29.1	1.2	0.9	1.4	0.8	2.1	11.7	32.6	59.4	80.4	67.7	51.8	339.1
2006	16.9	1.1	1.7	0.9	0.8	0.9	2.6	6.0	10.0	35.7	47.1	65.7	189.4
2007	28.5	1.0	2.0	0.9	0.8	0.9	1.4	13.8	13.5	31.9	61.9	71.0	227.7
2008	30.8	2.9	3.4	3.3	0.9	1.0	8.5	4.1	10.2	45.3	65.5	69.3	245.3
2009	5.0	1.0	2.7	34.2	1.0	7.6	22.4	22.8	29.7	42.2	64.6	69.5	302.8
Average	21.2	4.2	7.7	6.4	2.5	12.0	13.1	18.7	25.6	44.8	64.1	65.8	286.2

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Small 400 cfs WDC1

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	614	37
1927	230	19	15	8	-	-	-	-	-	-	-	-	17
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	203	12
1930	340	136	122	46	15	15	2	-	-	677	992	840	194
1931	289	77	164	126	15	15	34	94	404	525	579	813	190
1932	253	27	19	16	19	15	15	61	-	-	-	200	38
1933	439	6	-	-	-	-	-	-	-	-	-	-	27
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	156	9
1941	260	39	20	29	2	-	-	-	-	935	987	799	187
1942	177	20	15	17	16	15	41	194	391	619	672	839	183
1943	200	21	15	15	15	15	16	91	59	-	-	767	73
1944	426	28	21	23	16	15	99	275	587	936	968	797	255
1945	280	57	25	15	15	15	49	109	414	582	547	834	178
1946	267	17	21	15	18	15	22	19	-	-	-	67	28
1947	86	-	-	-	-	-	-	-	-	-	-	-	5
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	733	44
1978	266	12	-	-	-	-	-	-	-	-	-	-	17
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	810	48
1994	310	135	42	16	20	16	12	-	123	1,000	976	828	212
1995	287	16	15	15	15	15	28	37	-	-	194	999	97
1996	37	5	-	-	-	-	-	-	-	-	-	-	3
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	551	33
2002	265	17	12	-	-	-	-	-	-	-	-	-	18
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	379	872	75
2006	275	18	27	15	15	15	18	-	-	-	-	-	23
2007	302	3	-	-	-	-	-	-	-	-	-	-	19
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	59	8	6	4	2	2	4	10	24	63	75	140	24

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Small 400 cfs WDC1

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	28	37	197	155	19	-	-	-	118	181	248	-	60
1927	-	-	-	0	2	-	-	63	391	311	393	13	71
1928	-	-	148	228	-	-	-	-	-	391	400	13	73
1929	12	40	40	41	22	1	-	64	299	134	333	13	61
1930	-	-	-	-	-	-	-	-	-	115	-	-	7
1931	-	-	-	-	-	-	-	41	9	-	-	-	3
1932	-	-	-	-	-	-	317	400	400	358	400	13	115
1933	-	-	203	301	19	17	87	238	-	198	400	400	113
1934	374	40	352	318	4	329	-	-	-	400	383	13	136
1935	-	-	118	84	-	-	-	-	-	348	400	13	59
1936	12	34	40	3	-	17	115	-	-	400	400	13	63
1937	11	48	17	17	5	-	-	67	-	325	400	13	55
1938	4	58	400	-	-	-	-	-	-	383	400	13	77
1939	9	3	62	338	39	0	-	-	-	400	400	13	78
1940	3	26	-	16	0	89	85	-	-	293	371	13	55
1941	-	-	-	-	13	-	-	-	-	6	-	-	1
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	27	200	400	364	396	13	85
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	218	193	-	-	-	25
1946	-	-	-	-	-	-	37	400	400	400	400	13	101
1947	-	27	182	144	320	244	159	-	-	356	308	13	106
1948	-	44	150	49	-	-	-	-	-	304	400	148	67
1949	76	107	148	-	0	-	-	-	-	236	400	347	80
1950	167	236	-	12	-	391	-	-	4	217	400	400	111
1951	368	182	60	154	147	351	-	-	-	345	400	13	123
1952	33	160	62	14	15	-	-	-	-	336	400	13	63
1953	25	56	49	14	258	-	-	-	-	256	400	203	75
1954	0	159	400	-	-	-	-	-	-	277	400	400	100
1955	303	199	79	-	-	-	-	-	-	234	400	400	98
1956	400	67	185	31	49	400	27	21	-	295	400	400	139
1957	199	204	161	18	-	-	-	-	-	400	400	13	85
1958	1	35	1	0	-	77	227	-	-	365	389	11	68
1959	1	-	359	-	-	-	1	-	-	289	400	391	88
1960	400	131	205	4	-	47	-	-	-	355	400	13	95
1961	1	280	49	109	-	179	2	-	-	323	400	13	83
1962	2	94	188	81	-	-	-	-	-	346	400	13	69
1963	5	171	387	-	-	-	-	-	-	400	400	13	84
1964	3	17	15	-	-	-	-	-	-	371	400	400	73
1965	324	114	110	-	-	209	-	-	-	322	400	13	92
1966	3	40	62	54	23	14	147	-	-	400	337	13	67
1967	0	20	-	263	13	-	-	-	-	260	400	13	59
1968	103	360	29	143	20	182	-	-	-	373	400	13	99
1969	38	313	163	-	7	-	-	-	-	400	400	13	81
1970	10	43	36	18	-	69	218	31	-	380	290	13	68
1971	4	30	30	2	105	-	-	-	-	162	384	400	67
1972	321	298	-	-	101	400	5	65	-	180	398	400	131
1973	252	74	105	-	-	15	-	-	-	325	394	13	72
1974	14	33	5	2	-	105	49	58	-	232	383	400	78
1975	309	57	186	-	-	147	-	-	-	299	400	336	106
1976	91	400	301	321	4	178	-	-	-	216	400	398	140
1977	8	55	129	50	-	57	-	-	-	171	137	-	37
1978	-	-	330	100	40	176	327	138	-	230	354	13	104
1979	14	54	26	28	19	-	-	154	-	176	205	-	41
1980	-	-	-	-	0	-	67	155	-	244	299	1	47
1981	-	1	13	116	45	0	-	-	-	358	342	12	54
1982	8	17	3	6	57	-	-	-	-	262	400	247	61
1983	66	119	260	0	0	110	-	-	-	376	370	11	80
1984	9	0	42	52	-	128	-	-	-	260	400	175	65
1985	30	153	58	31	33	0	-	-	-	400	400	13	68
1986	39	392	20	13	51	-	-	-	-	400	400	13	81
1987	13	8	-	21	6	107	33	-	-	395	400	13	61
1988	5	46	25	39	5	-	-	232	80	350	121	-	55
1989	1	-	-	-	0	5	240	-	-	364	382	13	61
1990	4	2	-	184	-	-	-	-	-	315	400	13	56
1991	155	400	260	160	69	267	-	-	-	288	400	13	122
1992	6	92	388	1	-	-	-	-	-	340	380	13	75
1993	78	1	0	8	1	-	97	400	121	159	275	-	70
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	88	235	203	390	9	272	64	-	77
1996	-	27	400	400	152	232	13	-	-	368	400	13	123
1997	-	117	135	-	-	387	30	-	-	232	400	396	103
1998	233	160	8	-	-	-	-	-	-	400	400	13	74
1999	5	13	125	206	-	82	-	-	-	251	400	400	90
2000	207	282	104	44	21	0	-	-	-	381	400	49	91
2001	86	36	38	37	28	11	40	154	177	171	330	-	67
2002	-	-	-	-	-	-	343	400	-	400	400	13	95
2003	4	53	45	29	135	285	12	-	-	317	384	12	77
2004	1	0	0	16	0	23	121	-	-	400	399	13	60
2005	-	3	-	134	67	15	-	-	-	211	34	-	28
2006	-	-	-	-	-	-	-	199	333	302	253	-	66
2007	-	2	11	-	-	258	360	-	-	345	323	13	80
2008	11	19	24	23	-	1	-	26	-	324	400	71	55
2009	10	295	200	-	-	-	-	-	-	400	400	13	80
Average	58	78	94	55	24	69	40	49	35	287	334	88	74

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Small 400 cfs WDC1

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	197	155	19	-	-	-	118	-	-	-	30
1927	-	-	-	-	-	-	-	63	391	73	-	-	32
1928	-	-	148	228	-	-	-	-	-	357	22	-	46
1929	-	-	-	-	-	-	-	64	299	60	-	-	25
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	41	9	-	-	-	3
1932	-	-	-	-	-	-	317	400	400	65	-	-	71
1933	-	-	203	301	19	17	87	238	-	184	76	387	92
1934	374	40	-	-	-	-	-	-	-	264	2	-	42
1935	-	-	118	84	-	-	-	-	-	287	60	-	34
1936	-	-	-	-	-	13	115	-	-	143	0	-	16
1937	-	-	-	-	-	-	-	67	-	241	20	-	20
1938	-	53	400	-	-	-	-	-	-	261	0	-	44
1939	-	-	62	338	39	-	-	-	-	162	-	-	37
1940	-	-	-	-	-	89	85	-	-	122	-	-	18
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	27	200	400	121	-	-	45
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	218	193	-	-	-	25
1946	-	-	-	-	-	-	37	400	400	50	0	-	54
1947	-	-	182	144	320	244	159	-	-	227	-	-	76
1948	-	44	150	49	-	-	-	-	-	210	33	134	38
1949	73	93	147	-	-	-	-	-	-	60	0	333	43
1950	167	233	-	-	-	-	-	-	4	80	63	387	56
1951	368	182	-	-	-	-	-	-	-	273	27	-	52
1952	33	155	47	-	15	-	-	-	-	261	87	-	36
1953	-	-	-	8	258	-	-	-	-	142	8	190	35
1954	-	130	400	-	-	-	-	-	-	63	64	387	63
1955	302	188	79	-	-	-	-	-	-	10	0	387	58
1956	400	67	-	-	-	-	27	21	-	103	11	387	61
1957	199	199	63	-	-	-	-	-	-	224	0	-	42
1958	-	-	-	-	-	77	227	-	-	148	-	-	27
1959	-	-	359	-	-	-	1	-	-	224	43	377	61
1960	400	27	2	-	-	-	-	-	-	274	1	-	43
1961	-	276	31	106	-	-	2	-	-	294	50	-	46
1962	-	70	181	81	-	-	-	-	-	285	59	-	41
1963	-	160	387	-	-	-	-	-	-	275	10	-	51
1964	-	-	-	-	-	-	-	-	-	86	36	387	31
1965	315	99	110	-	-	-	-	-	-	320	30	-	54
1966	-	-	28	32	-	13	147	-	-	336	6	-	34
1967	-	-	-	263	13	-	-	-	-	35	1	0	19
1968	103	360	29	0	-	-	-	-	-	358	7	-	52
1969	38	313	163	-	-	-	-	-	-	271	0	-	48
1970	-	-	-	-	-	69	218	31	-	314	-	-	38
1971	-	-	-	-	105	-	-	-	-	12	65	387	34
1972	321	297	-	-	-	-	5	65	-	78	106	387	76
1973	252	69	101	-	-	-	-	-	-	187	-	-	37
1974	-	-	-	-	-	105	49	58	-	16	66	387	41
1975	305	29	183	-	-	-	-	-	-	110	9	323	58
1976	91	400	3	-	-	-	-	-	-	159	78	385	67
1977	-	25	114	50	-	-	-	-	-	-	-	-	12
1978	-	-	330	100	40	176	327	138	-	79	-	-	72
1979	-	-	-	-	-	-	-	154	-	-	-	-	9
1980	-	-	-	-	-	-	67	155	-	13	-	-	14
1981	-	-	13	116	44	-	-	-	-	319	-	-	30
1982	-	-	-	-	57	-	-	-	-	190	27	234	30
1983	66	113	259	-	-	-	-	-	-	369	94	-	55
1984	-	-	42	52	-	-	-	-	-	197	44	161	30
1985	19	151	39	-	-	-	-	-	-	45	0	-	15
1986	39	392	4	-	43	-	-	-	-	111	-	-	35
1987	-	-	-	-	-	107	33	-	-	15	-	-	9
1988	-	-	-	-	-	-	-	232	80	-	-	-	19
1989	-	-	-	-	-	-	240	-	-	220	-	-	28
1990	-	-	-	184	-	-	-	-	-	260	9	-	28
1991	155	307	12	5	-	-	-	-	-	263	78	-	50
1992	-	81	388	-	-	-	-	-	-	277	-	-	46
1993	-	-	-	-	-	-	97	400	121	-	-	-	38
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	88	235	203	390	9	-	-	-	56
1996	-	27	400	383	144	39	13	-	-	341	87	-	88
1997	-	117	135	-	-	-	30	-	-	128	21	383	49
1998	233	160	8	-	-	-	-	-	-	352	37	-	48
1999	-	-	123	206	-	-	-	-	-	89	77	387	53
2000	203	274	4	2	-	-	-	-	-	179	0	36	42
2001	86	8	-	-	-	-	40	154	177	-	-	-	28
2002	-	-	-	-	-	-	343	400	-	178	0	-	56
2003	-	-	-	-	135	285	12	-	-	133	-	-	34
2004	-	-	-	-	-	23	121	-	-	32	-	-	11
2005	-	-	-	129	67	6	-	-	-	-	-	-	12
2006	-	-	-	-	-	-	-	199	333	-	-	-	32
2007	-	-	-	-	-	258	360	-	-	229	-	-	51
2008	-	-	-	-	-	-	-	26	-	185	3	58	17
2009	-	293	199	-	-	-	-	-	-	297	2	-	48
Average	54	65	70	36	17	21	40	49	35	147	18	77	38

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Small 400 cfs WDC1

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	28	37	-	-	-	-	-	-	-	181	248	-	30
1927	-	-	-	0	2	-	-	-	-	238	393	13	40
1928	-	-	-	-	-	-	-	-	-	33	378	13	26
1929	12	40	40	41	22	1	-	-	-	74	333	13	35
1930	-	-	-	-	-	-	-	-	-	115	-	-	7
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	293	400	13	43
1933	-	-	-	-	-	-	-	-	-	14	324	13	22
1934	-	-	352	318	4	329	-	-	-	136	382	13	94
1935	-	-	-	-	-	-	-	-	-	61	340	13	25
1936	12	34	40	3	-	4	-	-	-	257	400	13	47
1937	11	48	17	17	5	-	-	-	-	83	380	13	35
1938	4	5	-	-	-	-	-	-	-	123	400	13	33
1939	9	3	-	-	-	0	-	-	-	238	400	13	41
1940	3	26	-	16	0	-	-	-	-	171	371	13	37
1941	-	-	-	-	13	-	-	-	-	6	-	-	1
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	243	396	13	40
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	350	400	13	47
1947	-	27	-	-	-	-	-	-	-	129	308	13	29
1948	-	-	-	-	-	-	-	-	-	94	367	13	29
1949	3	14	1	-	0	-	-	-	-	176	400	13	37
1950	-	3	-	12	-	391	-	-	-	137	337	13	55
1951	0	-	60	154	147	351	-	-	-	72	373	13	71
1952	-	5	15	14	-	-	-	-	-	76	313	13	27
1953	25	56	49	6	-	-	-	-	-	113	392	13	40
1954	0	29	-	-	-	-	-	-	-	214	336	13	36
1955	0	11	-	-	-	-	-	-	-	223	400	13	40
1956	-	-	185	31	49	400	-	-	-	192	389	13	77
1957	0	5	98	18	-	-	-	-	-	176	400	13	44
1958	1	35	1	0	-	-	-	-	-	216	389	11	40
1959	1	-	-	-	-	-	-	-	-	66	357	13	27
1960	-	104	203	4	-	47	-	-	-	81	399	13	52
1961	1	4	18	3	-	179	-	-	-	29	350	13	37
1962	2	24	7	-	-	-	-	-	-	61	341	13	27
1963	5	11	-	-	-	-	-	-	-	125	390	13	33
1964	3	17	15	-	-	-	-	-	-	285	364	13	43
1965	9	15	-	-	-	209	-	-	-	3	370	13	38
1966	3	40	34	22	23	1	-	-	-	64	331	13	32
1967	0	20	-	-	-	-	-	-	-	225	399	13	40
1968	-	0	-	143	20	182	-	-	-	14	393	13	47
1969	-	-	-	-	7	-	-	-	-	129	400	13	34
1970	10	43	36	18	-	-	-	-	-	65	290	13	29
1971	4	30	30	2	-	-	-	-	-	149	319	13	34
1972	-	0	-	-	101	400	-	-	-	102	293	13	55
1973	1	5	3	-	-	15	-	-	-	138	394	13	35
1974	14	33	5	2	-	-	-	-	-	216	317	13	37
1975	4	29	3	-	-	147	-	-	-	189	391	13	48
1976	-	-	298	321	4	178	-	-	-	57	322	13	73
1977	8	30	15	-	-	57	-	-	-	171	137	-	26
1978	-	-	-	-	-	-	-	-	-	151	354	13	32
1979	14	54	26	28	19	-	-	-	-	176	205	-	32
1980	-	-	-	-	0	-	-	-	-	231	299	1	33
1981	-	1	-	-	1	0	-	-	-	39	342	12	24
1982	8	17	3	6	-	-	-	-	-	73	373	13	30
1983	-	5	1	0	0	110	-	-	-	7	276	11	25
1984	9	0	-	-	-	128	-	-	-	63	356	13	35
1985	11	2	19	31	33	0	-	-	-	355	400	13	53
1986	-	-	17	13	8	-	-	-	-	289	400	13	45
1987	13	8	-	21	6	-	-	-	-	380	400	13	52
1988	5	46	25	39	5	-	-	-	-	350	121	-	36
1989	1	-	-	-	0	5	-	-	-	144	382	13	34
1990	4	2	-	-	-	-	-	-	-	55	391	13	29
1991	-	93	248	154	69	267	-	-	-	25	322	13	73
1992	6	12	-	1	-	-	-	-	-	63	380	13	29
1993	78	1	0	8	1	-	-	-	-	159	275	-	32
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	272	64	-	21
1996	-	-	-	17	8	193	-	-	-	27	313	13	35
1997	-	-	-	-	-	387	-	-	-	104	379	13	54
1998	-	-	-	-	-	-	-	-	-	48	363	13	26
1999	5	13	3	-	-	82	-	-	-	161	323	13	37
2000	4	8	101	41	21	0	-	-	-	202	400	13	48
2001	-	27	38	37	28	11	-	-	-	171	330	-	39
2002	-	-	-	-	-	-	-	-	-	222	400	13	39
2003	4	53	45	29	-	-	-	-	-	185	384	12	44
2004	1	0	0	16	0	-	-	-	-	368	399	13	49
2005	-	3	-	5	0	9	-	-	-	211	34	-	16
2006	-	-	-	-	-	-	-	-	-	302	253	-	34
2007	-	2	11	-	-	-	-	-	-	116	323	13	29
2008	11	19	24	23	-	1	-	-	-	139	397	13	38
2009	10	1	1	-	-	-	-	-	-	103	398	13	32
Average	4	14	25	19	7	49	-	-	-	140	316	11	36

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Small 400 cfs WDC1

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	16,553	-	-	-	-	-	9,385	39,099	40,743	53,643	54,804	18,172	232,399
1927	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1928	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1929	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
1930	23	-	-	-	-	-	9,311	39,292	40,743	53,729	54,532	16,780	214,410
1931	23	-	-	-	-	-	8,302	35,822	35,517	39,836	38,033	12,496	170,030
1932	23	-	-	-	-	-	9,311	39,480	39,085	53,472	55,606	40,407	237,385
1933	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1934	16,553	-	-	-	-	-	9,311	39,838	40,371	53,615	56,356	40,015	256,058
1935	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1936	16,553	-	-	-	-	-	9,204	39,743	40,743	53,660	56,392	39,857	256,152
1937	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1938	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1939	16,553	-	-	-	-	-	9,316	37,737	40,530	53,642	56,397	39,825	254,001
1940	23	-	-	-	-	-	9,311	39,254	40,483	53,657	54,162	17,132	214,022
1941	23	-	-	-	-	-	8,106	38,940	39,668	45,187	43,016	13,696	188,637
1942	23	-	-	-	-	-	9,311	39,337	40,859	52,602	50,622	15,613	208,366
1943	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,689	40,405	239,386
1944	16,553	-	-	-	-	-	9,354	39,776	40,856	52,417	49,833	14,757	223,545
1945	23	-	-	-	-	-	6,747	39,752	40,743	53,643	54,804	18,151	213,862
1946	23	-	-	-	-	-	9,311	39,743	40,737	53,446	55,513	40,677	239,449
1947	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1948	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1949	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,685	40,407	255,914
1950	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1951	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1952	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1953	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1954	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1955	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,602	40,407	255,831
1956	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1957	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1958	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1959	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1960	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1961	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1962	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1963	16,553	-	-	-	-	-	9,311	39,743	40,743	53,508	56,188	40,349	256,396
1964	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1965	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1966	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1967	16,553	-	-	-	-	-	9,311	39,743	40,743	53,536	56,261	40,260	256,406
1968	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1969	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1970	16,553	-	-	-	-	-	9,311	39,743	40,743	53,601	56,337	40,113	256,400
1971	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1972	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1973	16,553	-	-	-	-	-	7,064	39,983	40,743	51,593	49,269	33,467	238,671
1974	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1975	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1976	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,735	40,407	255,964
1977	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
1978	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1979	16,553	-	-	-	-	-	7,348	39,860	40,743	52,018	49,930	33,909	240,361
1980	23	-	-	-	-	-	9,311	39,486	38,926	53,723	56,427	39,455	237,352
1981	23	-	-	-	-	-	7,853	39,743	40,743	53,974	55,465	37,652	235,454
1982	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1983	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1984	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1985	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1986	16,553	-	-	-	-	-	9,346	39,388	40,743	53,787	56,464	39,399	255,679
1987	23	-	-	-	-	-	9,311	39,215	40,743	50,377	47,567	32,384	219,620
1988	23	-	-	-	-	-	9,311	39,516	40,743	52,292	50,694	34,523	227,101
1989	23	-	-	-	-	-	9,311	38,779	40,743	53,502	56,154	40,418	238,930
1990	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,735	40,407	239,434
1991	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1992	16,553	-	-	-	-	-	9,292	39,281	40,743	53,657	54,162	17,132	230,820
1993	23	-	-	-	-	-	9,389	37,431	40,743	53,643	54,804	18,172	214,205
1994	23	-	-	-	-	-	9,315	39,809	41,198	50,119	47,814	14,928	203,207
1995	23	-	-	-	-	-	9,317	39,743	40,650	52,272	54,179	40,305	236,489
1996	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,739	40,407	239,439
1997	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1998	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1999	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,733	40,407	255,962
2000	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2001	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
2002	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2003	16,553	-	-	-	-	-	9,311	36,087	40,214	53,472	55,740	40,407	251,783
2004	16,553	-	-	-	-	-	9,313	37,102	40,116	53,659	56,385	39,888	253,017
2005	23	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	216,286
2006	23	-	-	-	-	-	9,311	39,743	40,601	53,472	55,682	40,407	239,239
2007	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2008	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,764	40,680	256,266
2009	23	-	-	-	-	-	9,203	39,284	40,273	52,950	55,727	39,922	237,383
Average	10,059	-	-	-	-	-	9,179	39,502	40,602	53,082	54,759	35,752	242,937

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Small 400 cfs WDC1

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	18,681	-	-	-	-	8,883	30,338	39,238	48,460	49,896	48,680	31,571	275,747
1927	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1928	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1929	18,681	-	-	-	-	8,883	26,544	39,776	48,460	49,896	48,680	31,571	272,491
1930	986	-	-	-	-	8,883	30,435	37,050	46,622	46,204	44,482	28,516	243,178
1931	986	-	-	-	-	8,883	22,530	24,778	29,453	29,886	29,082	18,541	164,140
1932	986	-	-	-	-	8,883	30,437	41,882	45,905	54,222	53,512	35,446	271,274
1933	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1934	18,681	-	-	-	-	8,883	30,437	42,157	47,028	54,297	53,680	35,731	290,895
1935	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1936	18,681	-	-	-	-	8,883	30,475	42,041	47,350	54,350	53,761	35,706	291,248
1937	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1938	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1939	18,681	-	-	-	-	8,883	30,464	40,629	47,276	54,332	53,775	35,701	289,742
1940	986	-	-	-	-	8,883	30,434	42,188	48,190	49,896	48,680	31,571	260,829
1941	986	-	-	-	-	8,883	29,158	28,100	33,692	34,445	33,428	21,313	190,006
1942	986	-	-	-	-	8,883	30,589	35,163	41,618	41,958	40,068	25,805	225,070
1943	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1944	18,681	-	-	-	-	8,883	22,965	33,129	41,674	41,639	40,051	25,779	232,802
1945	986	-	-	-	-	8,883	27,845	39,855	48,458	49,896	48,680	31,542	256,147
1946	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,603	273,023
1947	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1948	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1949	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1950	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1951	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1952	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,561
1953	18,681	-	-	-	-	8,883	30,435	42,030	47,350	54,222	53,512	35,446	290,560
1954	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1955	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1956	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1957	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1958	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1959	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1960	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1961	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1962	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1963	18,681	-	-	-	-	8,883	30,437	42,029	47,350	54,222	53,550	35,750	290,903
1964	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1965	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1966	18,681	-	-	-	-	8,883	30,437	42,028	47,350	54,222	53,512	35,446	290,559
1967	18,681	-	-	-	-	8,883	30,435	42,030	47,350	54,222	53,568	35,756	290,926
1968	986	-	-	-	-	8,883	30,437	42,028	47,350	54,222	53,512	35,446	272,865
1969	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1970	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,280	53,639	35,746	291,046
1971	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1972	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1973	18,681	-	-	-	-	8,883	29,058	41,956	47,876	53,258	51,558	32,797	284,068
1974	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1975	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1976	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1977	18,681	-	-	-	-	8,883	26,628	39,776	48,460	49,896	48,680	31,571	272,576
1978	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1979	18,681	-	-	-	-	8,883	29,009	42,235	47,747	54,015	52,369	33,155	286,094
1980	986	-	-	-	-	8,883	30,490	41,915	45,546	54,438	53,916	35,615	271,790
1981	986	-	-	-	-	8,883	30,260	42,235	47,350	55,024	54,490	35,231	274,458
1982	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,866
1983	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1984	18,681	-	-	-	-	8,883	30,437	42,028	47,350	54,222	53,512	35,446	290,560
1985	18,681	-	-	-	-	8,883	30,437	42,030	47,349	54,222	53,512	35,446	290,560
1986	18,681	-	-	-	-	8,883	30,507	41,752	47,349	54,565	53,997	35,598	291,332
1987	986	-	-	-	-	8,883	30,485	41,334	48,188	51,336	49,591	31,877	262,680
1988	986	-	-	-	-	8,883	30,596	42,073	47,612	54,502	53,101	33,599	271,353
1989	986	-	-	-	-	8,883	30,436	41,236	47,348	54,222	53,539	35,745	272,395
1990	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1991	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1992	18,681	-	-	-	-	8,883	30,065	39,928	48,484	49,896	48,680	31,571	276,190
1993	986	-	-	-	-	8,883	30,840	40,245	48,452	49,896	48,680	31,571	259,555
1994	986	-	-	-	-	8,883	30,704	31,946	37,907	39,061	37,619	24,210	211,316
1995	986	-	-	-	-	8,883	30,445	42,028	47,692	53,158	53,555	35,754	272,500
1996	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1997	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1998	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1999	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2000	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2001	18,681	-	-	-	-	8,883	26,485	39,776	48,460	49,896	48,680	31,571	272,432
2002	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2003	18,681	-	-	-	-	8,883	30,437	38,938	47,075	54,222	53,512	35,446	287,195
2004	18,681	-	-	-	-	8,883	30,440	39,986	46,748	54,348	53,740	35,711	288,540
2005	986	-	-	-	-	8,883	26,636	39,776	48,460	49,896	48,680	31,571	254,889
2006	986	-	-	-	-	8,883	30,497	42,029	47,286	54,222	53,512	35,446	272,861
2007	18,681	-	-	-	-	8,883	30,436	42,030	47,350	54,222	53,512	35,446	290,561
2008	18,681	-	-	-	-	8,883	30,432	42,029	47,350	54,222	53,512	35,599	290,710
2009	986	-	-	-	-	8,758	30,006	41,434	46,680	53,475	52,833	36,607	270,779
Average	11,730	-	-	-	-	8,882	29,993	40,978	46,799	52,617	51,788	34,141	276,927

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Small 400 cfs WDC1

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	25,229	-	-	-	-	6,232	47,563	88,550	89,080	97,312	90,146	55,333	499,445
1927	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1928	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1929	25,229	-	-	-	-	6,232	47,341	92,309	89,080	97,312	90,146	55,333	502,982
1930	21,815	-	-	-	-	6,232	51,572	87,040	86,090	93,160	85,933	53,738	485,581
1931	21,815	-	-	-	-	6,232	40,340	73,118	68,998	74,807	70,450	48,888	404,649
1932	21,815	-	-	-	-	6,232	51,572	98,613	100,367	113,698	108,774	74,355	575,427
1933	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1934	25,229	-	-	-	-	6,232	51,572	99,896	104,357	113,537	105,000	60,025	565,849
1935	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1936	25,229	-	-	-	-	6,232	51,513	101,401	106,567	113,469	104,549	59,856	568,818
1937	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1938	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1939	25,229	-	-	-	-	6,232	51,327	87,190	103,209	113,470	104,470	59,817	550,946
1940	21,815	-	-	-	-	6,232	51,572	89,545	88,528	97,312	90,146	55,333	500,484
1941	21,815	-	-	-	-	6,232	43,638	75,501	73,190	79,935	74,819	50,239	425,370
1942	21,815	-	-	-	-	6,232	50,705	84,485	81,037	88,386	81,493	52,418	466,570
1943	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1944	25,229	-	-	-	-	6,232	45,653	83,864	81,087	88,026	81,475	52,405	463,971
1945	21,815	-	-	-	-	6,232	47,726	92,404	89,080	97,312	90,146	55,298	500,014
1946	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,766	61,880	574,209
1947	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1948	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1949	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1950	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1951	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1952	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1953	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1954	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1955	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1956	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1957	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1958	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1959	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1960	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1961	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1962	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1963	25,229	-	-	-	-	6,232	51,572	101,401	109,167	113,679	106,526	60,624	574,431
1964	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1965	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1966	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1967	25,229	-	-	-	-	6,232	51,572	101,401	109,548	113,650	106,010	60,429	574,071
1968	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1969	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1970	25,229	-	-	-	-	6,232	51,572	101,401	108,412	113,564	105,230	60,153	571,794
1971	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1972	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1973	25,229	-	-	-	-	6,232	48,312	96,908	93,329	101,258	93,046	56,116	520,430
1974	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1975	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1976	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1977	25,229	-	-	-	-	6,232	47,583	92,309	89,080	97,312	90,146	55,333	503,224
1978	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1979	25,229	-	-	-	-	6,232	43,636	98,004	94,131	102,218	93,861	56,365	519,676
1980	21,815	-	-	-	-	6,232	49,789	97,121	97,852	113,306	103,704	59,495	549,315
1981	21,815	-	-	-	-	6,232	48,518	101,231	101,086	109,515	100,346	58,463	547,207
1982	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1983	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1984	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1985	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1986	25,229	-	-	-	-	6,232	50,800	99,114	103,750	112,749	103,232	59,457	560,563
1987	21,815	-	-	-	-	6,232	51,305	95,323	91,506	98,956	91,065	55,510	511,713
1988	21,815	-	-	-	-	6,232	50,630	96,120	95,011	102,910	94,699	56,707	524,125
1989	21,815	-	-	-	-	6,232	51,572	95,490	108,312	113,687	106,714	60,813	564,636
1990	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1991	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1992	25,229	-	-	-	-	6,232	47,261	88,355	89,356	97,312	90,146	55,333	499,225
1993	21,815	-	-	-	-	6,232	47,961	87,403	89,080	97,312	90,146	55,333	495,282
1994	21,815	-	-	-	-	6,232	49,277	80,748	77,358	85,128	79,030	51,643	451,232
1995	21,815	-	-	-	-	6,232	51,443	101,401	103,233	107,898	106,750	60,495	559,268
1996	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1997	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1998	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1999	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2000	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2001	25,229	-	-	-	-	6,232	46,969	92,309	89,080	97,312	90,146	55,333	502,610
2002	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2003	25,229	-	-	-	-	6,232	51,572	83,085	103,787	113,698	108,774	74,355	566,733
2004	25,229	-	-	-	-	6,232	51,522	85,177	102,795	113,476	104,668	59,894	548,993
2005	21,815	-	-	-	-	6,232	47,598	92,309	89,080	97,312	90,146	55,333	499,825
2006	21,815	-	-	-	-	6,232	51,234	101,401	107,766	113,698	108,774	74,355	585,276
2007	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2008	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,340	61,913	578,230
2009	21,815	-	-	-	-	6,232	51,572	101,401	107,176	113,614	105,624	60,258	567,693
Average	23,888	-	-	-	-	6,232	50,624	97,762	103,606	109,149	103,272	67,302	561,834

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Small 400 cfs WDC1

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	33,266	-	-	-	-	10,226	39,606	55,279	59,118	60,303	59,539	50,474	367,812
1927	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1928	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1929	33,266	-	-	-	-	10,226	40,455	57,593	63,138	64,797	63,766	52,269	385,511
1930	24,263	-	-	-	-	10,226	41,928	54,920	57,023	58,188	57,479	49,526	353,552
1931	24,263	-	-	-	-	10,226	37,217	54,827	54,594	56,453	55,817	48,834	342,231
1932	24,263	-	-	-	-	10,226	41,088	57,883	61,362	70,157	70,467	59,068	394,514
1933	32,779	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,765
1934	33,266	-	-	-	-	10,226	41,291	58,415	64,301	70,129	69,824	55,777	403,230
1935	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1936	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,051	69,685	55,719	403,016
1937	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1938	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1939	33,266	-	-	-	-	10,226	41,745	52,622	63,993	70,080	69,656	55,708	397,297
1940	24,263	-	-	-	-	10,226	41,928	54,262	63,203	65,586	64,475	52,568	376,511
1941	24,263	-	-	-	-	10,226	37,749	51,420	51,570	53,531	52,983	47,593	329,335
1942	24,263	-	-	-	-	10,226	41,306	55,396	57,647	59,080	58,221	49,894	356,033
1943	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1944	33,266	-	-	-	-	10,226	39,931	54,814	55,275	56,525	55,891	48,884	354,813
1945	24,263	-	-	-	-	10,226	40,489	57,672	63,017	64,610	63,615	52,232	376,125
1946	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,263	56,452	395,430
1947	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1948	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1949	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1950	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1951	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1952	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1953	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1954	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1955	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1956	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1957	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1958	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1959	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1960	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1961	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1962	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1963	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,156	70,138	55,987	403,841
1964	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1965	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1966	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1967	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,155	70,093	55,917	403,726
1968	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1969	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1970	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,145	69,892	55,820	403,417
1971	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1972	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1973	33,266	-	-	-	-	10,226	40,449	57,867	64,262	68,710	68,073	54,114	396,967
1974	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1975	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1976	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1977	33,266	-	-	-	-	10,226	40,626	57,143	59,855	61,095	60,306	50,770	373,288
1978	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1979	33,266	-	-	-	-	10,226	36,943	57,867	64,432	68,781	68,291	54,242	394,048
1980	24,263	-	-	-	-	10,226	40,578	57,254	61,422	69,821	69,337	55,596	388,498
1981	24,263	-	-	-	-	10,226	39,616	57,867	65,148	69,010	68,718	55,189	390,037
1982	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1983	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1984	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1985	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1986	33,266	-	-	-	-	10,226	41,621	56,990	65,148	69,563	69,173	55,579	401,566
1987	24,263	-	-	-	-	10,226	41,675	56,980	64,129	68,168	67,312	53,796	386,549
1988	24,263	-	-	-	-	10,226	41,237	57,087	64,632	68,774	68,462	54,410	389,090
1989	24,263	-	-	-	-	10,226	41,226	56,093	65,148	70,156	70,157	56,053	393,323
1990	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1991	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1992	33,266	-	-	-	-	10,226	39,136	55,431	64,006	67,381	66,558	53,528	389,532
1993	24,263	-	-	-	-	10,226	40,206	52,577	63,812	66,099	65,129	52,877	375,190
1994	24,263	-	-	-	-	10,226	40,504	53,363	53,769	55,569	54,985	48,499	341,180
1995	24,263	-	-	-	-	10,226	41,846	59,101	63,629	67,475	70,132	55,945	392,617
1996	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1997	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1998	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1999	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2000	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2001	33,266	-	-	-	-	10,226	40,119	57,018	59,354	60,566	59,809	50,606	370,966
2002	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2003	33,266	-	-	-	-	10,226	41,928	50,189	63,418	70,157	70,467	59,068	398,720
2004	32,779	-	-	-	-	10,226	41,896	51,575	63,763	70,056	69,718	55,732	395,744
2005	24,263	-	-	-	-	10,226	40,600	56,327	57,659	58,916	58,449	50,126	356,566
2006	24,263	-	-	-	-	10,226	41,612	59,101	65,417	70,157	70,467	59,068	400,311
2007	32,959	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,945
2008	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,407	56,466	404,590
2009	24,263	-	-	-	-	10,179	40,863	57,599	64,847	69,830	69,704	55,757	393,041
Average	29,714	-	-	-	-	10,226	40,871	57,137	63,821	68,309	68,326	56,742	395,146

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Small 400 cfs WDC1

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	3,644	-	-	-	-	421	4,369	12,649	16,423	18,030	17,982	15,438	88,955
1927	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1928	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1929	3,644	-	-	-	-	421	3,508	13,084	16,423	18,347	18,395	15,549	89,371
1930	798	-	-	-	-	421	4,768	12,786	16,394	17,644	17,571	15,283	85,666
1931	798	-	-	-	-	421	2,789	13,084	16,244	17,312	17,233	15,137	83,017
1932	798	-	-	-	-	421	4,768	12,690	15,128	18,950	19,461	15,860	88,076
1933	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1934	3,644	-	-	-	-	421	4,768	12,870	16,086	18,347	18,395	15,600	90,131
1935	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1936	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,599	90,681
1937	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1938	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1939	3,644	-	-	-	-	421	4,749	11,219	15,939	18,347	18,395	15,599	88,313
1940	798	-	-	-	-	421	4,768	11,531	16,264	18,347	18,395	15,552	86,076
1941	798	-	-	-	-	421	4,068	12,855	15,877	16,732	16,656	14,858	82,264
1942	798	-	-	-	-	421	4,715	12,836	16,415	17,809	17,721	15,352	86,066
1943	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1944	3,644	-	-	-	-	421	2,221	13,084	16,312	17,326	17,248	14,260	84,515
1945	798	-	-	-	-	421	3,782	13,084	16,423	18,347	18,395	15,548	86,799
1946	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,395	15,613	89,454
1947	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1948	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1949	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1950	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1951	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1952	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1953	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1954	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1955	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1956	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1957	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1958	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1959	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1960	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1961	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1962	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1963	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,604	90,687
1964	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1965	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1966	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1967	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,603	90,687
1968	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1969	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1970	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,601	90,683
1971	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1972	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1973	3,644	-	-	-	-	421	3,950	13,084	16,423	18,347	18,395	15,573	89,837
1974	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1975	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1976	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1977	3,644	-	-	-	-	421	2,959	13,084	16,423	18,162	18,132	15,469	88,295
1978	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1979	3,644	-	-	-	-	421	3,720	13,084	16,423	18,347	18,395	15,575	89,609
1980	798	-	-	-	-	421	4,614	12,483	15,321	18,347	18,395	15,596	85,975
1981	798	-	-	-	-	421	4,197	13,084	16,423	18,347	18,395	15,589	87,255
1982	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1983	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1984	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1985	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1986	3,644	-	-	-	-	421	4,712	12,841	16,423	18,347	18,395	15,596	90,380
1987	798	-	-	-	-	421	4,753	12,511	16,423	18,347	18,395	15,568	87,216
1988	798	-	-	-	-	421	4,707	12,814	16,423	18,347	18,395	15,577	87,483
1989	798	-	-	-	-	421	4,768	12,306	16,423	18,347	18,395	15,606	87,064
1990	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1991	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1992	3,644	-	-	-	-	421	4,387	12,176	16,423	18,347	18,395	15,565	89,357
1993	798	-	-	-	-	421	4,483	11,292	16,423	18,347	18,395	15,556	85,715
1994	798	-	-	-	-	421	4,569	12,871	16,163	17,137	17,064	15,066	84,088
1995	798	-	-	-	-	421	4,759	13,084	15,425	17,479	18,395	15,603	85,964
1996	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1997	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1998	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1999	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2000	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2001	3,644	-	-	-	-	421	2,855	13,084	16,423	18,073	18,035	15,397	87,932
2002	719	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,689
2003	3,644	-	-	-	-	421	4,768	10,772	15,502	18,950	19,461	15,860	89,377
2004	3,644	-	-	-	-	421	4,763	10,982	15,997	18,347	18,395	15,599	88,148
2005	798	-	-	-	-	421	2,680	13,084	16,409	17,779	17,766	15,389	84,326
2006	798	-	-	-	-	421	4,748	13,084	16,110	18,950	19,461	15,860	89,432
2007	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2008	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,613	92,367
2009	798	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,602	87,838
Average	2,525	-	-	-	-	421	4,561	12,905	16,339	18,621	18,952	15,699	90,024

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Small 400 cfs WDC1

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	7,393	-	-	-	-	20	10,925	13,568	14,527	14,065	14,735	13,329	88,562
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1929	7,393	-	-	-	-	20	10,736	13,791	14,527	14,065	14,735	13,329	88,596
1930	5,536	-	-	-	-	20	11,828	13,730	14,476	13,351	14,194	12,849	85,983
1931	5,536	-	-	-	-	20	9,552	13,408	13,121	11,427	13,468	12,611	79,143
1932	5,536	-	-	-	-	20	11,828	15,136	14,897	17,629	17,780	15,757	98,582
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	15,323	15,461	15,144	14,735	13,329	93,233
1935	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1936	7,393	-	-	-	-	20	11,637	14,763	15,350	14,065	14,735	13,329	91,293
1937	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1938	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1939	7,393	-	-	-	-	20	11,773	13,420	15,296	14,608	14,735	13,329	90,575
1940	5,536	-	-	-	-	20	11,828	13,789	14,400	14,065	14,735	13,329	87,702
1941	5,536	-	-	-	-	20	10,370	13,394	14,230	13,127	14,194	12,849	83,720
1942	5,536	-	-	-	-	20	11,566	13,463	14,230	13,127	14,194	12,849	84,984
1943	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1944	7,393	-	-	-	-	20	10,449	13,571	14,230	13,127	14,194	12,849	85,832
1945	5,536	-	-	-	-	20	10,740	13,791	14,527	14,065	14,735	13,329	86,744
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,687	15,376	99,871
1947	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1948	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1953	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1958	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1959	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1960	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1961	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1962	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1963	7,393	-	-	-	-	20	11,828	15,543	15,894	17,070	17,346	15,376	100,468
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1966	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1967	7,393	-	-	-	-	20	11,828	15,543	16,134	17,070	17,346	14,638	99,970
1968	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1969	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1970	7,393	-	-	-	-	20	11,828	15,543	15,709	15,967	14,735	13,329	94,524
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,729	13,791	14,527	14,065	14,735	13,329	88,590
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,793	13,791	14,527	14,065	14,735	13,329	88,653
1978	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1979	7,393	-	-	-	-	20	9,518	13,791	14,527	14,065	14,735	13,329	87,378
1980	5,536	-	-	-	-	20	11,312	14,920	13,844	14,065	14,735	13,329	87,761
1981	5,536	-	-	-	-	20	10,817	13,841	14,527	14,065	14,735	13,329	86,870
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1986	7,393	-	-	-	-	20	11,682	14,629	14,551	14,065	14,735	13,329	90,403
1987	5,536	-	-	-	-	20	11,748	14,758	14,527	14,065	14,735	13,329	88,719
1988	5,536	-	-	-	-	20	11,543	13,936	14,527	14,065	14,735	13,329	87,692
1989	5,536	-	-	-	-	20	11,828	14,566	15,644	17,070	17,346	15,376	97,385
1990	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1991	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1992	7,393	-	-	-	-	20	10,763	13,774	14,527	14,065	14,735	13,329	88,606
1993	5,536	-	-	-	-	20	11,040	13,433	14,527	14,065	14,735	13,329	86,686
1994	5,536	-	-	-	-	20	11,271	13,619	14,230	13,127	14,194	12,849	84,845
1995	5,536	-	-	-	-	20	11,804	15,543	15,294	16,303	17,346	15,114	96,960
1996	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1997	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1998	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1999	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2000	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2001	7,393	-	-	-	-	20	10,625	13,791	14,527	14,065	14,735	13,329	88,486
2002	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2003	7,393	-	-	-	-	20	11,828	12,852	15,375	17,629	17,780	15,757	98,634
2004	7,393	-	-	-	-	20	11,819	13,184	15,089	14,065	14,735	13,329	89,633
2005	5,536	-	-	-	-	20	10,797	13,791	14,527	14,065	14,735	13,329	86,801
2006	5,536	-	-	-	-	20	11,727	15,543	15,954	17,629	17,780	15,757	99,946
2007	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2008	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,768	15,376	101,809
2009	5,536	-	-	-	-	20	11,828	15,543	15,644	17,070	16,199	13,329	95,168
Average	6,663	-	-	-	-	20	11,590	14,982	15,646	16,399	16,713	14,871	96,885

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Small 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	65,717	66,616	82,071
1926	80,020	84,789	102,153	123,055	108,259	78,835	40,538	10,888	11,385	24,452	31,698	43,587
1927	45,142	45,216	45,712	54,686	80,441	88,791	55,027	16,882	20,445	36,080	77,505	80,021
1928	87,688	86,918	101,149	111,882	157,253	153,357	105,436	67,001	60,586	69,834	68,875	65,192
1929	59,531	54,846	58,815	52,984	80,364	84,047	58,187	20,723	16,365	9,842	7,427	9,701
1930	10,392	27,757	38,501	68,368	61,732	52,298	11,612	8,682	6,771	10,206	12,106	10,822
1931	17,349	24,623	39,034	56,675	79,662	77,254	54,091	23,895	20,849	17,558	28,239	27,666
1932	38,194	52,814	77,641	80,995	88,903	86,641	52,620	17,167	13,599	17,858	72,049	80,106
1933	80,080	80,094	80,068	81,325	91,407	141,251	143,750	109,286	89,679	96,096	118,452	123,596
1934	118,796	129,666	134,293	156,721	155,349	132,388	80,106	39,146	34,029	49,409	74,663	80,245
1935	107,098	114,936	122,051	123,965	151,862	157,770	119,663	80,763	76,964	73,637	70,360	68,243
1936	73,298	73,193	79,905	96,670	155,159	156,305	108,467	69,123	64,236	59,279	52,313	65,673
1937	63,200	63,340	67,943	78,260	104,426	140,747	106,253	66,405	61,381	59,948	90,193	81,848
1938	88,775	87,558	89,869	114,415	150,174	156,079	107,673	67,116	60,941	56,983	66,129	81,560
1939	80,102	80,157	86,951	105,701	134,611	129,951	84,351	44,137	39,488	38,693	44,017	65,199
1940	64,451	72,855	82,865	102,110	117,077	105,062	61,257	23,615	18,811	13,909	16,298	26,283
1941	24,093	22,428	33,254	46,369	32,082	15,372	10,124	8,563	14,653	27,398	38,994	51,734
1942	49,724	48,620	50,799	71,965	71,411	78,897	55,312	22,443	20,042	12,078	27,395	40,575
1943	46,082	46,902	53,349	80,382	92,217	90,955	60,961	22,633	18,346	15,476	15,994	32,630
1944	30,545	32,951	37,510	43,880	46,216	39,916	11,391	10,089	13,953	11,544	13,121	19,436
1945	44,069	56,174	58,201	61,253	84,941	78,810	55,671	27,266	30,690	35,837	49,273	56,974
1946	63,526	63,068	67,707	81,570	114,949	120,119	88,702	52,219	49,207	57,081	60,085	79,891
1947	86,777	80,298	83,302	105,125	128,090	118,560	73,605	37,215	34,017	55,985	80,574	80,235
1948	79,827	82,135	84,050	91,460	122,602	157,770	125,696	89,051	79,865	79,673	82,093	80,147
1949	80,929	84,367	89,425	106,341	147,009	157,669	138,617	102,200	79,544	81,532	98,023	113,010
1950	118,796	122,936	98,299	94,224	113,704	159,354	148,899	114,646	88,130	80,526	95,883	118,796
1951	118,796	133,981	113,224	117,253	152,719	157,580	114,789	74,818	69,822	80,483	80,210	79,819
1952	77,995	79,946	81,498	101,822	139,435	147,398	110,442	70,523	66,244	60,007	51,721	45,191
1953	83,061	90,266	94,051	103,506	134,629	154,612	133,240	94,452	77,901	77,895	80,791	88,351
1954	97,270	101,435	104,743	105,454	129,138	157,947	150,039	119,305	96,208	80,005	83,950	81,912
1955	84,895	93,745	94,812	96,298	120,714	157,774	151,556	118,488	92,076	88,538	115,232	118,796
1956	118,623	113,756	75,456	81,465	124,215	157,770	143,881	106,215	80,142	80,257	80,097	118,796
1957	118,398	118,888	122,340	127,669	157,113	146,554	97,514	57,781	51,879	48,708	49,321	61,442
1958	67,628	80,003	80,238	85,261	123,992	110,280	61,826	22,660	19,272	31,437	74,308	84,844
1959	107,855	112,099	121,875	124,089	148,205	157,770	126,392	88,037	84,598	86,625	118,796	118,796
1960	118,556	123,992	128,997	132,056	157,481	156,460	112,580	73,574	70,252	76,066	80,149	79,919
1961	90,520	115,901	116,707	116,319	149,804	156,782	116,153	75,583	72,043	77,747	80,190	82,580
1962	98,727	107,495	108,489	137,183	146,198	153,981	114,526	75,476	71,715	77,148	92,774	86,533
1963	97,040	119,297	126,804	136,939	148,249	138,267	87,837	47,063	41,079	40,023	52,986	54,405
1964	62,950	63,357	66,962	74,110	106,477	157,770	146,594	115,622	93,670	79,949	81,774	94,596
1965	115,541	131,367	123,999	128,141	156,788	155,366	118,100	78,493	73,291	73,631	78,847	79,332
1966	79,737	77,603	81,331	95,817	126,857	126,270	83,237	45,852	39,970	42,138	48,955	75,503
1967	80,698	93,495	97,452	94,512	124,870	157,477	122,971	81,012	74,408	87,432	80,092	113,072
1968	118,796	147,348	149,612	147,874	155,284	151,439	105,351	66,546	72,326	80,256	80,510	80,156
1969	93,048	91,496	93,758	111,623	154,168	153,410	106,437	67,986	66,859	69,677	70,235	68,479
1970	73,217	75,663	80,448	74,888	106,097	123,340	78,070	44,731	41,956	42,021	52,363	52,726
1971	73,238	88,503	91,236	96,172	127,387	157,770	156,132	121,053	94,870	80,475	80,194	89,701
1972	104,326	118,890	115,365	94,373	114,343	157,770	147,431	113,335	95,076	78,989	80,373	101,548
1973	113,397	112,981	115,552	119,245	126,589	114,266	69,319	29,604	25,955	26,356	29,800	38,749
1974	74,079	79,319	80,626	80,567	105,392	158,077	156,537	126,946	101,265	78,814	80,014	91,528
1975	114,355	118,602	113,239	105,385	129,573	157,770	135,497	101,839	79,333	81,372	90,110	118,796
1976	118,796	126,287	117,025	114,103	145,131	157,770	137,754	105,279	79,885	77,644	80,104	80,702
1977	90,922	98,608	98,910	106,988	75,705	69,140	31,056	9,185	11,659	14,331	53,965	84,610
1978	79,893	80,104	85,226	80,959	90,962	89,989	53,285	16,936	18,787	15,893	20,614	27,232
1979	24,979	29,374	45,839	59,637	80,764	67,035	36,369	11,284	9,425	9,566	8,912	46,003
1980	47,954	51,450	59,658	84,585	94,218	81,419	43,980	11,973	12,596	9,934	33,674	81,385
1981	79,984	101,804	108,172	119,381	119,935	120,915	75,125	36,341	30,079	35,909	39,323	45,227
1982	60,770	90,780	104,197	111,577	140,215	157,770	129,869	93,873	80,054	80,421	80,003	80,015
1983	103,933	111,692	124,773	124,542	141,589	134,161	96,517	59,747	59,850	56,861	80,161	79,832
1984	118,229	123,532	126,986	125,248	152,850	157,770	129,377	91,100	78,814	80,042	79,989	79,979
1985	76,762	74,715	78,308	110,495	153,404	152,467	106,179	65,974	63,761	81,089	79,994	76,515
1986	78,252	93,664	118,830	130,862	147,505	132,699	84,425	43,850	40,391	39,173	69,557	71,036
1987	68,766	69,229	80,169	109,921	137,292	115,127	65,181	26,725	21,292	18,043	12,113	16,979
1988	14,348	22,820	37,543	71,248	85,788	69,127	26,877	10,942	8,678	20,003	38,528	53,649
1989	69,450	72,055	76,031	98,834	122,377	118,356	74,150	38,067	33,912	30,075	59,302	79,515
1990	89,440	103,397	114,544	140,286	157,376	157,487	117,271	77,214	72,631	82,775	129,584	118,796
1991	118,796	145,179	133,317	143,230	157,547	157,323	118,906	79,975	74,979	70,185	81,703	80,004
1992	96,147	107,825	124,977	140,607	143,825	118,804	71,614	32,760	34,984	29,737	40,875	44,102
1993	51,331	51,839	66,791	82,046	86,195	75,174	43,153	11,329	7,839	6,813	8,378	12,011
1994	23,286	23,640	38,378	69,325	64,447	50,045	11,517	11,385	9,604	17,225	29,933	47,659
1995	53,414	81,292	80,377	80,547	80,450	61,045	21,548	10,855	8,193	27,860	104,126	98,125
1996	102,621	132,792	128,630	144,069	157,475	147,483	101,793	62,227	60,404	71,560	82,495	80,617
1997	97,140	112,072	89,888	94,171	135,400	157,770	138,545	102,817	80,063	87,516	89,331	94,329
1998	101,469	105,829	118,332	128,926	157,101	149,295	100,690	62,583	57,290	54,359	76,544	93,464
1999	102,775	107,007	106,360	103,458	119,413	157,770	147,738	119,280	91,963	80,146	92,153	118,796
2000	118,493	117,728	120,883	134,494	157,275	157,510	118,074	83,076	80,482	80,014	77,727	72,526
2001	70,452	67,612	75,227	84,247	92,116	77,398	44,852	11,309	8,871	19,891	42,162	50,772
2002	67,565	73,349	79,771	86,964	105,163	143,412	106,542	69,545	64,664	59,366	58,013	55,733
2003	74,827	80,132	84,529	99,597	115,365	104,758	63,207	24,041	18,676	30,697	53,799	57,791
2004	64,209	67,408	80,721	96,933	112,517	98,411	50,389	17,449	24,141	28,905	44,967	65,138
2005	80,416	79,821	82,435	90,921	74,225	55,494	17,970	10,793	9,852	14,219	25,475	33,140
2006	50,141	54,465	54,642	71,091	95,081	77,712	38,972	11,249	8,917	7,497	53,553	56,676
2007	67,651	77,317	98,540	95,933	119,354	116,912	72,558	38,271	33,155	39,258	44,992	55,528
2008	54,204	55,793	59,179	56,223	115,469	146,361	119,130	84,628	77,529	75,108	87,804	81,764
2009	113,652	112,972	114,196	123,946	155,975	152,994	106,052	67,497	62,701	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Small 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	103,226	107,514	146,410
1926	168,373	180,205	202,469	225,324	203,991	162,635	88,891	12,545	-33,888	-33,863	-22,599	-4,584
1927	3,101	10,048	16,145	37,038	81,886	149,347	149,475	124,561	63,005	60,568	98,948	132,681
1928	173,816	178,773	198,793	214,306	238,524	237,549	229,885	179,362	110,976	91,273	95,433	98,523
1929	100,384	102,374	113,326	116,030	153,095	171,041	107,665	39,666	-12,355	-32,250	-38,838	-39,764
1930	-38,949	-20,445	-2,283	30,788	38,825	15,564	-40,518	-101,218	-149,918	-163,835	-160,442	-165,817
1931	-164,980	-153,360	-132,513	-110,228	-72,947	-78,673	-105,686	-139,414	-187,007	-196,708	-185,503	-179,280
1932	-168,420	-143,870	-110,843	-58,391	9,246	66,628	71,762	49,422	-11,673	-32,565	14,681	53,566
1933	95,701	103,866	111,291	133,209	181,794	233,896	238,234	212,103	172,680	197,416	203,025	203,025
1934	203,025	220,437	217,330	238,033	237,832	225,219	199,659	150,130	82,778	94,317	122,122	147,550
1935	190,689	203,782	210,606	208,320	237,044	238,980	236,046	204,476	135,358	106,741	108,176	111,584
1936	120,409	126,384	141,977	185,220	236,591	238,171	220,390	182,364	114,567	109,805	108,344	120,659
1937	124,284	130,430	140,790	157,448	197,620	236,465	229,639	197,851	130,810	101,898	133,211	178,266
1938	190,950	195,969	203,773	207,269	237,556	238,280	224,002	184,067	115,745	88,588	98,601	120,995
1939	163,672	174,164	188,262	215,054	237,780	232,496	205,521	158,520	93,016	93,867	101,131	121,364
1940	126,171	137,408	162,101	194,563	211,436	170,251	108,558	38,402	-10,086	-21,928	-16,846	-4,890
1941	-113	3,051	19,276	39,106	37,256	2,756	-56,925	-115,673	-156,588	-155,377	-140,982	-123,224
1942	-118,482	-113,567	-105,182	-79,996	-64,625	-67,642	-100,272	-140,033	-188,356	-198,518	-183,736	-166,609
1943	-154,717	-147,477	-134,810	-93,198	-41,835	19,858	32,232	11,214	-46,356	-70,569	-66,855	-50,443
1944	-46,965	-40,201	-29,950	-14,985	-2,354	-23,376	-78,663	-137,341	-181,151	-194,291	-191,248	-181,315
1945	-154,847	-139,059	-129,598	-115,709	-61,315	-52,327	-84,345	-117,498	-163,071	-171,533	-156,479	-144,176
1946	-130,755	-125,094	-114,603	-84,859	6,189	69,398	77,211	56,020	-5,072	226	8,715	53,622
1947	83,281	116,810	155,029	194,390	216,165	217,138	209,167	174,884	109,021	104,768	134,724	157,555
1948	169,741	179,045	187,270	187,583	207,090	238,980	234,386	204,583	149,291	135,894	153,401	175,726
1949	181,520	192,076	188,344	191,528	232,565	238,931	238,789	211,029	165,945	162,835	203,025	203,025
1950	203,025	208,267	184,104	180,343	198,325	238,980	238,249	211,682	167,804	181,325	203,025	203,025
1951	203,025	216,491	197,882	201,601	235,729	238,847	231,616	199,766	135,946	125,450	148,179	159,569
1952	163,813	171,617	178,551	205,101	237,267	237,380	232,756	197,016	129,997	100,402	98,873	99,194
1953	133,847	174,733	185,334	200,777	228,571	238,562	230,900	200,400	145,207	123,179	141,580	198,066
1954	203,025	213,064	194,197	190,710	213,665	238,980	238,399	213,554	170,984	168,148	195,733	203,025
1955	203,025	216,138	206,073	195,463	213,028	238,980	238,873	210,747	167,904	190,443	203,025	203,025
1956	203,025	197,459	163,019	170,761	207,600	238,980	235,798	203,410	160,945	159,184	183,278	203,025
1957	203,025	209,319	209,985	211,216	238,395	233,861	209,702	165,600	99,033	75,025	79,363	94,530
1958	104,668	121,116	137,178	173,896	217,336	217,243	198,492	156,657	93,092	84,217	124,953	183,085
1959	203,025	212,474	206,482	207,910	233,131	238,980	235,729	204,612	178,299	211,804	203,025	203,025
1960	203,025	212,844	212,442	217,113	238,735	238,378	228,477	191,807	126,584	107,090	144,660	153,019
1961	179,232	207,491	201,096	200,739	232,311	238,524	234,090	201,084	134,920	118,047	131,595	158,702
1962	190,185	206,120	213,450	229,077	235,667	238,315	233,731	205,625	141,747	123,982	160,103	203,025
1963	203,025	226,452	234,759	238,703	238,815	231,932	213,839	169,419	102,654	101,325	112,612	120,230
1964	135,558	142,053	152,768	167,911	203,028	238,980	237,390	211,471	172,524	171,889	186,848	203,025
1965	203,025	222,154	207,828	211,651	238,095	237,919	236,115	203,881	137,653	112,540	120,108	127,777
1966	137,157	140,434	150,152	185,320	216,404	224,737	222,848	181,129	116,802	95,319	103,434	130,594
1967	171,173	189,499	199,914	194,300	222,503	238,912	235,315	201,143	134,236	158,922	197,460	203,025
1968	203,025	229,321	233,656	230,280	237,590	236,921	233,477	195,667	134,867	123,483	162,829	190,913
1969	203,025	206,885	200,738	200,588	235,676	236,942	221,532	182,817	119,659	97,008	100,790	104,628
1970	113,254	120,491	137,456	162,591	198,549	227,244	224,686	172,785	105,287	107,080	117,973	123,786
1971	148,664	179,805	189,586	185,915	211,177	238,980	238,516	211,949	172,361	171,702	203,180	203,025
1972	203,025	197,253	170,868	167,275	198,915	238,980	238,388	214,863	177,932	171,178	182,903	203,025
1973	203,025	207,411	214,929	218,237	221,162	216,170	195,237	141,082	80,604	80,018	87,780	101,064
1974	136,530	149,662	170,049	168,248	190,653	238,980	238,853	215,425	171,976	164,713	171,643	203,025
1975	203,025	212,901	197,896	191,130	213,298	238,980	233,394	205,826	160,745	150,297	202,815	203,025
1976	203,025	216,911	201,391	198,693	229,427	238,980	237,270	215,178	168,862	141,771	148,697	166,100
1977	184,113	195,110	200,827	204,536	169,639	137,753	68,722	1,639	-42,390	-52,973	-18,463	57,986
1978	72,692	81,851	113,162	153,677	181,538	195,247	184,845	157,150	95,265	66,852	72,290	80,675
1979	84,432	93,014	112,602	131,583	172,125	176,149	159,235	123,510	60,258	47,437	44,585	79,484
1980	86,624	94,112	108,373	146,289	180,103	184,074	167,133	135,784	71,645	69,969	89,868	141,849
1981	163,193	189,737	202,418	221,654	224,123	224,896	217,992	165,335	98,850	105,725	112,486	122,613
1982	140,152	177,583	197,535	198,268	223,620	238,980	234,667	204,340	152,595	138,153	151,796	183,501
1983	203,025	215,861	208,543	208,329	229,414	232,039	237,578	214,083	150,299	125,956	147,786	158,422
1984	201,619	213,861	210,585	208,980	235,310	238,980	236,352	205,362	149,370	128,092	147,606	157,642
1985	160,176	162,557	171,778	205,637	238,808	236,238	209,260	167,193	101,250	91,630	139,485	143,262
1986	150,015	172,962	202,832	222,368	235,507	228,763	202,934	158,866	94,822	95,281	121,339	128,674
1987	133,647	139,663	166,899	203,053	229,347	215,263	176,444	132,226	67,726	35,872	35,825	42,284
1988	45,336	57,506	78,469	117,660	162,527	173,382	149,770	104,590	42,512	46,821	69,052	87,085
1989	106,815	115,681	125,373	179,110	204,476	215,593	208,755	166,114	98,317	98,443	120,767	143,486
1990	178,555	197,243	209,326	224,813	238,638	238,781	233,684	198,413	132,756	138,075	202,969	203,025
1991	203,025	227,068	216,429	226,970	238,795	238,700	236,542	207,818	140,670	112,349	132,401	180,029
1992	198,271	214,485	235,507	238,980	231,004	205,210	164,641	89,863	18,597	3,097	15,152	23,230
1993	33,137	38,619	55,846	86,237	149,647	127,130	64,507	346	-47,870	-65,519	-69,591	-65,504
1994	-51,530	-44,708	-25,826	6,526	21,407	-7,504	-64,481	-123,089	-170,994	-179,811	-166,865	-146,133
1995	-134,465	-94,026	-59,235	-25,782	34,822	43,491	34,742	-11,655	-64,107	-44,570	31,962	82,746
1996	139,598	189,410	210,316	228,962	238,729	235,660	235,275	208,959	144,146	127,014	153,685	175,354
1997	194,671	199,872	174,275	180,294	218,656	238,980	235,387	204,770	166,131	185,724	203,025	203,025
1998	203,025	212,410	211,655	212,376	238,384	235,476	227,000	184,232	115,494	89,829	109,159	141,513
1999	182,923	195,388	191,546	188,867	203,594	238,980	238,101	215,688	173,674	161,816	203,025	203,025
2000	203,025	206,756	209,071	218,162	238,545	238,855	225,692	188,668	129,400	115,155	119,019	120,818
2001	123,472	125,453	137,054	153,980	180,167	155,320	83,080	17,708	-29,145	-35,216	-12,283	1,709
2002	23,872	34,849	47,997	102,819	172,643	217,899	218,954	173,736	104,937	76,253	78,848	81,722
2003	101,557	126,440	171,296	194,335	209,931	211,774	197,540	159,055	93,036	76,933	101,756	112,836
2004	123,687	132,814	155,144	190,371	208,229	205,287	171,100	130,797	74,117	80,631	97,841	120,780
2005	155,756	168,736	177,811	185,118	167,312	112,316	35,677	-21,564	-69,563	-80,162	-67,742	-56,286
2006	-33,445	-23,358	-16,662	7,222	64,943	109,048	98,329	68,318	7,614	-17,120	28,094	39,019
2007	55,749	70,762	127,726	175,892	202,056	212,045	206,387	170,262	102,421	82,835	91,069	107,161
2008	112,734	120,294	129,835	134,917	198,283	233,333	227,255	195,666	136,786	138,700	184,140	203,025
2009	203,025	207,722	208,913	208,562	237,344	236,769	224,506	188,557	127,114	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Small 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	174,979	168,806	207,668
1926	218,918	221,281	258,978	342,223	379,908	321,092	178,289	47,741	25,599	49,533	64,725	92,410
1927	93,533	89,787	87,475	132,690	255,640	435,832	390,883	209,288	197,532	236,675	306,161	325,567
1928	328,027	327,597	355,012	361,401	449,838	448,390	339,820	164,656	139,175	151,325	147,631	139,588
1929	127,427	114,605	117,905	128,721	248,964	326,149	275,823	166,674	135,515	127,818	115,135	106,185
1930	94,545	113,549	141,141	235,175	286,719	294,369	183,436	53,393	27,630	30,375	35,951	34,175
1931	43,358	63,149	95,304	147,370	273,915	287,508	155,388	30,973	17,286	19,406	43,438	47,094
1932	69,268	129,248	209,284	281,314	426,533	451,480	375,260	189,179	166,144	159,892	253,074	297,480
1933	320,580	314,923	309,512	307,229	340,351	451,480	449,341	345,044	337,290	388,671	358,462	391,892
1934	364,897	379,796	390,912	448,120	451,417	409,614	262,207	97,274	75,679	92,191	157,973	176,845
1935	245,226	270,209	281,690	306,465	444,658	451,480	409,245	238,938	220,305	209,164	198,124	186,491
1936	181,180	171,015	177,550	273,251	443,072	447,806	358,413	182,473	159,229	147,827	133,587	135,222
1937	124,282	115,697	117,208	147,071	281,596	450,483	392,134	232,898	206,910	199,791	237,555	264,185
1938	273,553	267,522	269,005	340,447	446,450	451,480	364,525	184,164	152,856	142,580	144,470	161,911
1939	185,725	184,433	197,636	272,095	400,091	412,197	297,516	118,772	93,501	86,004	94,392	130,618
1940	129,727	136,270	166,160	240,645	353,443	363,369	272,986	129,901	97,015	99,391	98,266	111,853
1941	108,153	102,924	135,105	201,397	246,106	220,780	110,620	23,613	25,815	49,147	76,395	110,345
1942	106,581	102,086	104,214	168,490	233,813	273,707	172,948	39,248	20,452	13,593	31,425	56,577
1943	76,123	84,325	103,998	211,593	339,738	451,480	426,922	261,647	235,923	222,467	215,592	234,710
1944	225,194	220,600	226,681	259,974	332,764	348,632	259,556	125,265	91,603	89,992	89,709	101,318
1945	145,019	168,655	172,674	190,740	334,961	388,349	264,513	88,617	73,243	81,517	96,851	102,910
1946	112,177	109,057	113,224	177,654	389,969	451,480	412,844	242,556	221,816	228,823	230,720	280,496
1947	299,145	321,219	356,184	404,568	450,703	449,800	336,080	155,649	137,223	185,183	233,372	249,420
1948	250,238	248,959	247,086	271,665	360,791	451,480	416,702	271,617	248,911	254,808	260,893	267,968
1949	259,452	258,896	265,773	285,353	425,531	451,031	418,883	293,571	275,597	291,213	337,089	335,400
1950	332,662	331,653	314,748	299,620	309,141	451,480	446,761	362,902	345,471	373,271	356,635	353,117
1951	346,662	395,354	347,277	343,325	441,614	451,480	393,420	225,529	202,748	224,479	242,035	246,139
1952	238,484	235,431	231,435	294,536	425,358	443,687	355,488	185,695	160,387	135,130	121,762	109,940
1953	152,573	197,787	203,651	238,675	369,240	451,480	419,903	285,787	264,039	259,649	271,253	312,838
1954	325,036	327,139	324,296	318,659	364,184	451,480	448,205	376,319	368,251	369,678	352,710	341,152
1955	332,402	340,186	334,819	303,955	387,664	421,850	406,732	279,523	262,509	289,561	327,206	327,206
1956	326,749	322,516	274,910	269,716	345,274	451,480	438,828	321,120	303,014	322,795	325,551	331,977
1957	327,602	323,173	326,837	354,260	449,387	439,831	299,667	138,757	114,273	105,418	101,221	108,142
1958	108,291	118,916	133,688	174,504	371,294	425,821	305,260	120,435	101,471	117,309	186,446	256,862
1959	299,103	307,976	321,570	342,691	444,321	451,480	418,310	257,268	273,854	335,691	382,708	361,982
1960	340,333	339,735	353,826	375,102	450,576	450,734	367,137	200,229	177,806	177,417	199,322	197,370
1961	220,640	262,324	290,553	317,589	428,323	450,451	394,076	219,641	202,937	209,638	212,680	223,183
1962	273,194	293,834	291,769	372,637	442,585	451,480	396,393	239,216	215,422	222,462	281,310	311,192
1963	323,900	366,402	381,470	400,129	451,480	435,255	305,493	144,361	121,752	114,808	123,362	125,597
1964	137,828	133,834	131,618	157,571	261,520	451,480	436,126	339,754	326,507	334,052	328,607	326,918
1965	327,977	352,439	359,413	356,394	448,336	448,255	377,531	224,061	202,764	198,532	209,757	209,851
1966	206,021	197,066	197,913	261,936	392,718	436,947	349,703	165,357	138,879	139,746	143,522	190,249
1967	216,133	235,879	239,025	235,725	350,595	395,876	340,234	188,107	168,331	208,511	249,189	309,556
1968	327,837	383,412	421,036	424,103	451,480	441,604	333,694	193,438	187,670	202,485	238,891	254,869
1969	278,512	272,861	273,188	317,064	439,872	444,039	344,661	173,426	152,091	157,277	159,772	154,689
1970	152,086	148,607	154,268	172,878	292,270	370,875	294,593	130,294	113,075	106,813	113,218	113,720
1971	142,557	188,653	195,068	222,079	357,177	451,480	450,442	367,928	354,252	356,109	348,136	340,949
1972	337,560	366,063	323,899	287,827	324,430	451,480	451,480	379,378	374,048	374,362	346,245	338,842
1973	336,322	332,483	329,892	342,689	408,089	363,946	214,102	78,822	62,241	62,349	70,728	83,472
1974	145,676	156,710	170,280	202,941	282,288	451,480	451,480	401,212	391,791	381,583	346,430	341,192
1975	338,275	339,655	333,415	322,115	360,491	451,480	425,932	316,463	299,899	306,642	325,551	362,358
1976	354,913	366,695	350,733	343,744	420,862	451,480	446,752	393,181	384,886	379,701	347,533	339,144
1977	334,402	342,164	338,415	371,181	364,466	324,984	180,649	58,425	46,263	49,794	104,006	215,292
1978	217,949	219,014	257,677	304,991	401,210	451,480	392,917	223,693	218,611	211,866	221,383	219,409
1979	209,261	204,054	230,292	261,391	392,758	392,467	266,045	99,796	81,140	73,008	66,778	138,182
1980	138,475	139,630	156,915	237,119	354,121	389,696	288,594	115,759	97,216	89,612	122,936	241,186
1981	267,561	306,778	324,770	359,933	433,128	388,670	264,226	108,627	93,714	99,897	107,561	109,888
1982	122,585	182,133	210,582	239,096	369,272	451,480	424,229	274,103	258,735	264,843	266,277	289,066
1983	325,497	337,571	359,236	356,523	445,595	451,480	414,519	264,197	253,050	243,575	278,921	278,765
1984	325,631	336,454	354,726	352,430	422,314	451,480	426,946	276,748	261,299	261,590	269,052	267,388
1985	256,450	247,005	244,793	313,363	439,595	442,251	321,037	154,829	135,292	155,287	192,635	182,528
1986	182,290	214,750	271,235	309,177	393,527	420,057	285,696	116,563	96,659	90,272	130,121	134,029
1987	128,828	125,562	162,012	239,662	366,668	359,479	219,508	69,839	46,788	40,085	36,172	43,396
1988	42,133	53,617	86,877	191,483	310,750	341,773	247,391	93,446	73,952	93,691	131,890	157,584
1989	179,367	184,423	189,164	274,138	379,036	438,573	308,885	136,871	111,593	101,798	143,436	188,011
1990	208,846	222,656	240,166	353,175	449,591	451,480	390,056	234,972	213,989	248,531	389,292	353,186
1991	345,344	401,188	388,971	416,650	450,786	451,480	420,365	266,166	244,161	231,895	246,989	275,248
1992	292,726	315,038	361,727	421,073	445,237	375,763	266,557	133,963	113,604	111,188	118,812	116,925
1993	118,861	116,741	133,654	178,427	330,770	347,207	263,985	140,668	108,986	101,052	91,755	86,273
1994	90,870	88,957	118,940	204,561	299,112	298,907	191,565	61,300	38,909	34,234	51,104	81,987
1995	89,083	171,550	207,391	251,544	409,575	451,480	377,211	199,203	178,221	211,673	388,558	357,231
1996	352,100	412,103	383,200	406,474	450,555	448,907	385,509	223,289	204,199	206,431	234,443	245,699
1997	266,929	293,624	299,290	287,980	373,145	451,480	435,642	310,095	306,379	357,501	351,944	340,050
1998	336,253	337,765	356,326	358,321	449,348	449,714	341,412	171,562	142,702	132,812	153,528	184,435
1999	230,860	236,071	239,111	272,442	327,584	451,480	451,480	410,363	393,139	391,517	362,990	354,922
2000	338,700	331,549	329,806	374,792	449,910	451,480	379,532	212,599	196,361	201,484	194,212	181,947
2001	171,118	158,859	163,970	189,651	276,457	274,710	198,225	78,379	45,722	37,790	88,326	102,214
2002	138,692	148,897	161,141	230,833	356,614	451,480	388,867	223,297	199,434	185,813	181,457	175,498
2003	198,003	225,325	264,277	307,072	396,904	444,260	300,278	121,136	98,378	125,070	171,296	183,800
2004	186,467	190,841	223,341	291,913	389,698	377,611	230,287	90,146	95,813	101,363	134,832	181,239
2005	249,162	261,167	272,158	307,283	340,646	291,294	179,625	50,056	25,685	35,449	51,308	66,394
2006	99,452	105,457	104,788	155,195	320,028	451,480	353,428	163,958	135,742	123,934	230,169	236,380
2007	254,271	270,773	363,751	396,737	450,967	445,637	327,607	144,392	116,365	121,092	127,315	157,496
2008	152,477	148,231	149,493	155,137	337,868	451,480	395,208	247,556	225,576	221,055	287,933	296,696
2009	327,324	323,116	318,923	344,971	445,707	446,269	345,974	179,677	158,433	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Small 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,383	3,094	8,516
1926	11,908	12,308	16,239	33,968	33,970	32,401	26,077	17,842	12,648	13,422	15,000	15,000
1927	14,993	15,244	14,222	15,701	27,188	33,970	31,667	20,690	16,859	14,978	15,222	15,000
1928	15,126	14,446	15,000	15,000	36,004	33,970	29,848	20,462	17,068	13,772	12,272	8,964
1929	4,213	1,766	2,134	3,517	32,688	33,970	29,783	20,386	14,185	8,179	2,078	2,243
1930	1,465	8,242	8,517	29,484	33,970	33,970	27,393	19,240	11,522	5,040	1,904	1,589
1931	5,268	7,501	9,832	20,304	33,970	33,970	28,528	20,260	13,903	8,244	8,743	6,488
1932	6,398	11,703	15,000	15,000	32,049	33,970	31,457	20,764	17,141	12,680	15,904	14,949
1933	14,981	13,400	11,326	15,000	15,858	34,845	33,967	24,625	19,717	16,671	15,029	30,521
1934	17,174	19,238	18,845	32,908	33,929	33,970	29,848	20,335	15,619	16,585	15,782	15,000
1935	15,267	18,999	15,008	15,000	31,837	33,970	30,632	20,717	17,246	12,696	7,978	3,418
1936	1,889	1,892	2,121	15,000	32,559	33,970	30,234	20,544	17,168	12,007	6,103	3,799
1937	1,656	1,705	2,070	7,108	28,604	34,373	31,877	20,705	15,572	11,451	15,191	15,161
1938	15,085	14,315	12,440	16,779	35,599	33,970	30,234	20,401	14,984	10,725	7,729	8,396
1939	8,625	6,027	5,412	22,533	34,001	33,970	27,812	20,525	15,845	10,337	6,110	15,000
1940	14,452	17,214	21,730	33,491	33,964	33,970	28,061	20,335	13,662	8,740	6,899	9,862
1941	8,539	6,566	8,588	21,952	33,970	33,902	26,576	13,712	5,858	2,548	6,225	15,000
1942	14,432	11,405	8,151	21,047	33,964	33,970	29,382	20,484	15,669	9,438	15,000	15,000
1943	14,959	13,874	14,457	16,269	23,426	34,049	32,892	20,969	16,716	12,207	9,847	13,546
1944	10,020	8,014	8,292	13,568	33,970	33,970	28,016	20,233	13,991	7,772	2,933	2,132
1945	11,402	17,879	14,706	15,239	34,193	33,970	29,634	20,468	15,748	10,025	9,441	9,947
1946	14,057	11,232	8,904	15,000	26,962	33,970	32,892	21,062	15,819	14,948	15,000	15,244
1947	15,000	18,298	15,000	22,334	33,708	33,970	29,848	20,561	16,874	16,119	15,139	15,000
1948	13,614	14,041	14,791	15,000	27,909	33,970	31,667	21,423	17,850	14,330	14,214	13,141
1949	9,774	7,220	10,967	15,000	29,806	33,970	30,796	22,240	18,240	15,000	21,003	15,000
1950	15,000	15,057	15,000	15,000	16,965	36,010	33,970	25,447	19,917	15,880	16,019	17,759
1951	15,338	16,118	14,560	15,028	30,895	33,970	30,835	20,652	16,014	15,178	15,000	14,441
1952	11,970	11,974	9,153	15,953	33,457	33,970	29,848	20,362	15,221	8,977	3,116	1,712
1953	15,153	18,566	13,369	15,000	31,053	33,970	33,286	22,419	17,858	13,645	14,988	15,000
1954	15,000	14,312	14,954	15,000	20,233	33,970	33,970	26,273	20,433	15,252	15,000	14,935
1955	13,678	12,064	9,287	6,536	15,000	33,970	30,144	20,159	17,687	16,059	15,564	15,448
1956	15,000	13,494	11,336	15,224	35,188	35,796	33,966	24,001	19,275	15,139	14,965	15,237
1957	13,511	13,190	14,898	15,066	33,462	33,970	29,848	20,420	15,259	11,520	9,081	8,681
1958	10,493	13,210	14,303	15,000	42,875	33,970	29,848	20,432	15,680	13,351	15,492	16,052
1959	15,444	15,289	14,290	15,809	31,733	33,970	31,457	20,670	17,627	15,671	17,332	15,394
1960	15,000	16,778	15,000	17,161	33,669	33,970	30,039	20,458	15,573	11,778	15,000	14,780
1961	15,000	16,330	15,030	15,030	26,781	33,970	30,039	20,532	16,481	14,375	13,236	15,000
1962	14,977	15,340	13,073	22,047	33,673	33,970	30,632	20,558	16,208	14,496	16,758	15,197
1963	14,396	23,611	23,288	27,379	33,970	33,970	29,848	20,434	15,248	10,602	11,154	12,591
1964	15,000	12,718	9,307	9,798	16,019	33,970	33,767	24,478	19,460	14,656	15,000	15,640
1965	15,427	17,243	14,923	17,336	32,975	33,970	29,848	20,439	16,008	11,782	10,330	9,162
1966	6,744	2,822	2,376	15,663	33,638	33,970	29,371	20,436	15,866	11,435	11,386	15,180
1967	15,000	16,001	14,241	12,978	26,496	35,285	29,848	20,425	15,937	15,676	15,000	15,000
1968	15,107	24,551	24,036	27,540	33,969	33,970	29,848	20,660	17,300	15,206	15,418	14,695
1969	14,565	11,847	9,502	15,000	30,763	33,970	29,848	20,393	16,931	13,961	13,401	10,761
1970	14,737	14,694	15,000	14,949	31,316	33,970	29,848	20,394	15,649	11,392	12,788	14,435
1971	15,000	15,629	14,671	15,000	21,526	33,970	33,970	26,167	20,432	15,018	14,597	12,992
1972	13,051	16,435	16,126	15,201	27,994	34,595	33,970	26,297	20,592	14,872	14,483	16,589
1973	15,022	13,726	11,314	14,385	33,970	33,970	29,848	20,370	15,233	11,627	15,000	15,000
1974	16,852	14,835	15,000	15,000	16,788	45,682	33,970	28,693	22,121	14,743	13,921	15,000
1975	15,000	15,000	14,586	14,091	18,220	33,970	33,209	23,811	19,125	15,198	15,171	15,869
1976	15,489	15,529	13,337	15,000	28,976	33,970	33,878	26,313	20,433	14,822	11,695	7,744
1977	5,782	3,900	1,982	8,987	18,949	28,225	23,290	16,620	7,806	4,157	15,135	15,282
1978	14,107	12,627	15,000	16,450	33,428	33,970	30,929	20,181	18,196	14,420	12,619	9,399
1979	4,746	2,493	7,227	9,884	33,957	33,970	29,848	20,526	15,724	11,911	8,595	15,706
1980	15,032	18,482	14,716	23,379	33,680	33,970	29,848	20,511	16,932	12,017	15,000	32,975
1981	15,255	26,651	27,904	33,899	33,970	33,970	29,848	20,457	16,613	14,329	14,798	14,999
1982	15,000	20,715	15,091	15,000	23,271	35,701	31,877	21,455	17,850	15,134	15,000	15,058
1983	15,056	16,238	15,200	15,000	36,217	33,970	29,848	20,502	17,367	13,501	14,951	14,633
1984	15,243	17,420	15,053	15,048	30,552	33,970	32,086	21,561	16,950	14,405	14,590	11,439
1985	6,735	2,602	2,102	14,940	33,748	33,970	29,472	20,363	16,772	15,035	14,732	11,016
1986	13,527	21,247	18,421	32,069	36,661	33,970	29,848	20,388	16,600	12,522	16,868	14,913
1987	13,541	14,146	15,105	33,011	33,945	33,970	29,720	20,343	14,765	8,561	2,815	2,903
1988	2,507	2,349	5,871	23,041	33,790	33,970	29,848	20,352	15,476	11,937	14,980	15,000
1989	14,812	13,264	14,166	22,747	33,746	33,970	29,848	20,414	15,991	11,091	13,042	14,857
1990	15,115	16,361	15,000	19,623	33,563	33,970	30,632	20,633	16,919	15,401	24,332	15,000
1991	15,000	22,689	14,938	19,904	33,734	33,970	31,248	21,148	16,852	11,102	13,256	14,143
1992	15,000	17,518	27,436	33,965	33,970	30,522	24,065	18,182	11,631	5,264	2,512	1,744
1993	2,871	1,866	7,096	15,048	33,948	33,970	29,848	20,372	14,201	6,065	1,597	1,671
1994	2,232	2,060	6,198	23,702	33,970	33,970	28,767	20,379	14,784	10,844	10,255	15,000
1995	15,303	20,675	15,362	15,065	33,226	33,970	31,248	20,620	16,295	14,951	34,097	15,696
1996	15,429	19,439	15,309	21,904	33,662	33,970	29,848	20,567	16,762	14,152	15,000	15,000
1997	15,149	15,149	16,698	16,005	32,311	33,970	33,503	22,905	19,193	19,091	15,370	15,016
1998	15,000	14,813	15,000	15,386	33,288	33,970	29,848	20,408	15,643	11,086	15,000	16,495
1999	15,000	14,647	14,549	15,000	19,705	33,970	33,970	28,961	22,594	15,092	17,527	15,204
2000	14,457	14,294	13,299	16,511	33,463	33,970	30,431	20,547	17,230	14,510	11,258	6,696
2001	2,373	1,710	3,466	7,869	33,970	33,970	28,028	20,467	14,666	8,065	14,237	14,797
2002	15,000	16,119	14,934	16,098	27,793	33,970	31,462	23,300	18,656	13,525	9,764	6,881
2003	20,360	19,592	15,573	26,170	34,037	33,970	29,848	20,435	15,334	14,364	15,000	13,831
2004	14,551	14,459	16,511	33,238	33,953	33,970	29,371	20,546	17,268	14,681	15,000	15,034
2005	16,320	15,199	14,850	24,187	33,970	32,748	26,905	20,369	15,057	9,925	9,374	15,000
2006	15,451	16,021	13,717	15,066	29,883	33,970	30,835	20,587	16,486	12,009	15,770	15,000
2007	14,837	16,902	18,085	21,011	33,790	33,970	29,848	20,410	15,541	14,147	14,983	15,000
2008	13,806	11,379	9,083	8,700	27,612	34,147	32,086	20,748	16,865	13,648	15,030	14,317
2009	15,000	13,564	11,652	15,000	33,492	33,970	29,848	20,434	16,449	NA	NA	NA

IP4 Small 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	25,209	22,577	37,962
1926	44,043	52,279	67,255	99,833	123,217	129,265	119,375	92,799	10,470	22,595	31,455	49,125
1927	56,634	65,666	74,892	97,186	145,608	198,000	191,536	168,782	70,171	81,348	108,452	129,025
1928	129,025	136,384	151,026	149,570	197,064	197,984	187,532	155,319	44,496	26,129	29,815	31,985
1929	32,285	31,925	34,942	42,512	83,101	123,430	137,014	130,196	53,548	46,520	38,377	37,019
1930	36,577	50,885	64,765	101,522	128,562	147,330	138,134	89,009	27,100	19,050	20,000	20,000
1931	24,260	29,039	36,867	62,364	113,286	130,170	124,496	103,929	37,981	35,073	36,838	38,880
1932	44,111	55,267	83,943	112,088	163,154	198,000	191,031	168,774	51,681	23,003	58,407	75,856
1933	87,270	91,322	97,058	112,074	136,509	198,000	198,000	185,251	84,795	72,798	95,087	168,739
1934	137,080	158,551	157,041	196,124	197,929	198,000	183,789	155,455	78,074	68,114	107,049	124,787
1935	129,025	146,172	145,951	139,174	182,853	198,000	189,169	162,840	57,835	20,307	20,000	20,525
1936	23,700	23,689	29,407	65,219	138,728	193,567	188,161	159,571	67,815	48,460	46,910	44,603
1937	44,293	44,101	47,052	65,644	110,941	181,633	192,048	168,597	62,859	20,486	38,227	59,777
1938	81,061	88,269	97,819	137,160	195,209	198,000	188,322	159,119	50,633	20,870	24,571	34,424
1939	40,861	44,968	55,874	85,544	128,780	149,235	154,569	129,957	41,668	22,137	23,988	37,720
1940	44,337	55,189	74,471	102,731	146,016	160,850	157,086	139,446	79,554	73,148	75,897	86,207
1941	90,148	92,781	102,640	126,133	145,795	153,214	115,691	57,418	10,000	16,600	27,941	52,928
1942	58,391	61,166	65,588	90,105	119,889	144,220	151,805	122,928	50,522	34,729	49,255	67,082
1943	78,764	86,956	98,224	127,977	165,719	198,000	194,706	169,315	53,591	22,686	27,761	36,196
1944	38,213	41,679	49,140	61,280	83,483	98,183	88,687	45,552	10,000	14,173	21,436	25,454
1945	40,864	56,036	60,860	71,669	118,211	146,205	148,410	130,466	58,358	51,741	57,892	64,480
1946	74,918	78,943	88,790	114,084	174,964	198,000	194,660	171,241	89,577	74,485	91,685	129,025
1947	129,025	147,002	153,105	166,563	197,538	197,984	187,532	168,546	73,141	76,166	98,810	112,177
1948	123,298	134,798	115,811	101,776	140,558	198,000	192,258	172,366	71,770	55,537	63,755	70,524
1949	73,652	79,279	89,808	106,989	177,394	198,000	191,965	156,985	55,918	27,482	53,891	70,537
1950	81,571	95,096	101,821	91,300	120,016	198,000	198,000	189,344	92,035	88,350	121,366	129,025
1951	129,025	159,153	124,515	126,295	191,567	198,000	189,615	167,157	69,857	61,714	72,560	84,721
1952	89,805	99,519	106,899	141,317	197,094	198,000	187,532	159,060	45,352	20,699	21,169	21,718
1953	50,768	75,755	84,785	103,615	150,309	195,394	196,450	178,430	67,753	35,342	42,645	66,175
1954	79,189	88,622	103,208	106,144	147,071	198,000	198,000	186,737	95,602	69,648	83,168	90,875
1955	96,894	103,394	107,900	115,618	142,602	198,000	192,379	163,611	60,827	55,988	91,673	129,025
1956	129,025	127,813	68,549	65,156	137,620	198,000	198,000	187,638	91,146	61,880	71,378	99,584
1957	106,055	112,582	127,403	144,724	196,817	198,000	187,361	158,962	58,210	33,805	38,244	46,924
1958	55,891	69,451	82,520	106,930	191,483	198,000	183,789	158,645	70,641	53,538	88,941	129,025
1959	129,025	142,596	138,975	138,389	171,080	198,000	191,036	162,543	89,537	104,302	129,025	129,865
1960	129,500	142,915	148,473	162,499	197,469	198,000	187,920	160,644	61,514	28,664	43,726	50,842
1961	68,706	100,724	121,733	124,643	170,414	198,000	187,920	164,056	63,571	34,710	41,006	52,596
1962	76,417	88,473	95,005	136,671	161,906	198,000	189,169	166,127	70,389	60,140	95,781	129,025
1963	129,025	165,509	181,148	197,667	198,000	197,983	187,532	165,702	86,193	70,298	77,179	85,431
1964	97,437	104,541	110,148	117,422	137,145	198,000	198,000	174,940	76,325	60,460	65,444	93,279
1965	119,673	147,415	141,297	145,558	190,770	198,000	187,532	162,300	71,043	41,701	49,019	53,668
1966	57,711	58,771	63,014	90,934	141,408	171,499	179,455	164,131	73,454	38,093	44,673	64,647
1967	78,885	92,814	101,028	108,824	155,178	198,000	187,517	147,925	62,342	66,720	85,216	104,635
1968	129,025	172,314	182,521	192,313	198,000	198,000	187,532	166,446	90,492	72,405	101,919	114,117
1969	129,025	135,722	129,266	124,513	191,607	198,000	187,532	159,326	74,118	55,026	61,196	65,309
1970	79,198	88,010	102,096	118,759	171,527	198,000	187,532	168,778	98,541	87,392	95,122	104,987
1971	123,969	153,736	113,766	99,458	144,163	198,000	198,000	185,479	90,510	51,875	57,672	63,564
1972	74,391	98,172	87,969	69,466	122,636	198,000	198,000	192,460	123,096	98,816	107,047	129,025
1973	129,025	136,122	142,768	155,668	181,588	198,000	180,096	148,222	84,579	67,323	83,081	100,282
1974	129,025	135,677	81,109	66,345	105,311	198,000	198,000	192,515	108,797	71,428	77,586	91,218
1975	121,434	135,625	124,271	110,135	143,940	198,000	197,679	189,406	92,429	64,231	81,939	129,025
1976	129,025	146,314	130,289	123,811	174,306	198,000	198,000	194,855	110,838	80,455	84,921	87,850
1977	91,803	94,185	95,956	107,339	115,000	128,821	119,465	87,900	35,425	32,529	49,812	129,025
1978	129,025	137,125	146,808	155,932	193,660	198,000	194,488	186,917	122,174	97,647	102,366	107,214
1979	109,456	113,486	126,099	138,274	184,504	198,000	180,119	146,272	68,480	46,048	46,089	65,315
1980	73,550	80,942	98,678	142,436	197,489	198,000	180,093	149,552	78,802	63,078	77,933	129,025
1981	129,025	161,896	179,929	197,876	198,000	198,000	184,792	162,239	85,290	87,706	94,390	107,767
1982	121,810	162,673	134,079	122,664	164,107	198,000	192,869	168,261	86,368	60,643	67,766	84,759
1983	113,854	131,044	143,459	139,191	194,741	198,000	187,532	174,505	94,261	62,699	81,682	88,958
1984	129,025	146,781	146,301	141,216	174,206	198,000	193,465	170,821	93,220	72,826	81,159	87,002
1985	90,278	92,644	97,818	125,924	171,532	198,000	185,716	147,505	64,740	35,912	45,979	48,399
1986	54,862	79,036	121,020	147,568	185,101	198,000	183,611	154,430	85,510	72,995	86,576	91,654
1987	95,272	101,937	127,238	159,226	197,958	198,000	179,969	147,696	56,190	56,090	57,887	67,584
1988	69,139	76,428	90,635	129,080	174,602	198,000	179,966	146,181	69,460	53,409	65,968	76,562
1989	84,246	88,984	100,406	143,198	185,575	198,000	187,532	168,376	82,159	70,570	82,470	102,978
1990	128,536	138,986	144,131	163,461	196,459	198,000	189,169	163,940	60,339	40,507	78,987	95,200
1991	112,544	146,862	156,078	165,143	196,321	198,000	190,602	171,301	68,573	30,815	43,923	55,993
1992	65,880	81,651	102,236	131,258	161,579	167,972	159,218	135,710	86,853	87,846	92,062	92,664
1993	93,672	95,155	106,400	126,300	181,438	198,000	183,789	156,619	84,310	78,175	72,856	71,417
1994	75,671	76,583	88,466	117,024	149,843	160,753	147,232	88,431	15,889	18,064	27,129	46,837
1995	60,378	114,225	144,435	146,244	196,624	198,000	190,549	168,386	94,564	106,888	154,972	132,102
1996	131,220	169,469	149,028	168,217	197,457	198,000	187,532	168,503	84,565	58,773	69,099	81,356
1997	117,028	131,496	89,137	85,457	152,910	198,000	197,712	185,597	121,420	149,095	130,822	129,593
1998	129,069	138,922	147,435	146,948	196,796	198,000	187,532	162,342	64,305	41,083	52,413	76,539
1999	102,929	112,985	113,361	101,889	130,116	198,000	198,000	194,833	116,621	101,507	129,025	129,025
2000	129,025	139,308	143,144	155,554	197,104	198,000	188,717	154,067	69,716	43,987	45,310	46,839
2001	48,632	49,318	53,226	64,128	93,983	102,678	98,396	81,317	10,000	15,360	32,841	41,923
2002	67,771	77,779	89,522	127,905	169,146	198,000	196,325	167,723	71,618	34,662	37,249	41,553
2003	64,847	93,444	120,392	148,604	188,554	198,000	183,789	157,988	57,740	29,489	36,315	43,349
2004	50,189	57,623	74,150	105,111	153,464	185,721	179,715	151,021	84,028	76,363	84,280	98,905
2005	124,616	132,524	140,344	157,434	181,352	183,714	174,631	110,519	32,818	30,191	36,655	49,903
2006	79,460	93,492	100,961	126,118	188,301	198,000	189,615	166,130	63,225	21,129	80,739	101,190
2007	120,957	137,992	151,428	167,143	197,683	198,000	187,532	168,075	64,699	33,873	42,877	66,828
2008	72,641	77,899	85,752	97,909	171,082	198,000	192,570	166,839	73,122	54,351	80,146	87,906
2009	119,786	127,571	135,046	139,637	194,802	198,000	187,532	161,227	76,108	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Small 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	77,934	96,198	103,054
1926	111,403	118,657	120,000	118,324	73,600	14,657	213	210	210	6,667	23,047	30,066
1927	35,649	40,498	49,191	58,816	66,585	66,585	38,929	38,929	38,929	46,863	70,664	89,112
1928	109,877	116,710	120,000	120,000	120,000	115,933	70,000	70,000	70,000	77,934	96,296	104,170
1929	112,660	120,000	120,000	111,685	108,950	98,703	38,661	309	210	7,069	23,971	30,186
1930	36,218	41,161	48,615	52,825	43,236	2,472	210	210	210	7,842	20,543	22,096
1931	23,651	25,147	26,895	26,373	24,462	699	210	210	210	7,986	24,402	26,033
1932	27,762	31,507	56,102	70,457	76,130	76,130	44,496	44,496	44,496	52,430	76,232	87,828
1933	102,318	109,866	120,000	120,000	120,000	120,000	105,880	70,000	70,000	77,934	101,735	120,000
1934	120,000	120,000	120,000	120,000	120,000	86,596	70,000	70,000	70,000	77,934	96,130	107,020
1935	120,000	120,000	120,000	120,000	120,000	120,000	70,000	70,000	70,000	77,934	96,229	103,973
1936	112,124	119,238	120,000	120,000	120,000	120,000	70,000	70,000	70,000	77,934	96,303	103,511
1937	112,121	119,919	120,000	120,000	120,000	120,000	78,347	70,000	70,000	77,934	98,636	111,582
1938	120,000	120,000	120,000	120,000	120,000	120,000	70,000	70,000	70,000	77,934	96,198	103,235
1939	113,941	120,000	120,000	120,000	120,000	104,132	70,000	70,000	70,000	77,934	95,623	101,427
1940	107,716	112,662	120,000	120,000	119,056	69,472	7,985	211	210	8,144	25,850	31,602
1941	37,331	42,159	49,033	52,970	24,989	1,510	210	210	210	7,489	24,402	31,630
1942	37,496	42,494	48,494	50,508	43,642	27,152	234	210	210	8,144	23,998	25,707
1943	29,118	30,484	34,328	55,366	57,488	57,488	33,622	33,622	33,622	41,556	59,646	68,897
1944	77,457	86,463	96,311	96,020	86,207	51,004	811	210	210	7,173	24,264	30,558
1945	41,130	48,984	55,473	60,564	65,491	37,511	307	210	210	8,144	25,909	32,148
1946	40,762	45,578	60,110	71,317	86,859	86,859	55,123	50,755	50,755	58,689	76,532	95,137
1947	106,441	120,000	120,000	120,000	120,000	106,757	70,000	70,000	70,000	77,934	97,587	106,207
1948	113,911	120,000	120,000	120,000	120,000	120,000	76,364	70,000	70,000	77,934	96,200	103,455
1949	111,497	120,000	120,000	120,000	120,000	120,000	89,179	70,000	70,000	77,934	98,812	118,899
1950	120,000	120,000	120,000	120,000	120,000	120,000	110,083	70,000	70,000	77,934	101,735	120,000
1951	120,000	120,000	120,000	120,000	120,000	120,000	70,000	70,000	70,000	77,934	95,962	103,328
1952	111,637	120,000	120,000	120,000	120,000	108,083	70,000	70,000	70,000	77,934	96,294	104,199
1953	120,000	120,000	120,000	120,000	120,000	120,000	92,231	70,000	70,000	77,934	95,552	112,834
1954	120,000	120,000	120,000	120,000	120,000	120,000	106,116	70,000	70,000	77,934	101,735	111,759
1955	120,000	120,000	120,000	120,000	111,564	111,564	98,411	70,000	70,000	77,934	101,595	120,000
1956	120,000	120,000	120,000	120,000	120,000	120,000	104,132	70,000	70,000	77,934	96,367	118,318
1957	120,000	120,000	120,000	120,000	120,000	94,215	70,000	70,000	70,000	77,934	96,138	103,049
1958	110,830	120,000	120,000	120,000	120,000	114,050	70,000	70,000	70,000	77,934	101,735	120,000
1959	120,000	120,000	120,000	120,000	120,000	120,000	76,129	70,000	70,000	77,934	101,735	120,000
1960	120,000	120,000	120,000	120,000	120,000	120,000	70,000	70,000	70,000	77,934	96,216	103,919
1961	113,408	120,000	120,000	120,000	120,000	120,000	70,000	70,000	70,000	77,934	95,935	103,877
1962	120,000	120,000	120,000	120,000	120,000	120,000	70,000	70,000	70,000	77,934	101,735	120,000
1963	120,000	120,000	120,000	120,000	120,000	100,165	70,000	70,000	70,000	77,934	95,880	103,550
1964	111,686	119,575	120,000	120,000	120,000	120,000	98,182	70,000	70,000	77,934	97,524	118,000
1965	120,000	120,000	120,000	120,000	120,000	116,033	70,000	70,000	70,000	77,934	96,266	103,662
1966	111,718	119,361	120,000	120,000	120,000	112,066	70,000	70,000	70,000	77,934	95,620	108,116
1967	120,000	120,000	120,000	120,000	115,371	115,371	72,088	70,000	70,000	77,934	95,896	108,481
1968	120,000	120,000	120,000	120,000	120,000	110,823	70,000	70,000	70,000	77,934	96,395	105,791
1969	118,386	120,000	120,000	120,000	120,000	114,050	70,000	70,000	70,000	77,934	96,214	103,813
1970	112,004	120,000	120,000	120,000	119,772	119,113	70,000	70,000	70,000	77,934	95,894	101,697
1971	115,076	120,000	120,000	120,000	120,000	120,000	120,000	70,000	70,000	77,934	96,196	108,950
1972	120,000	120,000	120,000	120,000	120,000	120,000	107,057	70,000	70,000	77,934	95,805	109,248
1973	120,000	120,000	120,000	120,000	78,446	70,000	70,000	70,000	70,000	77,934	95,498	101,414
1974	117,943	120,000	120,000	120,000	120,000	120,000	120,000	70,000	70,000	77,934	96,097	110,903
1975	120,000	120,000	120,000	120,000	120,000	120,000	90,248	70,000	70,000	77,934	101,735	120,000
1976	120,000	120,000	120,000	120,000	120,000	120,000	104,378	70,000	70,000	77,934	96,219	103,927
1977	113,867	120,000	120,000	109,011	50,050	1,496	210	210	210	7,251	28,770	53,365
1978	71,839	91,495	113,647	120,000	120,000	120,000	70,000	70,000	70,000	77,934	95,768	103,404
1979	112,025	119,231	120,000	120,000	120,000	94,215	70,000	70,000	70,000	77,934	95,913	104,581
1980	110,625	116,439	120,000	120,000	120,000	116,033	70,000	70,000	70,000	77,934	95,679	111,768
1981	120,000	120,000	120,000	120,000	113,667	105,649	70,000	70,000	70,000	77,877	95,628	101,444
1982	112,677	120,000	120,000	120,000	120,000	120,000	78,978	70,000	70,000	77,934	96,149	102,961
1983	120,000	120,000	120,000	120,000	120,000	120,000	81,588	70,000	70,000	77,934	96,963	103,943
1984	120,000	120,000	120,000	120,000	120,000	120,000	80,331	70,000	70,000	77,934	96,269	103,580
1985	112,360	120,000	120,000	120,000	120,000	110,083	70,000	70,000	70,000	77,934	96,310	103,691
1986	111,394	120,000	120,000	120,000	120,000	94,215	70,000	70,000	70,000	77,588	98,132	104,634
1987	111,062	115,608	120,000	120,000	113,747	69,448	69,448	69,448	69,448	65,111	72,939	74,485
1988	76,017	77,433	79,608	85,869	87,059	85,076	70,000	70,000	70,000	77,825	95,553	103,412
1989	110,439	118,644	120,000	120,000	120,000	102,149	70,000	70,000	70,000	77,897	95,501	106,569
1990	119,211	120,000	120,000	120,000	120,000	120,000	70,000	70,000	70,000	77,934	101,704	120,000
1991	120,000	120,000	120,000	120,000	120,000	120,000	72,397	70,000	70,000	77,934	95,335	108,363
1992	119,007	120,000	120,000	120,000	104,784	52,790	1,065	210	210	4,248	21,003	28,698
1993	36,988	45,692	54,563	63,185	67,132	31,330	245	210	210	4,595	15,893	21,969
1994	26,847	32,545	38,031	42,123	39,254	1,130	210	210	210	5,438	21,488	28,086
1995	35,779	57,994	80,588	88,154	94,525	94,525	55,227	55,227	55,227	63,161	86,963	111,558
1996	120,000	120,000	120,000	120,000	120,000	117,912	70,000	70,000	70,000	77,934	95,643	103,363
1997	120,000	120,000	120,000	120,000	120,000	120,000	94,215	70,000	70,000	77,934	101,735	112,304
1998	120,000	120,000	120,000	120,000	120,000	106,370	70,000	70,000	70,000	77,915	95,106	104,043
1999	120,000	120,000	120,000	120,000	120,000	120,000	119,280	70,000	70,000	77,934	101,735	120,000
2000	120,000	120,000	120,000	120,000	120,000	120,000	70,000	70,000	70,000	77,934	96,258	104,458
2001	113,351	120,000	120,000	116,653	106,484	52,046	873	210	210	7,187	25,097	31,569
2002	42,573	51,295	59,400	69,047	75,811	75,811	44,310	44,310	44,310	52,244	70,584	77,770
2003	88,052	109,308	120,000	120,000	120,000	105,027	70,000	70,000	70,000	77,934	97,217	105,933
2004	114,163	120,000	120,000	120,000	120,000	92,231	70,000	70,000	70,000	77,934	95,197	102,428
2005	116,141	120,000	120,000	116,136	91,301	31,797	247	210	210	3,630	18,464	24,288
2006	38,179	47,451	53,679	63,347	71,032	71,032	41,523	41,523	41,523	49,457	67,766	74,937
2007	90,766	106,174	120,000	120,000	120,000	100,165	70,000	70,000	70,000	77,934	96,208	104,479
2008	112,872	120,000	120,000	120,000	120,000	120,000	80,331	70,000	70,000	77,934	96,198	103,232
2009	120,000	120,000	120,000	120,000	120,000	110,083	70,000	70,000	70,000	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Small 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	455,449	464,805	585,680
1926	634,665	669,520	767,094	942,728	922,945	738,885	453,384	182,027	26,425	82,806	143,326	225,604
1927	249,052	266,458	287,637	396,117	657,349	972,525	857,517	579,132	406,942	476,511	676,952	771,406
1928	843,558	860,827	940,980	972,158	1,198,683	1,187,184	962,522	656,799	442,301	430,266	450,322	448,422
1929	436,499	425,517	447,122	455,448	707,163	837,340	647,133	377,953	207,467	167,179	148,151	145,570
1930	140,247	221,149	299,257	518,161	593,044	546,001	320,267	69,316	-76,686	-91,322	-69,938	-77,136
1931	-51,094	-3,901	75,419	202,860	452,348	450,929	257,026	39,853	-96,778	-108,441	-43,843	-33,119
1932	17,313	136,669	331,126	501,463	796,015	912,848	766,626	489,802	281,390	233,297	490,347	609,785
1933	700,931	713,471	729,255	768,837	885,918	1,179,472	1,169,173	946,309	774,160	849,586	891,790	1,037,773
1934	960,972	1,027,688	1,038,420	1,191,906	1,196,457	1,085,786	825,609	532,340	356,180	398,550	573,720	651,447
1935	807,305	874,098	895,304	912,924	1,168,253	1,200,200	1,054,754	777,734	577,708	500,478	500,866	494,234
1936	512,599	515,410	550,960	755,360	1,126,109	1,189,820	975,664	684,075	493,015	455,312	443,559	473,468
1937	469,836	475,193	495,062	575,530	843,187	1,163,701	1,030,298	756,456	547,532	471,509	613,012	710,819
1938	769,425	773,633	792,906	936,070	1,184,988	1,197,809	984,756	684,868	465,159	397,680	437,699	510,523
1939	592,927	609,748	654,135	820,927	1,055,263	1,061,982	839,768	541,912	353,517	328,972	365,260	471,329
1940	486,854	531,598	627,326	793,541	980,993	902,975	635,933	351,911	199,166	181,404	206,363	260,917
1941	268,152	269,910	347,897	487,927	520,197	427,533	206,297	-12,156	-100,052	-52,194	32,975	138,413
1942	148,143	152,205	172,064	322,119	438,093	490,304	309,410	65,281	-81,461	-120,536	-36,662	38,333
1943	90,329	115,065	169,545	398,390	636,754	851,830	781,335	519,401	311,843	243,823	261,985	335,536
1944	334,465	349,506	387,985	459,737	580,286	548,328	309,798	64,008	-51,394	-63,637	-39,786	-2,416
1945	127,636	208,669	232,317	283,756	576,483	632,517	414,189	149,529	15,178	15,730	82,887	122,282
1946	174,686	182,782	224,131	374,765	799,891	959,826	861,432	593,854	422,102	434,251	482,737	653,415
1947	719,669	803,627	882,620	1,012,980	1,146,204	1,124,210	906,233	626,855	440,276	516,155	660,205	720,595
1948	750,628	778,980	769,008	787,484	978,949	1,200,200	1,077,072	829,041	637,687	618,177	670,555	710,961
1949	716,824	741,837	764,317	825,212	1,132,305	1,199,602	1,108,228	856,025	665,244	655,996	811,842	855,872
1950	871,054	893,008	833,972	800,487	878,150	1,203,824	1,175,961	974,020	783,357	817,284	894,665	941,722
1951	932,846	1,041,098	917,457	923,500	1,172,524	1,199,877	1,030,276	757,922	564,386	585,238	653,945	688,018
1952	693,705	718,486	727,536	878,729	1,152,611	1,168,518	986,066	702,657	487,202	403,150	392,935	381,953
1953	555,402	677,107	701,189	781,573	1,033,802	1,194,017	1,106,009	851,488	642,757	587,644	646,809	793,265
1954	839,519	864,572	861,398	855,967	994,291	1,200,377	1,174,729	992,188	821,478	780,664	832,297	843,659
1955	850,894	885,527	872,890	837,870	990,572	1,162,138	1,118,094	862,528	671,004	718,523	854,295	913,500
1956	912,422	895,038	713,270	722,322	969,898	1,202,026	1,154,605	912,384	724,522	717,189	771,636	886,936
1957	888,591	897,151	921,462	972,935	1,195,175	1,146,430	894,093	611,520	408,653	352,409	373,369	422,768
1958	457,800	522,696	567,927	675,590	1,066,980	1,099,364	849,215	548,829	370,157	377,786	591,876	789,869
1959	874,452	910,434	923,191	948,887	1,148,469	1,200,200	1,079,053	803,129	713,915	832,026	952,621	949,062
1960	926,415	956,263	978,738	1,023,932	1,197,929	1,197,542	996,154	716,712	521,729	478,949	579,073	599,848
1961	687,507	822,770	865,119	894,319	1,127,633	1,197,726	1,032,279	750,896	559,953	532,450	574,644	635,938
1962	773,500	831,262	841,785	1,017,617	1,140,029	1,195,745	1,034,451	777,002	585,481	576,161	748,461	864,972
1963	887,386	1,021,270	1,067,469	1,120,817	1,190,514	1,137,573	894,549	616,979	436,928	414,990	473,173	501,804
1964	560,458	576,078	590,803	646,812	844,189	1,200,200	1,150,059	936,265	758,486	738,940	775,198	851,458
1965	901,644	990,618	967,460	979,078	1,186,965	1,189,543	1,019,127	759,175	570,760	516,121	564,328	583,453
1966	599,088	596,058	614,786	769,670	1,031,025	1,105,489	934,614	646,905	454,970	404,665	447,591	584,288
1967	681,888	747,688	771,659	766,340	995,013	1,140,920	987,973	708,612	525,255	615,196	722,853	853,770
1968	913,790	1,076,947	1,130,861	1,142,110	1,196,322	1,172,757	959,903	712,758	572,656	571,768	695,963	760,541
1969	836,561	838,811	826,452	888,788	1,172,086	1,180,409	960,011	673,948	499,658	470,884	501,609	507,680
1970	544,497	567,465	609,268	664,065	919,530	1,072,542	884,730	606,982	444,508	432,633	487,358	511,350
1971	618,504	746,326	724,327	738,625	981,431	1,200,200	1,197,060	982,577	802,425	753,112	799,975	819,181
1972	852,353	916,813	834,227	754,142	908,318	1,200,825	1,176,326	996,332	860,744	816,150	826,856	898,278
1973	916,791	922,722	934,455	970,226	1,049,843	996,352	758,601	488,099	338,612	325,607	381,888	439,981
1974	620,105	656,203	637,063	653,100	820,432	1,212,220	1,198,840	1,034,791	865,950	789,214	785,691	852,866
1975	912,089	941,783	903,406	862,856	985,521	1,200,200	1,115,958	907,345	721,531	695,673	817,322	949,073
1976	941,247	991,737	932,774	915,349	1,118,702	1,200,200	1,158,033	1,004,806	834,904	772,326	769,168	785,467
1977	820,889	853,967	856,090	908,042	793,809	690,419	423,392	173,979	58,973	55,089	233,224	555,559
1978	585,504	622,216	731,520	832,009	1,020,799	1,088,686	926,464	674,878	543,032	484,612	525,040	547,333
1979	544,901	561,652	642,060	720,769	984,109	961,835	741,617	471,389	305,028	265,904	270,872	449,271
1980	472,260	501,056	558,340	753,808	979,610	1,003,191	779,648	503,579	347,191	322,543	435,090	738,188
1981	775,018	906,865	963,193	1,052,743	1,122,823	1,072,100	841,983	563,000	394,547	421,443	464,186	501,938
1982	572,995	753,884	781,485	806,604	1,040,484	1,201,931	1,092,489	832,031	665,602	637,127	676,991	755,358
1983	881,364	932,406	971,211	963,586	1,167,555	1,169,650	1,047,583	803,034	644,827	580,525	700,464	724,554
1984	909,748	958,047	973,650	962,921	1,135,232	1,200,200	1,098,555	835,592	669,653	634,889	688,665	707,030
1985	702,762	699,523	714,798	890,360	1,157,088	1,173,009	921,663	625,865	451,816	456,887	569,135	565,410
1986	590,340	701,659	852,339	962,044	1,118,301	1,107,703	856,514	564,097	403,983	387,832	522,592	544,940
1987	551,116	566,145	671,422	864,873	1,078,958	991,288	740,270	466,277	276,209	223,761	217,752	247,631
1988	249,480	290,152	379,003	618,382	854,517	901,327	703,853	445,511	280,077	303,686	415,971	493,293
1989	565,129	593,052	625,140	838,026	1,045,210	1,106,640	879,171	599,842	411,971	389,874	514,518	635,416
1990	739,704	798,642	843,166	1,021,357	1,195,627	1,199,718	1,030,812	765,172	566,633	603,223	926,869	905,207
1991	914,708	1,062,987	1,029,732	1,091,898	1,197,182	1,199,473	1,070,059	816,409	615,235	534,280	613,607	713,780
1992	787,031	856,517	971,883	1,085,882	1,120,400	951,060	687,160	410,688	265,880	241,381	290,416	307,363
1993	336,860	349,912	424,349	551,244	849,130	812,810	585,527	329,544	167,675	131,181	120,888	127,837
1994	167,376	179,078	264,188	463,261	608,034	537,301	314,810	58,617	-91,598	-94,006	-26,956	73,436
1995	119,492	351,711	468,918	555,772	849,221	882,512	710,525	442,636	288,394	379,963	800,678	797,458
1996	860,968	1,043,213	1,006,484	1,089,626	1,197,878	1,181,933	1,009,958	753,545	580,075	555,864	650,364	701,389
1997	810,917	872,213	789,288	783,907	1,032,422	1,200,200	1,135,004	896,184	763,186	876,860	892,228	894,317
1998	904,816	929,738	968,747	981,957	1,194,918	1,172,825	956,482	671,127	465,434	407,083	501,749	616,490
1999	754,486	786,098	784,926	801,656	920,411	1,200,200	1,188,569	1,039,125	867,990	828,011	906,455	940,973
2000	923,700	929,635	936,204	1,019,512	1,196,297	1,199,815	1,012,445	728,957	563,191	533,083	543,783	533,285
2001	529,398	522,953	552,943	616,527	783,177	696,122	453,455	209,390	50,324	53,077	190,381	242,983
2002	355,472	402,287	452,765	633,666	907,171	1,120,571	986,460	701,912	503,619	421,864	435,916	439,157
2003	547,646	654,242	776,067	895,778	1,064,792	1,097,789	844,663	552,655	353,163	354,486	475,383	517,541
2004	553,266	583,145	669,867	837,566	1,017,860	993,232	730,862	479,958	365,367	379,877	472,117	583,524
2005	742,410	777,446	807,597	881,079	888,806	707,363	435,056	170,382	14,060	13,252	73,535	132,439
2006	249,238	293,528	311,126	438,040	769,268	941,242	752,702	471,765	273,507	196,905	476,091	523,202
2007	604,230	679,919	879,531	976,717	1,123,851	1,106,729	893,933	611,410	402,180	369,139	417,443	506,491
2008	518,734	533,596	553,342	572,886	970,313	1,183,322	1,046,579	785,436	599,878	580,796	751,251	786,940
2009	898,786	904,945	908,730	952,116	1,187,319	1,178,085	963,914	687,392	510,806	NA	NA	NA

Appendix C-9
Scenario IP4 Large (KKC, KDRPP, CEPR, and WDR at 162.5 kaf)

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP4 Large 400 cfs WDC1

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	3,028	741	1,555	1,574	91.4%	481	78	90.8%	443	63	55	5
Avg. WY 1982 to 2009	2,907	649	1,556	1,541	91.3%	465	79	90.7%	424	62	86	14
1941 (Dry Year)	1,710	257	1,262	1,036	51.1%	-98	-156	50.1%	-76	-158	44	0
1994 (Dry Year)	1,814	262	1,330	1,079	59.0%	-87	-152	56.2%	-127	-168	159	0
2001 (Dry Year)	1,893	200	1,425	1,322	70.0%	91	-18	70.0%	60	-31	0	0
2005 (Dry Year)	1,806	185	1,418	1,253	70.0%	45	-59	70.0%	32	-71	0	0

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,918	243	1,422	1,303	70.0%	66	-24	70.0%	65	-31	0	0
1927	3,009	633	1,609	1,557	100.0%	427	71	100.0%	451	62	4	0
1928	3,032	692	1,609	1,517	100.0%	485	114	100.0%	459	92	0	0
1929	2,121	226	1,441	1,501	70.0%	250	-8	70.0%	213	-24	249	0
1930	1,945	283	1,420	1,164	69.2%	-63	-144	66.1%	-95	-159	0	0
1931	1,809	284	1,174	985	42.0%	-97	-180	41.3%	-129	-195	0	0
1932	2,958	646	1,586	1,398	100.0%	286	-8	100.0%	216	-33	51	0
1933	3,702	1,019	1,609	2,005	100.0%	810	167	100.0%	762	157	0	0
1934	2,944	749	1,569	1,414	93.6%	399	86	90.9%	361	83	0	0
1935	3,169	714	1,609	1,648	100.0%	620	129	100.0%	549	102	0	0
1936	3,350	1,001	1,571	1,534	92.4%	535	113	90.2%	503	109	0	0
1937	2,958	531	1,609	1,634	100.0%	588	126	100.0%	511	98	0	0
1938	3,371	1,026	1,609	1,537	100.0%	507	114	100.0%	442	87	0	0
1939	2,520	354	1,540	1,400	93.2%	395	94	89.8%	363	92	0	0
1940	2,230	333	1,446	1,492	70.0%	241	-5	70.0%	210	-18	0	0
1941	1,710	257	1,262	1,036	51.1%	-98	-156	50.1%	-76	-158	44	0
1942	2,001	313	1,350	1,097	59.7%	-81	-188	56.5%	-124	-200	216	0
1943	3,360	951	1,609	1,511	100.0%	312	-46	100.0%	241	-71	52	0
1944	1,737	204	1,315	1,113	59.1%	-52	-182	56.3%	-69	-195	1,103	0
1945	2,229	320	1,441	1,266	70.0%	16	-162	69.4%	-18	-176	95	0
1946	3,336	874	1,593	1,541	100.0%	426	-4	99.5%	390	-7	247	0
1947	2,980	653	1,609	1,528	100.0%	487	112	100.0%	466	92	0	0
1948	3,894	1,381	1,609	1,744	100.0%	676	142	100.0%	652	128	0	0
1949	4,031	1,487	1,609	1,761	100.0%	709	160	100.0%	668	145	0	0
1950	4,304	1,643	1,609	2,084	100.0%	826	164	100.0%	814	159	0	0
1951	3,805	1,364	1,609	1,642	100.0%	604	130	100.0%	578	109	0	0
1952	2,902	540	1,609	1,567	100.0%	525	127	100.0%	450	99	0	0
1953	3,112	594	1,609	1,787	100.0%	679	137	100.0%	621	113	0	0
1954	4,025	1,326	1,609	2,114	100.0%	864	166	100.0%	807	154	0	0
1955	3,432	869	1,609	1,864	100.0%	722	163	100.0%	703	161	104	0
1956	4,876	2,275	1,609	1,954	100.0%	767	157	100.0%	709	134	0	0
1957	3,210	925	1,609	1,491	100.0%	450	98	100.0%	388	73	0	0
1958	2,873	626	1,609	1,429	100.0%	411	91	100.0%	400	78	0	0
1959	3,522	929	1,609	1,812	100.0%	755	171	100.0%	777	176	0	0
1960	3,166	766	1,609	1,594	100.0%	564	124	100.0%	498	98	0	0
1961	3,620	1,186	1,609	1,635	100.0%	601	129	100.0%	559	109	0	0
1962	3,002	539	1,609	1,657	100.0%	626	134	100.0%	596	113	0	0
1963	2,718	417	1,585	1,499	95.1%	492	108	93.7%	460	105	0	0
1964	3,395	760	1,609	1,980	100.0%	801	169	100.0%	774	159	0	0
1965	3,415	970	1,609	1,648	100.0%	613	132	100.0%	552	105	0	0
1966	2,813	482	1,609	1,540	100.0%	499	121	100.0%	427	95	0	0
1967	3,094	709	1,586	1,600	97.4%	571	136	93.1%	567	139	0	0
1968	2,866	417	1,609	1,654	100.0%	615	133	100.0%	575	112	0	0
1969	3,609	1,234	1,609	1,576	100.0%	541	120	100.0%	511	97	0	0
1970	2,886	582	1,579	1,476	94.0%	489	109	91.8%	471	109	0	0
1971	3,948	1,265	1,609	2,035	100.0%	844	169	100.0%	776	156	0	0
1972	4,812	2,078	1,609	2,123	100.0%	903	173	100.0%	856	162	0	0
1973	2,289	198	1,487	1,348	75.2%	381	87	73.2%	355	85	0	0
1974	4,632	1,889	1,609	2,225	100.0%	907	170	100.0%	838	155	0	0
1975	3,891	1,292	1,609	1,944	100.0%	764	156	100.0%	704	133	0	0
1976	3,851	1,141	1,609	2,022	100.0%	877	165	100.0%	814	137	0	0
1977	1,919	200	1,428	1,347	70.0%	100	-35	70.0%	79	-47	0	0
1978	3,049	601	1,609	1,633	100.0%	562	95	100.0%	507	69	0	0
1979	2,347	281	1,475	1,291	73.2%	359	63	71.0%	313	51	2	0
1980	2,733	548	1,551	1,385	92.7%	400	75	90.0%	378	75	0	0
1981	2,495	278	1,543	1,420	86.0%	440	97	84.3%	458	102	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP4 Large 400 cfs WDC1

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
1982	3,480	942	1,609	1,783	100.0%	706	146	100.0%	654	125	89	89
1983	3,430	913	1,609	1,738	100.0%	683	145	100.0%	620	120	0	0
1984	3,310	765	1,609	1,795	100.0%	710	143	100.0%	661	117	0	0
1985	2,857	528	1,609	1,531	100.0%	494	102	100.0%	431	75	0	0
1986	2,570	331	1,559	1,442	89.8%	446	92	88.4%	425	92	0	0
1987	2,384	386	1,477	1,263	72.5%	318	73	70.3%	271	43	97	97
1988	2,451	355	1,507	1,280	77.3%	322	44	75.8%	295	39	0	0
1989	2,750	494	1,574	1,459	96.7%	454	98	94.5%	431	97	0	0
1990	3,191	753	1,609	1,633	100.0%	609	128	100.0%	574	110	0	0
1991	3,056	575	1,609	1,690	100.0%	653	133	100.0%	578	105	216	216
1992	2,208	262	1,441	1,547	70.0%	312	22	70.0%	285	6	0	0
1993	2,258	300	1,440	1,455	70.0%	205	-24	70.0%	173	-39	0	0
1994	1,814	262	1,330	1,079	59.0%	-87	-152	56.2%	-127	-168	159	0
1995	2,791	577	1,570	1,363	98.3%	299	-47	95.5%	337	-37	1,311	0
1996	3,249	810	1,609	1,643	100.0%	622	139	100.0%	564	114	0	0
1997	4,603	1,961	1,609	1,929	100.0%	806	161	100.0%	846	165	0	0
1998	3,174	840	1,609	1,540	100.0%	507	116	100.0%	449	90	0	0
1999	4,062	1,333	1,609	2,126	100.0%	911	173	100.0%	866	159	0	0
2000	3,311	876	1,609	1,632	100.0%	605	128	100.0%	563	108	0	0
2001	1,893	200	1,425	1,322	70.0%	91	-18	70.0%	60	-31	0	0
2002	3,224	774	1,609	1,635	100.0%	514	106	100.0%	444	78	476	0
2003	2,601	386	1,551	1,401	88.3%	416	90	87.5%	393	88	0	0
2004	2,567	357	1,575	1,473	100.0%	437	92	100.0%	384	68	0	0
2005	1,806	185	1,418	1,253	70.0%	45	-59	70.0%	32	-71	0	0
2006	3,019	783	1,611	1,391	100.0%	288	16	100.0%	216	-8	61	0
2007	2,932	624	1,609	1,485	100.0%	453	106	100.0%	401	82	0	0
2008	3,147	691	1,592	1,707	100.0%	639	133	99.3%	616	134	0	0
2009	3,267	916	1,573	1,558	94.5%	552	125	91.9%	NA	NA	0	0
Average	3,028	741	1,555	1,574	91.4%	481	78	90.8%	443	63	55	5

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP4 Large 400 cfs WDC1

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	98.5%	98.0%	4.0%	3.5%	84.3%
	0 -10% Above Target[1]	1.0%	2.0%	1.4%	2.6%	4.2%
	0-10% Below Target	0.2%	0.0%	87.4%	84.3%	2.9%
	> 10% Below Target	0.3%	0.0%	7.2%	9.6%	8.6%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	65.1%	78.1%	70.2%	17.7%
	0 -10% Above Target	33.9%	19.6%	28.3%	71.1%
	0-10% Below Target	#N/A	0.1%	0.8%	3.6%
	> 10% Below Target	#N/A	2.2%	0.7%	7.6%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			6.3%	
	0 -10% Above Target			5.7%	
	0-10% Below Target			8.4%	
	> 10% Below Target			79.6%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				55.7%	
	0 -10% Above Target				28.9%	
	0-10% Below Target				14.8%	
	> 10% Below Target				0.6%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				100.0%	
	0 -10% Above Target				0.0%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	12.0%	31.0%		4.8%
	0 -10% Above Target	1.3%	3.2%		1.1%
	0-10% Below Target	7.3%	35.3%		10.4%
	> 10% Below Target	79.4%	30.5%		83.7%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			47.9%	22.6%	18.5%
	0 -10% Above Target			20.5%	8.5%	3.0%
	0-10% Below Target			17.3%	7.9%	7.2%
	> 10% Below Target			14.3%	61.0%	71.3%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			100.0%	100.0%	100.0%
	0 -10% Above Target			0.0%	0.0%	0.0%
	0-10% Below Target			0.0%	0.0%	0.0%
	> 10% Below Target			0.0%	0.0%	0.0%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			60.9%	
	0 -10% Above Target			3.5%	
	0-10% Below Target			3.2%	
	> 10% Below Target			32.4%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.4%	95.1%	90.5%
	0 -10% Above Target			0.6%	2.2%	3.9%
	0-10% Below Target			0.0%	1.5%	2.4%
	> 10% Below Target			0.0%	1.2%	3.2%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP4 Large 400 cfs WDC1

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	94.9%	96.4%	99.9%		88.8%
	0 -10% Above Target	0.0%	0.4%	0.1%		2.9%
	0-10% Below Target	0.0%	0.0%	0.0%		0.1%
	> 10% Below Target	5.1%	3.2%	0.0%		8.2%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	14.9%			
	0 -10% Above Target	84.5%			
	0-10% Below Target	0.0%			
	> 10% Below Target	0.6%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	69.6%			
	0 -10% Above Target	4.6%			
	0-10% Below Target	4.4%			
	> 10% Below Target	21.4%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	434	26
1927	230	19	9	-	-	-	-	-	-	-	-	-	16
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	123	7
1930	340	136	122	46	15	15	-	-	-	548	997	849	187
1931	289	58	112	92	15	15	35	99	418	555	608	816	189
1932	305	27	19	16	19	15	15	48	-	-	-	133	36
1933	439	6	-	-	-	-	-	-	-	-	-	-	27
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	82	5
1941	260	37	19	-	-	-	-	-	-	903	989	809	184
1942	177	20	15	17	16	15	41	194	391	619	676	839	183
1943	213	21	15	15	15	15	16	91	59	-	-	767	74
1944	426	28	21	23	16	15	99	274	593	940	968	797	255
1945	280	59	25	15	15	15	37	109	415	583	547	834	178
1946	267	17	21	15	18	15	16	18	-	-	-	33	26
1947	84	-	-	-	-	-	-	-	-	-	-	-	5
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	600	36
1978	266	12	-	-	-	-	-	-	-	-	-	-	17
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	415	25
1994	310	136	44	16	20	17	2	-	-	742	984	836	189
1995	286	16	15	15	15	15	29	16	-	-	-	867	76
1996	37	4	-	-	-	-	-	-	-	-	-	-	2
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	356	21
2002	268	17	2	-	-	-	-	-	-	-	-	-	18
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	180	870	63
2006	275	18	28	15	15	15	6	-	-	-	-	-	23
2007	174	3	-	-	-	-	-	-	-	-	-	-	11
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	59	8	6	3	2	2	4	10	22	58	71	125	22

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	30	37	195	155	54	-	-	-	104	102	282	-	58
1927	-	-	-	0	2	-	-	64	391	302	390	13	71
1928	-	-	163	138	-	-	-	-	-	390	400	13	68
1929	12	40	40	41	22	1	-	67	249	167	337	13	60
1930	-	-	-	-	-	-	-	-	-	85	-	-	5
1931	-	-	-	-	-	-	-	35	3	-	-	-	2
1932	-	-	-	-	-	-	329	400	400	358	400	13	115
1933	-	-	205	301	19	17	87	227	-	173	400	400	111
1934	400	61	353	318	4	329	-	-	-	400	396	13	140
1935	-	-	88	77	-	-	-	-	-	350	400	13	57
1936	11	34	40	3	-	15	141	-	-	400	400	13	65
1937	11	49	17	17	5	-	-	81	-	325	400	13	56
1938	3	58	400	-	-	-	-	-	-	383	400	13	77
1939	11	3	61	338	43	0	-	-	-	400	400	13	78
1940	3	26	-	16	0	71	93	-	-	296	346	13	53
1941	-	-	1	24	15	-	-	-	-	3	-	-	3
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	26	200	400	364	396	13	85
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	244	193	-	-	-	26
1946	-	-	-	-	-	-	40	400	400	400	400	13	101
1947	0	27	200	145	320	244	133	-	-	368	350	13	108
1948	-	29	150	49	-	-	-	-	-	304	400	148	66
1949	76	107	147	14	0	-	-	-	-	234	400	347	81
1950	169	262	-	-	-	387	-	-	4	217	400	400	112
1951	368	202	48	154	147	351	-	-	-	345	400	13	123
1952	33	160	63	15	14	9	-	-	-	339	400	13	64
1953	23	55	48	6	289	-	-	-	-	269	400	142	74
1954	0	146	400	-	-	-	-	-	-	277	400	400	99
1955	303	199	100	-	-	-	-	-	-	236	400	400	100
1956	400	87	185	31	49	400	27	21	-	295	400	400	140
1957	199	204	170	18	-	-	-	-	-	400	400	13	86
1958	1	35	1	0	-	77	239	-	-	370	398	13	69
1959	1	-	335	-	-	-	1	-	-	289	400	390	86
1960	400	134	205	4	-	47	-	-	-	355	400	13	96
1961	1	280	49	135	-	158	2	-	-	323	400	13	83
1962	2	94	188	105	-	-	-	-	-	346	400	13	70
1963	5	158	400	-	-	-	-	-	-	400	400	13	84
1964	3	17	14	-	-	-	-	-	-	371	400	400	73
1965	324	114	142	-	-	179	-	-	-	316	400	13	91
1966	3	41	61	54	23	14	180	-	-	400	374	13	71
1967	0	20	-	216	-	-	-	-	-	260	400	13	56
1968	103	359	21	149	20	182	-	-	-	371	400	13	99
1969	48	313	163	-	7	-	-	-	-	400	400	13	82
1970	10	43	36	18	-	69	218	29	-	378	312	13	69
1971	4	29	30	2	61	-	-	-	-	162	384	400	65
1972	321	298	19	-	97	400	5	52	-	180	398	400	132
1973	252	74	129	-	-	14	-	-	-	365	389	13	76
1974	13	32	5	2	-	69	49	58	-	232	383	400	76
1975	309	57	210	-	-	123	-	-	-	299	400	336	106
1976	91	400	305	321	4	178	-	-	-	216	400	398	141
1977	8	55	129	71	-	57	-	-	-	109	154	-	36
1978	-	-	332	100	40	176	303	103	-	241	368	13	102
1979	14	54	26	28	19	-	-	160	-	176	202	-	42
1980	0	0	-	-	0	-	70	116	-	253	326	1	47
1981	-	1	13	117	22	0	-	-	-	375	384	13	57
1982	8	17	3	6	59	-	-	-	-	262	400	247	61
1983	66	119	260	0	0	109	-	-	-	375	386	12	81
1984	9	0	24	77	-	120	-	-	-	260	400	175	65
1985	30	153	58	32	34	0	26	-	-	400	400	13	70
1986	39	392	20	13	51	-	-	-	-	400	400	13	81
1987	13	8	-	21	6	114	57	-	-	399	400	13	63
1988	5	26	22	39	5	-	-	232	68	351	128	-	54
1989	1	-	-	-	0	5	239	-	-	385	399	13	64
1990	4	2	-	191	-	-	-	-	-	316	400	13	57
1991	155	400	259	160	69	267	-	-	-	289	400	13	122
1992	6	91	388	1	-	-	-	-	-	360	353	13	74
1993	78	1	0	8	1	-	164	400	67	29	139	-	54
1994	-	-	-	-	-	-	-	-	-	86	-	-	5
1995	-	-	-	-	86	235	203	392	10	270	66	-	77
1996	-	27	400	400	110	269	-	-	-	367	400	13	122
1997	-	117	135	19	-	374	30	-	-	232	400	396	104
1998	233	215	8	-	-	-	-	-	-	400	400	13	78
1999	5	13	125	206	-	82	-	-	-	251	400	400	90
2000	207	295	101	44	21	0	-	-	-	381	400	49	91
2001	86	36	38	37	28	11	40	162	175	151	330	1	67
2002	-	-	-	-	-	-	329	361	-	400	400	13	92
2003	4	53	45	29	184	272	-	-	-	359	398	12	82
2004	1	0	0	14	0	-	-	-	-	396	400	13	51
2005	-	3	-	173	172	9	-	-	-	152	65	-	34
2006	-	-	-	-	-	-	-	202	335	294	262	-	67
2007	-	2	11	-	-	258	280	-	-	370	363	13	79
2008	10	19	24	22	-	1	-	26	-	308	400	107	56
2009	10	295	222	-	-	-	-	-	-	400	400	13	82
Average	59	79	96	56	25	68	39	48	33	286	336	87	74

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	195	155	54	-	-	-	104	-	-	-	31
1927	-	-	-	-	-	-	-	64	391	83	-	-	32
1928	-	-	163	138	-	-	-	-	-	357	8	-	41
1929	-	-	-	-	-	-	-	67	249	93	-	-	25
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	35	3	-	-	-	2
1932	-	-	-	-	-	-	329	400	400	66	-	-	72
1933	-	-	205	301	19	17	87	227	-	152	60	387	88
1934	400	40	-	-	-	-	-	-	-	262	-	-	43
1935	-	-	88	77	-	-	-	-	-	279	34	-	29
1936	-	-	-	-	-	11	141	-	-	133	-	-	17
1937	-	-	-	-	-	-	-	81	-	234	14	-	20
1938	-	53	400	-	-	-	-	-	-	229	-	-	42
1939	-	-	61	338	43	-	-	-	-	146	-	-	36
1940	-	-	-	-	-	71	93	-	-	122	-	-	17
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	26	200	400	121	-	-	45
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	244	193	-	-	-	26
1946	-	-	-	-	-	-	40	400	400	50	-	-	54
1947	-	-	200	145	320	244	133	-	-	234	-	-	76
1948	-	29	150	49	-	-	-	-	-	204	17	134	36
1949	73	93	146	14	-	-	-	-	-	63	4	333	44
1950	169	260	-	-	-	-	-	-	4	80	61	387	58
1951	368	202	-	-	-	-	-	-	-	257	9	-	51
1952	33	154	47	-	14	9	-	-	-	323	59	-	39
1953	-	-	-	-	289	-	-	-	-	180	12	129	35
1954	-	116	400	-	-	-	-	-	-	63	60	387	62
1955	302	188	96	-	-	-	-	-	-	10	-	387	59
1956	400	87	-	-	-	-	27	21	-	103	11	387	63
1957	199	199	86	-	-	-	-	-	-	167	-	-	40
1958	-	-	-	-	-	77	239	-	-	146	-	-	28
1959	-	-	335	-	-	-	1	-	-	224	26	377	58
1960	400	30	2	-	-	-	-	-	-	230	-	-	41
1961	-	275	31	132	-	-	2	-	-	271	22	-	44
1962	-	69	181	105	-	-	-	-	-	273	26	-	40
1963	-	147	400	-	-	-	-	-	-	264	1	-	50
1964	-	-	-	-	-	-	-	-	-	86	33	387	30
1965	315	99	142	-	-	-	-	-	-	278	2	-	51
1966	-	-	26	31	-	13	180	-	-	334	20	-	37
1967	-	-	-	216	-	-	-	-	-	18	-	-	14
1968	103	358	21	0	-	-	-	-	-	330	-	-	49
1969	48	313	163	-	-	-	-	-	-	235	-	-	46
1970	-	-	-	-	-	69	218	29	-	333	-	-	39
1971	-	-	-	-	61	-	-	-	-	12	65	387	31
1972	321	297	19	-	-	-	5	52	-	78	95	387	76
1973	252	69	125	-	-	-	-	-	-	252	-	-	43
1974	-	-	-	-	-	69	49	58	-	16	68	387	39
1975	305	28	207	-	-	-	-	-	-	108	6	323	59
1976	91	400	13	-	-	-	-	-	-	158	68	385	67
1977	-	24	114	71	-	-	-	-	-	-	-	-	13
1978	-	-	332	100	40	176	303	103	-	91	-	-	70
1979	-	-	-	-	-	-	-	160	-	-	-	-	10
1980	-	-	-	-	-	-	70	116	-	31	-	-	13
1981	-	-	13	117	21	-	-	-	-	328	-	-	29
1982	-	-	-	-	59	-	-	-	-	183	15	234	29
1983	66	113	258	-	-	-	-	-	-	367	96	-	55
1984	-	-	24	77	-	-	-	-	-	194	28	161	29
1985	19	151	39	-	-	-	26	-	-	41	-	-	17
1986	39	392	4	-	43	-	-	-	-	86	-	-	34
1987	-	-	-	-	-	114	57	-	-	5	-	-	11
1988	-	-	-	-	-	-	-	232	68	-	-	-	18
1989	-	-	-	-	-	-	239	-	-	207	-	-	27
1990	-	-	-	191	-	-	-	-	-	235	1	-	26
1991	155	307	12	5	-	-	-	-	-	260	50	-	48
1992	-	80	388	-	-	-	-	-	-	231	-	-	43
1993	-	-	-	-	-	-	164	400	67	-	-	-	38
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	86	235	203	392	10	-	-	-	56
1996	-	27	400	383	103	17	-	-	-	326	58	-	80
1997	-	117	135	19	-	-	30	-	-	127	15	383	50
1998	233	215	8	-	-	-	-	-	-	351	13	-	50
1999	-	-	122	206	-	-	-	-	-	89	87	388	54
2000	203	287	4	2	-	-	-	-	-	162	-	36	42
2001	86	8	-	-	-	-	40	162	175	-	-	-	29
2002	-	-	-	-	-	-	329	361	-	199	-	-	54
2003	-	-	-	-	184	272	-	-	-	122	-	-	34
2004	-	-	-	-	-	-	-	-	-	84	-	-	5
2005	-	-	-	168	172	-	-	-	-	-	-	-	20
2006	-	-	-	-	-	-	-	202	335	-	-	-	32
2007	-	-	-	-	-	258	280	-	-	262	-	-	49
2008	-	-	-	-	-	-	-	26	-	151	0	94	16
2009	-	293	219	-	-	-	-	-	-	244	-	-	46
Average	55	66	71	36	18	20	39	48	33	143	14	77	38

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	30	37	-	-	-	-	-	-	-	102	282	-	28
1927	-	-	-	0	2	-	-	-	-	219	390	13	38
1928	-	-	-	-	-	-	-	-	-	33	392	13	27
1929	12	40	40	41	22	1	-	-	-	74	337	13	35
1930	-	-	-	-	-	-	-	-	-	85	-	-	5
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	292	400	13	43
1933	-	-	-	-	-	-	-	-	-	20	340	13	23
1934	-	21	353	318	4	329	-	-	-	138	396	13	97
1935	-	-	-	-	-	-	-	-	-	70	366	13	28
1936	11	34	40	3	-	4	-	-	-	267	400	13	47
1937	11	49	17	17	5	-	-	-	-	91	386	13	36
1938	3	5	-	-	-	-	-	-	-	154	400	13	35
1939	11	3	-	-	-	0	-	-	-	254	400	13	42
1940	3	26	-	16	0	-	-	-	-	174	346	13	35
1941	-	-	1	24	15	-	-	-	-	3	-	-	3
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	243	396	13	40
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	350	400	13	47
1947	0	27	-	-	-	-	-	-	-	133	350	13	32
1948	-	-	-	-	-	-	-	-	-	100	383	13	30
1949	3	14	1	-	0	-	-	-	-	171	396	13	37
1950	-	3	-	-	-	387	-	-	-	137	339	13	54
1951	0	-	48	154	147	351	-	-	-	87	391	13	72
1952	-	5	16	15	-	-	-	-	-	16	341	13	25
1953	23	55	48	6	-	-	-	-	-	89	388	13	38
1954	0	30	-	-	-	-	-	-	-	214	340	13	37
1955	0	11	4	-	-	-	-	-	-	226	400	13	40
1956	-	-	185	31	49	400	-	-	-	192	389	13	77
1957	0	5	84	18	-	-	-	-	-	233	400	13	46
1958	1	35	1	0	-	-	-	-	-	224	398	13	41
1959	1	-	-	-	-	-	-	-	-	65	374	13	28
1960	-	104	203	4	-	47	-	-	-	125	400	13	55
1961	1	4	18	3	-	158	-	-	-	52	378	13	39
1962	2	24	7	-	-	-	-	-	-	73	374	13	30
1963	5	11	-	-	-	-	-	-	-	136	399	13	35
1964	3	17	14	-	-	-	-	-	-	285	367	13	43
1965	9	15	-	-	-	179	-	-	-	39	398	13	40
1966	3	41	35	22	23	1	-	-	-	66	354	13	34
1967	0	20	-	-	-	-	-	-	-	242	400	13	41
1968	-	0	-	149	20	182	-	-	-	42	400	13	49
1969	-	-	-	-	7	-	-	-	-	165	400	13	36
1970	10	43	36	18	-	-	-	-	-	45	312	13	29
1971	4	29	30	2	-	-	-	-	-	149	320	13	34
1972	-	0	-	-	97	400	-	-	-	102	304	13	56
1973	1	6	4	-	-	14	-	-	-	114	389	13	33
1974	13	32	5	2	-	-	-	-	-	216	315	13	37
1975	4	29	3	-	-	123	-	-	-	191	394	13	46
1976	-	-	293	321	4	178	-	-	-	57	332	13	74
1977	8	31	15	-	-	57	-	-	-	109	154	-	23
1978	-	-	-	-	-	-	-	-	-	150	368	13	33
1979	14	54	26	28	19	-	-	-	-	176	202	-	32
1980	0	0	-	-	0	-	-	-	-	221	326	1	34
1981	-	1	-	-	1	0	-	-	-	47	384	13	27
1982	8	17	3	6	-	-	-	-	-	80	385	13	31
1983	-	5	1	0	0	109	-	-	-	8	290	12	26
1984	9	0	-	-	-	120	-	-	-	66	372	13	36
1985	12	2	19	32	34	0	-	-	-	359	400	13	53
1986	-	-	17	13	8	-	-	-	-	314	400	13	47
1987	13	8	-	21	6	-	-	-	-	394	400	13	53
1988	5	26	22	39	5	-	-	-	-	351	128	-	35
1989	1	-	-	-	0	5	-	-	-	178	399	13	37
1990	4	2	-	-	-	-	-	-	-	81	399	13	31
1991	-	93	247	154	69	267	-	-	-	29	350	13	75
1992	6	12	-	1	-	-	-	-	-	130	353	13	32
1993	78	1	0	8	1	-	-	-	-	29	139	-	16
1994	-	-	-	-	-	-	-	-	-	86	-	-	5
1995	-	-	-	-	-	-	-	-	-	270	66	-	21
1996	-	-	-	17	7	252	-	-	-	40	342	13	41
1997	-	-	-	-	-	374	-	-	-	104	385	13	54
1998	-	-	-	-	-	-	-	-	-	49	387	13	28
1999	5	13	3	-	-	82	-	-	-	161	313	12	36
2000	4	8	98	41	21	0	-	-	-	220	400	13	49
2001	-	27	38	37	28	11	-	-	-	151	330	1	38
2002	-	-	-	-	-	-	-	-	-	201	400	13	38
2003	4	53	45	29	-	-	-	-	-	237	398	12	48
2004	1	0	0	14	0	-	-	-	-	312	400	13	45
2005	-	3	-	5	0	9	-	-	-	152	65	-	14
2006	-	-	-	-	-	-	-	-	-	294	262	-	34
2007	-	2	11	-	-	-	-	-	-	108	363	13	30
2008	10	19	24	22	-	1	-	-	-	157	400	13	40
2009	10	2	2	-	-	-	-	-	-	156	400	13	36
Average	4	14	24	19	7	48	-	-	-	143	323	11	36

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	16,553	-	-	-	-	-	9,385	39,099	40,743	53,643	54,804	18,172	232,399
1927	23	-	-	-	-	-	9,311	39,743	40,740	53,472	55,739	40,407	239,435
1928	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1929	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
1930	23	-	-	-	-	-	9,311	39,294	40,743	53,740	54,710	17,530	215,351
1931	23	-	-	-	-	-	8,421	36,542	36,283	40,741	38,846	12,700	173,555
1932	23	-	-	-	-	-	9,311	39,480	39,032	53,472	55,690	40,407	237,416
1933	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1934	16,553	-	-	-	-	-	9,311	39,838	40,371	53,613	56,355	40,014	256,054
1935	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1936	16,553	-	-	-	-	-	9,204	39,743	40,743	53,660	56,392	39,851	256,146
1937	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1938	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1939	16,553	-	-	-	-	-	9,316	37,733	40,530	53,649	56,400	39,786	253,968
1940	23	-	-	-	-	-	9,311	39,254	40,483	53,657	54,162	17,132	214,022
1941	23	-	-	-	-	-	8,108	39,728	41,135	48,869	46,199	14,464	198,525
1942	23	-	-	-	-	-	9,311	39,337	40,849	52,701	50,790	15,659	208,670
1943	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,690	40,405	239,387
1944	16,553	-	-	-	-	-	9,353	39,774	40,851	52,455	49,886	14,770	223,642
1945	23	-	-	-	-	-	6,752	39,769	40,743	53,643	54,804	18,158	213,892
1946	23	-	-	-	-	-	9,311	39,743	40,732	53,458	55,561	40,680	239,508
1947	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1948	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1949	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1950	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1951	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1952	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1953	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1954	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1955	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,635	40,407	255,864
1956	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1957	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1958	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1959	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1960	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1961	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1962	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1963	16,553	-	-	-	-	-	9,311	39,743	40,743	53,508	56,187	40,353	256,398
1964	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1965	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1966	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1967	16,553	-	-	-	-	-	9,311	39,743	40,743	53,528	56,242	40,290	256,411
1968	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1969	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1970	16,553	-	-	-	-	-	9,311	39,743	40,743	53,588	56,323	40,153	256,413
1971	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1972	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1973	16,553	-	-	-	-	-	7,057	39,990	40,743	51,554	49,215	33,439	238,551
1974	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1975	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1976	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1977	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
1978	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1979	16,553	-	-	-	-	-	7,251	40,016	40,743	50,728	47,979	32,601	235,871
1980	23	-	-	-	-	-	9,311	39,770	39,163	53,656	56,398	39,826	238,146
1981	23	-	-	-	-	-	7,865	39,743	40,743	53,969	55,629	37,796	235,768
1982	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1983	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1984	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1985	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1986	16,553	-	-	-	-	-	9,346	39,388	40,743	53,785	56,464	39,397	255,675
1987	23	-	-	-	-	-	9,311	39,255	40,743	50,334	47,500	32,337	219,502
1988	23	-	-	-	-	-	9,311	39,520	40,743	52,247	50,605	34,459	226,908
1989	23	-	-	-	-	-	9,311	38,779	40,743	53,503	56,157	40,412	238,928
1990	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1991	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1992	16,553	-	-	-	-	-	6,699	39,841	40,743	53,657	54,162	17,132	228,786
1993	23	-	-	-	-	-	9,389	37,458	40,451	53,643	54,804	18,172	213,939
1994	23	-	-	-	-	-	9,315	39,523	40,915	52,344	50,486	15,608	208,215
1995	23	-	-	-	-	-	9,318	39,743	40,797	52,853	54,852	40,528	238,114
1996	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1997	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1998	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1999	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2000	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2001	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
2002	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2003	16,553	-	-	-	-	-	9,311	38,732	40,743	53,856	56,466	39,058	254,718
2004	23	-	-	-	-	-	9,313	37,107	40,442	53,472	55,740	40,407	236,504
2005	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
2006	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,678	40,407	239,378
2007	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2008	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,811	40,676	256,308
2009	23	-	-	-	-	-	9,203	39,284	40,273	52,950	55,731	39,910	237,375
Average	10,059	-	-	-	-	-	9,149	39,561	40,638	53,157	54,831	35,763	243,158

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	18,681	-	-	-	-	8,883	30,337	39,238	48,460	49,896	48,680	31,571	275,747
1927	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1928	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1929	18,681	-	-	-	-	8,883	26,544	39,776	48,460	49,896	48,680	31,571	272,491
1930	986	-	-	-	-	8,883	30,435	39,355	48,454	48,801	46,917	30,261	254,091
1931	986	-	-	-	-	8,883	22,699	25,348	30,181	30,657	29,792	19,016	167,562
1932	986	-	-	-	-	8,883	30,437	41,882	45,849	54,222	53,512	35,446	271,218
1933	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1934	18,681	-	-	-	-	8,883	30,437	42,157	47,028	54,294	53,678	35,731	290,891
1935	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1936	18,681	-	-	-	-	8,883	30,474	42,041	47,350	54,350	53,763	35,705	291,249
1937	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1938	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1939	18,681	-	-	-	-	8,883	30,464	40,612	47,276	54,340	53,789	35,690	289,736
1940	986	-	-	-	-	8,883	30,434	42,188	48,190	49,896	48,680	31,571	260,829
1941	986	-	-	-	-	8,883	29,160	30,220	36,589	37,707	36,202	23,104	202,852
1942	986	-	-	-	-	8,883	30,589	35,251	41,807	42,083	40,215	25,914	225,728
1943	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1944	18,681	-	-	-	-	8,883	22,991	33,175	41,728	41,690	40,098	25,811	233,058
1945	986	-	-	-	-	8,883	27,867	39,859	48,458	49,896	48,680	31,557	256,187
1946	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,599	273,020
1947	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1948	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1949	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1950	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1951	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1952	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,561
1953	18,681	-	-	-	-	8,883	30,435	42,030	47,350	54,222	53,512	35,446	290,560
1954	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1955	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1956	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1957	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1958	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1959	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1960	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1961	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1962	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1963	18,681	-	-	-	-	8,883	30,437	42,029	47,350	54,222	53,549	35,750	290,902
1964	986	-	-	-	-	8,883	30,436	42,030	47,350	54,222	53,512	35,446	272,866
1965	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1966	18,681	-	-	-	-	8,883	30,437	42,028	47,350	54,222	53,512	35,446	290,559
1967	18,681	-	-	-	-	8,883	30,435	42,030	47,350	54,222	53,561	35,754	290,917
1968	986	-	-	-	-	8,883	30,437	42,028	47,350	54,222	53,512	35,446	272,865
1969	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1970	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,266	53,615	35,753	291,016
1971	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1972	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1973	18,681	-	-	-	-	8,883	29,032	41,938	47,888	53,194	51,496	32,774	283,887
1974	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1975	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1976	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1977	18,681	-	-	-	-	8,883	26,628	39,776	48,460	49,896	48,680	31,571	272,576
1978	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1979	18,681	-	-	-	-	8,883	29,732	41,721	48,137	51,873	50,070	32,062	281,159
1980	986	-	-	-	-	8,883	30,490	42,129	45,835	54,346	53,773	35,700	272,142
1981	986	-	-	-	-	8,883	30,248	42,224	47,350	54,981	54,447	35,271	274,390
1982	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,866
1983	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1984	18,681	-	-	-	-	8,883	30,437	42,028	47,350	54,222	53,512	35,446	290,560
1985	18,681	-	-	-	-	8,883	30,437	42,028	47,349	54,222	53,512	35,446	290,559
1986	18,681	-	-	-	-	8,883	30,507	41,752	47,349	54,560	53,997	35,597	291,326
1987	986	-	-	-	-	8,883	30,485	41,372	48,198	51,270	49,513	31,835	262,543
1988	986	-	-	-	-	8,883	30,596	42,052	47,627	54,437	53,016	33,554	271,152
1989	986	-	-	-	-	8,883	30,436	41,236	47,348	54,222	53,540	35,745	272,397
1990	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1991	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1992	18,681	-	-	-	-	8,883	27,534	39,892	48,460	49,896	48,680	31,571	273,599
1993	986	-	-	-	-	8,883	30,840	40,269	48,123	49,896	48,680	31,571	259,250
1994	986	-	-	-	-	8,883	30,704	33,730	40,872	41,620	40,087	25,796	222,679
1995	986	-	-	-	-	8,883	30,448	42,028	47,885	53,728	53,521	35,701	273,180
1996	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1997	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1998	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1999	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2000	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2001	18,681	-	-	-	-	8,883	26,485	39,776	48,460	49,896	48,680	31,571	272,432
2002	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2003	18,681	-	-	-	-	8,883	30,437	41,294	47,350	54,710	54,103	35,539	290,997
2004	986	-	-	-	-	8,883	30,440	39,992	47,086	54,222	53,512	35,446	270,567
2005	18,681	-	-	-	-	8,883	26,636	39,776	48,460	49,896	48,680	31,571	272,584
2006	986	-	-	-	-	8,883	30,497	42,029	47,350	54,222	53,512	35,446	272,926
2007	18,681	-	-	-	-	8,883	30,434	42,030	47,350	54,222	53,512	35,446	290,559
2008	18,681	-	-	-	-	8,883	30,432	42,029	47,350	54,222	53,512	35,604	290,715
2009	986	-	-	-	-	8,758	30,006	41,434	46,680	53,475	52,837	36,623	270,799
Average	11,730	-	-	-	-	8,882	29,973	41,084	46,916	52,710	51,861	34,194	277,351

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	25,229	-	-	-	-	6,232	47,541	88,550	89,080	97,312	90,146	55,333	499,424
1927	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1928	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1929	25,229	-	-	-	-	6,232	47,341	92,309	89,080	97,312	90,146	55,333	502,982
1930	21,815	-	-	-	-	6,232	51,572	90,003	88,948	96,081	88,379	54,590	497,621
1931	21,815	-	-	-	-	6,232	40,462	73,852	69,718	75,674	71,162	49,119	408,035
1932	21,815	-	-	-	-	6,232	51,572	98,613	100,203	113,698	108,774	74,355	575,263
1933	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1934	25,229	-	-	-	-	6,232	51,572	99,896	104,372	113,540	105,010	60,024	565,877
1935	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1936	25,229	-	-	-	-	6,232	51,513	101,401	106,566	113,469	104,539	59,850	568,801
1937	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1938	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1939	25,229	-	-	-	-	6,232	51,327	87,303	103,130	113,459	104,388	59,778	550,847
1940	21,815	-	-	-	-	6,232	51,572	89,545	88,528	97,312	90,146	55,333	500,484
1941	21,815	-	-	-	-	6,232	43,642	78,232	76,055	83,606	77,610	51,109	438,301
1942	21,815	-	-	-	-	6,232	50,705	84,597	81,223	88,527	81,640	52,471	467,211
1943	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1944	25,229	-	-	-	-	6,232	45,662	83,922	81,141	88,084	81,522	52,420	464,214
1945	21,815	-	-	-	-	6,232	47,736	92,412	89,080	97,312	90,146	55,309	500,042
1946	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,022	61,918	574,503
1947	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1948	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1949	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1950	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1951	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1952	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1953	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1954	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1955	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1956	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1957	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1958	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1959	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1960	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1961	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1962	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1963	25,229	-	-	-	-	6,232	51,572	101,401	108,329	113,679	106,535	60,635	573,614
1964	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1965	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1966	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1967	25,229	-	-	-	-	6,232	51,572	101,401	109,578	113,659	106,166	60,496	574,333
1968	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1969	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1970	25,229	-	-	-	-	6,232	51,572	101,401	108,546	113,584	105,379	60,213	572,157
1971	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1972	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1973	25,229	-	-	-	-	6,232	48,300	96,854	93,255	101,177	92,983	56,101	520,131
1974	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1975	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1976	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1977	25,229	-	-	-	-	6,232	47,583	92,309	89,080	97,312	90,146	55,333	503,224
1978	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1979	25,229	-	-	-	-	6,232	48,220	96,501	91,799	99,579	91,549	55,631	514,740
1980	21,815	-	-	-	-	6,232	49,788	99,242	99,138	113,471	104,484	59,818	553,988
1981	21,815	-	-	-	-	6,232	48,537	101,244	101,313	109,805	100,600	58,544	548,091
1982	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1983	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1984	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1985	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1986	25,229	-	-	-	-	6,232	50,800	99,114	103,778	112,783	103,232	59,456	560,624
1987	21,815	-	-	-	-	6,232	51,305	95,515	91,445	98,879	90,988	55,484	511,663
1988	21,815	-	-	-	-	6,232	50,630	96,062	94,909	102,798	94,596	56,672	523,715
1989	21,815	-	-	-	-	6,232	51,572	95,490	108,287	113,685	106,696	60,798	564,575
1990	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1991	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1992	25,229	-	-	-	-	6,232	45,246	92,443	89,080	97,312	90,146	55,333	501,021
1993	21,815	-	-	-	-	6,232	47,961	87,498	89,082	97,312	90,146	55,333	495,380
1994	21,815	-	-	-	-	6,232	49,273	83,047	80,298	88,005	81,514	52,413	462,597
1995	21,815	-	-	-	-	6,232	51,416	101,401	101,427	110,215	107,378	61,058	560,942
1996	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1997	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1998	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1999	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2000	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2001	25,229	-	-	-	-	6,232	46,969	92,309	89,080	97,312	90,146	55,333	502,610
2002	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2003	25,229	-	-	-	-	6,232	51,572	95,349	103,311	111,710	102,624	59,250	555,277
2004	21,815	-	-	-	-	6,232	51,523	85,189	108,105	113,698	108,774	74,355	569,692
2005	25,229	-	-	-	-	6,232	47,598	92,309	89,080	97,312	90,146	55,333	503,239
2006	21,815	-	-	-	-	6,232	51,234	101,401	109,844	113,698	108,774	74,355	587,355
2007	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2008	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,762	61,859	577,598
2009	21,815	-	-	-	-	6,232	51,572	101,401	107,177	113,614	105,597	60,231	567,640
Average	23,888	-	-	-	-	6,232	50,656	98,074	103,755	109,252	103,338	67,330	562,524

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	33,266	-	-	-	-	10,226	39,590	55,274	59,103	60,287	59,515	50,436	367,698
1927	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1928	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1929	33,266	-	-	-	-	10,226	40,455	57,594	63,139	64,799	63,767	52,266	385,512
1930	24,263	-	-	-	-	10,226	41,928	55,595	58,160	59,287	58,491	50,008	357,959
1931	24,263	-	-	-	-	10,226	37,213	54,799	54,548	56,446	55,773	48,818	342,086
1932	24,263	-	-	-	-	10,226	41,121	57,883	61,143	70,157	70,467	59,068	394,328
1933	32,779	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,765
1934	33,266	-	-	-	-	10,226	41,291	58,415	64,301	70,131	69,829	55,777	403,237
1935	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1936	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,051	69,682	55,717	403,011
1937	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1938	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1939	33,266	-	-	-	-	10,226	41,745	52,649	63,994	70,068	69,626	55,695	397,268
1940	24,263	-	-	-	-	10,226	41,928	54,262	63,199	65,578	64,467	52,565	376,488
1941	24,263	-	-	-	-	10,226	37,752	52,344	52,903	54,777	54,138	48,085	334,488
1942	24,263	-	-	-	-	10,226	41,306	55,402	57,687	59,094	58,245	49,907	356,130
1943	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1944	33,266	-	-	-	-	10,226	39,928	54,711	55,122	56,369	55,741	48,820	354,183
1945	24,263	-	-	-	-	10,226	40,489	57,684	63,050	64,662	63,665	52,254	376,294
1946	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,363	56,467	395,545
1947	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1948	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1949	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1950	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1951	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1952	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1953	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1954	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1955	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1956	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1957	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1958	33,266	-	-	-	-	10,226	41,053	57,910	65,148	70,157	70,467	59,068	407,296
1959	33,269	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,255
1960	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1961	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1962	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1963	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,156	70,139	55,990	403,846
1964	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1965	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1966	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1967	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,156	70,114	55,940	403,770
1968	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1969	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1970	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,151	69,935	55,841	403,489
1971	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1972	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1973	33,266	-	-	-	-	10,226	40,449	57,867	64,251	68,698	68,053	54,105	396,915
1974	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1975	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1976	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1977	33,266	-	-	-	-	10,226	40,625	57,138	59,836	61,076	60,283	50,758	373,210
1978	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1979	33,266	-	-	-	-	10,226	40,110	57,867	64,137	68,329	67,512	53,858	395,306
1980	24,263	-	-	-	-	10,226	40,577	58,118	61,758	70,059	69,661	55,709	390,372
1981	24,263	-	-	-	-	10,226	39,616	57,867	65,148	69,038	68,733	55,224	390,115
1982	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1983	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1984	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1985	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1986	33,266	-	-	-	-	10,226	41,621	56,990	65,148	69,572	69,172	55,578	401,575
1987	24,263	-	-	-	-	10,226	41,675	57,071	64,126	68,147	67,280	53,782	386,570
1988	24,263	-	-	-	-	10,226	41,237	57,087	64,607	68,777	68,440	54,392	389,030
1989	24,263	-	-	-	-	10,226	41,226	56,093	65,148	70,156	70,155	56,047	393,315
1990	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1991	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1992	33,266	-	-	-	-	10,226	39,050	57,866	63,927	66,876	66,069	53,328	390,609
1993	24,263	-	-	-	-	10,226	40,206	52,625	63,463	67,526	66,499	53,422	378,230
1994	24,263	-	-	-	-	10,226	40,502	54,118	55,047	56,628	56,014	48,935	345,733
1995	24,263	-	-	-	-	10,226	41,830	59,101	63,321	68,612	70,205	56,144	393,702
1996	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1997	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1998	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1999	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2000	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2001	33,266	-	-	-	-	10,226	40,119	57,014	59,342	60,554	59,797	50,597	370,915
2002	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2003	33,266	-	-	-	-	10,226	41,928	55,510	65,148	69,290	69,032	55,505	399,906
2004	24,263	-	-	-	-	10,226	41,897	51,582	64,391	70,157	70,467	59,068	392,051
2005	32,779	-	-	-	-	10,226	40,590	56,199	57,348	58,602	58,159	49,998	363,901
2006	24,263	-	-	-	-	10,226	41,612	59,101	66,022	70,157	70,467	59,068	400,916
2007	33,323	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,310
2008	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,262	56,444	404,424
2009	24,263	-	-	-	-	10,179	40,863	57,599	64,847	69,830	69,700	55,748	393,028
Average	29,718	-	-	-	-	10,226	40,908	57,267	63,884	68,357	68,355	56,757	395,471

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	3,644	-	-	-	-	421	4,367	12,649	16,423	18,027	17,977	15,434	88,942
1927	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1928	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1929	3,644	-	-	-	-	421	3,509	13,084	16,423	18,347	18,395	15,549	89,372
1930	798	-	-	-	-	421	4,768	12,787	16,417	17,847	17,775	15,371	86,183
1931	798	-	-	-	-	421	2,784	13,084	16,238	17,310	17,224	15,134	82,993
1932	798	-	-	-	-	421	4,768	12,690	15,106	18,950	19,461	15,860	88,054
1933	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1934	3,644	-	-	-	-	421	4,768	12,870	16,086	18,347	18,395	15,600	90,131
1935	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1936	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,599	90,681
1937	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1938	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1939	3,644	-	-	-	-	421	4,749	11,232	15,939	18,347	18,395	15,598	88,325
1940	798	-	-	-	-	421	4,768	11,531	16,264	18,347	18,395	15,552	86,076
1941	798	-	-	-	-	421	4,068	12,855	16,054	16,979	16,891	14,973	83,039
1942	798	-	-	-	-	421	4,715	12,836	16,415	17,811	17,726	15,354	86,076
1943	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1944	3,644	-	-	-	-	421	2,199	13,084	16,299	17,295	17,218	14,307	84,466
1945	798	-	-	-	-	421	3,785	13,084	16,423	18,347	18,395	15,548	86,801
1946	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,613	89,521
1947	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1948	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1949	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1950	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1951	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1952	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1953	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1954	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1955	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1956	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1957	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1958	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1959	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1960	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1961	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1962	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1963	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,604	90,687
1964	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1965	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1966	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1967	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,603	90,688
1968	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1969	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1970	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,601	90,684
1971	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1972	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1973	3,644	-	-	-	-	421	3,947	13,084	16,423	18,347	18,395	15,573	89,833
1974	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1975	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1976	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1977	3,644	-	-	-	-	421	2,957	13,084	16,423	18,159	18,128	15,468	88,284
1978	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1979	3,644	-	-	-	-	421	4,031	13,084	16,423	18,347	18,395	15,569	89,914
1980	798	-	-	-	-	421	4,614	12,783	15,398	18,347	18,395	15,599	86,354
1981	798	-	-	-	-	421	4,201	13,084	16,423	18,347	18,395	15,590	87,259
1982	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1983	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1984	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1985	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1986	3,644	-	-	-	-	421	4,712	12,841	16,423	18,347	18,395	15,596	90,380
1987	798	-	-	-	-	421	4,753	12,537	16,423	18,347	18,395	15,568	87,243
1988	798	-	-	-	-	421	4,707	12,814	16,423	18,347	18,395	15,577	87,482
1989	798	-	-	-	-	421	4,768	12,306	16,423	18,347	18,395	15,605	87,064
1990	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1991	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1992	3,644	-	-	-	-	421	3,638	13,084	16,423	18,347	18,395	15,562	89,514
1993	798	-	-	-	-	421	4,483	11,305	16,253	18,347	18,395	15,563	85,565
1994	798	-	-	-	-	421	4,569	12,871	16,319	17,347	17,273	15,158	84,755
1995	594	-	-	-	-	421	4,757	13,084	15,151	18,007	18,395	15,607	86,015
1996	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1997	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1998	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1999	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2000	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2001	3,644	-	-	-	-	421	2,853	13,084	16,423	18,071	18,033	15,451	87,980
2002	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2003	3,644	-	-	-	-	421	4,768	12,330	16,423	18,347	18,395	15,595	89,923
2004	798	-	-	-	-	421	4,763	10,984	16,179	18,950	19,461	15,860	87,416
2005	3,644	-	-	-	-	421	2,638	13,084	16,402	17,721	17,709	15,369	86,988
2006	798	-	-	-	-	421	4,748	13,084	16,425	18,950	19,461	15,860	89,747
2007	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2008	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,305	15,613	92,211
2009	798	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,601	87,838
Average	2,523	-	-	-	-	421	4,555	12,939	16,355	18,634	18,958	15,704	90,089

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	7,393	-	-	-	-	20	10,918	13,568	14,527	14,065	14,735	13,329	88,555
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1929	7,393	-	-	-	-	20	10,736	13,791	14,527	14,065	14,735	13,329	88,596
1930	5,536	-	-	-	-	20	11,828	13,798	14,527	14,065	14,735	13,329	87,838
1931	5,536	-	-	-	-	20	9,551	13,440	13,121	11,427	13,468	12,611	79,174
1932	5,536	-	-	-	-	20	11,828	15,136	14,873	17,629	17,780	15,757	98,559
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	15,323	15,461	15,366	14,735	13,329	93,455
1935	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1936	7,393	-	-	-	-	20	11,637	14,763	15,350	14,065	14,735	13,329	91,293
1937	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1938	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1939	7,393	-	-	-	-	20	11,773	13,438	15,296	14,380	14,735	13,329	90,364
1940	5,536	-	-	-	-	20	11,828	13,789	14,400	14,065	14,735	13,329	87,702
1941	5,536	-	-	-	-	20	10,371	13,395	14,230	13,127	14,194	12,849	83,721
1942	5,536	-	-	-	-	20	11,566	13,463	14,230	13,127	14,194	12,849	84,984
1943	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1944	7,393	-	-	-	-	20	10,449	13,571	14,230	13,127	14,194	12,849	85,832
1945	5,536	-	-	-	-	20	10,740	13,791	14,527	14,065	14,735	13,329	86,744
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,752	15,376	99,937
1947	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1948	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1953	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1958	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1959	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1960	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1961	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1962	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1963	7,393	-	-	-	-	20	11,828	15,543	15,769	17,070	17,346	15,376	100,343
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1966	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1967	7,393	-	-	-	-	20	11,828	15,543	16,134	17,070	17,346	15,376	100,708
1968	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1969	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1970	7,393	-	-	-	-	20	11,828	15,543	15,791	17,070	15,047	13,329	96,019
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,729	13,791	14,527	14,065	14,735	13,329	88,590
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,793	13,791	14,527	14,065	14,735	13,329	88,653
1978	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1979	7,393	-	-	-	-	20	10,600	13,791	14,527	14,065	14,735	13,329	88,460
1980	5,536	-	-	-	-	20	11,312	15,230	14,559	14,065	14,735	13,329	88,787
1981	5,536	-	-	-	-	20	10,817	13,841	14,527	14,065	14,735	13,329	86,870
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1986	7,393	-	-	-	-	20	11,682	14,629	14,551	14,065	14,735	13,329	90,403
1987	5,536	-	-	-	-	20	11,748	14,787	14,527	14,065	14,735	13,329	88,748
1988	5,536	-	-	-	-	20	11,543	13,936	14,527	14,065	14,735	13,329	87,692
1989	5,536	-	-	-	-	20	11,828	14,566	15,644	17,070	17,346	15,376	97,385
1990	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1991	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1992	7,393	-	-	-	-	20	10,073	13,791	14,527	14,065	14,735	13,329	87,934
1993	5,536	-	-	-	-	20	11,040	13,447	14,389	14,065	14,735	13,329	86,562
1994	5,536	-	-	-	-	20	11,270	13,619	14,230	13,127	14,194	12,849	84,844
1995	5,536	-	-	-	-	20	11,800	15,543	15,034	16,829	17,346	15,376	97,483
1996	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1997	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1998	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1999	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2000	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2001	7,393	-	-	-	-	20	10,625	13,791	14,527	14,065	14,735	13,329	88,486
2002	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2003	7,393	-	-	-	-	20	11,828	14,318	14,593	14,065	14,735	13,329	90,280
2004	5,536	-	-	-	-	20	11,819	13,186	16,002	17,629	17,780	15,757	97,729
2005	7,393	-	-	-	-	20	10,797	13,791	14,527	14,065	14,735	13,329	88,658
2006	5,536	-	-	-	-	20	11,727	15,543	16,253	17,629	17,780	15,757	100,244
2007	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2008	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,661	15,376	101,702
2009	5,536	-	-	-	-	20	11,828	15,543	15,644	17,070	16,037	13,329	95,006
Average	6,663	-	-	-	-	20	11,595	15,005	15,655	16,426	16,721	14,889	96,974

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	65,615	66,488	82,071
1926	80,020	82,842	100,205	120,976	105,925	77,327	43,784	11,200	11,698	24,452	31,702	43,591
1927	45,147	45,222	45,717	54,706	80,448	89,038	55,849	17,838	21,401	37,035	78,461	80,021
1928	93,241	92,471	106,702	117,457	157,253	153,340	105,458	67,024	60,608	69,859	68,915	65,251
1929	59,608	54,931	58,901	53,137	80,370	87,033	59,049	21,386	17,027	9,863	7,441	9,712
1930	10,395	27,761	38,504	68,383	64,139	52,733	12,413	8,959	7,034	10,464	12,213	10,824
1931	17,351	24,625	39,036	56,582	79,386	76,994	52,762	21,875	18,821	18,252	28,933	28,361
1932	38,888	53,508	78,335	80,995	88,928	86,772	52,765	17,312	13,745	17,987	72,178	80,106
1933	80,080	80,094	80,068	81,330	92,208	142,287	146,971	112,508	92,900	97,704	118,796	123,596
1934	118,796	129,666	134,293	156,721	155,349	131,423	79,074	37,315	32,198	47,577	72,832	80,245
1935	107,527	115,366	122,480	123,965	151,862	157,770	119,561	80,662	76,863	73,599	70,293	68,135
1936	73,187	73,082	79,907	95,083	155,159	156,305	108,467	69,123	64,236	59,277	52,298	65,651
1937	63,172	63,311	67,915	79,001	104,313	140,633	106,067	66,219	61,196	59,813	90,054	81,710
1938	88,637	87,419	89,730	114,277	150,045	156,079	107,673	67,116	60,941	56,881	66,027	81,560
1939	80,102	79,976	86,771	105,471	133,860	128,865	83,264	43,050	38,401	37,564	42,896	64,078
1940	63,336	71,740	82,837	102,050	117,002	105,005	61,046	24,985	20,182	15,280	17,542	27,502
1941	25,315	23,653	34,479	47,618	30,557	13,507	10,081	8,536	14,626	27,440	39,043	51,783
1942	49,773	48,670	50,848	72,015	71,452	78,941	55,393	22,396	19,995	12,023	27,341	40,520
1943	46,027	46,847	53,294	80,382	92,217	90,954	60,928	22,575	18,288	15,413	15,931	32,567
1944	30,482	32,888	37,447	43,781	46,196	39,702	11,307	10,007	13,871	11,476	13,119	19,434
1945	44,066	56,172	58,198	62,921	84,945	78,808	55,674	27,260	30,684	35,831	49,267	56,968
1946	63,521	63,063	67,702	82,760	116,135	121,267	89,850	53,367	50,355	58,229	61,230	79,941
1947	86,777	80,298	83,302	107,398	130,365	120,917	75,251	36,286	33,078	55,045	80,574	80,235
1948	79,827	82,135	84,050	91,460	122,602	157,770	125,696	89,051	79,865	79,671	82,070	80,147
1949	80,054	83,492	88,551	106,341	147,009	157,669	138,724	102,306	79,641	81,532	96,436	111,424
1950	117,966	122,106	98,299	94,224	113,704	159,354	148,899	114,646	88,130	80,526	94,695	118,796
1951	118,796	133,981	113,224	117,253	152,719	157,580	114,789	74,818	69,822	80,483	80,209	79,805
1952	77,947	79,946	80,950	101,158	138,051	142,859	105,949	66,030	61,751	55,656	47,409	40,913
1953	79,265	84,741	88,526	98,628	130,106	150,052	128,776	89,988	77,076	77,070	80,791	88,351
1954	97,270	101,435	104,743	105,454	129,138	157,947	150,039	119,305	96,208	80,005	83,950	80,641
1955	83,624	92,474	93,541	95,056	119,581	157,774	151,381	118,313	91,901	88,363	113,843	118,796
1956	118,623	113,756	75,456	81,465	124,215	157,770	143,881	106,215	80,142	80,257	80,097	118,796
1957	118,398	118,888	122,340	127,669	157,113	146,525	97,484	57,751	51,849	48,678	49,288	61,409
1958	67,595	79,971	80,238	83,835	122,596	108,935	60,182	20,413	16,891	29,057	71,928	83,902
1959	106,912	111,157	120,932	124,089	148,205	157,770	126,379	88,024	84,598	86,625	118,796	118,796
1960	118,556	123,992	128,997	132,056	157,481	156,460	112,575	73,569	70,247	76,060	80,149	79,915
1961	88,933	114,314	116,707	116,319	149,804	156,782	116,117	75,547	72,006	77,709	80,189	82,580
1962	97,244	106,012	107,006	135,710	145,302	153,119	113,708	74,658	70,896	76,327	92,708	85,674
1963	96,181	118,437	125,945	136,016	146,087	135,888	85,453	44,680	38,696	37,642	50,632	52,080
1964	60,625	61,032	64,638	73,062	106,182	157,770	146,594	115,622	93,670	79,946	81,774	92,609
1965	113,555	129,381	123,999	128,141	156,788	155,366	118,023	78,416	73,214	73,554	78,736	79,308
1966	79,728	77,571	81,297	95,244	126,146	125,596	82,563	42,887	37,005	39,173	46,017	72,564
1967	80,698	94,192	98,150	95,290	125,578	157,770	122,881	80,922	74,325	87,349	80,093	113,610
1968	118,796	147,348	149,612	147,874	155,284	151,174	105,981	67,177	72,957	80,256	80,510	80,156
1969	93,048	91,496	93,758	111,623	154,168	153,410	106,437	67,986	66,859	69,677	70,236	68,481
1970	73,219	75,665	80,448	74,897	106,217	123,276	78,070	43,360	40,586	40,653	51,027	51,432
1971	71,948	89,650	92,383	97,319	127,387	157,770	156,132	121,053	94,870	80,475	80,193	88,537
1972	103,162	117,996	114,472	93,479	114,343	157,770	147,431	113,335	95,076	78,988	80,373	100,059
1973	111,907	111,492	114,080	117,944	125,353	114,093	66,705	27,319	23,670	24,080	27,570	36,530
1974	71,863	77,103	80,626	80,567	105,392	158,077	156,537	126,946	101,265	78,813	80,013	90,045
1975	112,872	117,119	113,239	105,385	129,573	157,770	135,497	101,839	79,333	81,372	90,110	118,796
1976	118,796	126,287	117,025	114,103	145,131	157,770	137,754	105,279	79,885	77,643	80,102	80,702
1977	89,671	97,356	97,632	105,570	74,027	67,463	33,419	9,547	12,015	14,451	54,085	84,610
1978	79,893	80,104	85,226	80,915	93,278	92,400	55,011	17,760	19,611	16,717	21,431	28,045
1979	25,789	30,182	46,647	59,872	80,547	66,668	35,953	11,241	9,385	9,894	9,139	46,217
1980	48,168	51,664	59,871	84,609	96,648	83,837	45,883	12,122	12,724	10,019	33,745	81,457
1981	79,984	103,068	109,437	120,669	121,618	122,606	75,949	34,580	28,266	34,096	37,511	43,416
1982	58,960	88,857	102,273	109,653	140,215	157,770	129,869	93,873	80,054	80,421	80,002	80,012
1983	103,929	111,688	124,773	124,542	141,589	134,161	96,501	58,760	58,784	55,792	79,091	79,832
1984	116,643	121,945	126,986	125,248	152,850	157,770	129,376	91,100	78,814	80,041	79,989	79,978
1985	76,682	74,579	78,171	108,296	149,922	152,467	106,179	65,974	63,761	81,089	79,994	76,518
1986	78,258	93,672	118,838	130,897	147,720	133,166	84,892	44,317	40,858	39,636	70,016	71,495
1987	69,206	69,664	80,169	108,720	135,912	113,195	62,960	24,504	19,071	15,826	11,262	16,600
1988	13,986	22,460	37,183	70,891	85,515	69,593	27,317	10,930	8,670	19,996	38,522	53,642
1989	69,444	72,048	76,025	98,906	122,501	118,534	73,021	35,920	31,764	27,927	57,155	77,369
1990	86,864	100,821	111,968	140,286	157,376	157,487	117,220	77,163	72,580	82,724	129,534	118,796
1991	118,796	145,179	133,317	143,230	157,547	157,323	118,855	79,925	74,929	70,133	81,703	80,004
1992	96,138	107,816	124,968	140,903	143,557	122,381	73,945	36,776	39,001	33,743	44,880	48,107
1993	55,332	55,840	70,791	81,999	85,271	55,861	32,482	10,872	7,491	6,486	8,118	11,898
1994	23,179	23,542	38,283	69,262	64,493	49,768	11,419	11,342	9,524	17,119	29,828	47,554
1995	53,309	81,292	80,377	80,551	80,530	61,346	21,924	10,859	8,196	27,862	104,128	98,127
1996	102,623	135,174	128,726	144,069	157,475	147,473	101,830	62,265	60,441	71,598	82,495	80,617
1997	95,964	110,896	89,698	94,171	135,400	157,770	138,545	102,817	80,063	87,516	86,088	91,085
1998	98,225	102,585	115,088	128,926	157,101	149,293	100,678	62,572	57,279	54,347	76,534	93,464
1999	102,775	107,007	106,360	103,458	119,413	157,770	147,738	119,280	91,963	80,147	91,409	118,796
2000	118,493	117,728	120,883	134,494	157,275	157,510	118,074	83,076	80,482	80,014	77,720	72,508
2001	70,422	67,576	75,188	84,176	91,523	76,986	45,705	12,092	8,650	19,073	41,332	49,941
2002	66,734	72,518	78,940	86,965	107,632	146,194	109,324	72,327	67,446	62,147	60,767	58,461
2003	77,540	80,132	85,323	101,104	114,506	103,533	59,435	19,442	14,032	26,054	49,157	53,152
2004	59,667	62,867	77,585	100,547	117,261	106,404	58,656	25,657	32,348	37,113	53,167	73,338
2005	86,216	79,821	82,784	91,427	75,160	56,529	22,649	10,898	9,957	14,291	25,550	33,227
2006	50,228	54,553	54,729	71,213	95,140	77,894	39,588	11,261	8,927	7,504	53,561	56,692
2007	67,667	77,333	98,556	100,396	123,786	121,438	75,548	38,792	33,675	39,780	45,520	56,066
2008	54,752	56,341	59,727	56,239	115,534	146,867	121,555	87,052	77,795	75,371	88,064	80,670
2009	112,558	111,878	113,102	123,879	155,975	152,994	106,052	67,497	62,701	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	98,086	102,400	141,168
1926	163,131	176,910	199,175	222,262	202,109	159,906	97,989	22,478	-23,879	-23,856	-12,596	5,419
1927	13,105	20,050	26,147	47,026	91,731	158,953	159,129	132,977	71,317	68,880	107,260	141,949
1928	177,530	182,487	202,507	214,307	238,524	237,566	229,875	182,695	114,156	94,450	98,595	101,666
1929	103,509	105,491	116,442	119,004	156,171	171,047	109,416	44,704	-7,600	-27,493	-34,070	-34,987
1930	-34,162	-15,658	2,503	35,572	44,904	21,267	-33,441	-94,393	-143,654	-157,556	-153,017	-155,184
1931	-152,265	-140,645	-119,798	-97,579	-60,962	-67,840	-96,709	-132,246	-180,024	-192,904	-181,699	-175,476
1932	-164,616	-140,067	-107,040	-53,893	13,712	71,041	76,016	53,310	-8,368	-29,243	18,004	57,018
1933	99,153	107,319	114,743	136,656	184,446	236,312	238,237	206,307	166,695	193,045	203,025	203,025
1934	203,025	220,437	217,330	238,033	237,832	226,188	202,691	153,488	85,943	97,482	125,287	148,883
1935	191,593	204,686	210,606	208,320	237,044	238,980	236,075	198,198	128,873	100,508	101,972	105,421
1936	114,248	120,223	135,726	180,623	236,591	238,171	220,280	180,830	112,911	108,150	106,703	119,024
1937	122,655	128,802	139,162	156,543	197,570	236,416	229,087	193,097	125,818	97,104	128,420	173,475
1938	186,159	191,178	200,569	207,269	237,556	238,280	223,267	182,234	113,775	86,246	96,260	118,566
1939	161,244	171,913	186,011	212,853	236,154	231,882	206,897	159,257	93,532	94,214	101,471	121,704
1940	126,505	137,741	161,349	194,398	211,290	170,112	107,145	45,301	-5,029	-16,872	-11,666	316
1941	5,089	8,250	24,475	44,295	40,348	4,480	-55,201	-114,066	-155,555	-154,298	-139,894	-122,136
1942	-117,394	-112,479	-104,094	-78,910	-63,561	-66,594	-99,196	-139,181	-187,537	-198,518	-183,736	-166,609
1943	-154,717	-147,477	-134,810	-93,253	-41,890	19,803	32,169	11,142	-46,428	-70,648	-66,935	-50,522
1944	-47,044	-40,280	-30,029	-15,086	-2,415	-23,798	-79,293	-137,978	-181,801	-194,938	-191,965	-182,031
1945	-155,563	-139,775	-130,314	-115,743	-59,760	-50,776	-82,826	-116,004	-161,585	-170,048	-154,993	-142,692
1946	-129,271	-123,610	-113,119	-82,832	8,220	71,471	79,258	57,778	-3,598	1,699	10,192	56,194
1947	85,903	119,432	157,650	196,227	217,999	218,888	211,595	177,419	111,639	107,386	136,403	159,234
1948	171,420	180,724	188,949	187,583	207,090	238,980	233,680	197,905	142,409	129,015	146,542	168,845
1949	175,442	185,999	188,344	191,528	232,565	238,931	237,825	205,933	160,484	157,470	203,228	203,025
1950	203,025	208,267	184,104	180,343	198,325	238,980	238,249	208,194	164,058	177,578	203,025	203,025
1951	203,025	216,491	197,882	201,601	235,729	238,847	230,854	194,307	130,307	119,811	142,542	153,952
1952	158,230	165,955	173,437	200,102	233,097	237,152	233,626	194,607	127,472	98,163	96,595	96,881
1953	131,054	173,696	184,297	200,277	228,242	238,525	231,473	196,035	136,860	114,833	132,502	188,987
1954	203,025	213,064	194,197	190,710	213,665	238,980	238,399	209,133	166,079	163,244	190,838	203,025
1955	203,025	216,138	206,073	195,464	213,021	238,980	238,871	206,391	163,490	186,029	203,025	203,025
1956	203,025	197,459	163,019	170,761	207,600	238,980	235,796	199,270	156,541	154,780	178,874	203,025
1957	203,025	209,319	209,985	211,216	238,395	233,882	207,650	164,863	98,369	74,360	78,701	93,868
1958	104,006	120,454	136,487	173,143	216,553	216,521	198,361	154,481	90,658	81,782	122,519	179,213
1959	203,025	212,474	206,482	207,910	233,131	238,980	235,699	198,030	171,484	204,988	203,025	203,025
1960	203,025	212,844	212,442	217,113	238,735	238,378	226,924	189,052	123,656	104,161	141,696	150,064
1961	177,867	206,126	201,096	200,739	232,311	238,524	234,123	195,751	129,424	112,552	126,064	153,133
1962	186,099	202,035	209,365	229,076	235,671	238,284	232,809	198,490	134,463	116,701	152,039	197,403
1963	203,025	226,452	234,759	236,584	238,239	231,690	214,897	174,233	107,560	107,194	118,454	126,042
1964	141,370	147,865	158,580	174,335	208,867	238,980	237,352	207,841	168,906	168,275	183,238	203,025
1965	203,025	222,154	207,828	211,651	238,095	237,919	234,850	198,481	132,079	106,967	114,568	122,152
1966	131,519	134,819	144,539	183,226	214,528	223,384	224,686	185,442	121,011	99,529	107,617	134,777
1967	172,449	190,077	200,492	194,609	222,835	238,980	236,120	202,808	136,037	160,723	199,177	203,025
1968	203,025	229,321	233,656	230,280	237,590	237,186	230,971	194,416	133,487	122,734	162,081	190,164
1969	203,025	206,885	200,738	200,588	235,676	236,942	222,144	183,131	119,790	97,140	100,921	104,758
1970	113,383	120,620	137,587	162,716	198,563	227,443	225,062	176,712	109,364	111,155	122,016	127,786
1971	152,661	181,365	191,146	185,915	211,177	238,980	238,516	209,125	169,480	168,821	200,300	203,025
1972	203,025	197,253	170,868	167,275	198,915	238,980	238,388	210,423	173,178	166,424	178,160	203,025
1973	203,025	207,411	214,926	218,219	221,177	215,777	195,936	147,697	87,221	86,626	94,342	107,616
1974	143,077	156,209	170,536	168,248	190,653	238,980	238,853	213,309	169,738	162,476	169,407	203,025
1975	203,025	212,901	197,896	191,130	213,298	238,980	233,148	201,729	156,417	145,969	198,488	203,025
1976	203,025	216,911	201,391	198,693	229,427	238,980	237,257	211,179	164,580	137,490	144,417	161,825
1977	181,087	192,084	197,919	201,993	167,739	136,283	76,284	9,467	-34,516	-45,100	-10,590	65,979
1978	80,685	89,844	121,155	158,739	184,316	197,931	187,770	157,424	95,433	67,021	72,465	80,854
1979	84,615	93,198	112,787	131,287	172,115	176,032	159,432	125,037	62,768	51,974	49,340	84,252
1980	91,392	98,880	113,141	151,247	182,618	186,497	170,764	139,788	75,360	73,727	93,639	145,621
1981	167,035	192,315	204,996	224,094	226,027	226,793	219,364	163,811	97,228	104,102	110,862	120,989
1982	138,527	176,072	196,024	198,268	223,620	238,980	233,895	197,626	145,671	131,228	144,880	176,588
1983	203,025	215,861	208,543	208,329	229,414	232,039	237,594	208,711	144,745	120,405	142,236	151,802
1984	196,586	208,827	210,585	208,980	235,310	238,980	235,975	199,238	143,047	121,770	141,284	151,320
1985	153,934	156,370	165,592	200,588	238,255	236,238	208,789	168,015	102,053	92,433	140,288	144,061
1986	150,811	173,757	203,627	223,126	236,033	228,822	201,633	155,771	91,612	92,075	118,137	125,472
1987	130,465	136,485	164,156	202,021	228,326	217,171	180,701	137,806	73,348	41,488	39,974	45,960
1988	48,995	61,162	82,125	121,314	166,035	175,919	151,742	105,766	43,621	47,928	70,159	88,192
1989	107,922	116,788	126,479	180,138	205,376	216,310	207,529	165,215	97,542	97,667	119,991	142,710
1990	178,209	196,896	209,326	224,813	238,638	238,781	232,221	193,675	127,801	133,120	202,969	203,025
1991	203,025	227,068	216,429	226,970	238,795	238,700	236,191	200,369	133,076	104,758	124,757	172,427
1992	190,678	206,892	227,914	238,980	230,678	200,281	163,664	98,692	21,731	5,489	17,544	25,623
1993	35,535	41,016	58,243	92,647	155,620	153,233	95,871	23,842	-24,412	-42,061	-46,195	-42,243
1994	-28,272	-21,458	-2,580	29,732	43,702	12,455	-44,528	-103,611	-151,968	-160,776	-147,830	-127,099
1995	-115,431	-75,097	-40,305	-6,858	53,670	61,969	52,543	5,771	-46,727	-27,189	49,342	100,127
1996	156,979	204,410	212,192	228,962	238,729	235,670	235,438	204,090	139,134	122,003	148,711	170,380
1997	190,873	199,872	174,275	180,294	218,656	238,980	235,298	200,026	161,172	180,765	203,025	203,025
1998	203,025	212,410	211,655	212,376	238,384	235,478	228,255	185,197	116,313	90,649	109,977	142,331
1999	183,740	196,206	191,546	188,867	203,594	238,980	238,101	214,709	172,662	160,802	203,025	203,025
2000	203,025	206,756	209,071	218,162	238,545	238,855	224,607	186,813	127,765	113,519	117,390	119,201
2001	121,866	123,854	135,457	152,433	179,183	154,228	84,816	29,294	-17,872	-24,115	-1,151	12,841
2002	35,004	45,981	59,128	113,119	180,475	225,418	222,550	174,875	106,027	77,345	79,967	82,867
2003	102,717	130,313	174,375	196,701	209,411	211,024	195,682	155,208	90,086	98,829	123,651	134,729
2004	145,482	154,609	175,533	202,500	219,222	215,900	188,547	149,338	92,390	74,143	91,361	114,300
2005	151,676	170,456	179,190	186,534	168,875	114,950	47,723	-10,676	-58,607	-69,208	-56,791	-45,347
2006	-22,506	-12,420	-5,723	18,126	75,910	119,760	108,530	78,676	16,333	-8,422	36,791	47,708
2007	64,438	79,451	136,415	180,012	206,204	216,084	211,890	173,331	105,601	86,015	94,242	110,324
2008	115,887	123,447	132,987	137,412	200,733	235,350	226,208	189,646	132,720	134,638	180,079	203,025
2009	203,025	207,722	208,913	208,562	237,344	236,769	223,850	186,769	125,242	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	179,498	173,324	212,186
1926	223,436	225,800	263,496	346,800	383,564	324,683	206,533	70,344	46,858	76,573	91,527	119,212
1927	120,335	116,589	114,277	159,492	282,195	451,480	393,037	211,697	200,026	239,084	308,035	325,524
1928	326,985	324,581	349,376	362,011	449,838	448,698	339,911	163,686	138,349	150,498	146,805	138,762
1929	126,600	113,779	117,079	127,969	248,258	325,525	275,578	183,033	158,221	150,576	137,892	128,942
1930	117,302	136,307	163,899	257,926	313,681	304,268	170,761	41,097	19,357	22,039	27,674	25,898
1931	35,081	54,872	87,027	139,090	265,412	277,066	145,586	27,795	16,088	18,628	42,660	46,316
1932	68,491	128,470	208,506	280,536	425,762	451,480	367,120	181,755	158,827	152,951	246,134	290,539
1933	313,639	307,983	302,756	301,872	340,351	451,480	449,362	345,701	338,084	390,174	358,270	391,835
1934	364,894	379,793	390,912	448,120	451,417	410,116	259,810	93,065	71,654	88,166	153,948	172,820
1935	241,201	266,184	277,665	302,440	441,613	451,480	409,069	243,751	225,097	214,495	203,455	191,822
1936	186,511	176,347	182,868	277,578	443,072	447,806	358,671	184,992	161,878	150,476	136,236	137,872
1937	126,931	118,347	119,857	149,724	284,249	451,480	391,392	235,347	209,630	202,908	240,672	267,302
1938	276,670	270,639	272,122	340,447	446,450	451,480	365,337	187,056	155,917	144,665	146,555	163,996
1939	187,810	186,518	199,720	273,253	401,200	412,712	296,612	119,539	94,526	86,535	94,923	131,150
1940	130,258	136,801	166,691	241,177	353,970	363,876	274,928	160,167	127,509	129,885	128,760	142,347
1941	138,648	133,418	165,600	231,877	271,591	242,393	125,972	27,596	26,503	49,784	76,589	110,538
1942	106,774	102,279	104,407	168,686	233,956	273,625	172,427	39,011	20,345	13,485	31,317	56,468
1943	76,014	84,217	103,889	211,484	339,630	451,480	420,722	255,430	229,726	216,260	209,386	228,504
1944	218,988	214,393	220,475	253,817	326,253	341,704	257,551	124,375	92,180	90,872	90,587	102,197
1945	145,898	169,534	173,553	191,604	335,824	388,959	264,238	88,431	73,058	81,332	96,666	102,725
1946	111,992	108,872	113,039	177,469	389,784	451,480	407,819	233,518	212,852	219,859	221,755	271,531
1947	290,180	312,254	347,219	404,568	450,703	449,801	336,118	158,892	140,516	188,477	236,665	252,714
1948	253,531	252,253	250,380	271,768	360,791	451,480	414,740	269,730	247,084	252,981	259,066	266,141
1949	257,626	257,069	263,946	285,353	425,531	451,031	416,535	284,739	267,250	282,866	332,661	330,972
1950	328,452	327,490	313,565	299,199	309,141	451,480	446,761	365,903	348,593	376,392	357,145	353,341
1951	346,728	395,354	347,277	343,325	441,614	451,480	394,183	229,252	206,645	228,377	245,932	250,037
1952	242,382	239,329	235,332	298,434	429,148	444,205	354,409	186,491	161,166	136,843	123,475	111,653
1953	154,285	199,499	205,364	240,105	370,670	451,480	418,056	283,856	262,210	257,820	269,424	311,010
1954	323,207	325,310	323,251	318,045	364,184	451,480	448,205	378,489	369,944	371,371	353,293	341,317
1955	332,483	340,268	334,900	304,006	387,619	427,666	410,724	292,900	276,008	303,059	327,206	327,206
1956	326,749	322,516	274,910	269,716	345,274	451,480	438,829	325,761	307,927	327,707	327,360	333,362
1957	328,767	324,338	328,002	354,260	449,387	439,838	302,017	140,051	115,493	106,638	102,441	109,362
1958	109,511	120,136	134,908	175,724	372,514	426,911	305,129	117,381	98,815	114,653	183,790	254,206
1959	296,448	305,320	318,914	342,691	444,321	451,480	417,660	258,913	275,550	337,387	383,653	362,040
1960	340,345	339,747	353,838	375,102	450,576	450,734	368,805	203,448	181,195	180,806	202,712	200,759
1961	224,029	265,713	293,942	317,589	428,323	450,451	393,854	224,894	208,290	214,991	218,033	228,536
1962	278,547	299,187	297,122	377,982	447,348	451,480	396,999	243,183	219,467	226,507	285,355	315,237
1963	323,900	366,402	381,470	400,129	451,480	435,428	309,419	150,082	127,848	120,904	129,458	131,693
1964	143,924	139,930	137,714	163,965	268,361	451,480	436,145	341,847	328,189	335,734	329,852	328,163
1965	327,997	352,459	359,428	356,404	448,336	448,255	378,873	229,494	208,319	204,087	215,312	215,406
1966	211,576	202,621	203,468	266,098	396,801	440,408	349,973	167,750	141,424	142,256	145,815	192,105
1967	217,338	236,311	238,397	234,696	349,611	399,329	343,858	193,037	172,769	212,950	253,627	313,995
1968	327,837	383,412	421,036	424,103	451,480	442,330	335,989	195,992	190,371	205,185	241,592	257,569
1969	281,213	275,562	275,888	317,064	439,872	444,039	344,243	173,633	152,485	157,672	160,166	155,084
1970	152,480	149,001	154,662	173,269	292,661	373,876	297,116	132,038	114,763	108,501	114,905	115,408
1971	144,244	190,340	196,756	223,767	357,177	451,480	450,442	368,580	354,470	356,327	348,185	340,963
1972	337,571	366,072	323,923	287,832	324,455	451,480	451,480	381,509	375,602	375,916	346,470	338,960
1973	336,439	332,600	329,996	342,678	407,996	363,466	211,462	69,735	53,118	53,227	61,605	74,349
1974	136,553	147,587	161,157	202,941	282,288	451,480	451,480	393,808	384,279	374,071	345,372	340,478
1975	337,660	339,082	333,059	321,973	360,491	451,480	425,786	320,852	304,454	311,196	325,551	362,357
1976	354,912	366,695	350,733	343,744	420,862	451,480	446,754	393,451	384,402	379,217	347,474	339,119
1977	334,384	342,146	338,353	370,899	363,805	327,902	208,907	81,684	69,417	72,943	127,154	238,440
1978	241,098	242,163	280,825	328,139	424,246	451,480	382,699	216,808	211,856	205,110	214,628	212,654
1979	202,506	197,298	223,537	252,442	384,201	387,851	264,048	99,098	80,750	79,758	73,767	145,170
1980	145,463	146,619	163,903	244,108	361,371	398,273	290,645	115,231	96,859	89,254	122,579	240,828
1981	267,204	306,420	324,413	359,696	433,041	391,027	263,154	114,419	99,573	105,755	113,420	115,746
1982	128,443	187,992	216,441	244,954	375,130	451,480	422,468	273,876	258,503	264,610	266,044	288,833
1983	325,497	337,571	359,236	356,523	445,595	451,480	414,216	259,568	248,462	238,987	274,334	274,177
1984	325,631	336,454	354,726	352,430	422,314	451,480	424,933	276,290	260,964	261,255	268,717	267,053
1985	256,115	246,670	244,458	312,466	438,526	442,251	322,213	154,675	135,101	155,096	192,444	182,337
1986	182,099	214,559	271,043	308,995	393,398	420,113	283,281	118,188	98,487	92,099	131,948	135,856
1987	130,655	127,389	163,839	241,489	368,268	358,781	215,366	63,160	40,027	33,324	29,412	36,636
1988	35,373	46,856	80,117	184,723	304,056	337,483	243,911	91,723	72,404	92,144	130,342	156,037
1989	177,819	182,876	187,617	272,590	377,566	437,283	310,847	141,405	116,116	106,335	148,057	192,800
1990	213,886	227,993	245,912	359,148	450,236	451,480	391,569	240,235	219,409	253,952	387,770	353,097
1991	345,298	401,142	388,967	416,647	450,786	451,480	418,505	264,355	242,486	230,220	245,314	273,573
1992	291,051	313,363	360,053	419,956	445,403	382,147	279,274	161,146	140,750	138,362	145,985	144,098
1993	146,034	143,914	160,827	205,635	358,343	369,656	280,737	149,011	117,230	109,296	99,999	94,517
1994	99,114	97,201	127,184	212,816	306,011	300,185	188,805	55,858	30,940	26,431	43,301	75,612
1995	82,708	165,175	201,016	245,169	403,200	451,480	364,234	184,474	163,456	196,908	380,960	356,869
1996	351,867	412,103	383,200	406,474	450,555	449,148	385,752	228,384	209,439	211,672	239,683	250,940
1997	272,170	298,865	302,715	289,567	374,576	451,480	435,402	316,110	312,510	363,632	352,887	340,346
1998	336,451	337,961	356,502	358,321	449,348	449,896	340,357	172,532	143,837	133,946	154,662	185,569
1999	231,994	237,206	240,245	273,576	327,584	451,480	451,480	405,005	388,140	387,570	362,414	354,748
2000	338,659	331,508	329,765	374,792	449,910	451,480	380,764	212,420	195,681	200,804	193,532	181,267
2001	170,438	158,179	163,290	188,953	275,722	273,914	203,664	100,880	74,007	65,924	113,280	127,168
2002	163,646	173,851	186,095	255,787	381,568	451,480	383,886	222,526	198,732	185,111	180,755	174,796
2003	197,301	224,623	263,575	306,370	392,591	443,373	292,358	119,534	99,597	126,289	172,516	185,019
2004	187,686	192,060	224,560	293,157	390,942	400,655	258,619	103,679	106,996	112,545	146,015	192,421
2005	260,344	272,349	283,338	318,329	351,233	301,029	206,565	78,565	53,969	63,733	73,880	88,965
2006	122,023	128,029	127,360	177,767	342,600	451,480	347,708	159,696	131,614	119,806	226,041	232,252
2007	250,143	266,645	359,623	396,711	450,967	445,660	327,701	151,140	123,150	127,877	134,100	164,281
2008	159,262	155,016	156,278	162,162	344,889	451,480	395,843	247,700	225,791	221,270	288,148	296,911
2009	327,537	323,329	319,137	344,971	445,707	446,269	346,718	181,613	160,459	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,383	3,094	8,516
1926	11,908	12,308	16,239	33,968	33,970	32,401	26,077	17,842	12,648	14,861	15,000	15,000
1927	14,993	15,244	14,222	15,701	27,188	33,970	31,457	20,663	16,859	14,978	15,222	15,000
1928	15,126	14,446	15,000	15,000	36,004	33,970	29,848	20,462	17,068	13,772	12,272	8,964
1929	4,213	1,766	2,134	3,517	32,688	33,970	29,783	20,386	14,192	8,187	2,081	2,243
1930	1,465	8,242	8,517	29,484	33,970	33,970	27,389	19,234	11,522	5,040	1,908	1,589
1931	5,268	7,501	9,832	20,304	33,970	33,970	28,528	20,282	13,903	8,244	8,743	6,488
1932	6,398	11,703	15,000	15,000	32,049	33,970	31,457	20,764	17,141	12,679	15,904	14,949
1933	14,981	13,400	11,326	15,000	15,858	34,845	33,969	25,861	20,567	16,893	15,029	30,521
1934	17,174	19,238	18,845	32,908	33,929	33,970	29,848	20,335	15,619	16,585	15,782	15,000
1935	15,267	18,999	15,008	15,000	31,837	33,970	30,632	21,234	17,805	13,255	8,537	3,977
1936	1,923	1,892	2,121	15,000	32,559	33,970	30,234	20,544	17,168	12,007	6,103	3,799
1937	1,656	1,705	2,070	7,108	28,604	34,373	31,877	20,695	15,572	11,451	15,191	15,161
1938	15,085	14,315	12,440	16,779	35,599	33,970	30,234	20,400	14,984	10,725	7,729	8,396
1939	8,625	6,027	5,412	22,533	34,001	33,970	27,811	20,525	15,845	10,337	6,110	15,000
1940	14,452	17,214	21,730	33,491	33,964	33,970	28,061	20,335	13,662	8,740	6,899	9,862
1941	8,539	6,566	8,588	21,952	33,970	33,903	26,855	13,895	6,007	2,663	6,288	15,000
1942	14,432	11,405	8,151	21,047	33,964	33,970	29,382	20,484	15,669	9,438	15,000	15,000
1943	14,959	13,874	14,457	16,269	23,426	34,049	32,892	20,969	16,716	12,207	9,847	13,546
1944	10,020	8,014	8,292	13,568	33,970	33,970	28,017	20,233	13,990	7,770	2,932	2,132
1945	11,402	17,879	14,706	15,239	34,193	33,970	29,634	20,468	15,749	10,025	9,441	9,947
1946	14,058	11,232	8,904	15,000	26,962	33,970	32,892	21,062	15,819	14,948	15,000	15,244
1947	15,000	18,298	15,000	22,334	33,708	33,970	29,848	20,561	16,874	16,119	15,139	15,000
1948	13,614	14,041	14,791	15,000	27,909	33,970	31,833	21,411	18,349	14,486	14,369	13,141
1949	9,774	7,220	10,967	15,000	29,806	33,970	31,111	23,284	18,858	15,030	21,003	15,000
1950	15,000	15,057	15,000	15,000	16,965	36,010	33,970	26,487	20,550	15,940	16,023	17,759
1951	15,338	16,118	14,560	15,028	30,895	33,970	30,835	20,646	16,014	15,178	15,000	14,441
1952	11,970	11,974	9,153	15,953	33,457	33,970	29,848	20,362	15,221	8,977	3,116	1,712
1953	15,153	18,566	13,369	15,000	31,053	33,970	33,361	22,647	18,415	13,926	15,000	15,000
1954	15,000	14,312	14,954	15,000	20,233	33,970	33,970	28,379	22,113	15,383	15,000	14,935
1955	13,678	12,064	9,287	6,536	15,000	33,970	30,735	20,975	18,504	16,341	15,565	15,448
1956	15,000	13,494	11,336	15,224	35,188	35,796	33,968	25,124	19,918	15,184	14,965	15,237
1957	13,511	13,190	14,898	15,066	33,462	33,970	29,791	20,420	15,259	11,520	9,081	8,681
1958	10,493	13,210	14,303	15,000	42,875	33,970	29,848	20,432	15,680	13,351	15,492	16,052
1959	15,444	15,289	14,290	15,809	31,733	33,970	31,457	22,009	18,687	15,773	17,332	15,394
1960	15,000	16,778	15,000	17,161	33,669	33,970	30,039	20,458	15,573	11,778	15,000	14,780
1961	15,000	16,330	15,030	15,030	26,781	33,970	30,039	20,464	16,481	14,375	13,236	15,000
1962	14,977	15,340	13,073	22,047	33,673	33,970	30,632	21,117	17,175	14,578	16,758	15,197
1963	14,396	23,611	23,288	27,379	33,970	33,970	29,848	20,434	15,248	10,602	11,154	12,591
1964	15,000	12,718	9,307	9,798	16,019	33,970	33,786	25,671	20,260	14,691	15,000	15,640
1965	15,427	17,243	14,923	17,336	32,975	33,970	29,848	20,439	16,008	11,782	10,330	9,162
1966	6,744	2,822	2,376	15,663	33,638	33,970	29,371	20,436	15,866	11,435	11,386	15,180
1967	15,000	16,001	14,241	12,978	26,496	35,285	29,848	20,425	15,937	15,676	15,000	15,000
1968	15,107	24,551	24,036	27,540	33,969	33,970	29,848	20,660	17,300	15,206	15,418	14,695
1969	14,565	11,847	9,502	15,000	30,763	33,970	29,848	20,393	16,931	13,961	13,401	10,761
1970	14,737	14,694	15,000	14,949	31,316	33,970	29,848	20,387	15,644	11,388	12,784	14,435
1971	15,000	15,629	14,671	15,000	21,526	33,970	33,970	27,340	21,125	15,071	14,597	12,992
1972	13,051	16,435	16,126	15,201	27,994	34,595	33,970	28,279	22,506	15,000	14,483	16,589
1973	15,022	13,726	11,314	14,385	33,970	33,970	29,848	20,370	15,233	11,628	15,000	15,000
1974	16,852	14,835	15,000	15,000	16,788	45,682	33,970	33,416	24,551	14,966	14,144	15,000
1975	15,000	15,000	14,586	14,091	18,220	33,970	33,280	24,810	19,762	15,275	15,198	15,870
1976	15,489	15,529	13,337	15,000	28,976	33,970	33,890	29,740	23,456	15,000	11,873	7,915
1977	5,952	4,051	1,989	8,989	18,951	28,226	23,291	16,621	7,808	4,158	15,135	15,282
1978	14,107	12,627	15,000	16,450	33,428	33,970	30,956	19,625	17,640	13,863	12,063	8,845
1979	4,192	2,239	7,145	9,802	33,957	33,970	29,848	20,526	15,724	11,400	7,926	15,706
1980	15,032	18,482	14,716	23,379	33,680	33,970	29,848	20,511	16,932	12,016	15,000	32,975
1981	15,255	26,651	27,904	33,899	33,970	33,970	29,848	20,457	16,613	14,329	14,798	14,999
1982	15,000	20,715	15,091	15,000	23,271	35,701	32,027	22,168	18,759	15,194	15,000	15,058
1983	15,056	16,238	15,200	15,000	36,217	33,970	29,848	19,934	17,508	13,642	14,951	14,633
1984	15,243	17,420	15,053	15,048	30,552	33,970	32,228	22,034	17,976	14,807	14,608	11,456
1985	6,752	2,618	2,102	14,940	33,748	33,970	29,403	20,363	16,772	15,035	14,732	11,016
1986	13,527	21,247	18,421	32,069	36,661	33,970	29,848	20,388	16,600	12,522	16,868	14,913
1987	13,541	14,146	15,105	33,011	33,945	33,970	29,588	20,343	14,765	8,561	2,815	2,903
1988	2,507	2,349	5,871	23,041	33,790	33,970	29,848	20,352	15,476	11,937	14,980	15,000
1989	14,812	13,264	14,166	22,747	33,746	33,970	29,848	20,414	15,991	11,091	13,042	14,857
1990	15,115	16,361	15,000	19,623	33,563	33,970	30,632	20,678	17,135	15,424	24,333	15,000
1991	15,000	22,689	14,938	19,904	33,734	33,970	31,336	21,181	16,962	11,212	13,366	14,143
1992	15,000	17,518	27,436	33,965	33,970	31,723	25,268	19,385	12,835	6,279	3,455	1,755
1993	2,872	1,866	7,096	15,048	33,948	33,970	29,848	20,372	14,201	6,065	1,597	1,671
1994	2,232	2,060	6,198	23,702	33,970	33,970	28,764	20,379	14,341	5,268	4,679	14,910
1995	15,303	20,675	15,362	15,065	33,226	33,970	30,835	20,569	16,295	14,951	34,097	15,696
1996	15,429	19,439	15,309	21,904	33,662	33,970	29,848	20,536	16,762	14,152	15,000	15,000
1997	15,149	15,149	16,698	16,005	32,311	33,970	33,543	23,233	19,719	19,166	15,370	15,016
1998	15,000	14,813	15,000	15,386	33,288	33,970	29,848	20,408	15,643	11,086	15,000	16,495
1999	15,000	14,647	14,549	15,000	19,705	33,970	33,970	33,864	24,551	15,258	17,527	15,204
2000	14,457	14,294	13,299	16,511	33,463	33,970	30,431	20,547	17,230	14,510	11,258	6,696
2001	2,373	1,710	3,466	7,869	33,970	33,970	28,028	20,467	14,666	8,066	14,301	14,797
2002	15,000	16,119	14,934	16,098	27,793	33,970	31,325	23,722	19,208	14,070	10,308	7,392
2003	20,360	19,592	15,573	26,170	34,037	33,970	29,848	20,435	15,334	14,401	15,000	13,831
2004	14,551	14,459	16,511	33,238	33,953	33,970	29,848	20,476	17,268	14,681	15,000	15,034
2005	16,320	15,199	14,850	24,187	33,970	32,750	26,907	20,369	15,058	9,927	9,375	15,000
2006	15,451	16,021	13,717	15,066	29,883	33,970	30,632	20,563	16,486	12,009	15,770	15,000
2007	14,837	16,902	18,085	21,011	33,790	33,970	29,848	20,410	15,541	14,147	14,983	15,000
2008	13,806	11,379	9,083	8,700	27,612	34,147	32,086	21,334	17,747	14,362	15,030	14,317
2009	15,000	13,564	11,652	15,000	33,492	33,970	29,848	20,434	16,449	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	25,209	22,577	37,962
1926	44,043	52,279	67,255	99,833	123,217	129,265	119,378	99,391	18,319	22,597	31,457	49,126
1927	56,636	65,667	74,893	97,187	145,603	198,000	191,036	169,482	70,864	82,041	109,145	129,025
1928	129,025	136,384	151,026	149,570	197,064	197,984	187,532	152,969	42,179	23,811	27,497	29,668
1929	29,968	29,608	32,624	40,194	80,784	121,113	134,696	129,911	67,628	61,342	53,178	51,793
1930	51,344	65,651	79,532	116,288	143,329	162,075	162,185	109,282	42,254	34,368	33,023	27,198
1931	28,749	33,529	41,356	66,854	117,775	134,665	128,997	102,707	34,418	29,914	31,679	33,721
1932	38,952	50,109	78,784	106,930	157,995	198,000	191,026	168,674	52,050	23,003	58,407	75,857
1933	87,271	91,322	97,058	112,074	136,509	198,000	198,000	179,762	79,743	68,162	90,450	168,729
1934	137,079	158,551	157,041	196,124	197,929	198,000	184,556	158,086	80,716	70,756	109,691	127,429
1935	129,025	146,172	145,951	139,174	182,853	198,000	189,417	163,491	58,673	20,307	20,000	20,525
1936	23,756	23,748	29,466	65,279	138,788	193,627	188,072	158,316	66,569	47,214	45,663	43,356
1937	43,047	42,855	45,805	64,397	109,695	180,386	192,048	169,461	63,679	20,486	38,227	59,777
1938	81,061	88,269	97,819	137,160	195,209	198,000	188,219	157,564	49,045	20,870	24,571	34,424
1939	40,861	44,968	55,874	85,544	128,768	149,223	154,035	128,227	40,008	21,590	23,440	37,172
1940	43,790	54,642	73,923	102,183	145,468	160,303	156,539	142,661	84,898	78,491	81,348	91,658
1941	95,599	98,232	108,091	131,583	151,246	158,489	114,805	56,575	10,000	16,702	28,043	53,031
1942	58,494	61,268	65,690	90,207	119,993	144,325	151,909	123,254	50,549	36,991	51,518	69,345
1943	81,026	89,218	100,486	127,977	165,719	198,000	194,706	169,314	53,569	22,686	27,761	36,196
1944	38,213	41,679	49,140	61,281	83,484	98,197	89,821	47,115	10,000	14,123	21,404	25,421
1945	40,831	56,003	60,827	71,636	118,178	146,172	148,377	130,378	58,227	51,610	57,761	64,349
1946	74,788	78,812	88,659	114,084	174,964	198,000	194,653	171,572	89,997	74,893	92,094	129,025
1947	129,025	147,002	153,105	166,563	197,538	197,984	187,532	167,753	72,225	75,250	97,893	111,261
1948	122,382	133,882	115,803	101,775	140,558	198,000	194,760	176,586	75,622	59,635	67,853	74,622
1949	77,751	83,377	93,907	106,989	177,394	198,000	196,149	171,386	70,637	42,640	69,049	85,695
1950	96,729	110,254	102,651	91,348	120,016	198,000	198,000	188,799	92,035	88,647	121,663	129,025
1951	129,025	159,153	124,515	126,295	191,567	198,000	189,615	165,897	68,596	60,453	71,299	83,460
1952	88,544	98,258	105,638	140,056	196,761	198,000	187,532	160,271	46,697	20,699	21,169	21,718
1953	50,768	75,755	84,785	103,615	150,309	195,394	197,371	183,120	72,353	40,203	47,507	71,037
1954	84,051	93,484	108,070	108,039	147,071	198,000	198,000	186,883	97,134	72,053	85,573	93,280
1955	99,299	105,799	110,305	118,023	142,602	198,000	198,000	162,592	59,746	55,173	90,858	128,465
1956	129,025	127,813	68,549	65,156	137,620	198,000	198,000	185,910	89,891	60,938	70,436	98,642
1957	105,113	111,639	126,460	144,724	196,817	198,000	187,077	156,954	56,203	31,798	36,237	44,917
1958	53,884	67,444	80,513	104,923	189,477	198,000	184,721	164,400	76,389	59,282	94,685	129,025
1959	129,025	142,596	138,975	138,389	171,080	198,000	192,486	165,214	92,657	107,788	130,223	130,234
1960	129,516	142,930	148,489	162,499	197,469	198,000	187,811	159,654	60,528	27,677	42,739	49,855
1961	67,720	99,738	120,747	124,643	170,414	198,000	187,920	163,066	62,577	33,715	40,011	51,601
1962	75,422	87,478	94,010	135,677	160,911	198,000	189,377	167,524	71,449	61,606	97,247	129,025
1963	129,025	165,509	181,148	197,667	198,000	198,000	187,532	165,066	89,833	75,058	81,939	90,191
1964	102,196	109,301	114,908	118,250	137,145	198,000	198,000	175,284	77,460	62,054	67,038	94,873
1965	121,267	149,009	141,299	145,558	190,770	198,000	187,532	162,182	70,976	41,634	48,952	53,601
1966	57,644	58,704	62,947	90,867	141,340	171,432	179,388	161,759	71,034	35,673	42,253	62,226
1967	76,464	90,393	98,608	106,404	152,758	198,000	187,419	144,990	59,632	64,011	82,507	101,927
1968	127,888	171,530	182,521	192,313	198,000	198,000	187,532	164,541	88,569	70,482	99,996	112,194
1969	129,025	135,722	129,266	124,513	191,607	198,000	187,327	158,037	72,825	53,734	59,904	64,017
1970	77,906	86,718	100,803	117,466	170,234	198,000	187,532	167,102	96,632	85,483	93,213	103,078
1971	122,060	152,422	113,765	99,458	144,163	198,000	198,000	185,681	91,682	53,441	59,237	65,129
1972	75,956	99,737	87,994	69,467	122,636	198,000	198,000	192,142	123,737	100,502	108,734	129,025
1973	129,025	136,122	142,768	155,669	181,588	198,000	183,789	152,713	89,170	71,909	87,667	104,868
1974	130,493	135,876	81,110	66,345	105,311	198,000	198,000	196,306	115,112	79,135	85,294	98,926
1975	129,025	143,217	124,292	110,135	143,940	198,000	198,000	187,942	91,392	63,516	81,223	129,025
1976	129,025	146,314	130,289	123,811	174,306	198,000	198,000	194,938	112,355	83,833	88,299	91,235
1977	95,189	97,590	99,404	110,788	118,449	132,270	122,917	97,818	45,429	42,753	60,036	129,025
1978	129,025	137,125	146,808	155,932	193,576	198,000	196,379	188,758	123,990	99,463	104,182	109,028
1979	111,270	115,298	127,911	139,801	186,030	198,000	183,789	154,093	78,176	53,802	54,069	73,299
1980	81,534	88,926	106,662	150,420	197,489	198,000	183,789	156,773	85,252	69,534	84,395	129,025
1981	129,025	161,896	179,929	197,876	198,000	198,000	187,532	163,204	86,049	88,472	95,155	108,533
1982	122,576	162,824	134,079	122,664	164,107	198,000	195,252	172,137	90,264	65,105	72,228	89,221
1983	118,315	135,506	143,473	139,191	194,741	198,000	189,907	181,928	101,195	69,633	88,616	95,892
1984	129,025	146,781	146,301	141,216	174,206	198,000	195,713	175,102	97,024	76,719	85,052	90,895
1985	94,172	96,538	101,714	129,820	175,428	198,000	184,734	146,545	63,835	35,007	45,074	47,494
1986	53,958	78,131	120,115	146,664	184,197	198,000	187,079	155,312	86,308	73,793	87,374	92,452
1987	96,070	102,735	128,036	160,024	197,958	198,000	181,531	150,442	59,089	58,988	60,044	69,513
1988	71,068	78,357	92,564	131,009	176,531	198,000	179,944	145,739	69,051	52,993	65,552	76,146
1989	83,830	88,568	99,990	142,782	185,159	198,000	187,532	166,246	79,943	68,355	80,254	100,763
1990	126,320	136,770	143,999	163,461	196,459	198,000	189,169	162,979	59,267	39,576	78,097	94,309
1991	111,653	145,971	156,068	165,142	196,320	198,000	192,775	175,585	72,788	35,030	48,138	60,208
1992	70,095	85,866	106,451	135,779	165,166	171,559	162,802	140,352	97,184	99,102	103,378	104,364
1993	105,378	106,861	118,106	138,006	193,019	197,945	187,532	162,976	90,142	83,991	78,685	77,172
1994	81,423	82,335	94,218	122,776	155,612	166,367	147,927	82,285	10,000	17,158	26,393	46,101
1995	59,642	113,490	143,699	146,244	196,624	198,000	189,615	167,740	93,038	105,378	153,326	132,080
1996	131,213	169,469	149,028	168,217	197,457	198,000	187,532	167,518	83,546	57,753	68,079	80,336
1997	116,009	131,086	89,136	85,457	152,910	198,000	198,000	183,972	119,694	147,467	130,817	129,593
1998	129,068	138,922	147,435	146,948	196,796	198,000	187,532	159,864	61,808	38,586	49,916	74,043
1999	100,432	110,488	113,083	101,889	130,116	198,000	198,000	196,278	120,688	106,666	129,025	129,025
2000	129,025	139,308	143,144	155,554	197,104	198,000	188,569	155,559	71,532	45,802	47,125	48,655
2001	50,448	51,134	55,042	65,944	95,799	104,494	100,214	88,007	11,009	15,600	32,927	42,009
2002	67,857	77,865	89,608	127,992	169,146	198,000	197,047	165,899	69,643	32,695	35,281	39,619
2003	62,921	91,518	118,466	146,678	185,027	198,000	187,532	164,403	84,943	75,588	82,414	89,449
2004	96,289	103,722	120,250	151,210	197,973	198,000	183,627	162,794	75,963	50,682	58,598	73,224
2005	98,934	106,842	114,662	131,752	155,670	158,039	149,034	102,286	24,838	22,219	28,684	41,932
2006	71,488	85,520	92,989	118,146	187,174	198,000	189,169	165,546	64,094	21,575	81,186	101,636
2007	121,403	138,438	151,428	167,084	197,683	198,000	187,532	166,325	62,801	31,975	40,979	64,930
2008	70,743	76,001	83,854	96,011	169,184	198,000	193,088	166,582	72,883	54,300	80,095	87,855
2009	119,735	127,520	134,995	139,637	194,802	198,000	187,410	159,587	74,511	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	120,434	138,698	145,554
1926	153,903	161,157	162,500	160,824	116,100	57,258	1,597	210	210	6,667	23,236	30,255
1927	35,838	40,687	49,380	59,005	66,774	66,774	46,293	46,293	46,293	54,227	78,029	96,946
1928	118,248	127,108	145,764	156,487	162,500	158,112	112,500	112,500	112,500	120,434	138,796	146,670
1929	155,160	162,500	162,500	154,185	151,450	141,202	81,161	21,082	252	7,069	23,969	30,180
1930	36,208	41,151	48,606	52,819	28,633	1,602	210	210	210	7,873	19,743	21,416
1931	22,904	24,400	26,148	25,590	23,565	815	210	210	210	8,016	24,433	26,065
1932	27,794	31,539	56,134	70,497	76,170	76,170	52,798	52,798	52,798	60,732	84,533	96,130
1933	110,620	118,168	128,384	138,947	152,892	152,892	138,928	112,500	112,500	120,434	144,236	162,500
1934	162,500	162,500	162,500	162,500	162,500	129,010	112,500	112,500	112,500	120,434	138,631	149,520
1935	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,729	146,473
1936	154,624	161,738	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,803	146,011
1937	154,621	162,420	162,500	162,500	162,500	162,500	120,847	112,500	112,500	120,434	141,136	154,082
1938	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,699	145,736
1939	156,441	162,500	162,500	162,500	162,500	146,632	112,500	112,500	112,500	120,434	138,123	143,927
1940	150,216	155,162	162,500	162,500	161,556	111,972	50,485	739	210	8,144	25,852	31,604
1941	37,333	42,161	49,035	52,972	28,306	1,870	210	210	210	7,590	24,535	31,787
1942	37,655	42,653	48,653	50,667	43,757	27,175	247	210	210	8,144	24,003	25,713
1943	29,125	30,490	34,334	55,372	57,494	57,494	39,868	39,868	39,868	47,802	65,892	75,143
1944	83,703	92,709	102,557	102,256	92,687	58,501	2,256	210	210	7,174	24,268	30,562
1945	41,135	48,989	55,478	59,431	64,415	36,665	323	210	210	8,144	25,909	32,148
1946	40,763	45,578	60,110	71,317	86,859	86,859	60,198	60,198	60,198	68,132	85,974	104,579
1947	115,884	135,010	159,060	162,500	162,500	149,262	112,500	112,500	112,500	120,434	140,087	148,707
1948	156,411	162,500	162,500	162,500	162,500	162,500	118,864	112,500	112,500	120,434	138,700	145,955
1949	153,997	162,500	162,500	162,500	162,500	162,500	131,619	112,500	112,500	120,434	141,312	161,400
1950	162,500	162,500	162,500	162,500	162,500	162,500	152,583	112,500	112,500	120,434	144,236	162,500
1951	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,462	145,829
1952	154,137	162,500	162,500	162,500	162,500	150,279	112,500	112,500	112,500	120,434	138,794	146,699
1953	162,500	162,500	162,500	162,500	162,500	162,500	134,731	112,500	112,500	120,434	138,052	155,334
1954	162,500	162,500	162,500	162,500	162,500	162,500	148,616	112,500	112,500	120,434	144,236	154,496
1955	162,500	162,500	162,500	162,500	154,064	154,064	138,891	112,500	112,500	120,434	144,095	162,500
1956	162,500	162,500	162,500	162,500	162,500	162,500	146,632	112,500	112,500	120,434	138,895	160,673
1957	162,500	162,500	162,500	162,500	162,500	136,715	112,500	112,500	112,500	120,434	138,639	145,549
1958	153,330	162,500	162,500	162,500	162,500	156,550	112,500	112,500	112,500	120,434	144,236	162,500
1959	162,500	162,500	162,500	162,500	162,500	162,500	117,873	112,500	112,500	120,434	144,236	162,500
1960	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,716	146,419
1961	155,908	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,435	146,377
1962	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	144,236	162,500
1963	162,500	162,500	162,500	162,500	162,500	142,665	112,500	112,500	112,500	120,434	138,380	146,050
1964	154,186	162,075	162,500	162,500	162,500	162,500	140,682	112,500	112,500	120,434	140,025	160,501
1965	162,500	162,500	162,500	162,500	162,500	158,533	112,500	112,500	112,500	120,434	138,766	146,162
1966	154,218	161,862	162,500	162,500	162,500	154,566	112,500	112,500	112,500	120,434	138,213	151,152
1967	162,500	162,500	162,500	162,500	157,871	157,871	113,819	112,500	112,500	120,434	138,396	151,473
1968	162,500	162,500	162,500	162,500	162,500	153,051	112,500	112,500	112,500	120,434	138,896	148,291
1969	160,299	162,500	162,500	162,500	162,500	156,550	112,500	112,500	112,500	120,434	138,714	146,313
1970	154,504	162,500	162,500	162,500	162,272	161,168	112,500	112,500	112,500	120,434	138,394	144,197
1971	157,577	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	120,434	138,710	150,440
1972	162,500	162,500	162,500	162,500	162,500	162,500	149,557	112,500	112,500	120,434	138,336	151,782
1973	162,500	162,500	162,500	162,500	120,977	112,500	112,500	112,500	112,500	120,434	137,998	143,914
1974	160,443	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	120,434	138,402	153,197
1975	162,500	162,500	162,500	162,500	162,500	162,500	132,748	112,500	112,500	120,434	144,236	162,500
1976	162,500	162,500	162,500	162,500	162,500	162,500	146,878	112,500	112,500	120,434	138,719	146,426
1977	156,365	162,500	162,500	151,513	92,551	40,006	330	210	210	7,251	28,770	53,365
1978	71,839	91,495	113,647	128,789	134,898	134,898	93,455	93,455	93,455	101,389	119,223	126,859
1979	135,481	142,687	158,355	162,500	162,500	136,715	112,500	112,500	112,500	119,772	137,752	146,404
1980	152,448	158,261	162,500	162,500	162,500	156,550	112,500	112,500	112,500	120,434	138,179	154,269
1981	162,500	162,500	162,500	162,500	156,153	146,343	112,500	112,500	112,500	120,382	138,139	143,955
1982	155,188	162,500	162,500	162,500	162,500	162,500	121,478	112,500	112,500	120,434	138,649	145,461
1983	162,500	162,500	162,500	162,500	162,500	162,500	122,235	112,500	112,500	120,434	139,463	146,443
1984	162,500	162,500	162,500	162,500	162,500	162,500	122,831	112,500	112,500	120,434	138,769	146,080
1985	154,861	162,500	162,500	162,500	162,500	152,583	112,500	112,500	112,500	120,434	138,810	146,191
1986	153,894	162,500	162,500	162,500	162,500	136,715	112,500	112,500	112,500	120,088	140,631	147,134
1987	153,562	158,108	162,500	162,500	156,204	111,887	111,887	111,887	111,887	107,544	115,414	116,961
1988	118,493	119,908	122,084	128,345	129,535	127,551	112,500	112,500	112,500	120,323	138,049	145,907
1989	152,934	161,139	162,500	162,500	162,500	144,649	112,500	112,500	112,500	120,396	137,951	148,837
1990	161,267	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	144,236	162,500
1991	162,500	162,500	162,500	162,500	162,500	162,500	114,897	112,500	112,500	120,434	137,835	150,863
1992	161,507	162,500	162,500	162,500	144,281	88,158	27,711	231	210	4,255	21,014	28,709
1993	36,998	45,703	54,574	63,196	67,993	45,152	516	210	210	4,594	15,888	21,950
1994	26,818	32,516	38,002	42,098	37,920	1,160	210	210	210	5,577	21,687	27,155
1995	34,862	57,077	79,671	87,237	93,610	93,610	64,871	64,871	64,871	72,805	96,607	121,202
1996	145,797	162,500	162,500	162,500	162,500	160,171	112,500	112,500	112,500	120,434	138,143	145,863
1997	162,500	162,500	162,500	162,500	162,500	162,500	136,715	112,500	112,500	120,434	144,236	155,128
1998	162,500	162,500	162,500	162,500	162,500	148,688	112,500	112,500	112,500	120,415	137,606	146,543
1999	162,500	162,500	162,500	162,500	162,500	162,500	161,780	112,500	112,500	120,434	144,236	162,500
2000	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,758	146,958
2001	155,851	162,500	162,500	159,153	148,986	94,547	33,060	256	210	7,755	25,666	32,137
2002	43,142	51,864	59,969	69,616	76,379	76,379	52,943	52,943	52,943	60,877	79,217	86,402
2003	96,685	117,940	139,729	150,148	154,948	137,096	112,500	112,500	112,500	120,434	139,827	148,281
2004	156,468	162,500	162,500	162,500	162,500	134,731	112,500	112,500	112,500	120,434	137,695	145,172
2005	158,932	162,500	162,500	158,647	133,839	74,335	12,847	213	210	3,630	20,622	26,446
2006	40,337	49,609	55,837	65,506	73,192	73,192	50,736	50,736	50,736	58,670	76,979	84,150
2007	99,979	115,387	139,982	155,437	162,500	142,665	112,500	112,500	112,500	120,434	138,708	146,979
2008	155,372	162,500	162,500	162,500	162,500	162,500	122,831	112,500	112,500	120,434	138,698	146,156
2009	162,500	162,500	162,500	162,500	162,500	152,583	112,500	112,500	112,500	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	497,225	506,582	627,457
1926	676,441	711,297	808,870	984,663	964,886	780,841	495,358	221,466	65,853	121,294	180,326	262,604
1927	286,053	303,459	324,637	433,118	693,939	998,216	876,801	598,951	426,760	496,246	696,151	788,466
1928	860,155	877,477	970,376	1,014,832	1,241,183	1,229,670	1,005,125	699,335	484,860	472,825	492,880	490,981
1929	479,058	468,076	489,681	498,006	749,721	879,891	689,682	420,502	249,721	209,544	190,493	187,884
1930	182,552	263,454	341,561	560,473	628,656	575,915	339,517	84,389	-63,277	-77,772	-58,456	-68,259
1931	-42,911	4,282	83,601	210,841	459,147	455,670	259,374	40,624	-96,585	-109,848	-45,250	-34,526
1932	15,906	135,263	329,720	500,065	794,617	917,434	771,183	494,613	286,193	238,110	495,160	614,599
1933	705,744	718,285	734,335	785,879	922,262	1,215,816	1,205,467	982,638	810,490	886,412	929,806	1,080,207
1934	1,003,468	1,070,184	1,080,920	1,234,406	1,238,957	1,128,706	868,480	574,788	398,630	441,001	616,171	693,897
1935	847,113	913,907	934,209	951,399	1,207,708	1,242,700	1,097,254	819,836	619,810	542,598	542,986	536,354
1936	554,250	557,031	592,589	796,063	1,168,669	1,232,379	1,018,224	726,305	535,261	497,558	485,805	515,714
1937	512,082	517,440	537,308	619,273	886,931	1,205,789	1,071,318	797,319	588,395	512,196	653,699	751,507
1938	810,112	814,321	835,181	978,431	1,227,358	1,240,309	1,027,229	726,870	507,161	439,821	479,840	552,679
1939	635,083	651,902	696,288	862,155	1,096,483	1,103,283	881,120	583,099	394,812	370,674	406,963	513,032
1940	528,557	573,300	669,029	835,799	1,023,251	945,237	678,204	394,189	241,431	223,668	248,734	303,288
1941	310,523	312,281	390,268	530,299	556,018	454,642	222,723	-7,254	-98,209	-50,119	34,603	140,003
1942	149,733	153,796	173,655	323,711	439,561	491,443	310,161	66,174	-80,770	-118,437	-34,558	40,437
1943	92,434	117,170	171,650	398,232	636,596	851,780	781,285	519,298	311,741	243,720	261,882	335,434
1944	334,363	349,404	387,882	459,617	580,174	548,276	309,659	63,960	-51,549	-63,522	-39,655	-2,285
1945	127,768	208,801	232,449	285,088	577,795	633,798	415,420	150,743	16,342	16,894	84,051	123,446
1946	175,850	183,947	225,296	377,797	802,923	963,047	864,670	597,494	425,622	437,760	486,246	656,515
1947	722,769	812,295	915,337	1,059,590	1,192,813	1,170,822	952,845	673,411	486,832	562,711	706,761	767,151
1948	797,184	825,536	816,473	830,087	1,021,449	1,242,700	1,119,572	867,183	675,830	656,222	708,601	748,851
1949	754,644	779,657	808,214	867,712	1,174,805	1,242,102	1,151,963	900,149	709,370	699,972	863,688	907,515
1950	923,671	945,673	876,120	842,614	920,650	1,246,324	1,218,461	1,016,528	825,866	859,517	936,787	984,446
1951	975,413	1,083,598	959,957	966,000	1,215,024	1,242,377	1,072,776	797,420	603,884	624,736	693,444	727,523
1952	733,210	757,961	767,010	918,204	1,193,014	1,206,466	1,023,864	740,262	524,806	440,772	430,557	419,576
1953	593,024	714,757	738,840	820,124	1,072,879	1,231,920	1,143,767	888,144	679,414	624,286	683,276	829,720
1954	885,052	910,105	907,715	899,748	1,036,791	1,242,877	1,217,229	1,034,688	863,978	822,489	872,890	887,695
1955	894,610	929,242	916,606	881,585	1,031,886	1,210,454	1,168,602	913,671	722,148	769,399	894,592	955,441
1956	954,922	937,538	755,770	764,822	1,012,398	1,244,526	1,197,105	954,781	766,919	759,300	810,627	929,735
1957	931,313	939,873	964,184	1,015,435	1,237,675	1,188,930	936,518	652,539	449,672	393,428	414,387	463,787
1958	498,818	563,715	608,949	715,124	1,106,514	1,140,886	890,742	589,606	410,934	418,560	632,650	824,898
1959	913,354	949,335	962,093	991,387	1,190,969	1,242,700	1,121,553	844,689	755,476	872,996	997,263	991,989
1960	968,942	998,791	1,021,266	1,066,432	1,240,429	1,240,042	1,038,654	758,681	563,698	520,918	621,012	641,792
1961	729,457	864,720	910,022	936,819	1,170,133	1,240,226	1,074,553	792,222	601,278	573,776	615,969	677,227
1962	814,789	872,551	883,075	1,062,992	1,185,404	1,237,353	1,076,025	817,472	625,951	616,152	788,342	905,037
1963	929,027	1,062,911	1,109,110	1,160,276	1,230,277	1,177,642	939,650	666,996	491,686	471,833	530,016	558,647
1964	617,301	632,921	647,646	701,910	899,074	1,242,700	1,192,559	978,765	800,986	781,135	816,927	894,811
1965	943,770	1,032,744	1,009,978	1,021,588	1,229,465	1,232,043	1,061,627	801,512	613,097	558,458	606,665	625,791
1966	641,429	638,398	657,127	813,598	1,074,954	1,149,356	978,481	690,774	498,840	448,500	491,301	628,004
1967	724,449	789,476	812,387	806,476	1,035,149	1,187,235	1,033,945	754,682	571,201	661,144	768,800	899,030
1968	955,154	1,118,662	1,173,361	1,184,610	1,238,822	1,215,712	1,002,823	755,287	615,185	614,297	738,492	803,070
1969	881,174	884,012	871,652	931,288	1,214,586	1,222,909	1,002,499	715,681	541,391	512,617	543,342	549,413
1970	586,230	609,198	651,001	705,798	961,263	1,117,733	930,129	652,099	489,489	477,614	532,339	556,335
1971	663,490	791,906	771,221	783,959	1,023,931	1,242,700	1,239,560	1,024,279	844,127	794,568	841,223	861,087
1972	895,266	959,994	875,882	795,753	950,844	1,243,325	1,218,826	1,038,188	902,599	857,264	866,556	939,440
1973	957,918	963,850	975,583	1,011,395	1,091,061	1,037,806	800,239	530,334	380,913	367,903	424,183	482,276
1974	659,281	694,111	670,930	695,600	862,932	1,254,720	1,241,340	1,076,286	907,446	829,895	832,632	900,670
1975	960,082	989,819	945,573	905,215	1,028,021	1,242,700	1,158,458	949,672	763,859	737,761	854,805	991,573
1976	983,747	1,034,236	975,274	957,849	1,161,202	1,242,700	1,200,533	1,047,088	877,177	813,616	810,884	827,222
1977	862,647	895,726	897,797	949,752	835,523	732,152	465,147	215,348	100,363	96,456	274,590	586,701
1978	616,646	653,358	762,661	868,964	1,063,743	1,108,679	946,270	693,830	561,984	503,564	543,992	566,285
1979	563,853	580,902	676,382	755,703	1,019,350	999,236	785,570	522,495	359,304	326,600	331,994	511,048
1980	534,037	562,832	620,794	816,262	1,034,305	1,057,127	833,430	556,925	399,626	374,986	487,537	784,174
1981	821,003	952,850	1,009,178	1,098,734	1,168,809	1,118,738	888,347	608,972	440,229	467,136	509,885	547,637
1982	618,694	798,958	826,408	853,039	1,088,843	1,244,431	1,134,989	872,180	705,750	676,992	716,804	795,173
1983	928,322	979,364	1,013,725	1,006,086	1,210,055	1,212,150	1,090,301	841,402	683,194	618,892	738,690	762,780
1984	945,628	993,926	1,016,150	1,005,421	1,177,732	1,242,700	1,141,055	876,265	710,326	675,026	728,418	746,782
1985	742,515	739,276	754,537	928,610	1,198,380	1,215,509	963,817	668,072	494,023	499,094	611,342	607,617
1986	632,547	743,866	894,545	1,004,251	1,160,508	1,150,786	899,234	606,476	446,365	430,214	564,974	587,322
1987	593,498	608,527	713,804	907,765	1,120,613	1,033,005	782,034	508,143	318,188	265,731	258,922	288,572
1988	290,420	331,092	419,944	659,322	895,461	942,517	745,263	487,010	321,721	345,321	457,604	534,925
1989	606,761	634,683	666,777	879,663	1,086,847	1,148,746	921,278	641,699	453,857	431,771	556,450	677,335
1990	781,661	841,341	888,704	1,069,830	1,238,772	1,242,218	1,073,312	807,230	608,691	645,230	966,938	946,727
1991	956,272	1,104,550	1,072,218	1,134,393	1,239,681	1,241,973	1,112,559	853,915	652,741	571,786	651,112	751,219
1992	824,469	893,955	1,009,321	1,132,083	1,163,056	996,250	732,663	456,580	311,711	287,230	336,256	352,655
1993	382,148	395,200	469,637	596,532	894,193	855,818	626,987	367,283	204,861	168,372	158,092	164,965
1994	204,494	216,196	301,306	500,386	641,708	563,905	332,596	66,462	-86,953	-89,223	-21,942	84,233
1995	130,393	362,612	479,819	567,408	860,859	900,375	724,022	454,284	299,130	390,715	818,460	824,101
1996	903,909	1,103,096	1,050,955	1,132,126	1,240,378	1,224,433	1,052,901	795,292	621,822	597,611	692,111	743,135
1997	852,664	918,368	835,021	827,994	1,076,353	1,242,700	1,177,504	938,659	805,659	918,981	932,422	934,193
1998	944,270	969,190	1,008,180	1,024,457	1,237,418	1,215,325	999,171	713,073	507,380	449,029	543,695	658,445
1999	796,441	828,053	828,283	845,291	962,911	1,242,700	1,231,069	1,081,636	910,504	870,878	947,636	983,298
2000	966,159	972,094	978,663	1,062,012	1,238,797	1,242,315	1,054,945	770,916	605,190	575,083	585,783	575,284
2001	571,398	564,952	594,943	658,529	825,182	738,139	495,486	250,995	90,669	92,304	226,355	278,893
2002	391,383	438,197	488,675	669,576	942,995	1,131,441	997,074	712,292	513,999	432,244	446,296	449,537
2003	557,523	664,119	797,041	927,170	1,090,519	1,126,997	877,355	591,523	416,492	461,595	582,564	624,461
2004	660,143	690,217	776,939	943,152	1,121,851	1,089,661	831,796	574,443	437,465	409,598	501,836	613,489
2005	772,422	807,167	837,323	910,876	918,747	737,631	465,725	201,654	45,425	44,591	101,320	160,223
2006	277,022	321,311	338,909	465,825	803,899	954,296	766,364	486,478	288,190	211,142	490,327	537,438
2007	618,466	694,155	904,090	1,020,652	1,174,931	1,157,817	945,020	662,498	453,268	420,227	468,531	557,579
2008	569,822	584,684	604,430	623,025	1,020,452	1,228,345	1,091,611	824,814	639,435	620,374	790,114	828,934
2009	940,355	946,513	950,299	994,549	1,229,819	1,220,585	1,006,378	728,401	551,862	NA	NA	NA

Appendix C-10

Scenario IP5.1 (KKC, KDRPP, CEPR, and BRE)

(Uses BRE operational assumption 1)

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP5.1 Bumping

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
Avg. WY 1926 to 2009	3,033	747	1,549	1,544	90.6%	493	59	89.8%	457	45	265	27
Avg. WY 1982 to 2009	2,911	655	1,550	1,506	90.4%	472	57	89.7%	436	41	439	82
1941 (Dry Year)	1,652	259	1,126	953	38.4%	35	-194	37.2%	53	-196	0	0
1994 (Dry Year)	1,815	261	1,234	985	46.3%	28	-200	45.7%	-11	-200	3,272	0
2001 (Dry Year)	1,890	197	1,385	1,160	65.1%	106	-69	62.9%	88	-82	973	0
2005 (Dry Year)	1,875	186	1,379	1,164	64.0%	137	-82	63.4%	123	-95	1,007	0

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
1926	1,922	243	1,386	1,142	66.2%	94	-73	63.6%	100	-80	7,435	0
1927	2,999	644	1,609	1,519	100.0%	473	31	100.0%	499	25	1,130	0
1928	3,011	697	1,609	1,504	100.0%	469	92	100.0%	444	68	0	0
1929	2,121	221	1,441	1,336	70.0%	237	-58	70.0%	201	-75	0	0
1930	1,896	283	1,308	1,038	55.8%	27	-200	51.8%	-4	-200	123	0
1931	1,845	268	1,160	958	40.5%	28	-200	39.6%	-4	-200	1,059	0
1932	2,992	657	1,594	1,415	100.0%	383	-4	100.0%	314	-28	26	0
1933	3,749	1,088	1,609	2,012	100.0%	815	160	100.0%	769	160	0	0
1934	2,939	750	1,566	1,373	91.9%	390	69	89.1%	352	65	0	0
1935	3,174	733	1,609	1,636	100.0%	600	108	100.0%	531	80	0	0
1936	3,337	987	1,568	1,540	92.8%	524	97	90.3%	492	91	0	0
1937	2,964	519	1,592	1,646	100.0%	605	110	99.1%	568	104	0	0
1938	3,417	1,084	1,609	1,527	100.0%	489	92	100.0%	424	64	0	0
1939	2,510	342	1,537	1,392	94.1%	395	78	90.7%	362	74	0	0
1940	2,248	335	1,444	1,350	70.0%	252	-49	70.0%	222	-63	0	0
1941	1,652	259	1,126	953	38.4%	35	-194	37.2%	53	-196	0	0
1942	2,117	291	1,380	1,111	61.6%	64	-200	58.9%	25	-200	136	0
1943	3,397	970	1,609	1,535	100.0%	440	-24	100.0%	370	-48	58	0
1944	1,778	209	1,280	1,081	54.6%	92	-172	51.3%	74	-185	0	0
1945	2,294	298	1,452	1,286	70.0%	180	-145	70.0%	146	-160	0	0
1946	3,368	916	1,609	1,564	100.0%	501	8	100.0%	426	-16	0	0
1947	2,977	655	1,609	1,517	100.0%	481	90	100.0%	462	69	0	0
1948	3,881	1,371	1,609	1,733	100.0%	666	126	100.0%	645	115	0	0
1949	4,033	1,495	1,609	1,750	100.0%	698	142	100.0%	658	128	0	0
1950	4,306	1,644	1,609	2,071	100.0%	820	154	100.0%	810	151	0	0
1951	3,803	1,371	1,609	1,630	100.0%	591	108	100.0%	566	86	0	0
1952	2,897	544	1,591	1,544	100.0%	531	109	98.3%	496	105	0	0
1953	3,177	649	1,609	1,789	100.0%	680	128	100.0%	623	104	0	0
1954	4,036	1,338	1,609	2,103	100.0%	858	157	100.0%	803	146	0	0
1955	3,454	886	1,609	1,847	100.0%	723	158	100.0%	705	155	1	0
1956	4,877	2,277	1,609	1,941	100.0%	761	146	100.0%	704	125	0	0
1957	3,233	962	1,610	1,454	100.0%	432	80	100.0%	370	54	0	0
1958	2,866	615	1,610	1,425	100.0%	406	73	100.0%	395	59	0	0
1959	3,526	939	1,609	1,803	100.0%	742	155	100.0%	769	167	0	0
1960	3,171	783	1,609	1,584	100.0%	545	103	100.0%	480	77	0	0
1961	3,625	1,197	1,609	1,625	100.0%	589	108	100.0%	547	88	0	0
1962	3,001	547	1,609	1,646	100.0%	609	113	100.0%	581	93	0	0
1963	2,716	414	1,585	1,482	96.7%	484	87	93.6%	453	84	0	0
1964	3,405	770	1,609	1,970	100.0%	794	158	100.0%	770	155	0	0
1965	3,417	983	1,609	1,633	100.0%	598	113	100.0%	537	86	0	0
1966	2,808	461	1,609	1,543	100.0%	503	101	100.0%	431	74	0	0
1967	3,105	725	1,587	1,581	97.1%	556	121	93.5%	554	124	0	0
1968	2,871	432	1,609	1,637	100.0%	598	116	100.0%	558	94	0	0
1969	3,613	1,251	1,609	1,560	100.0%	523	100	100.0%	492	76	0	0
1970	2,879	588	1,573	1,460	92.2%	473	91	90.1%	455	89	0	0
1971	3,926	1,243	1,609	2,024	100.0%	837	160	100.0%	770	146	0	0
1972	4,812	2,079	1,609	2,111	100.0%	897	172	100.0%	852	170	0	0
1973	2,300	195	1,494	1,309	76.3%	382	78	74.3%	356	73	0	0
1974	4,642	1,899	1,609	2,202	100.0%	903	161	100.0%	835	150	0	0
1975	3,887	1,290	1,609	1,932	100.0%	757	145	100.0%	698	125	0	0
1976	3,847	1,138	1,609	2,010	100.0%	871	155	100.0%	809	134	0	0
1977	1,937	190	1,419	1,198	68.4%	121	-92	66.2%	100	-105	6	0
1978	2,987	591	1,609	1,586	100.0%	535	59	100.0%	481	31	0	0
1979	2,310	277	1,453	1,242	70.7%	340	9	68.2%	294	-8	0	0
1980	2,722	580	1,541	1,333	87.0%	353	21	84.2%	331	20	0	0
1981	2,465	283	1,533	1,366	83.0%	403	80	81.3%	423	85	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP5.1 Bumping

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,449	908	1,609	1,776	100.0%	698	128	100.0%	647	108	89	89
1983	3,426	913	1,609	1,731	100.0%	673	131	100.0%	612	106	0	0
1984	3,310	766	1,609	1,785	100.0%	702	126	100.0%	654	100	0	0
1985	2,861	531	1,590	1,516	100.0%	494	86	98.5%	472	85	0	0
1986	2,647	387	1,568	1,438	91.6%	447	82	89.7%	426	82	0	0
1987	2,406	387	1,489	1,229	74.3%	314	63	72.1%	269	33	97	97
1988	2,419	355	1,493	1,252	75.1%	327	32	73.5%	300	24	0	0
1989	2,778	512	1,609	1,442	100.0%	415	74	100.0%	352	48	0	0
1990	3,140	706	1,609	1,630	100.0%	592	109	100.0%	557	90	0	0
1991	3,060	578	1,609	1,683	100.0%	643	114	100.0%	568	85	216	216
1992	2,207	256	1,431	1,391	67.9%	319	-20	66.6%	292	-36	0	0
1993	2,188	293	1,416	1,323	70.0%	226	-89	70.0%	194	-104	848	0
1994	1,815	261	1,234	985	46.3%	28	-200	45.7%	-11	-200	3,272	0
1995	2,844	628	1,570	1,352	96.8%	347	-53	93.4%	388	-43	511	0
1996	3,254	820	1,609	1,636	100.0%	605	121	100.0%	547	95	0	0
1997	4,600	1,950	1,609	1,923	100.0%	803	151	100.0%	850	157	0	0
1998	3,174	854	1,609	1,516	100.0%	489	94	100.0%	431	67	0	0
1999	4,066	1,334	1,609	2,115	100.0%	906	165	100.0%	862	156	0	0
2000	3,308	885	1,609	1,620	100.0%	587	107	100.0%	545	88	0	0
2001	1,890	197	1,385	1,160	65.1%	106	-69	62.9%	88	-82	973	0
2002	3,184	779	1,609	1,594	100.0%	550	77	100.0%	481	49	5,270	1,895
2003	2,585	420	1,540	1,351	84.9%	396	68	84.0%	372	64	0	0
2004	2,564	329	1,572	1,439	94.4%	454	74	92.6%	441	74	0	0
2005	1,875	186	1,379	1,164	64.0%	137	-82	63.4%	123	-95	1,007	0
2006	3,066	822	1,594	1,381	100.0%	375	4	98.9%	343	1	0	0
2007	2,957	658	1,609	1,481	100.0%	457	88	100.0%	405	64	0	0
2008	3,169	703	1,609	1,707	100.0%	619	123	100.0%	558	99	0	0
2009	3,251	908	1,601	1,543	100.0%	513	105	100.0%	NA	NA	0	0
Average	3,033	747	1,549	1,544	90.6%	493	59	89.8%	457	45	265	27

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP5.1 Bumping

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	5.1%	48.5%	3.6%	3.6%	3.3%
	0 -10% Above Target[1]	87.5%	47.4%	2.1%	0.0%	82.6%
	0-10% Below Target	0.4%	0.0%	88.4%	82.2%	4.1%
	> 10% Below Target	7.0%	4.1%	5.9%	14.1%	10.0%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	57.8%	75.3%	77.4%	7.5%
	0 -10% Above Target	8.1%	3.3%	2.9%	86.0%
	0-10% Below Target	8.2%	2.3%	2.9%	1.7%
	> 10% Below Target	25.9%	19.1%	16.8%	4.8%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			12.1%	
	0 -10% Above Target			6.9%	
	0-10% Below Target			8.9%	
	> 10% Below Target			72.1%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				42.7%	
	0 -10% Above Target				22.5%	
	0-10% Below Target				25.7%	
	> 10% Below Target				9.1%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				100.0%	
	0 -10% Above Target				0.0%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	12.4%	30.2%		5.5%
	0 -10% Above Target	1.1%	2.7%		1.8%
	0-10% Below Target	8.0%	3.1%		24.2%
	> 10% Below Target	78.5%	64.0%		68.5%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			46.9%	21.6%	17.7%
	0 -10% Above Target			21.1%	8.7%	2.9%
	0-10% Below Target			16.7%	8.0%	5.7%
	> 10% Below Target			15.3%	61.7%	73.7%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.9%	95.3%	90.2%
	0 -10% Above Target			0.0%	2.2%	4.1%
	0-10% Below Target			0.1%	2.0%	2.8%
	> 10% Below Target			0.0%	0.5%	2.9%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			60.2%	
	0 -10% Above Target			4.3%	
	0-10% Below Target			3.2%	
	> 10% Below Target			32.3%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.3%	94.8%	90.5%
	0 -10% Above Target			0.6%	2.0%	3.8%
	0-10% Below Target			0.1%	1.6%	2.1%
	> 10% Below Target			0.0%	1.6%	3.6%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP5.1 Bumping

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	68.8%	62.5%	95.4%		25.5%
	0 -10% Above Target	24.1%	31.6%	4.3%		68.7%
	0-10% Below Target	0.0%	0.0%	0.0%		0.2%
	> 10% Below Target	7.1%	5.9%	0.3%		5.6%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	18.6%			
	0 -10% Above Target	0.1%			
	0-10% Below Target	0.0%			
	> 10% Below Target	81.3%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		>=130 cfs	>=130 cfs	>=130 cfs	>=130 cfs
Flow %	> 10% Above Target	47.1%	54.4%	72.2%	51.1%
	0 -10% Above Target	52.9%	45.6%	27.8%	48.9%
	0-10% Below Target	0.0%	0.0%	0.0%	0.0%
	> 10% Below Target	0.0%	0.0%	0.0%	0.0%

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	71.2%			
	0 -10% Above Target	4.8%			
	0-10% Below Target	5.0%			
	> 10% Below Target	19.0%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP5

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	34.2	3.9	0.9	0.9	0.8	0.9	5.5	50.7	76.3	103.8	61.1	50.0	389.1
1927	12.8	0.9	0.9	0.9	0.8	0.9	0.9	3.9	6.5	31.5	59.1	72.9	192.1
1928	19.4	0.9	0.9	0.9	0.9	0.9	4.2	30.1	22.3	57.0	69.8	74.6	282.1
1929	30.2	4.0	4.4	4.4	2.4	1.1	15.3	12.9	36.6	101.0	90.8	50.6	353.6
1930	15.1	6.8	6.0	2.1	0.8	0.9	1.3	20.7	30.6	42.0	58.7	50.1	235.1
1931	17.8	1.8	2.3	2.3	0.8	0.9	2.1	5.1	24.4	32.8	32.4	48.4	171.1
1932	18.9	1.3	1.0	0.9	0.9	0.9	0.9	5.1	7.7	32.2	54.2	70.3	194.2
1933	26.4	0.9	0.9	0.9	0.8	0.9	1.2	13.0	26.2	48.2	69.7	71.7	260.9
1934	16.7	26.0	97.7	55.2	2.1	70.2	26.9	24.5	22.4	62.0	73.5	70.8	548.0
1935	5.6	0.9	0.9	0.9	0.8	0.9	16.0	16.9	33.9	55.6	64.6	73.8	270.8
1936	31.6	3.5	4.4	0.9	0.9	1.4	1.4	9.2	38.5	66.5	68.1	71.6	298.0
1937	9.0	5.2	2.5	2.1	1.1	0.9	1.8	8.4	9.7	55.0	69.9	71.5	237.2
1938	6.8	1.2	0.9	0.9	0.8	1.0	29.6	16.1	25.9	59.1	67.6	70.8	280.7
1939	30.1	0.9	0.9	0.9	0.8	0.9	1.6	14.4	22.4	67.9	71.4	69.0	281.3
1940	14.2	3.0	0.9	2.1	0.9	0.9	2.8	17.1	66.6	107.8	88.7	45.6	350.7
1941	9.1	4.7	1.1	1.5	1.1	0.9	3.5	25.0	31.1	49.7	59.3	47.2	234.4
1942	10.9	1.0	0.9	0.9	0.8	0.9	2.6	12.0	22.4	38.5	37.5	49.5	178.0
1943	17.2	1.0	0.9	0.9	0.8	0.9	1.0	5.2	5.4	23.1	46.1	62.3	164.9
1944	26.0	1.5	1.2	1.2	0.9	1.0	7.1	20.3	41.8	41.3	58.1	47.8	248.2
1945	17.2	1.5	1.2	0.9	0.8	0.9	2.5	6.5	24.6	38.2	34.6	49.7	178.7
1946	16.4	0.9	1.1	0.9	0.8	0.9	0.9	1.3	5.5	33.3	58.2	70.1	190.4
1947	29.8	2.7	0.9	0.9	0.8	0.9	2.0	21.6	22.8	59.2	64.6	70.5	276.8
1948	27.5	0.9	0.9	0.9	0.9	8.8	23.6	40.5	30.1	51.8	64.0	67.9	317.8
1949	27.5	1.8	0.9	0.9	0.8	0.9	28.7	32.6	36.2	45.1	64.0	69.0	308.5
1950	26.8	1.0	14.2	13.5	4.6	66.2	22.2	30.1	27.1	45.3	68.4	71.1	390.5
1951	23.6	11.4	34.5	28.4	27.3	51.4	28.0	20.2	28.9	53.4	63.3	67.8	438.2
1952	27.1	1.2	2.1	2.0	0.9	0.9	1.0	10.0	19.0	44.2	69.4	71.2	249.0
1953	29.5	5.9	5.7	1.5	0.8	0.9	4.8	12.3	24.0	50.1	68.2	71.4	275.2
1954	27.0	3.1	0.9	0.9	0.8	26.7	26.7	31.9	25.7	56.3	68.0	71.9	340.1
1955	26.5	1.9	1.7	5.6	1.0	18.7	22.0	20.1	34.7	45.3	67.2	70.4	315.0
1956	22.4	21.9	35.6	13.1	15.9	68.6	28.4	41.7	21.0	49.7	70.3	70.0	458.6
1957	27.4	1.2	30.6	10.1	1.0	9.9	26.2	27.2	27.5	65.8	68.7	69.3	364.8
1958	27.9	3.7	1.0	0.9	0.8	0.9	1.5	10.6	17.1	54.0	71.9	69.5	260.1
1959	22.8	0.9	0.9	0.9	0.8	16.6	33.9	14.7	34.5	51.8	66.5	70.4	314.8
1960	20.4	50.9	43.8	9.6	1.1	20.4	24.6	17.0	31.2	59.0	65.1	69.2	412.3
1961	28.7	1.1	2.3	1.1	0.8	23.1	32.6	18.7	36.1	52.3	66.2	70.5	333.7
1962	26.5	2.6	1.4	0.9	0.8	0.9	8.7	19.5	26.6	58.7	62.0	68.5	277.2
1963	27.6	1.7	0.9	0.9	0.8	0.9	10.1	25.5	20.6	61.2	65.7	70.5	286.5
1964	29.5	2.2	2.0	0.9	0.9	0.9	3.3	6.4	13.5	65.8	68.0	68.9	262.3
1965	26.1	2.3	9.6	22.6	2.8	41.4	31.8	11.8	30.7	50.0	62.6	70.4	362.1
1966	29.8	4.1	3.8	2.5	2.5	0.9	2.1	11.8	14.6	46.8	66.3	67.1	252.4
1967	28.1	2.5	0.9	0.9	0.8	0.9	10.4	10.4	20.5	35.4	66.4	69.4	246.7
1968	2.2	0.9	24.6	39.9	8.2	29.1	15.3	20.9	23.0	49.3	63.9	69.4	346.6
1969	26.3	0.9	0.9	1.0	1.6	4.3	28.5	27.1	36.4	61.3	65.3	69.0	322.6
1970	28.8	4.3	4.0	2.3	0.8	0.9	6.9	8.1	12.1	49.5	68.0	71.9	257.7
1971	28.4	3.5	3.8	1.1	0.8	0.9	0.9	39.7	21.1	42.4	68.3	67.6	278.6
1972	28.1	0.9	7.1	20.3	42.3	97.9	25.1	43.8	19.7	42.9	66.7	60.0	454.7
1973	17.4	1.2	19.9	17.7	1.0	3.7	12.2	29.5	23.6	55.9	66.1	63.8	311.9
1974	8.7	3.8	1.3	1.1	0.8	0.9	22.8	28.4	32.5	50.9	66.4	72.6	290.2
1975	25.9	3.7	3.4	27.8	1.2	37.1	20.0	30.7	28.7	57.2	65.5	68.5	369.7
1976	26.4	0.9	68.8	49.4	1.8	38.1	24.7	22.2	24.9	38.3	66.4	72.7	434.5
1977	25.1	3.4	2.2	0.9	0.8	9.7	22.3	71.0	69.7	85.4	57.6	45.0	393.1
1978	7.4	0.9	0.9	0.9	0.8	0.9	2.2	11.9	12.9	33.8	57.0	67.2	196.9
1979	30.7	6.0	3.3	3.4	2.2	0.9	3.0	11.4	18.1	44.9	56.1	83.5	263.6
1980	20.7	4.4	1.3	0.9	0.9	0.9	0.9	10.1	13.8	46.8	59.1	66.0	225.8
1981	5.4	1.7	0.9	0.9	0.9	0.9	4.4	17.2	13.8	40.7	74.9	71.2	232.9
1982	3.2	2.2	1.1	1.5	0.8	0.9	10.2	23.2	31.6	50.8	67.0	71.7	264.2
1983	27.3	1.2	1.0	0.9	0.8	32.7	22.5	16.2	19.5	30.6	68.0	70.5	291.3
1984	28.4	0.9	0.9	0.9	0.9	23.4	19.0	8.2	38.3	50.5	67.7	70.9	310.1
1985	30.5	1.0	2.5	3.9	3.9	0.9	2.7	6.7	32.7	70.7	69.4	71.9	297.0
1986	29.3	0.9	2.2	2.0	1.5	0.9	3.9	15.3	24.2	67.8	74.6	68.6	291.3
1987	4.8	1.5	0.9	2.6	1.2	0.9	0.9	17.7	28.0	63.0	70.8	90.0	282.4
1988	29.3	5.3	3.8	4.3	1.2	0.9	1.2	5.9	14.1	56.1	60.1	63.5	245.6
1989	16.1	0.9	0.9	0.9	0.8	1.2	1.2	10.9	12.9	50.9	69.3	71.0	236.9
1990	4.2	1.0	0.9	0.9	0.8	0.9	20.7	22.4	35.3	56.0	65.2	71.4	279.8
1991	26.8	10.3	34.0	31.7	12.5	42.4	18.5	21.9	23.1	48.8	64.0	71.5	405.7
1992	31.8	1.7	0.9	0.9	0.9	0.9	6.4	32.6	59.7	97.7	104.1	51.8	389.5
1993	6.0	0.9	0.9	1.2	0.8	0.9	1.6	9.1	53.9	98.5	67.8	47.6	289.4
1994	11.8	6.4	2.0	1.0	1.0	1.0	1.4	13.8	30.6	54.4	59.6	49.3	232.2
1995	18.0	0.9	0.9	0.9	0.8	0.9	2.2	6.9	10.0	29.0	53.3	59.4	183.3
1996	2.2	0.9	0.9	2.2	2.4	38.5	20.4	23.7	25.7	43.4	68.0	70.0	298.3
1997	28.2	0.9	0.9	0.9	4.7	80.0	33.7	36.9	31.1	50.1	68.3	72.4	408.3
1998	19.1	4.0	11.6	13.3	1.0	18.6	23.1	17.3	22.8	55.2	68.0	73.2	327.0
1999	32.0	1.9	1.0	0.9	0.8	9.7	26.5	31.6	22.3	46.7	64.3	73.2	311.1
2000	26.6	3.1	43.0	14.0	3.1	7.7	26.2	20.1	32.7	61.1	66.4	71.8	375.8
2001	29.4	2.9	4.2	4.1	3.0	1.9	10.2	23.5	70.7	107.0	63.9	52.3	373.2
2002	14.8	0.9	0.9	0.9	0.8	0.9	1.0	2.2	4.5	45.1	70.2	73.6	215.8
2003	31.7	5.3	5.0	3.3	0.8	0.9	3.1	13.5	15.5	54.4	70.4	72.2	276.3
2004	7.6	0.9	0.9	2.1	0.9	0.9	2.8	13.8	19.8	61.8	70.8	71.4	253.7
2005	4.9	1.0	0.9	1.2	0.8	2.1	13.2	37.5	77.7	100.1	53.0	51.9	344.3
2006	10.5	1.0	1.6	0.9	0.8	0.9	1.1	5.6	9.7	36.4	51.7	65.7	186.1
2007	28.0	1.0	1.6	0.9	0.8	0.9	2.1	12.9	12.9	49.7	67.1	72.2	250.1
2008	31.3	2.3	3.0	2.7	0.9	1.2	5.3	3.2	6.8	54.4	67.6	70.6	249.3
2009	30.7	1.0	1.2	4.3	1.0	7.6	22.4	22.8	30.5	59.7	64.3	69.3	314.7
Average	21.4	3.5	7.1	5.7	2.4	11.4	11.8	19.1	27.0	54.7	65.1	66.6	295.8

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.1 Bumping

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	419	841	76
1927	225	17	15	15	15	15	16	4	-	-	-	-	20
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	97	860	57
1930	351	115	99	34	15	15	25	312	749	1,000	986	802	274
1931	31	31	40	43	15	15	39	100	410	572	626	703	159
1932	46	21	16	15	16	15	16	31	-	-	-	33	13
1933	429	6	-	-	-	-	-	-	-	-	-	-	27
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	811	48
1941	282	71	17	24	20	15	58	333	709	969	962	771	257
1942	171	16	15	15	15	15	43	203	355	493	597	804	166
1943	13	17	15	15	15	15	17	87	29	-	-	400	37
1944	422	25	19	20	15	18	5	-	182	1,000	971	790	211
1945	290	34	20	15	15	15	45	111	414	638	645	847	187
1946	269	16	19	15	16	15	15	13	-	-	-	-	23
1947	276	23	-	-	-	-	-	-	-	-	-	-	18
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	801	794	96
1978	280	12	4	-	-	-	-	-	-	-	-	-	18
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	173	77	13	-	-	-	-	-	-	-	-	-	16
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	393	23
1993	307	15	15	17	15	0	-	-	-	-	675	838	114
1994	310	108	32	16	17	16	30	254	809	995	968	568	250
1995	23	15	15	15	15	15	37	32	-	-	-	998	69
1996	37	4	-	-	-	-	-	-	-	-	-	-	3
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	386	876	76
2002	264	15	15	15	15	6	-	-	-	-	-	-	20
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	600	868	89
2006	281	16	25	15	15	15	18	8	-	-	-	-	24
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	53	8	5	3	3	2	4	18	44	67	104	155	28

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.1 Bumping

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	25	33	297	212	120	21	-	-	35	272	-	-	62
1927	-	-	-	-	-	-	-	194	400	341	400	13	82
1928	-	3	224	326	66	35	-	-	-	400	400	13	90
1929	12	35	36	37	17	3	-	46	306	218	319	-	63
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	142	6	-	-	-	9
1932	-	-	-	-	-	129	400	400	400	392	400	13	130
1933	-	44	368	321	39	37	155	57	-	277	400	400	128
1934	400	122	354	325	6	335	-	-	-	400	400	13	145
1935	-	-	90	138	-	-	-	-	-	380	400	13	63
1936	10	29	37	0	-	135	201	13	-	400	400	13	76
1937	11	45	14	12	3	-	218	104	-	327	400	13	70
1938	3	112	400	-	-	-	-	-	-	387	400	13	81
1939	9	0	143	359	62	74	-	-	-	400	400	13	89
1940	2	21	-	12	-	185	173	-	107	338	282	-	68
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	98	-	61	-	-	-	9
1943	-	-	-	-	-	-	209	370	400	358	394	13	106
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	361	345	-	-	-	43
1946	-	-	-	-	-	-	94	400	400	400	400	13	104
1947	-	0	245	276	346	255	93	-	-	400	400	13	122
1948	-	136	170	66	57	16	-	-	-	318	400	146	80
1949	96	126	173	39	6	-	-	-	-	299	400	255	85
1950	185	280	114	-	-	361	-	-	4	216	400	400	119
1951	400	258	48	174	158	360	-	-	-	350	400	13	131
1952	70	180	81	11	61	41	76	-	-	383	400	13	80
1953	4	48	42	5	215	-	-	-	-	237	400	224	70
1954	-	212	400	-	-	6	-	-	-	295	400	400	104
1955	323	211	133	-	-	-	-	-	-	244	400	400	104
1956	400	122	194	48	55	400	27	21	-	286	400	400	143
1957	245	224	190	31	-	-	-	-	-	400	400	13	92
1958	1	30	1	-	37	116	301	52	-	400	400	13	82
1959	1	-	350	78	-	-	1	-	-	324	400	369	93
1960	400	172	215	20	-	77	-	-	-	387	400	13	103
1961	1	303	71	287	28	40	2	-	-	379	400	13	93
1962	1	85	204	273	-	-	-	-	-	373	400	13	83
1963	5	169	400	-	-	-	-	-	-	400	400	13	85
1964	3	13	11	-	-	-	186	18	-	375	400	400	85
1965	357	135	142	-	-	251	-	-	-	385	400	13	103
1966	2	35	30	75	18	57	307	-	-	400	400	13	81
1967	0	16	-	239	169	-	-	-	-	286	400	13	68
1968	39	330	158	125	31	188	-	-	-	400	400	13	103
1969	13	320	195	1	6	-	-	-	-	400	400	13	82
1970	9	38	32	15	47	160	227	93	-	394	397	13	87
1971	3	25	26	1	205	15	-	-	-	161	388	400	73
1972	357	317	78	-	97	400	5	52	-	193	400	400	140
1973	268	103	90	-	-	24	-	-	-	359	400	13	77
1974	13	27	3	1	-	92	51	58	-	228	376	400	76
1975	349	88	209	-	-	200	-	-	-	298	400	351	116
1976	113	400	330	334	5	216	-	-	-	210	400	400	146
1977	32	99	149	71	-	75	-	-	-	106	-	-	33
1978	-	-	320	123	63	191	383	309	95	204	236	-	117
1979	14	52	23	24	14	-	-	235	36	274	80	-	46
1980	-	-	-	-	-	-	120	400	53	327	103	-	61
1981	1	3	38	159	226	194	-	-	-	254	398	13	78
1982	7	12	1	5	78	76	-	-	-	301	400	219	67
1983	86	138	280	31	-	134	-	-	-	388	400	13	90
1984	8	58	57	149	-	116	-	-	-	281	400	160	75
1985	61	173	78	29	31	21	120	-	-	400	400	13	81
1986	39	400	40	24	37	-	-	-	-	400	400	13	82
1987	13	6	17	22	12	304	31	-	-	400	400	13	75
1988	1	-	17	33	4	-	-	267	139	388	120	-	59
1989	1	-	-	-	-	46	342	-	-	400	400	13	73
1990	4	2	48	352	249	-	-	-	-	364	400	13	87
1991	132	400	287	175	79	283	-	-	-	332	400	13	128
1992	6	105	400	95	-	-	-	-	13	381	400	13	87
1993	-	-	-	-	-	-	13	400	125	285	128	-	58
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	129	390	268	396	58	245	118	-	97
1996	-	27	400	400	124	354	-	-	-	391	400	13	129
1997	-	159	156	118	-	348	30	-	-	233	400	400	112
1998	264	273	8	-	-	-	-	-	-	400	400	13	83
1999	5	11	191	356	-	3	-	-	-	241	400	400	98
2000	250	302	124	59	17	0	-	-	-	383	400	56	97
2001	117	40	34	33	24	25	87	301	-	296	105	-	65
2002	-	-	-	-	-	64	353	400	187	400	400	13	111
2003	3	48	41	25	181	292	217	-	-	396	344	-	94
2004	1	-	0	11	-	-	134	-	-	400	400	13	59
2005	-	1	-	171	158	13	-	-	-	240	-	-	35
2006	-	-	-	-	-	-	-	366	370	305	266	-	80
2007	-	1	7	-	36	311	160	-	-	400	400	13	81
2008	10	15	21	19	-	5	-	134	-	357	400	183	70
2009	10	308	294	-	-	-	-	-	-	400	400	13	87
Average	62	89	111	75	39	89	60	67	42	305	324	87	82

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.1 Bumping

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	297	212	120	21	-	-	35	-	-	-	41
1927	-	-	-	-	-	-	-	194	400	89	-	-	41
1928	-	3	224	326	66	35	-	-	-	42	-	-	43
1929	-	-	-	-	-	-	-	46	306	-	-	-	21
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	142	6	-	-	-	9
1932	-	-	-	-	-	129	400	400	400	122	-	-	88
1933	-	44	368	321	39	37	155	57	-	70	0	387	89
1934	400	40	-	-	-	-	-	-	-	-	-	-	27
1935	-	-	90	138	-	-	-	-	-	16	-	-	15
1936	-	-	-	-	-	128	201	13	-	32	-	-	23
1937	-	-	-	-	-	-	218	104	-	136	-	-	28
1938	-	108	400	-	-	-	-	-	-	55	-	-	34
1939	-	-	143	359	62	74	-	-	-	11	-	-	40
1940	-	-	-	-	-	185	173	-	107	31	-	-	30
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	98	-	61	-	-	-	9
1943	-	-	-	-	-	-	209	370	400	169	-	-	69
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	361	345	-	-	-	43
1946	-	-	-	-	-	-	94	400	400	68	-	-	58
1947	-	-	245	276	346	255	93	-	-	61	-	-	76
1948	-	136	170	66	57	16	-	-	-	35	-	133	37
1949	94	116	173	39	6	-	-	-	-	144	-	242	49
1950	185	278	114	-	-	-	-	-	4	62	4	387	62
1951	400	258	-	-	-	-	-	-	-	59	-	-	44
1952	70	177	69	-	61	41	76	-	-	249	-	-	45
1953	-	-	-	-	215	-	-	-	-	35	-	210	27
1954	-	188	400	-	-	-	-	-	-	37	1	387	61
1955	323	202	130	-	-	-	-	-	-	11	-	387	64
1956	400	122	-	-	-	-	27	21	-	60	-	387	61
1957	245	221	113	-	-	-	-	-	-	-	-	-	35
1958	-	-	-	-	37	116	301	52	-	73	-	-	35
1959	-	-	350	78	-	-	1	-	-	24	-	356	49
1960	400	67	1	-	-	-	-	-	-	45	-	-	31
1961	-	301	57	285	28	-	2	-	-	109	-	-	47
1962	-	66	199	273	-	-	-	-	-	88	-	-	38
1963	-	160	400	-	-	-	-	-	-	3	-	-	34
1964	-	-	-	-	-	-	186	18	-	9	-	387	36
1965	348	123	142	-	-	-	-	-	-	112	-	-	44
1966	-	-	-	58	0	57	307	-	-	159	-	-	35
1967	-	-	-	239	169	-	-	-	-	26	-	-	26
1968	39	330	158	0	-	-	-	-	-	123	-	-	39
1969	13	320	195	1	-	-	-	-	-	13	-	-	33
1970	-	-	-	-	47	160	227	93	-	321	-	-	51
1971	-	-	-	-	205	15	-	-	-	11	25	387	37
1972	357	317	78	-	-	-	5	52	-	72	20	387	78
1973	268	100	88	-	-	-	-	-	-	201	-	-	40
1974	-	-	-	-	-	92	51	58	-	12	46	387	39
1975	345	64	207	-	-	-	-	-	-	25	-	338	59
1976	113	400	26	-	-	-	-	-	-	135	6	387	64
1977	25	73	139	71	-	-	-	-	-	-	-	-	19
1978	-	-	320	123	63	191	383	309	95	-	-	-	90
1979	-	-	-	-	-	-	-	235	36	-	-	-	17
1980	-	-	-	-	-	-	120	400	53	-	-	-	35
1981	-	-	38	159	226	194	-	-	-	191	-	-	48
1982	-	-	-	-	78	76	-	-	-	67	-	205	25
1983	86	135	279	31	-	-	-	-	-	368	20	-	56
1984	-	58	57	149	-	-	-	-	-	32	-	146	27
1985	49	171	62	0	-	21	120	-	-	-	-	-	26
1986	39	400	29	15	31	-	-	-	-	-	-	-	31
1987	-	-	17	4	8	304	31	-	-	-	-	-	22
1988	-	-	-	-	-	-	-	267	139	-	-	-	25
1989	-	-	-	-	-	43	342	-	-	24	-	-	24
1990	-	-	48	352	249	-	-	-	-	56	-	-	42
1991	132	307	22	5	-	-	-	-	-	87	-	-	33
1992	-	96	400	95	-	-	-	-	13	53	-	-	40
1993	-	-	-	-	-	-	13	400	125	-	-	-	33
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	129	390	268	396	58	-	-	-	75
1996	-	27	400	384	111	20	-	-	-	232	-	-	72
1997	-	159	156	118	-	-	30	-	-	46	-	387	54
1998	264	273	8	-	-	-	-	-	-	32	-	-	35
1999	-	-	190	356	-	-	-	-	-	87	63	387	66
2000	246	297	4	2	-	-	-	-	-	13	-	42	36
2001	117	17	-	-	-	16	87	301	-	-	-	-	33
2002	-	-	-	-	-	64	353	400	187	81	-	-	66
2003	-	-	-	-	181	292	217	-	-	51	-	-	44
2004	-	-	-	-	-	-	134	-	-	13	-	-	9
2005	-	-	-	168	158	-	-	-	-	-	-	-	19
2006	-	-	-	-	-	-	-	366	370	-	-	-	45
2007	-	-	-	-	36	311	160	-	-	39	-	-	33
2008	-	-	-	-	-	-	-	134	-	82	-	170	23
2009	-	307	292	-	-	-	-	-	-	11	-	-	37
Average	59	77	87	56	32	39	60	67	42	56	2	77	40

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.1 Bumping

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	25	33	-	-	-	-	-	-	-	272	-	-	20
1927	-	-	-	-	-	-	-	-	-	253	400	13	41
1928	-	-	-	-	-	-	-	-	-	358	400	13	47
1929	12	35	36	37	17	3	-	-	-	218	319	-	41
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	271	400	13	42
1933	-	-	-	-	-	-	-	-	-	207	400	13	38
1934	-	82	354	325	6	335	-	-	-	400	400	13	118
1935	-	-	-	-	-	-	-	-	-	363	400	13	48
1936	10	29	37	0	-	8	-	-	-	368	400	13	53
1937	11	45	14	12	3	-	-	-	-	192	400	13	42
1938	3	3	-	-	-	-	-	-	-	331	400	13	46
1939	9	0	-	-	-	-	-	-	-	389	400	13	50
1940	2	21	-	12	-	-	-	-	-	306	282	-	38
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	189	394	13	37
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	332	400	13	46
1947	-	0	-	-	-	-	-	-	-	339	400	13	46
1948	-	-	-	-	-	-	-	-	-	284	400	13	43
1949	2	10	0	-	-	-	-	-	-	155	400	13	36
1950	-	1	-	-	-	361	-	-	-	154	396	13	57
1951	0	-	48	174	158	360	-	-	-	291	400	13	88
1952	-	3	12	11	-	-	-	-	-	134	400	13	35
1953	4	48	42	5	-	-	-	-	-	202	400	13	44
1954	-	24	-	-	-	6	-	-	-	257	399	13	43
1955	-	9	3	-	-	-	-	-	-	233	400	13	40
1956	-	-	194	48	55	400	-	-	-	227	400	13	82
1957	-	3	77	31	-	-	-	-	-	400	400	13	57
1958	1	30	1	-	-	-	-	-	-	327	400	13	47
1959	1	-	-	-	-	-	-	-	-	300	400	13	44
1960	-	105	214	20	-	77	-	-	-	342	400	13	72
1961	1	3	14	2	-	40	-	-	-	270	400	13	46
1962	1	19	5	-	-	-	-	-	-	285	400	13	44
1963	5	9	-	-	-	-	-	-	-	397	400	13	51
1964	3	13	11	-	-	-	-	-	-	367	400	13	50
1965	9	12	-	-	-	251	-	-	-	272	400	13	59
1966	2	35	30	17	18	0	-	-	-	241	400	13	46
1967	0	16	-	-	-	-	-	-	-	260	400	13	42
1968	-	0	-	125	31	188	-	-	-	277	400	13	63
1969	-	-	-	1	6	-	-	-	-	387	400	13	50
1970	9	38	32	15	-	-	-	-	-	73	397	13	35
1971	3	25	26	1	-	-	-	-	-	150	363	13	36
1972	-	-	-	-	97	400	-	-	-	121	380	13	62
1973	0	2	2	-	-	24	-	-	-	158	400	13	37
1974	13	27	3	1	-	-	-	-	-	215	331	13	37
1975	3	25	2	-	-	200	-	-	-	274	400	13	56
1976	-	-	304	334	5	216	-	-	-	75	394	13	82
1977	7	25	11	-	-	75	-	-	-	106	-	-	14
1978	-	-	-	-	-	-	-	-	-	204	236	-	27
1979	14	52	23	24	14	-	-	-	-	274	80	-	29
1980	-	-	-	-	-	-	-	-	-	327	103	-	26
1981	1	3	-	-	0	-	-	-	-	63	398	13	29
1982	7	12	1	5	-	-	-	-	-	234	400	13	41
1983	-	3	0	0	-	134	-	-	-	21	380	13	34
1984	8	0	-	-	-	116	-	-	-	248	400	13	48
1985	11	2	16	29	31	-	-	-	-	400	400	13	55
1986	-	-	11	9	6	-	-	-	-	400	400	13	52
1987	13	6	-	17	4	-	-	-	-	400	400	13	52
1988	1	-	17	33	4	-	-	-	-	388	120	-	35
1989	1	-	-	-	-	3	-	-	-	376	400	13	49
1990	4	2	-	-	-	-	-	-	-	308	400	13	45
1991	-	93	265	170	79	283	-	-	-	245	400	13	95
1992	6	9	-	0	-	-	-	-	-	328	400	13	46
1993	-	-	-	-	-	-	-	-	-	285	128	-	25
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	245	118	-	22
1996	-	-	-	16	13	334	-	-	-	160	400	13	57
1997	-	-	-	-	-	348	-	-	-	187	400	13	58
1998	-	0	-	-	-	-	-	-	-	368	400	13	48
1999	5	11	1	-	-	3	-	-	-	154	337	13	32
2000	4	6	120	56	17	0	-	-	-	371	400	13	61
2001	-	23	34	33	24	9	-	-	-	296	105	-	32
2002	-	-	-	-	-	-	-	-	-	319	400	13	45
2003	3	48	41	25	-	-	-	-	-	345	344	-	50
2004	1	-	0	11	-	-	-	-	-	387	400	13	50
2005	-	1	-	3	-	13	-	-	-	240	-	-	16
2006	-	-	-	-	-	-	-	-	-	305	266	-	35
2007	-	1	7	-	-	-	-	-	-	361	400	13	48
2008	10	15	21	19	-	5	-	-	-	275	400	13	47
2009	10	1	2	-	-	-	-	-	-	389	400	13	50
Average	3	12	24	19	7	50	-	-	-	249	322	10	43

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.1 Bumping

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	16,553	-	-	-	-	-	9,360	39,311	40,743	53,777	54,507	16,987	231,238
1927	23	-	-	-	-	-	9,311	39,743	40,742	53,472	55,740	40,407	239,438
1928	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1929	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
1930	23	-	-	-	-	-	9,311	39,716	41,163	50,236	47,596	14,641	202,686
1931	-	-	-	-	-	-	8,030	34,925	35,075	39,325	37,566	11,354	166,276
1932	-	-	-	-	-	-	9,311	39,303	40,004	53,472	55,740	40,407	238,236
1933	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1934	16,553	-	-	-	-	-	9,311	39,841	40,561	53,694	56,421	39,633	256,014
1935	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1936	16,553	-	-	-	-	-	7,993	39,743	40,743	53,640	56,384	39,875	254,931
1937	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,813	40,671	239,777
1938	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1939	16,553	-	-	-	-	-	9,326	37,350	40,344	53,609	56,368	39,986	253,536
1940	23	-	-	-	-	-	9,311	38,659	40,743	53,657	54,162	17,132	213,687
1941	23	-	-	-	-	-	8,015	33,153	33,468	37,202	35,931	11,949	159,741
1942	23	-	-	-	-	-	9,317	39,588	40,751	53,324	52,722	16,004	211,730
1943	-	-	-	-	-	-	9,311	39,743	40,743	53,472	55,705	40,407	239,381
1944	16,553	-	-	-	-	-	9,401	40,146	41,153	49,476	46,161	13,885	216,773
1945	23	-	-	-	-	-	7,059	40,145	40,743	53,643	54,804	18,172	214,589
1946	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1947	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1948	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1949	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1950	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1951	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1952	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,870	40,658	256,350
1953	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1954	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1955	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,738	40,407	255,967
1956	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1957	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1958	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1959	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1960	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1961	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1962	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1963	16,553	-	-	-	-	-	9,311	39,743	40,743	53,504	56,186	40,345	256,384
1964	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1965	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1966	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1967	16,553	-	-	-	-	-	9,311	39,743	40,743	53,518	56,218	40,324	256,410
1968	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1969	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1970	16,553	-	-	-	-	-	9,311	39,743	40,743	53,668	56,400	39,830	256,249
1971	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1972	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1973	16,553	-	-	-	-	-	7,102	39,945	40,743	51,930	49,861	33,877	240,011
1974	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1975	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1976	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1977	16,553	-	-	-	-	-	9,158	39,743	40,743	53,783	54,739	17,571	232,290
1978	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1979	16,553	-	-	-	-	-	7,094	40,109	40,743	49,930	54,764	17,952	227,145
1980	23	-	-	-	-	-	9,311	39,681	39,322	53,941	55,809	37,803	235,890
1981	23	-	-	-	-	-	7,754	39,743	40,743	53,851	53,941	36,617	232,672
1982	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1983	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1984	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1985	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,876	40,662	256,360
1986	23	-	-	-	-	-	9,311	39,743	40,743	53,711	56,445	39,732	239,708
1987	23	-	-	-	-	-	9,311	39,318	40,743	51,076	48,547	33,052	222,071
1988	23	-	-	-	-	-	9,311	39,539	40,743	51,480	49,272	33,587	223,955
1989	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1990	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1991	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1992	16,553	-	-	-	-	-	6,732	39,847	40,743	53,806	54,079	16,612	228,372
1993	23	-	-	-	-	-	9,399	36,749	39,411	53,643	53,956	18,172	211,353
1994	23	-	-	-	-	-	9,312	38,555	39,224	44,409	42,425	10,344	184,292
1995	-	-	-	-	-	-	9,320	39,743	40,405	52,727	55,620	40,335	238,149
1996	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1997	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1998	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1999	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2000	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2001	16,553	-	-	-	-	-	9,168	39,748	40,743	53,702	54,537	16,871	231,322
2002	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2003	16,553	-	-	-	-	-	9,311	38,847	40,743	53,994	55,353	37,677	252,478
2004	23	-	-	-	-	-	9,341	39,179	40,743	53,556	56,279	40,243	239,365
2005	23	-	-	-	-	-	9,173	39,752	40,743	53,652	53,575	16,988	213,906
2006	23	-	-	-	-	-	9,311	39,743	40,811	53,472	55,810	40,682	239,852
2007	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2008	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2009	16,553	-	-	-	-	-	9,203	39,284	40,273	52,855	55,096	39,941	253,205
Average	9,665	-	-	-	-	-	9,131	39,492	40,523	52,839	54,516	35,332	241,498

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.1 Bumping

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	18,681	-	-	-	-	8,883	30,156	37,357	47,336	46,669	44,947	29,017	263,047
1927	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1928	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1929	18,681	-	-	-	-	8,883	26,523	39,776	48,460	49,896	48,680	31,571	272,470
1930	986	-	-	-	-	8,883	30,437	32,102	38,196	39,265	37,418	23,819	211,107
1931	986	-	-	-	-	8,883	21,590	24,049	29,034	29,452	28,677	18,289	160,960
1932	986	-	-	-	-	8,883	30,437	41,716	46,736	54,222	53,512	35,446	271,938
1933	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1934	18,681	-	-	-	-	8,883	30,437	42,162	47,218	54,395	53,854	35,651	291,281
1935	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1936	18,681	-	-	-	-	8,883	30,579	42,053	47,350	54,327	53,746	35,710	291,329
1937	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,609	273,029
1938	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1939	18,681	-	-	-	-	8,883	30,523	40,325	47,130	54,291	53,701	35,728	289,262
1940	986	-	-	-	-	8,883	30,440	41,687	48,460	49,896	48,680	31,571	260,603
1941	986	-	-	-	-	8,883	29,026	23,531	27,506	27,665	27,247	17,246	162,090
1942	986	-	-	-	-	8,883	30,556	35,775	43,494	43,549	41,919	27,028	232,192
1943	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1944	18,681	-	-	-	-	8,883	21,461	30,398	37,762	38,428	36,787	23,570	215,971
1945	986	-	-	-	-	8,883	29,176	40,456	48,460	49,896	48,680	31,571	258,110
1946	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1947	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1948	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1949	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1950	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1951	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1952	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,626	290,741
1953	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1954	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1955	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1956	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1957	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1958	18,681	-	-	-	-	8,883	30,551	42,030	47,350	54,222	53,512	35,446	290,676
1959	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1960	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1961	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1962	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1963	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,551	35,751	290,905
1964	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1965	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1966	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1967	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,555	35,752	290,911
1968	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1969	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1970	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,360	53,778	35,700	291,220
1971	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1972	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1973	18,681	-	-	-	-	8,883	29,247	42,069	47,783	53,851	52,243	33,130	285,887
1974	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1975	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1976	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1977	18,681	-	-	-	-	8,883	26,610	39,768	48,392	48,334	46,770	30,352	267,792
1978	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1979	18,681	-	-	-	-	8,883	29,251	41,216	48,441	50,139	48,398	31,135	276,145
1980	986	-	-	-	-	8,883	30,438	42,044	45,962	54,888	54,405	35,281	272,888
1981	986	-	-	-	-	8,883	30,667	42,327	47,350	55,344	54,710	34,848	275,116
1982	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1983	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1984	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1985	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,621	290,737
1986	986	-	-	-	-	8,883	30,437	42,030	47,350	54,419	53,867	35,671	273,643
1987	986	-	-	-	-	8,883	30,447	41,423	47,983	52,448	50,724	32,457	265,352
1988	986	-	-	-	-	8,883	30,588	41,692	47,870	53,088	51,561	32,893	267,562
1989	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1990	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1991	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1992	18,681	-	-	-	-	8,883	27,569	39,632	48,306	48,072	46,764	30,431	268,339
1993	986	-	-	-	-	8,883	30,924	39,714	46,942	49,896	48,680	31,571	257,597
1994	986	-	-	-	-	8,883	30,684	28,519	33,127	33,778	32,915	21,066	189,960
1995	986	-	-	-	-	8,883	30,453	42,030	47,425	53,570	53,549	35,751	272,648
1996	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1997	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1998	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1999	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2000	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2001	18,681	-	-	-	-	8,883	25,018	37,038	46,720	45,918	44,376	28,751	255,386
2002	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2003	18,681	-	-	-	-	8,883	30,437	41,526	47,350	55,102	54,516	35,229	291,725
2004	986	-	-	-	-	8,883	30,482	41,651	47,350	54,236	53,571	35,756	272,916
2005	986	-	-	-	-	8,883	24,585	35,997	45,943	45,312	44,292	29,017	235,016
2006	986	-	-	-	-	8,883	30,442	42,030	47,451	54,222	53,512	35,605	273,132
2007	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2008	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2009	18,681	-	-	-	-	8,758	30,006	41,434	46,680	53,454	52,754	34,944	286,711
Average	11,308	-	-	-	-	8,882	29,915	40,727	46,490	52,166	51,333	33,811	274,632

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.1 Bumping

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	25,229	-	-	-	-	6,232	47,501	86,661	86,866	93,684	86,398	53,977	486,548
1927	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1928	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1929	25,229	-	-	-	-	6,232	47,316	92,309	89,080	97,312	90,146	55,333	502,957
1930	21,815	-	-	-	-	6,232	51,572	81,010	77,644	85,357	78,835	51,455	453,920
1931	21,815	-	-	-	-	6,232	40,288	72,170	68,583	74,319	70,041	48,766	402,215
1932	21,815	-	-	-	-	6,232	51,572	97,856	104,302	113,698	108,774	74,355	578,606
1933	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1934	25,229	-	-	-	-	6,232	51,572	99,848	104,174	113,399	104,033	59,633	564,119
1935	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1936	25,229	-	-	-	-	6,232	50,588	101,401	106,496	113,495	104,635	59,876	567,953
1937	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,744	61,819	574,127
1938	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1939	25,229	-	-	-	-	6,232	50,801	85,438	102,905	113,531	104,884	59,992	549,011
1940	21,815	-	-	-	-	6,232	51,552	87,072	89,080	97,312	90,146	55,333	498,543
1941	21,815	-	-	-	-	6,232	43,251	69,557	67,072	72,307	68,605	48,262	397,101
1942	21,815	-	-	-	-	6,232	50,422	86,183	82,886	90,174	83,353	53,014	474,081
1943	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1944	25,229	-	-	-	-	6,232	45,090	80,343	77,222	84,415	78,196	51,332	448,061
1945	21,815	-	-	-	-	6,232	48,326	93,910	89,080	97,312	90,146	55,333	502,154
1946	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1947	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1948	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1949	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1950	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1951	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1952	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,655	61,652	577,285
1953	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1954	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1955	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1956	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1957	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1958	25,229	-	-	-	-	6,232	50,819	101,401	109,844	113,698	108,774	74,355	590,354
1959	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1960	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1961	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1962	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1963	25,229	-	-	-	-	6,232	51,572	101,401	108,430	113,683	106,545	60,614	573,707
1964	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1965	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1966	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1967	25,229	-	-	-	-	6,232	51,572	101,401	109,556	113,669	106,345	60,571	574,576
1968	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1969	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1970	25,229	-	-	-	-	6,232	51,572	101,401	107,539	113,455	104,449	59,827	569,704
1971	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1972	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1973	25,229	-	-	-	-	6,232	48,401	97,242	93,903	102,010	93,733	56,347	523,097
1974	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1975	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1976	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1977	25,229	-	-	-	-	6,232	47,561	92,300	88,498	95,555	88,227	54,636	498,240
1978	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1979	25,229	-	-	-	-	6,232	48,280	95,265	90,042	97,585	89,866	55,065	507,566
1980	21,815	-	-	-	-	6,232	51,565	99,869	96,641	110,469	100,850	58,550	545,993
1981	21,815	-	-	-	-	6,232	48,981	100,926	99,173	107,368	98,472	57,882	540,849
1982	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1983	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1984	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1985	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,640	61,694	577,311
1986	21,815	-	-	-	-	6,232	51,572	101,401	105,128	113,336	103,949	59,733	563,167
1987	21,815	-	-	-	-	6,232	51,516	96,095	92,690	100,280	92,204	55,885	516,718
1988	21,815	-	-	-	-	6,232	50,692	95,022	93,366	101,050	93,046	56,183	517,406
1989	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1990	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1991	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1992	25,229	-	-	-	-	6,232	45,735	92,246	88,157	95,261	88,217	54,680	495,758
1993	21,815	-	-	-	-	6,232	46,756	83,534	86,516	97,312	90,146	55,333	487,645
1994	21,815	-	-	-	-	6,232	48,835	76,040	72,631	79,185	74,303	50,116	429,158
1995	21,815	-	-	-	-	6,232	51,384	101,401	103,103	109,920	106,884	60,585	561,324
1996	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1997	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1998	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1999	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2000	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2001	25,229	-	-	-	-	6,232	46,611	88,878	86,150	92,838	85,821	53,847	485,607
2002	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2003	25,229	-	-	-	-	6,232	51,572	95,736	101,303	108,977	100,194	58,476	547,718
2004	21,815	-	-	-	-	6,232	51,047	96,436	106,669	113,626	105,852	60,402	562,078
2005	21,815	-	-	-	-	6,232	46,860	87,543	85,315	92,157	85,724	53,977	479,625
2006	21,815	-	-	-	-	6,232	51,548	101,401	108,657	113,698	107,766	61,826	572,944
2007	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2008	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2009	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
Average	23,807	-	-	-	-	6,232	50,630	97,747	103,225	108,528	102,678	66,969	559,817

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.1 Bumping

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	33,266	-	-	-	-	10,226	39,336	55,522	58,934	60,081	59,300	44,165	360,830
1927	23,313	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,299
1928	33,266	-	-	-	-	10,226	41,280	57,867	65,148	70,157	70,467	59,068	407,480
1929	33,279	-	-	-	-	10,226	40,426	57,596	63,152	64,817	63,830	52,323	385,649
1930	24,263	-	-	-	-	10,226	41,928	54,497	55,540	57,270	56,477	49,071	349,273
1931	24,263	-	-	-	-	10,226	37,257	55,424	55,773	57,636	56,959	49,330	346,868
1932	24,263	-	-	-	-	10,226	41,538	57,507	63,274	70,157	70,467	59,068	396,501
1933	32,779	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,765
1934	33,266	-	-	-	-	10,226	41,928	58,536	64,729	69,936	69,479	55,644	403,744
1935	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1936	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,088	69,716	55,725	403,090
1937	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,259	56,428	395,402
1938	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1939	33,266	-	-	-	-	10,226	41,573	51,802	63,597	70,127	69,789	55,766	396,146
1940	24,263	-	-	-	-	10,226	41,909	52,996	63,838	66,171	65,003	52,795	377,201
1941	24,263	-	-	-	-	10,226	37,508	50,665	50,705	52,410	52,079	47,195	325,052
1942	24,263	-	-	-	-	10,226	41,034	56,856	61,000	62,330	61,464	51,297	368,470
1943	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1944	33,266	-	-	-	-	10,226	39,983	55,239	55,750	57,300	56,582	49,161	357,508
1945	24,263	-	-	-	-	10,226	40,479	57,867	63,941	66,800	65,752	53,122	382,450
1946	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1947	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1948	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1949	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1950	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1951	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1952	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,249	56,363	404,329
1953	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1954	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1955	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1956	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1957	33,266	-	-	-	-	10,226	41,928	57,867	65,148	70,157	70,467	59,068	408,128
1958	33,314	-	-	-	-	10,226	41,415	59,101	65,148	70,157	70,467	59,068	408,896
1959	33,067	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,053
1960	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1961	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1962	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1963	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,156	70,137	55,983	403,836
1964	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1965	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1966	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1967	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,156	70,130	55,967	403,813
1968	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1969	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1970	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,028	69,648	55,710	402,947
1971	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1972	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1973	33,266	-	-	-	-	10,226	40,471	57,867	64,383	68,774	68,254	54,232	397,475
1974	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1975	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1976	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1977	33,266	-	-	-	-	10,226	40,602	57,236	60,198	61,411	60,657	50,996	374,593
1978	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1979	33,266	-	-	-	-	10,226	40,414	57,867	64,038	67,820	66,816	53,560	394,008
1980	24,263	-	-	-	-	10,226	41,919	58,463	62,152	69,098	68,739	55,229	390,089
1981	24,263	-	-	-	-	10,226	40,197	57,867	65,114	68,797	68,666	54,940	390,070
1982	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1983	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1984	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1985	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,250	56,380	404,348
1986	24,263	-	-	-	-	10,226	41,053	57,867	65,148	69,873	69,441	55,676	393,547
1987	24,263	-	-	-	-	10,226	41,859	57,312	64,199	68,485	67,771	53,993	388,108
1988	24,263	-	-	-	-	10,226	41,291	57,021	64,265	68,669	68,067	54,149	387,952
1989	24,263	-	-	-	-	10,226	41,259	57,867	65,148	70,157	70,467	59,068	398,455
1990	33,277	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,264
1991	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1992	33,266	-	-	-	-	10,226	39,375	57,867	63,953	67,011	66,134	53,350	391,182
1993	24,263	-	-	-	-	10,226	39,761	50,771	61,211	65,666	64,713	52,691	369,302
1994	24,263	-	-	-	-	10,226	40,309	53,253	53,824	55,765	55,179	48,564	341,383
1995	24,263	-	-	-	-	10,226	41,810	59,101	63,595	68,425	70,140	55,976	393,536
1996	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1997	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1998	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1999	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2000	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2001	33,266	-	-	-	-	10,226	40,299	56,877	59,170	60,359	59,633	49,578	369,409
2002	21,012	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	394,998
2003	33,266	-	-	-	-	10,226	41,928	55,710	65,148	68,946	68,715	55,196	399,135
2004	24,263	-	-	-	-	10,226	41,641	56,171	65,148	70,155	70,059	55,906	393,570
2005	24,263	-	-	-	-	10,226	40,610	56,700	58,843	60,132	59,623	50,624	361,022
2006	24,263	-	-	-	-	10,226	41,897	59,101	66,000	70,157	70,262	56,434	398,340
2007	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2008	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2009	33,266	-	-	-	-	10,179	40,863	57,599	64,847	69,832	70,140	59,283	406,009
Average	29,458	-	-	-	-	10,226	40,949	57,324	63,922	68,365	68,363	56,644	395,251

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.1 Bumping

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	3,644	-	-	-	-	421	4,374	12,761	16,423	17,991	17,934	14,348	87,894
1927	686	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,655
1928	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1929	3,644	-	-	-	-	421	3,508	13,084	16,423	18,347	18,395	15,549	89,372
1930	798	-	-	-	-	421	4,768	12,867	16,331	17,473	17,367	15,188	85,213
1931	798	-	-	-	-	421	2,772	13,084	16,341	17,546	17,465	15,242	83,669
1932	798	-	-	-	-	421	4,768	12,582	15,654	18,950	19,461	15,860	88,494
1933	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1934	3,644	-	-	-	-	421	4,768	12,863	16,212	18,347	18,395	15,597	90,248
1935	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1936	3,644	-	-	-	-	421	4,385	13,084	16,423	18,347	18,395	15,599	90,298
1937	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,222	15,613	89,281
1938	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1939	3,644	-	-	-	-	421	4,708	10,993	15,848	18,347	18,395	15,600	87,956
1940	798	-	-	-	-	421	4,766	11,218	16,423	18,347	18,395	15,555	85,924
1941	798	-	-	-	-	421	4,035	12,840	15,766	16,510	16,472	14,755	81,596
1942	798	-	-	-	-	421	4,694	12,979	16,423	18,347	18,354	15,514	87,530
1943	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1944	3,644	-	-	-	-	421	2,322	13,084	16,359	17,479	17,389	15,206	85,903
1945	798	-	-	-	-	421	3,968	13,084	16,423	18,347	18,395	15,559	86,995
1946	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1947	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1948	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1949	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1950	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1951	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1952	3,644	-	-	-	-	421	4,768	13,084	16,425	18,895	18,395	15,611	91,243
1953	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1954	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1955	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1956	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1957	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1958	3,644	-	-	-	-	421	4,692	13,084	16,425	18,950	19,461	15,860	92,537
1959	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1960	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1961	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1962	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1963	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,604	90,687
1964	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1965	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1966	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1967	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,604	90,688
1968	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1969	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1970	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,599	90,681
1971	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1972	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1973	3,644	-	-	-	-	421	3,974	13,084	16,423	18,347	18,395	15,574	89,862
1974	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1975	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1976	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1977	3,644	-	-	-	-	421	3,003	13,084	16,423	18,214	18,199	15,489	88,476
1978	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1979	3,644	-	-	-	-	421	3,968	13,084	16,423	18,347	18,395	15,565	89,847
1980	798	-	-	-	-	421	4,768	12,867	15,516	18,347	18,395	15,590	86,701
1981	798	-	-	-	-	421	4,211	13,084	16,423	18,347	18,395	15,585	87,265
1982	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1983	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1984	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1985	3,644	-	-	-	-	421	4,768	13,084	16,425	18,653	18,395	15,612	91,001
1986	798	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,598	87,835
1987	798	-	-	-	-	421	4,765	12,638	16,423	18,347	18,395	15,571	87,358
1988	798	-	-	-	-	421	4,710	12,795	16,423	18,347	18,395	15,573	87,463
1989	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1990	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1991	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1992	3,644	-	-	-	-	421	3,668	13,084	16,423	18,347	18,395	15,563	89,545
1993	798	-	-	-	-	421	4,366	10,808	15,620	18,347	18,395	15,554	84,308
1994	798	-	-	-	-	421	4,530	12,822	16,158	17,175	17,103	15,081	84,088
1995	798	-	-	-	-	421	4,754	13,084	15,405	17,770	18,395	15,604	86,231
1996	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1997	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1998	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1999	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2000	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2001	3,644	-	-	-	-	421	2,749	13,084	16,423	18,038	18,000	15,439	87,798
2002	787	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,757
2003	3,644	-	-	-	-	421	4,768	12,380	16,423	18,347	18,395	15,589	89,968
2004	798	-	-	-	-	421	4,711	12,473	16,423	18,347	18,395	15,603	87,171
2005	798	-	-	-	-	421	2,731	13,084	16,422	18,001	17,998	15,455	84,909
2006	798	-	-	-	-	421	4,767	13,084	16,246	18,950	19,395	15,612	89,273
2007	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2008	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2009	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
Average	2,456	-	-	-	-	421	4,553	12,961	16,358	18,637	18,947	15,697	90,030

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.1 Bumping

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	7,393	-	-	-	-	20	10,866	13,640	14,527	13,984	14,194	12,849	87,472
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1929	7,393	-	-	-	-	20	10,728	13,791	14,527	14,065	14,735	13,329	88,589
1930	5,536	-	-	-	-	20	11,828	13,617	14,230	13,127	14,194	12,849	85,399
1931	5,536	-	-	-	-	20	9,553	13,399	13,121	11,427	13,468	12,611	79,134
1932	5,536	-	-	-	-	20	11,828	15,025	15,458	17,629	17,780	15,757	99,033
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	15,316	14,740	14,065	14,735	13,329	91,426
1935	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1936	7,393	-	-	-	-	20	11,409	14,763	15,446	14,065	14,735	13,329	91,160
1937	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,631	15,376	99,816
1938	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1939	7,393	-	-	-	-	20	11,657	13,158	15,203	15,812	14,735	13,329	91,307
1940	5,536	-	-	-	-	20	11,823	13,423	14,527	14,065	14,735	13,329	87,458
1941	5,536	-	-	-	-	20	10,293	13,196	13,121	11,427	13,468	12,611	79,672
1942	5,536	-	-	-	-	20	11,494	13,521	14,230	13,127	14,194	12,849	84,970
1943	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1944	7,393	-	-	-	-	20	10,459	13,571	14,230	13,127	14,194	12,849	85,842
1945	5,536	-	-	-	-	20	10,737	13,791	14,527	14,065	14,735	13,329	86,741
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1947	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1948	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,543	16,253	17,588	17,346	15,376	101,345
1953	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1958	7,393	-	-	-	-	20	11,622	15,543	16,253	17,629	17,780	15,757	101,997
1959	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1960	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1961	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1962	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1963	7,393	-	-	-	-	20	11,828	15,543	15,769	17,070	17,346	15,376	100,343
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1966	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1967	7,393	-	-	-	-	20	11,828	15,543	16,134	17,070	17,346	15,376	100,708
1968	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1969	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1970	7,393	-	-	-	-	20	11,828	15,543	15,442	14,065	14,735	13,329	92,354
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,736	13,791	14,527	14,065	14,735	13,329	88,596
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,787	13,791	14,527	14,065	14,735	13,329	88,647
1978	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1979	7,393	-	-	-	-	20	10,708	13,791	14,527	14,065	14,735	13,329	88,569
1980	5,536	-	-	-	-	20	11,826	15,321	13,866	14,065	14,735	13,329	88,699
1981	5,536	-	-	-	-	20	10,489	13,791	14,527	14,065	14,735	13,329	86,493
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,828	15,543	16,253	17,393	17,346	15,376	101,151
1986	5,536	-	-	-	-	20	11,828	15,523	14,741	14,065	14,735	13,329	89,777
1987	5,536	-	-	-	-	20	11,815	14,836	14,527	14,065	14,735	13,329	88,863
1988	5,536	-	-	-	-	20	11,562	13,910	14,527	14,065	14,735	13,329	87,685
1989	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1990	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1991	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1992	7,393	-	-	-	-	20	10,206	13,791	14,527	14,065	14,735	13,329	88,067
1993	5,536	-	-	-	-	20	10,834	12,853	13,922	14,065	14,735	13,329	85,295
1994	5,536	-	-	-	-	20	11,157	13,544	14,230	13,127	14,194	12,849	84,657
1995	5,536	-	-	-	-	20	11,794	15,543	15,274	16,575	17,346	15,376	97,463
1996	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1997	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1998	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1999	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2000	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2001	7,393	-	-	-	-	20	10,668	13,611	14,527	13,178	14,194	12,849	86,440
2002	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2003	7,393	-	-	-	-	20	11,828	13,949	14,527	14,065	14,735	13,329	89,846
2004	5,536	-	-	-	-	20	11,738	14,555	15,644	17,070	17,346	14,255	96,164
2005	5,536	-	-	-	-	20	10,587	13,581	14,281	13,127	14,194	12,849	84,175
2006	5,536	-	-	-	-	20	11,823	15,543	16,082	17,629	17,687	15,376	99,696
2007	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2008	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2009	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
Average	6,619	-	-	-	-	20	11,588	15,015	15,630	16,338	16,692	14,870	96,772

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.1 Bumping (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	71,565	73,864	84,397
1926	80,060	80,320	97,651	118,421	90,427	57,311	13,076	8,848	9,043	23,230	31,817	44,936
1927	47,730	49,003	50,729	63,688	82,488	91,194	55,594	16,993	21,706	38,570	81,020	80,061
1928	82,964	79,525	92,835	107,514	154,057	153,643	104,302	65,867	60,596	71,100	71,622	69,430
1929	65,241	61,934	66,985	54,954	79,988	79,885	47,572	11,242	7,988	5,711	3,737	6,455
1930	8,138	26,573	38,547	68,242	52,930	38,758	10,824	8,141	6,236	9,680	13,369	11,295
1931	18,329	27,825	44,695	62,609	79,228	77,737	53,610	22,538	19,467	15,479	29,286	31,797
1932	44,921	62,294	81,646	85,349	96,630	96,652	60,521	25,068	22,651	28,216	81,009	80,145
1933	80,120	80,134	80,108	82,821	106,485	157,770	146,993	112,530	94,072	100,106	118,796	123,596
1934	118,796	130,697	134,293	156,721	155,922	127,295	74,670	32,688	28,722	45,331	71,776	80,284
1935	105,035	113,984	122,328	124,532	152,917	157,770	117,680	78,781	76,132	74,165	72,350	71,675
1936	78,135	79,180	79,817	94,773	155,159	157,275	109,438	70,094	66,357	62,650	57,050	71,839
1937	70,890	72,282	78,116	80,201	105,461	143,139	108,996	69,148	65,275	65,168	93,390	86,276
1938	94,433	94,326	97,867	123,394	156,205	156,367	107,759	67,202	62,178	59,475	69,948	81,640
1939	80,142	80,036	83,537	106,236	134,297	127,164	81,564	41,350	37,851	38,312	45,111	67,531
1940	68,269	77,837	83,142	98,460	113,300	89,523	42,979	11,293	7,730	8,243	14,226	25,678
1941	25,066	24,828	36,884	49,463	29,228	12,144	10,005	8,490	14,638	26,716	41,006	56,208
1942	57,028	58,261	62,842	78,670	75,202	79,055	57,459	25,741	23,344	13,928	32,042	47,681
1943	55,647	58,689	67,596	88,955	93,477	95,654	66,079	27,856	24,710	23,429	25,510	43,602
1944	43,160	46,764	52,178	55,846	55,833	45,481	10,903	9,711	13,819	11,341	14,749	24,247
1945	51,374	65,701	70,137	77,519	92,941	79,059	56,026	25,090	27,363	30,991	45,696	54,954
1946	62,736	63,635	69,504	84,490	119,325	126,032	94,614	58,132	56,270	65,375	69,942	87,103
1947	87,134	80,338	83,857	113,481	137,435	128,851	81,201	39,180	37,122	60,320	80,614	80,275
1948	80,039	80,232	82,362	93,984	122,602	157,770	124,717	88,073	80,151	79,936	82,428	80,187
1949	79,781	83,976	90,264	106,341	147,482	157,669	132,038	95,620	79,557	81,691	96,753	105,934
1950	113,707	118,957	98,299	94,224	113,704	159,354	149,096	114,843	89,478	81,160	93,165	118,796
1951	118,796	133,981	113,224	117,253	153,576	157,650	114,732	74,760	70,915	80,522	80,260	79,992
1952	79,600	80,024	80,306	100,160	137,477	139,389	99,511	59,592	56,464	52,755	46,124	41,271
1953	80,936	91,610	96,625	110,209	142,274	157,770	134,032	95,244	78,630	79,856	80,830	89,618
1954	99,766	105,042	109,232	105,454	129,364	157,947	148,941	118,203	96,257	80,049	84,510	80,384
1955	84,597	94,557	96,854	101,771	126,508	157,774	150,891	117,823	92,561	90,253	114,858	118,796
1956	118,760	113,915	75,456	81,505	124,215	157,770	144,369	106,703	81,780	80,306	80,136	118,796
1957	118,796	120,397	125,078	127,669	157,113	142,249	93,207	53,475	48,723	46,810	48,921	62,333
1958	69,769	81,212	80,278	84,699	121,497	109,044	58,419	18,551	16,180	29,594	73,656	85,955
1959	105,409	110,764	121,769	124,089	149,323	157,770	124,188	85,833	84,836	88,093	118,796	118,796
1960	118,796	125,382	128,997	132,025	157,481	156,656	110,628	71,623	69,451	76,485	80,368	80,038
1961	80,920	105,881	116,707	116,319	150,325	156,992	112,022	71,453	69,063	76,041	80,240	82,937
1962	88,511	98,390	100,614	133,394	143,733	152,342	111,327	72,277	69,667	76,360	93,264	87,459
1963	99,196	122,563	131,301	144,902	156,023	142,517	92,082	51,308	46,475	46,681	61,066	63,990
1964	73,764	75,322	80,157	79,794	111,891	157,770	146,331	115,359	94,558	80,073	81,854	93,918
1965	116,093	133,030	123,999	128,141	156,788	154,865	111,315	71,708	67,657	69,266	75,970	79,683
1966	80,000	79,223	81,507	90,722	122,415	122,730	79,698	38,428	33,696	37,106	45,363	73,141
1967	81,092	86,307	91,495	88,228	118,537	149,139	113,709	71,751	66,304	84,525	80,137	106,451
1968	118,796	147,477	150,167	148,193	157,770	150,302	101,460	62,656	69,586	80,296	81,343	80,196
1969	94,235	93,869	97,361	116,156	154,168	152,532	105,559	67,109	67,132	71,208	73,229	72,968
1970	79,124	80,065	80,488	74,951	103,165	120,150	74,165	34,259	32,634	33,971	45,791	47,679
1971	69,483	80,316	83,378	92,526	127,387	157,770	156,226	120,918	95,885	80,514	80,236	86,156
1972	102,010	117,723	114,199	93,206	114,343	157,770	146,681	112,481	95,372	79,542	80,413	103,748
1973	116,826	117,521	120,744	122,996	120,919	106,111	59,917	19,843	17,345	19,016	23,998	34,358
1974	70,969	77,320	80,665	80,567	105,392	158,077	156,752	127,684	103,153	79,515	80,062	91,395
1975	115,452	120,810	113,239	105,910	129,612	157,770	135,527	101,870	79,619	81,491	91,419	118,796
1976	118,796	127,376	117,025	114,103	145,764	157,770	138,427	105,952	81,603	79,075	80,153	80,741
1977	90,914	99,711	100,106	102,555	50,500	33,322	10,298	6,135	8,603	11,731	52,475	84,991
1978	80,067	80,144	85,587	81,112	80,401	74,391	39,310	11,327	15,160	13,511	19,572	27,667
1979	26,880	32,632	50,326	65,700	81,726	64,720	28,512	11,280	9,420	9,563	8,910	46,994
1980	50,174	54,823	64,260	89,343	83,592	67,900	25,356	11,213	13,094	10,796	35,439	82,838
1981	80,024	92,878	88,580	104,039	103,002	101,010	61,741	19,501	14,337	21,438	26,316	33,570
1982	50,450	80,386	90,375	101,966	140,572	157,770	127,065	91,068	80,093	80,460	80,053	80,060
1983	103,296	112,174	124,773	124,542	142,716	136,753	98,429	59,805	60,901	59,172	80,209	80,156
1984	113,797	120,249	126,986	125,263	153,122	157,770	128,000	89,723	79,489	80,091	80,029	80,027
1985	78,159	77,305	80,884	107,436	149,455	150,642	104,354	64,149	63,087	81,644	81,287	77,849
1986	80,100	97,429	123,825	139,514	157,762	137,743	89,469	48,894	46,586	46,615	78,336	79,996
1987	78,889	80,151	80,209	114,028	140,052	107,102	56,818	18,362	14,079	10,116	8,531	15,369
1988	14,308	24,027	39,980	77,620	91,111	71,249	26,685	10,948	8,683	20,670	40,385	56,736
1989	73,767	77,499	80,223	100,943	124,263	120,408	74,001	36,816	33,811	31,228	61,668	80,159
1990	81,016	82,268	94,644	139,257	157,376	157,557	113,862	73,805	70,373	83,135	130,896	118,796
1991	118,796	145,179	133,317	143,620	157,547	157,513	116,294	77,364	73,517	69,983	81,941	80,721
1992	92,354	105,182	123,564	142,432	136,568	106,789	57,106	17,017	19,238	13,950	26,273	30,747
1993	39,445	41,135	57,317	81,982	86,253	69,968	30,219	10,311	7,077	6,072	7,741	12,576
1994	25,118	26,824	42,852	73,505	64,138	44,629	11,304	11,255	9,386	17,036	32,158	52,344
1995	60,559	88,415	80,456	80,707	83,499	64,660	26,822	10,907	8,230	28,740	106,196	101,425
1996	107,151	140,059	128,726	144,426	157,475	148,435	100,923	61,357	60,684	73,071	82,654	80,656
1997	91,128	107,170	89,457	94,171	135,529	157,770	138,400	102,672	80,850	87,635	83,907	90,134
1998	98,505	103,975	117,708	128,926	157,101	148,613	99,995	61,889	57,746	56,042	79,547	93,663
1999	95,010	100,353	106,125	103,458	119,413	157,770	148,504	120,046	93,880	80,618	92,612	118,796
2000	118,796	119,439	123,837	134,703	157,275	157,551	118,019	83,022	81,196	80,060	78,721	74,999
2001	74,388	72,893	80,833	83,232	78,054	65,393	25,140	10,437	7,496	18,167	41,661	51,500
2002	69,523	76,417	80,156	90,694	110,068	138,095	101,225	64,228	60,497	56,457	56,565	55,779
2003	76,311	80,172	85,362	91,261	105,338	94,586	48,182	11,510	8,268	22,035	46,336	51,584
2004	59,530	63,880	79,828	98,129	113,597	101,329	53,308	20,309	28,151	34,145	51,491	72,892
2005	87,143	82,631	86,558	93,558	74,702	49,547	12,124	10,563	8,974	12,554	25,109	34,274
2006	52,505	57,940	59,347	81,605	96,804	78,646	39,708	11,233	8,905	7,488	54,617	59,256
2007	71,461	80,243	99,440	111,517	135,796	133,475	85,733	46,694	42,728	50,080	57,250	69,194
2008	69,349	72,088	76,451	73,930	127,144	156,630	126,077	91,574	78,960	77,776	90,882	80,257
2009	113,375	113,806	116,260	124,794	155,975	151,847	104,906	66,351	62,705	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.1 Bumping (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	76,533	81,205	126,243
1926	151,853	169,362	192,888	216,595	185,386	119,933	35,171	-26,989	-73,161	-72,786	-61,393	-43,378
1927	-35,689	-28,694	-22,596	-1,172	52,240	121,129	124,190	94,648	31,421	32,307	70,854	109,383
1928	156,533	165,173	187,344	207,993	238,389	237,610	207,139	162,400	92,027	70,350	74,815	78,258
1929	80,491	82,770	93,630	93,531	128,353	143,967	63,997	-7,067	-58,081	-78,663	-83,989	-83,535
1930	-81,968	-63,447	-45,286	-12,255	-7,266	-36,991	-93,072	-153,382	-199,830	-197,864	-191,760	-189,492
1931	-183,561	-171,941	-151,094	-129,142	-85,992	-92,199	-122,157	-158,773	-199,830	-196,821	-185,298	-178,836
1932	-167,924	-143,191	-102,231	-44,883	23,212	80,948	88,492	60,008	-3,663	-23,901	25,934	74,969
1933	118,334	127,526	136,615	164,351	201,101	238,980	236,203	198,244	160,024	195,841	203,025	203,025
1934	203,025	220,437	217,330	238,033	238,026	223,581	185,507	137,299	68,913	78,913	106,718	130,448
1935	176,953	190,046	204,892	208,320	237,044	238,980	216,939	178,369	107,680	78,892	80,650	84,460
1936	93,395	99,370	121,952	170,027	236,591	238,633	206,592	165,232	96,577	90,284	89,243	101,838
1937	105,784	112,062	122,422	154,410	197,199	236,472	218,398	177,397	109,511	103,217	137,866	182,921
1938	195,605	200,624	203,773	207,269	237,556	238,335	204,575	161,473	91,637	63,753	73,851	101,229
1939	145,176	156,876	175,330	203,815	229,587	227,602	192,018	144,441	77,857	76,196	83,771	104,010
1940	109,084	120,330	150,959	188,786	206,329	157,254	69,898	-1,764	-49,438	-62,650	-59,512	-47,410
1941	-42,367	-38,970	-22,745	-2,902	-6,022	-40,136	-97,899	-155,067	-194,288	-192,649	-178,008	-160,249
1942	-155,372	-150,410	-142,046	-111,121	-96,339	-93,581	-118,448	-153,556	-199,819	-198,518	-183,535	-166,408
1943	-154,516	-147,276	-134,609	-82,205	-20,151	41,672	56,866	35,410	-23,631	-47,635	-43,734	-27,211
1944	-23,530	-16,742	-6,692	6,894	18,307	-10,297	-69,506	-128,359	-171,724	-185,458	-181,030	-170,805
1945	-144,323	-128,534	-119,091	-104,972	-41,895	-23,833	-59,262	-98,464	-144,835	-153,408	-138,303	-125,899
1946	-112,478	-106,728	-96,237	-62,676	28,443	91,893	100,295	72,818	8,429	-7,858	854	49,636
1947	87,425	122,383	161,315	198,687	221,318	222,657	197,664	157,467	90,346	84,569	120,011	144,072
1948	157,098	169,330	178,569	187,583	207,090	238,980	219,466	182,286	125,996	116,424	135,462	159,417
1949	167,614	178,534	188,344	191,528	232,565	238,931	230,100	194,440	142,416	140,269	187,283	203,025
1950	203,025	208,267	184,104	180,343	198,325	238,980	236,517	198,754	153,854	171,592	203,025	203,025
1951	203,025	216,491	197,882	201,601	235,843	238,896	211,383	172,810	107,800	99,011	123,235	136,340
1952	140,925	151,390	160,658	193,493	227,339	234,171	220,202	176,152	108,650	104,542	103,143	103,630
1953	137,858	176,413	187,013	204,334	229,514	238,980	223,408	183,776	128,286	105,698	127,871	184,359
1954	201,335	211,524	194,197	190,710	213,736	238,980	235,581	201,007	157,365	156,836	185,238	201,141
1955	203,025	216,138	206,073	196,333	213,087	238,980	238,869	202,056	157,814	179,815	203,025	203,025
1956	203,025	197,459	163,019	170,761	207,600	238,980	231,815	189,493	145,584	146,140	171,741	203,025
1957	203,025	209,319	209,985	211,216	238,395	230,926	191,494	147,454	79,572	54,993	59,619	74,831
1958	84,981	103,471	122,137	165,148	212,365	213,569	185,508	138,372	73,073	63,181	103,918	161,516
1959	192,733	202,609	206,482	207,910	233,501	238,980	219,181	180,104	155,185	195,840	203,025	203,025
1960	203,025	212,844	212,442	216,694	238,735	238,410	208,008	169,248	102,869	82,756	121,892	132,154
1961	169,398	199,188	201,096	200,739	232,374	238,557	216,561	175,697	108,486	91,401	104,979	133,338
1962	176,623	192,559	199,889	228,746	234,679	238,284	214,303	178,313	113,130	96,665	132,897	178,262
1963	192,198	215,921	229,697	237,759	238,980	231,172	195,835	154,924	87,451	85,544	97,103	105,032
1964	120,360	126,855	137,570	165,966	202,910	238,980	231,235	197,443	157,584	166,480	183,090	203,025
1965	203,025	222,154	207,828	211,651	238,095	237,541	216,221	180,752	113,244	87,586	95,452	101,759
1966	113,041	116,627	129,116	176,179	207,769	217,759	205,770	166,208	100,839	78,789	87,131	114,291
1967	153,374	180,393	190,808	186,597	214,492	238,913	229,832	189,132	121,441	141,905	178,752	203,025
1968	203,025	229,321	233,656	230,192	238,980	236,537	213,820	177,323	115,590	102,076	141,819	171,955
1969	188,641	193,085	200,738	200,588	235,676	236,255	204,314	164,495	99,816	76,592	80,696	84,884
1970	93,713	103,566	126,123	152,152	192,269	222,957	214,728	158,817	90,641	91,207	102,380	108,511
1971	133,446	170,131	180,812	185,915	211,177	238,980	238,673	200,449	159,918	160,887	193,573	203,025
1972	203,025	197,253	170,868	167,275	198,915	238,980	237,019	202,005	171,821	175,528	189,251	203,025
1973	203,025	207,411	214,333	214,996	211,049	209,644	186,336	139,815	77,890	74,788	82,798	96,222
1974	131,729	144,861	164,439	168,248	190,653	238,980	239,070	205,491	161,008	159,856	169,225	203,025
1975	203,025	212,901	197,896	191,130	213,298	238,980	225,035	190,516	145,479	139,141	191,660	203,025
1976	203,025	216,911	201,391	198,693	229,529	238,980	234,825	202,710	155,377	134,460	144,540	163,809
1977	182,997	193,994	198,564	196,785	143,442	86,383	11,029	-47,810	-91,843	-103,259	-68,749	7,059
1978	23,267	33,672	65,890	110,977	151,183	171,650	157,173	122,067	58,945	29,973	35,855	44,608
1979	48,744	57,635	77,223	95,722	142,760	150,566	131,389	70,651	8,793	-8,529	-9,613	25,545
1980	32,685	40,175	54,436	95,790	146,592	155,043	134,754	84,703	21,128	19,907	40,253	93,777
1981	117,862	154,417	179,004	198,877	203,515	209,045	194,874	146,940	80,363	86,903	93,907	104,141
1982	121,786	160,402	185,011	198,268	223,679	238,980	222,096	183,082	128,457	114,900	130,070	163,163
1983	193,340	206,425	208,543	208,329	229,774	232,716	235,831	195,802	131,135	106,297	131,601	143,203
1984	192,387	204,628	210,585	208,994	234,878	238,980	222,662	184,250	126,441	106,429	127,220	138,901
1985	141,904	144,649	155,139	195,914	234,271	234,972	195,981	152,559	85,883	102,453	150,761	156,217
1986	163,983	186,361	216,230	232,833	238,980	229,062	192,925	147,138	82,079	82,213	108,417	116,737
1987	122,292	128,845	168,193	205,371	228,514	213,194	174,212	128,680	62,673	31,010	28,304	34,537
1988	37,863	50,108	71,071	110,095	157,638	172,073	143,725	93,221	31,533	33,012	55,243	73,276
1989	93,006	101,884	114,364	174,024	199,522	211,759	186,829	143,394	74,114	48,338	70,699	96,370
1990	141,737	174,241	191,127	224,831	238,638	238,830	213,904	175,606	108,779	112,195	197,562	203,025
1991	203,025	227,068	216,429	226,920	238,795	238,823	220,331	182,002	113,545	84,649	105,739	154,160
1992	178,197	194,411	215,433	237,188	222,739	168,860	100,139	25,532	-20,358	-35,854	-23,780	-15,693
1993	-5,654	-130	17,097	44,024	108,916	83,292	17,517	-40,719	-89,104	-106,778	-109,255	-104,544
1994	-90,548	-83,578	-64,657	-32,359	-18,029	-52,629	-109,285	-167,389	-199,784	-192,364	-179,372	-158,640
1995	-146,972	-104,290	-59,996	-23,192	38,212	50,135	41,308	-477	-52,874	-33,333	43,199	93,983
1996	150,983	198,949	212,192	228,962	238,729	235,831	225,419	186,906	121,375	103,705	132,918	156,032
1997	182,631	199,242	174,275	180,294	218,656	238,980	227,967	189,615	151,478	174,378	203,025	203,025
1998	203,025	212,410	211,655	212,376	238,384	234,697	206,269	163,573	93,860	67,591	87,056	123,615
1999	174,217	186,683	191,546	188,867	203,594	238,980	238,207	207,656	164,646	160,045	203,025	203,025
2000	203,025	207,045	209,071	218,203	238,545	238,874	207,500	166,447	106,566	93,695	98,274	100,439
2001	103,473	105,777	118,494	136,077	169,395	115,760	32,846	-22,118	-68,713	-74,719	-51,659	-37,667
2002	-15,504	-4,527	12,533	67,844	138,046	195,210	190,723	146,878	77,018	47,747	50,667	53,891
2003	73,974	101,412	146,704	180,810	194,656	197,638	175,153	133,876	68,345	74,998	99,827	110,926
2004	121,974	131,102	152,026	188,841	205,818	204,107	171,358	131,887	74,381	80,353	97,637	120,577
2005	158,034	176,039	184,455	189,662	168,858	99,728	21,165	-34,186	-81,962	-92,916	-80,404	-68,802
2006	-45,961	-35,874	-29,178	-3,803	64,552	111,031	99,311	64,858	4,258	826	46,064	57,117
2007	73,847	90,854	151,075	186,618	213,633	223,602	198,437	156,734	87,828	67,678	76,191	92,605
2008	98,545	106,105	115,506	122,131	192,714	231,165	215,593	176,596	122,903	99,418	145,683	174,608
2009	203,025	207,722	208,913	208,562	237,344	235,900	203,737	166,255	104,913	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.1 Bumping (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	158,581	157,168	200,949
1926	217,117	223,924	266,539	350,118	369,073	282,710	150,325	33,837	15,783	41,809	61,285	93,889
1927	99,931	100,628	103,235	153,084	280,623	451,480	364,657	178,393	169,105	201,135	274,846	318,282
1928	326,985	329,183	358,897	361,547	449,838	445,965	309,068	137,228	115,679	132,748	133,815	130,690
1929	123,448	115,070	123,158	133,351	254,992	325,285	243,757	117,644	86,879	79,292	71,211	67,179
1930	60,458	83,906	116,417	214,945	260,859	252,421	154,966	41,145	19,608	21,919	27,554	25,778
1931	34,961	54,752	86,907	137,058	254,305	244,230	117,412	21,034	13,676	16,037	40,068	43,725
1932	65,899	125,878	209,247	293,526	445,193	451,480	338,392	154,937	133,417	135,540	233,482	282,807
1933	310,826	309,612	308,962	306,678	340,351	451,480	439,210	313,887	255,913	287,345	325,551	393,487
1934	366,913	385,189	392,768	448,120	451,417	388,921	233,427	73,958	56,565	77,997	148,542	172,341
1935	245,652	275,091	291,508	326,608	444,658	451,480	368,488	204,944	189,583	181,702	175,423	168,709
1936	168,317	162,754	173,841	273,368	443,072	449,979	324,481	156,118	136,937	130,454	120,973	127,526
1937	121,501	117,356	123,780	158,249	297,593	451,480	364,709	199,205	179,595	178,158	220,682	252,231
1938	266,518	264,931	271,332	340,447	446,450	451,480	327,312	153,300	126,311	121,004	127,654	150,014
1939	178,747	181,898	200,020	279,661	411,858	409,059	270,490	101,064	79,980	77,403	90,551	131,696
1940	135,724	146,869	181,677	260,883	376,774	355,555	233,387	97,826	65,439	67,710	71,187	89,693
1941	90,913	90,126	127,227	197,812	232,851	200,307	101,001	21,966	28,228	55,304	89,093	130,421
1942	134,035	136,205	145,576	214,521	272,427	288,552	178,729	43,041	22,160	14,884	32,715	57,867
1943	77,413	85,615	105,288	212,883	341,173	451,480	401,188	223,032	184,563	169,913	167,800	191,836
1944	187,240	187,247	198,019	233,241	308,894	308,239	200,341	80,388	68,382	72,061	79,913	98,902
1945	149,981	180,281	191,553	211,826	358,742	383,240	232,518	72,072	54,874	60,648	80,506	91,483
1946	105,669	106,992	116,078	185,268	402,502	451,480	380,175	200,344	181,225	191,697	198,354	253,049
1947	276,617	303,134	343,018	405,800	450,703	438,346	298,314	129,093	114,943	164,864	217,813	238,781
1948	244,518	247,842	250,889	271,768	362,379	451,480	381,387	237,673	218,721	220,961	231,806	243,800
1949	240,204	244,090	255,886	285,353	425,264	451,031	396,039	249,862	222,610	229,247	307,289	325,524
1950	325,497	328,978	316,086	302,106	308,990	451,480	439,612	325,785	267,546	278,385	325,551	325,524
1951	325,497	385,694	348,448	344,743	441,614	451,480	355,152	191,994	173,341	197,006	219,321	228,345
1952	225,609	227,157	228,080	301,496	436,050	439,644	317,458	154,222	134,799	124,399	115,811	108,949
1953	156,561	206,290	217,171	257,284	392,676	451,480	399,864	255,267	237,659	237,172	253,537	300,041
1954	317,157	323,703	324,922	320,410	364,813	451,480	438,904	341,066	290,718	269,305	307,979	318,251
1955	319,140	331,367	330,919	305,383	389,531	421,731	391,976	259,929	245,579	266,235	325,592	325,592
1956	325,592	325,676	277,933	273,518	349,577	451,480	427,935	287,646	247,370	252,092	273,896	325,524
1957	325,181	325,195	333,779	354,260	449,387	422,587	270,799	111,963	91,512	87,577	88,142	99,984
1958	105,055	120,127	139,822	185,401	387,111	435,675	275,533	96,675	82,242	102,899	176,164	250,231
1959	295,500	306,572	322,006	342,691	444,321	451,480	385,104	224,855	232,953	282,393	366,766	362,134
1960	343,035	346,722	358,404	375,525	450,576	450,677	331,644	169,026	150,892	155,422	182,088	185,054
1961	213,244	259,370	292,518	317,589	428,323	450,391	355,495	188,525	175,755	184,404	192,207	207,628
1962	262,558	287,641	290,495	381,562	450,591	451,480	356,123	203,990	182,777	188,848	252,456	287,257
1963	305,708	352,653	372,640	401,057	451,480	422,523	281,139	124,432	106,314	104,289	117,603	124,758
1964	141,907	142,515	145,218	174,711	283,387	451,480	421,305	306,439	273,057	265,254	272,324	306,332
1965	331,063	359,492	363,967	359,981	448,336	445,780	344,587	192,486	175,284	175,971	191,956	196,969
1966	198,058	193,546	199,312	267,421	401,497	437,173	320,715	145,742	123,558	129,271	137,344	188,060
1967	217,476	240,019	245,826	241,617	358,443	398,313	299,442	154,216	137,949	182,109	227,547	292,833
1968	325,592	385,610	423,704	428,630	451,480	437,950	306,195	164,593	162,942	182,676	223,842	244,739
1969	273,301	272,094	277,339	317,064	439,872	440,400	310,705	143,795	126,743	136,849	144,104	143,940
1970	146,256	147,220	157,800	178,019	301,562	376,860	247,937	96,776	83,847	82,505	93,669	99,091
1971	132,846	183,385	194,720	226,491	357,177	451,480	450,343	332,960	304,262	292,311	314,589	325,281
1972	325,497	361,546	325,955	290,251	330,190	451,480	441,533	342,175	296,854	262,238	269,563	305,503
1973	325,497	326,349	327,919	341,469	389,330	349,534	195,179	55,001	42,464	47,491	60,630	78,293
1974	145,416	160,893	179,382	202,941	282,288	451,480	451,480	368,146	310,351	273,144	276,931	306,945
1975	325,497	332,123	331,680	323,257	360,650	451,480	404,908	282,389	223,395	206,397	262,046	340,499
1976	337,978	356,239	349,330	343,664	423,111	451,480	433,434	353,292	290,194	257,191	264,523	272,270
1977	295,963	308,182	308,727	337,463	310,877	258,921	131,605	30,700	23,224	24,280	83,014	199,218
1978	206,795	212,303	255,885	313,513	413,711	451,480	340,996	179,871	179,149	177,196	191,474	194,419
1979	189,190	188,425	219,583	250,657	386,216	370,646	232,786	78,700	54,006	50,566	49,097	125,419
1980	130,631	136,388	158,592	243,557	364,774	397,510	249,088	85,335	71,842	69,157	107,242	230,410
1981	261,705	305,364	328,276	371,974	439,781	383,108	219,697	71,003	60,752	71,828	84,091	91,012
1982	108,144	171,561	204,141	236,975	372,071	451,480	393,359	244,052	230,304	229,360	235,554	263,262
1983	311,820	328,373	356,482	354,199	445,595	451,480	369,760	221,824	215,214	209,954	250,061	254,823
1984	325,497	340,674	356,118	353,822	425,672	451,480	398,537	247,354	236,349	241,445	253,667	256,923
1985	250,903	245,901	248,609	322,696	450,834	436,261	290,439	130,192	116,881	141,795	183,904	178,715
1986	183,397	220,300	281,703	329,518	419,925	415,519	265,003	106,475	90,921	89,321	133,086	140,225
1987	137,423	135,609	172,875	253,002	380,321	339,852	192,984	47,512	28,467	19,283	12,991	17,776
1988	14,054	23,237	54,037	156,263	273,593	315,220	208,172	65,132	50,483	75,141	118,100	148,714
1989	175,415	184,915	194,575	288,474	395,485	423,891	275,908	110,404	87,414	82,526	128,841	178,168
1990	203,673	221,629	243,653	366,750	450,236	451,480	354,622	203,183	186,622	226,084	379,656	354,421
1991	347,427	406,269	390,440	419,189	450,786	451,480	384,868	235,490	217,652	210,305	230,159	263,338
1992	285,735	312,648	364,257	433,537	445,250	359,518	233,358	109,086	89,148	86,672	98,898	101,929
1993	108,784	111,108	132,939	182,609	339,810	338,978	238,197	115,587	84,328	76,228	71,532	70,969
1994	80,485	83,015	117,917	207,814	297,630	275,187	179,302	60,212	38,535	43,555	60,425	92,974
1995	107,448	196,580	239,799	291,092	449,033	451,480	330,034	148,531	131,913	170,283	363,197	357,422
1996	353,097	413,239	384,345	408,915	450,555	446,999	340,221	190,667	176,016	183,167	215,939	232,114
1997	258,264	289,401	297,567	288,737	381,699	451,480	417,997	282,407	264,174	313,741	325,551	325,524
1998	325,497	331,472	355,999	358,321	449,348	439,130	308,709	143,894	119,525	114,555	140,042	175,889
1999	227,265	236,958	244,968	276,039	327,584	451,480	450,643	373,956	324,125	306,116	326,604	325,524
2000	324,543	322,560	325,736	375,526	449,910	451,480	340,510	181,316	169,586	179,628	177,116	169,770
2001	163,860	156,044	166,074	193,157	280,214	250,603	151,631	42,032	16,636	21,707	74,045	92,852
2002	134,249	148,897	166,060	240,512	371,213	451,480	353,988	190,909	171,361	162,423	162,827	161,787
2003	189,211	220,976	264,846	317,956	407,831	427,446	261,346	95,324	79,966	111,577	162,564	179,987
2004	187,572	196,548	233,967	312,191	413,737	396,516	234,129	85,762	95,680	106,149	144,379	195,704
2005	268,546	284,994	300,315	333,044	361,265	282,015	166,066	47,058	21,595	28,922	43,592	63,596
2006	101,573	112,021	116,271	171,439	341,191	451,480	319,672	135,984	114,105	107,216	218,211	229,342
2007	252,151	273,096	366,357	398,159	450,967	427,816	296,857	129,485	105,649	115,295	126,278	161,379
2008	161,279	161,634	167,422	173,007	360,234	451,480	366,503	216,212	196,263	195,696	267,335	281,016
2009	325,497	325,732	326,459	344,971	445,707	440,172	311,767	148,090	128,567	NA	NA	NA

IP5.1 Bumping (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	166,362	160,918	166,340
1926	169,732	170,132	174,063	180,300	180,300	178,722	161,705	149,604	142,551	143,850	146,876	156,042
1927	162,820	163,926	163,025	160,333	171,166	180,300	189,966	185,421	181,492	171,276	170,276	169,999
1928	169,999	169,445	169,999	160,670	179,790	180,300	183,355	175,561	172,518	168,973	166,296	161,848
1929	156,535	151,817	147,610	146,830	176,002	180,300	170,869	158,480	149,651	143,200	136,889	131,170
1930	125,595	131,428	131,703	152,670	175,547	180,300	168,118	151,653	143,642	136,496	132,043	126,784
1931	125,683	127,916	130,247	140,719	180,300	180,300	168,446	157,192	147,997	141,618	142,051	139,393
1932	138,993	144,269	156,901	160,333	178,399	180,300	189,966	185,183	181,308	170,917	170,051	169,948
1933	169,980	168,220	166,074	160,333	160,333	180,300	189,966	189,929	186,460	173,829	170,061	175,506
1934	171,263	174,840	171,605	179,258	180,279	180,300	179,656	172,427	167,820	171,774	170,859	169,999
1935	169,999	174,526	170,061	160,465	178,187	180,300	189,941	182,760	180,845	170,601	165,684	160,459
1936	156,142	151,376	148,208	160,333	177,696	180,300	182,367	174,931	171,985	166,816	160,911	158,239
1937	152,861	147,936	143,373	147,227	174,954	180,300	189,966	183,676	179,097	171,085	169,999	169,999
1938	169,999	169,314	167,439	160,464	178,742	180,300	184,617	177,998	172,771	168,144	163,119	163,742
1939	163,917	159,978	158,061	174,603	180,242	180,300	181,274	174,758	170,635	163,939	157,736	166,764
1940	169,422	172,183	177,720	179,841	180,300	180,300	169,595	156,344	148,608	143,216	140,737	143,700
1941	140,943	137,859	139,881	153,245	170,159	174,219	162,150	147,917	139,520	134,406	137,858	151,755
1942	150,974	145,542	142,076	154,973	177,477	180,300	169,952	162,073	154,170	146,824	153,705	159,777
1943	161,031	159,947	160,529	160,529	169,776	180,300	189,966	187,770	182,197	170,835	165,579	168,609
1944	162,964	159,779	159,646	164,923	180,300	180,300	168,628	157,835	151,159	144,712	139,154	135,683
1945	144,043	150,520	148,991	149,390	180,237	180,300	170,028	164,203	159,474	152,992	151,913	152,163
1946	156,254	152,188	149,860	160,333	173,312	180,300	189,966	185,536	180,737	171,525	169,999	169,999
1947	169,999	173,383	169,999	168,258	180,058	180,300	185,680	181,128	178,541	172,443	170,184	169,999
1948	168,613	169,040	169,790	160,333	165,402	180,300	189,966	184,391	180,912	170,852	169,482	167,868
1949	163,040	160,173	163,920	160,333	173,334	180,300	189,966	188,023	182,144	171,874	171,901	169,999
1950	169,999	170,106	169,999	160,963	160,888	180,883	189,966	189,926	184,242	172,158	170,514	171,205
1951	170,380	171,500	169,585	161,518	177,245	180,300	189,944	183,595	179,538	171,656	169,999	169,440
1952	165,296	165,300	162,479	161,045	179,807	180,300	186,753	180,368	175,385	168,987	163,062	156,720
1953	169,999	174,440	168,724	160,333	177,403	180,300	189,966	183,924	179,692	170,522	169,999	169,999
1954	169,999	169,311	169,953	160,595	162,015	180,300	189,966	189,966	184,623	171,477	169,999	169,934
1955	168,677	165,965	162,307	158,238	160,333	180,300	189,966	184,726	181,283	173,476	170,638	170,059
1956	169,999	168,482	166,324	160,333	167,668	180,300	189,966	188,719	183,331	171,431	169,964	169,999
1957	168,574	166,924	169,681	160,964	179,650	180,300	178,136	171,872	166,899	162,285	157,586	156,524
1958	158,109	160,826	161,920	160,333	181,388	180,300	181,399	174,701	170,161	166,478	169,999	169,999
1959	169,999	170,280	169,307	160,851	178,083	180,300	189,966	184,743	184,208	172,265	170,160	170,119
1960	169,999	171,777	169,999	163,623	180,019	180,300	185,446	176,398	171,790	167,189	169,999	169,779
1961	169,999	171,657	170,071	161,030	173,131	180,300	189,956	184,359	180,650	171,008	168,127	169,999
1962	169,976	170,325	168,045	168,547	180,023	180,300	189,966	186,131	181,017	170,952	171,256	170,210
1963	169,395	177,924	179,291	180,131	180,300	180,300	179,420	172,769	167,805	162,474	162,397	163,834
1964	167,849	166,092	162,324	160,333	160,333	180,300	189,966	189,107	182,925	170,888	169,999	169,999
1965	169,999	172,215	169,922	160,484	179,325	180,300	187,108	182,017	177,883	170,747	168,164	165,130
1966	159,546	154,184	151,149	162,827	179,988	180,300	186,929	183,164	178,853	170,986	169,328	169,999
1967	169,999	171,000	169,313	159,544	172,255	180,300	189,966	184,147	179,867	173,146	169,999	169,999
1968	169,999	180,463	180,052	178,124	180,300	180,300	181,176	174,749	172,773	171,460	170,072	169,673
1969	169,564	166,818	164,473	160,610	176,705	180,300	180,435	172,770	169,471	166,891	165,515	161,040
1970	163,493	163,450	164,810	160,282	177,666	180,300	187,157	182,234	177,653	170,697	169,999	169,403
1971	169,999	170,882	169,670	160,333	160,401	180,300	189,966	187,555	182,987	171,231	169,596	167,452
1972	167,216	169,999	169,999	160,588	163,923	180,300	189,966	189,687	186,911	171,038	169,482	170,137
1973	169,999	168,725	166,052	169,088	180,300	180,300	178,930	173,415	168,421	163,045	169,031	169,999
1974	171,384	169,834	169,999	160,656	160,656	180,300	189,966	189,966	185,217	170,799	169,636	169,999
1975	169,999	170,079	169,585	160,333	160,463	180,300	189,966	189,966	184,512	171,588	170,335	170,741
1976	170,528	170,962	168,391	160,547	175,326	180,300	189,966	189,966	185,726	170,939	167,360	163,624
1977	161,679	155,696	149,858	155,750	165,712	174,790	162,651	148,185	141,579	136,423	150,624	170,083
1978	169,106	167,626	169,999	162,368	179,778	180,300	186,846	180,528	178,543	170,809	165,984	158,820
1979	151,906	149,142	153,580	156,237	180,300	180,300	177,489	166,030	157,675	152,285	146,538	165,963
1980	169,999	173,368	169,715	169,729	180,030	180,300	181,852	177,058	173,834	168,780	169,999	179,772
1981	170,283	182,666	183,920	180,249	180,300	180,300	179,705	174,536	171,034	167,560	167,100	169,998
1982	168,329	173,417	170,123	160,436	168,034	180,300	189,966	184,579	181,628	171,528	168,303	169,999
1983	169,999	171,727	170,253	160,399	179,054	180,300	189,966	182,805	180,379	170,898	169,999	169,632
1984	169,999	172,629	170,166	160,666	176,902	180,300	189,966	182,296	178,238	171,035	167,370	159,642
1985	152,880	147,254	142,958	155,176	180,098	180,300	175,122	168,217	164,781	165,219	169,646	164,223
1986	165,079	175,478	174,436	179,499	180,299	180,300	172,014	163,646	160,029	155,278	165,039	165,444
1987	163,015	163,620	170,562	179,007	180,295	180,300	175,280	168,751	163,316	155,716	148,715	148,164
1988	146,071	144,616	147,999	168,881	180,140	180,300	181,457	175,460	170,723	166,192	169,960	169,999
1989	169,811	168,090	168,670	168,676	180,096	180,300	181,881	173,398	169,218	163,623	165,020	169,856
1990	170,126	171,447	169,999	165,868	179,913	180,300	187,391	180,026	177,016	171,878	174,875	169,999
1991	169,999	178,698	169,937	166,104	180,084	180,300	189,966	183,133	178,914	170,755	169,999	169,000
1992	169,556	172,517	182,435	180,300	180,300	178,053	166,799	153,358	146,407	139,737	133,616	127,079
1993	122,583	116,615	119,943	127,895	169,990	180,300	170,233	159,602	151,776	144,079	137,736	132,627
1994	130,088	124,860	128,812	146,317	174,038	180,300	168,140	151,529	142,985	139,481	137,539	147,770
1995	151,648	175,820	170,419	160,461	179,541	180,300	184,059	178,512	174,631	171,246	182,433	170,535
1996	170,377	175,234	170,359	167,515	180,012	180,300	184,475	178,766	175,856	171,148	169,999	169,999
1997	169,999	170,323	169,999	161,047	166,000	180,300	189,966	184,883	184,778	173,832	170,425	170,040
1998	169,999	169,812	169,999	160,427	179,638	180,300	182,015	172,081	167,530	162,788	167,610	169,999
1999	169,999	169,646	169,548	160,333	160,333	180,300	189,966	189,899	183,702	171,143	171,210	170,232
2000	169,456	169,293	168,298	162,703	179,813	180,300	185,514	177,406	174,518	170,590	164,929	158,669
2001	152,314	146,679	144,564	148,297	175,346	180,300	169,119	160,448	150,773	142,790	149,133	151,307
2002	166,193	168,509	169,933	161,331	174,143	180,300	189,576	184,323	180,027	170,664	164,037	158,185
2003	170,804	173,652	170,684	174,471	180,270	180,300	179,299	173,513	168,649	166,730	169,175	168,541
2004	169,014	169,509	172,329	179,588	180,300	180,300	179,643	172,307	170,721	168,083	169,076	169,999
2005	170,824	170,172	169,822	179,160	180,300	179,585	168,298	154,039	148,390	143,427	142,337	148,780
2006	166,194	169,621	168,378	160,578	176,233	180,300	184,648	180,980	177,289	170,731	170,763	169,999
2007	169,836	172,490	170,873	166,619	180,140	180,300	181,903	176,061	171,396	168,696	169,967	169,999
2008	168,668	166,241	163,945	160,333	173,962	180,300	189,966	183,190	179,943	170,854	170,030	169,316
2009	169,999	168,563	166,651	160,399	178,512	180,300	184,018	178,440	174,698	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.1 Bumping (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,133	9,217	29,521
1926	40,522	53,200	73,095	108,175	131,443	137,491	134,543	66,419	44	12,574	26,000	48,588
1927	61,017	74,491	88,636	113,569	161,992	198,000	191,209	169,562	69,140	88,873	120,732	129,025
1928	129,025	140,735	151,989	149,231	197,064	197,984	186,302	142,762	28,533	10,175	18,568	25,654
1929	30,855	34,938	43,032	53,001	93,590	133,919	147,726	128,396	50,614	40,830	37,732	43,270
1930	48,054	67,001	85,801	124,998	151,952	170,781	155,268	116,041	57,739	34,629	38,590	40,593
1931	48,784	58,007	70,546	99,281	150,202	166,988	163,620	123,759	46,518	30,639	36,928	43,889
1932	53,992	69,751	103,345	133,896	185,072	198,000	190,870	166,066	49,330	19,165	59,320	81,688
1933	98,021	106,516	117,149	113,793	136,509	198,000	198,000	172,819	118,693	141,921	130,953	171,161
1934	137,929	163,034	157,458	196,124	197,929	198,000	184,649	148,650	67,867	58,928	102,624	125,281
1935	129,025	150,213	146,494	139,460	182,853	198,000	188,768	155,112	45,842	12,554	13,143	18,377
1936	26,545	31,412	42,109	80,475	153,984	198,000	186,523	148,569	51,939	33,615	36,778	39,390
1937	43,990	48,624	56,580	77,081	122,378	193,070	191,203	165,804	71,508	51,523	73,978	100,447
1938	126,650	138,301	134,591	137,160	195,209	198,000	186,531	148,550	35,889	4,434	12,871	27,644
1939	39,000	47,549	63,347	95,428	138,898	159,447	156,605	121,886	28,292	10,693	17,202	35,853
1940	47,376	62,830	87,030	117,745	161,352	175,905	173,323	140,906	79,746	70,135	75,814	91,043
1941	99,854	106,930	121,708	147,354	167,030	172,829	141,116	93,425	46,645	48,147	62,229	92,136
1942	102,492	109,709	119,000	146,046	175,684	198,000	180,247	138,526	63,960	45,466	64,558	87,304
1943	103,905	116,539	121,070	127,977	165,719	198,000	194,799	173,562	72,342	49,865	59,620	72,974
1944	79,907	87,974	100,584	115,878	138,080	152,732	136,264	88,014	30,629	29,890	36,855	45,826
1945	66,188	85,803	95,505	108,484	155,093	183,086	183,789	153,499	83,521	80,217	90,926	102,433
1946	117,790	126,258	123,163	114,191	174,964	198,000	195,816	174,728	74,718	38,042	59,938	109,877
1947	127,854	150,506	153,612	166,574	197,538	197,984	187,271	161,066	60,384	68,027	95,431	113,717
1948	129,025	144,954	116,650	102,763	140,596	198,000	191,800	165,196	60,527	53,989	66,955	78,644
1949	86,648	96,718	106,465	106,989	176,833	198,000	191,607	160,789	71,391	60,189	91,352	112,916
1950	128,797	143,972	103,850	92,464	120,016	198,000	198,000	181,322	124,895	141,776	131,629	131,629
1951	131,442	159,781	125,250	126,295	191,342	198,000	189,948	161,430	59,439	57,609	73,197	90,277
1952	100,280	114,596	126,895	156,514	197,094	198,000	187,258	157,074	55,673	38,086	43,216	49,477
1953	83,591	113,021	126,969	134,311	175,744	198,000	196,030	170,944	56,127	27,459	39,442	67,891
1954	85,823	99,699	115,955	109,816	147,071	198,000	198,000	178,569	129,253	132,909	130,291	130,109
1955	129,998	140,828	138,376	123,517	142,602	198,000	193,137	149,480	45,385	52,296	92,737	129,025
1956	129,025	129,078	69,783	65,185	141,856	198,000	197,705	175,875	102,607	95,968	110,198	129,025
1957	129,025	139,815	145,484	144,724	196,817	198,000	184,370	149,630	44,798	19,184	28,280	41,878
1958	55,764	73,768	91,756	118,754	196,532	198,000	185,434	156,376	64,322	47,094	87,258	129,025
1959	129,025	146,661	139,598	138,389	171,080	198,000	190,991	155,435	84,830	111,218	134,101	130,989
1960	130,245	148,034	150,493	162,772	197,469	198,000	186,548	153,862	50,153	15,683	35,445	47,480
1961	70,252	106,713	128,149	127,110	170,414	198,000	187,851	159,591	54,763	32,696	43,728	60,237
1962	88,972	105,471	116,896	161,086	186,320	198,000	188,805	160,141	62,892	60,981	101,342	129,025
1963	129,025	169,775	187,532	197,667	198,000	198,000	186,199	156,209	76,304	63,075	74,665	87,837
1964	104,761	116,467	126,942	119,263	137,145	198,000	197,626	163,332	85,940	86,226	95,917	128,670
1965	133,050	158,916	141,875	145,558	190,770	198,000	186,955	159,594	64,053	34,626	46,641	56,209
1966	65,145	70,648	79,886	110,334	160,808	190,899	187,439	161,458	66,099	30,115	41,383	66,276
1967	85,433	103,805	116,934	127,109	168,724	198,000	186,766	140,562	50,597	59,346	82,589	106,928
1968	129,025	176,546	184,743	196,575	198,000	198,000	186,130	159,205	77,518	58,169	92,424	109,542
1969	129,025	139,941	130,028	125,280	191,607	198,000	184,562	148,678	59,369	38,075	48,914	57,946
1970	76,697	89,952	108,956	128,057	180,825	198,000	187,532	162,237	87,858	78,275	90,681	105,465
1971	129,025	156,348	114,594	100,481	144,163	198,000	198,000	175,401	94,287	77,210	87,700	98,511
1972	114,257	133,999	90,144	70,824	124,867	198,000	198,000	186,307	146,035	155,223	130,308	130,046
1973	130,046	141,345	152,831	167,331	193,251	198,000	183,758	144,446	75,878	60,656	81,129	103,249
1974	133,111	137,293	82,241	67,687	105,311	198,000	198,000	180,260	142,963	135,965	130,191	130,049
1975	130,049	148,011	125,028	111,056	143,940	198,000	197,065	178,310	124,346	124,538	129,025	132,990
1976	132,669	153,041	130,970	124,587	174,306	198,000	198,000	189,643	158,349	160,132	130,072	129,789
1977	129,602	137,013	144,215	158,451	166,112	179,934	152,421	91,199	39,722	38,792	60,647	131,552
1978	130,422	142,772	149,358	155,932	193,660	198,000	191,226	173,353	103,447	79,831	89,234	99,002
1979	106,117	114,608	132,128	146,336	192,564	198,000	185,425	164,165	110,458	93,793	98,476	122,645
1980	129,025	140,932	151,472	169,353	197,489	198,000	187,316	147,687	73,035	57,392	77,084	129,762
1981	129,762	166,878	189,830	197,876	198,000	198,000	187,532	156,991	76,146	80,177	91,608	109,904
1982	128,866	164,100	134,718	123,448	164,107	198,000	192,528	161,316	77,221	66,827	78,520	100,429
1983	129,025	150,261	144,051	139,191	194,741	198,000	187,532	171,022	85,406	58,423	82,036	94,232
1984	129,025	150,975	146,832	141,814	174,206	198,000	193,746	164,807	81,938	62,377	75,388	86,017
1985	94,110	100,923	110,991	141,258	186,865	197,991	178,076	133,949	63,348	55,038	69,865	77,164
1986	88,530	117,146	164,049	193,128	197,964	198,000	183,013	142,196	67,794	55,044	73,385	83,382
1987	91,909	103,016	133,236	167,269	197,958	197,964	183,471	142,529	45,514	42,445	47,581	62,025
1988	68,345	80,236	99,362	140,281	185,822	198,000	183,544	145,436	65,538	52,372	69,672	85,185
1989	97,788	106,968	123,284	168,528	197,605	198,000	187,155	158,866	49,984	19,683	36,186	61,408
1990	91,812	106,703	125,797	163,518	196,516	198,000	188,633	157,665	48,942	29,098	72,021	93,117
1991	115,297	154,059	156,523	166,060	197,237	198,000	191,479	166,442	59,600	21,012	38,846	55,794
1992	70,545	90,918	116,385	148,307	177,694	184,074	177,679	156,359	85,057	86,677	95,710	102,451
1993	109,061	115,721	132,084	154,721	197,963	198,000	187,236	143,719	71,542	64,954	64,687	68,740
1994	78,360	84,525	101,276	132,158	165,042	175,956	165,645	115,743	37,020	14,146	27,700	52,327
1995	70,787	129,078	149,231	146,244	196,624	198,000	189,615	163,227	84,634	100,035	155,521	132,766
1996	131,911	169,738	149,528	168,373	197,457	198,000	187,468	161,170	71,450	44,776	59,863	77,039
1997	117,630	133,211	90,392	85,457	152,910	198,000	197,341	176,057	121,290	154,404	131,535	130,317
1998	129,794	143,885	148,562	146,948	196,796	198,000	186,980	153,359	50,427	26,116	42,203	71,248
1999	102,557	117,056	114,553	102,397	130,116	198,000	198,000	185,873	140,126	143,177	131,636	131,390
2000	130,433	145,124	143,893	155,554	197,104	198,000	186,959	144,891	55,441	28,684	34,584	40,798
2001	47,254	53,159	62,547	75,748	105,602	114,295	111,842	68,280	93	5,793	25,434	39,435
2002	70,202	84,653	101,315	130,447	169,146	198,000	195,849	161,491	60,617	25,567	32,769	42,007
2003	70,207	103,248	135,115	165,844	197,913	198,000	186,692	153,865	70,522	62,238	73,782	85,736
2004	97,394	109,429	130,876	164,409	197,973	198,000	184,736	159,809	85,462	78,781	91,458	111,002
2005	129,025	140,918	153,613	174,041	197,958	198,000	177,088	111,206	39,753	38,201	49,267	67,434
2006	101,909	120,384	131,746	128,022	188,301	198,000	189,074	161,277	70,142	52,228	116,597	129,025
2007	129,025	150,297	153,740	167,661	197,683	198,000	187,216	156,925	49,042	17,063	30,822	59,692
2008	70,424	80,284	93,059	107,686	180,415	198,000	191,481	155,480	40,958	5,949	36,504	49,184
2009	85,974	98,203	110,582	137,320	194,802	198,000	186,701	150,955	41,977	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.1 Bumping (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.1 Bumping (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	480,173	482,373	607,450
1926	659,284	696,939	804,237	973,610	956,629	776,167	494,820	231,719	94,260	148,677	204,585	300,078
1927	335,809	359,355	383,028	489,503	748,509	1,042,104	925,616	645,017	472,865	532,162	717,727	806,751
1928	865,506	884,061	961,064	986,955	1,219,139	1,215,502	990,167	683,818	469,354	453,347	465,115	465,881
1929	456,570	446,530	474,415	481,668	732,926	863,357	673,921	408,695	237,050	190,371	165,580	164,538
1930	160,277	245,462	327,182	548,600	634,023	605,270	396,105	163,598	27,394	4,859	19,796	14,958
1931	44,196	96,558	181,301	310,526	578,043	577,057	380,931	165,749	27,830	6,951	63,035	79,967
1932	135,881	259,000	448,908	628,221	928,505	1,007,380	868,241	591,261	383,042	329,937	569,796	689,558
1933	777,281	792,008	808,907	827,977	944,780	1,226,530	1,210,373	987,408	815,162	899,043	948,387	1,066,776
1934	997,926	1,074,196	1,073,453	1,218,256	1,223,574	1,118,098	857,909	565,023	389,887	432,943	600,518	678,353
1935	826,664	903,860	935,283	959,385	1,195,659	1,226,530	1,081,817	799,966	600,081	517,913	507,249	503,680
1936	522,534	524,093	565,927	778,976	1,166,502	1,224,187	1,009,401	714,944	523,796	483,820	464,956	498,833
1937	495,027	498,261	524,272	617,167	897,585	1,204,461	1,073,272	795,230	604,988	569,151	695,915	791,874
1938	853,205	867,496	875,002	968,733	1,214,161	1,224,482	1,010,794	708,524	488,785	416,808	447,443	524,269
1939	606,982	626,337	680,294	859,743	1,094,880	1,103,573	881,951	583,499	394,616	366,542	394,371	505,853
1940	529,875	580,049	680,529	845,714	1,038,056	958,538	689,182	404,605	252,086	226,655	242,452	302,704
1941	314,409	320,773	402,954	544,971	593,244	519,362	316,373	116,731	34,743	71,924	152,177	270,271
1942	289,156	299,307	327,448	483,089	604,450	652,327	467,939	215,826	63,814	22,583	99,485	186,221
1943	243,480	273,514	319,874	508,140	749,993	967,106	908,898	647,630	440,182	366,407	374,774	449,812
1944	449,741	465,022	503,736	576,782	701,413	676,455	446,629	207,589	92,266	72,546	89,642	133,853
1945	267,263	353,771	387,094	442,247	745,118	801,852	583,100	316,399	180,397	171,441	230,738	275,133
1946	329,971	342,345	362,369	481,606	898,546	1,047,705	960,866	691,559	501,378	458,781	499,087	669,664
1947	749,029	829,742	911,802	1,052,801	1,187,052	1,168,139	950,129	667,934	481,337	550,223	684,053	746,844
1948	779,292	811,398	798,259	816,431	998,068	1,226,530	1,107,336	857,618	666,306	642,162	686,132	729,915
1949	737,286	763,490	804,878	850,545	1,155,478	1,225,932	1,139,749	888,735	698,119	683,271	854,579	917,399
1950	941,025	970,280	872,338	830,101	901,923	1,228,697	1,213,192	1,010,630	820,016	845,072	923,884	950,179
1951	949,141	1,067,447	954,389	951,409	1,199,620	1,226,326	1,061,158	784,589	591,033	605,804	666,013	704,393
1952	711,710	738,467	758,418	912,708	1,177,767	1,191,504	1,011,183	727,408	530,971	488,768	471,356	460,048
1953	628,945	761,773	796,503	866,472	1,117,611	1,226,530	1,143,300	889,154	680,394	620,707	671,679	811,908
1954	874,081	909,280	914,259	886,985	1,016,999	1,226,707	1,211,392	1,028,812	858,215	810,575	878,017	899,819
1955	905,437	948,854	934,528	885,241	1,032,060	1,196,785	1,164,839	914,013	722,622	762,075	906,850	946,497
1956	946,401	934,609	752,515	751,301	990,916	1,226,530	1,191,791	948,437	760,674	745,938	805,935	946,369
1957	944,602	961,650	984,007	998,833	1,221,363	1,174,062	918,005	634,395	431,504	370,850	382,547	435,550
1958	473,677	539,404	595,913	714,334	1,098,893	1,136,587	886,292	584,675	405,978	409,247	610,994	796,727
1959	892,666	936,885	959,163	973,930	1,176,307	1,226,530	1,109,430	830,970	742,011	849,809	992,849	985,063
1960	965,101	1,004,759	1,020,335	1,050,639	1,224,279	1,224,044	1,022,275	740,156	545,155	497,536	589,792	614,506
1961	703,814	842,809	908,542	922,787	1,154,567	1,224,241	1,061,885	779,625	588,716	555,550	589,280	654,139
1962	786,641	854,386	875,938	1,073,335	1,195,346	1,220,407	1,060,525	800,851	609,483	593,806	751,215	852,213
1963	895,523	1,038,836	1,100,462	1,161,515	1,224,783	1,174,513	934,674	659,643	484,349	462,063	512,835	545,450
1964	608,642	627,251	652,210	700,066	895,666	1,226,530	1,186,463	971,680	794,064	768,922	803,183	901,944
1965	953,230	1,045,806	1,007,591	1,005,814	1,213,315	1,216,486	1,046,186	786,557	598,120	538,197	578,183	599,750
1966	615,790	614,228	640,970	807,483	1,072,476	1,148,863	980,552	695,000	503,046	446,267	480,549	611,765
1967	707,374	781,524	814,375	803,095	1,032,451	1,164,665	1,019,716	739,808	556,159	641,031	739,024	879,236
1968	946,437	1,119,418	1,172,321	1,181,713	1,226,530	1,203,090	988,781	738,526	598,409	594,676	709,502	776,104
1969	854,767	865,806	869,939	919,698	1,198,029	1,207,487	985,574	696,847	522,531	489,615	512,458	520,778
1970	559,283	584,252	638,177	693,462	955,487	1,098,267	911,519	634,322	472,635	456,656	502,521	530,149
1971	634,800	761,063	743,174	765,747	1,000,306	1,226,530	1,233,209	1,017,284	837,338	782,154	845,693	880,425
1972	912,006	980,520	871,165	782,143	932,238	1,226,530	1,213,199	1,032,656	896,993	843,569	839,017	912,459
1973	945,394	961,351	981,879	1,015,881	1,094,850	1,043,589	804,120	532,520	381,998	364,996	417,587	482,121
1974	652,609	690,202	676,727	680,098	844,300	1,226,838	1,235,268	1,071,548	902,693	819,279	826,045	901,413
1975	944,022	983,924	937,428	891,686	1,007,963	1,226,530	1,152,501	943,051	757,351	723,154	844,485	966,050
1976	962,996	1,024,529	967,107	941,592	1,148,035	1,226,530	1,194,652	1,041,563	871,250	801,797	786,648	810,234
1977	861,155	894,595	901,469	951,005	836,643	733,350	468,005	228,409	121,285	107,966	278,011	592,903
1978	609,657	636,517	726,720	823,903	1,018,733	1,075,821	915,552	667,146	535,244	471,320	502,119	524,515
1979	522,838	542,442	632,841	714,651	983,566	964,232	755,601	490,825	340,352	297,677	293,407	486,565
1980	512,515	545,686	598,475	767,771	972,476	998,753	778,367	505,996	352,933	326,032	430,017	716,560
1981	759,636	902,203	969,610	1,053,016	1,124,597	1,071,463	843,550	568,970	402,632	427,905	463,023	508,626
1982	577,575	749,865	784,367	821,094	1,068,463	1,226,530	1,125,015	864,097	697,704	663,075	692,500	776,912
1983	907,480	968,961	1,004,102	986,661	1,191,880	1,199,248	1,081,519	831,259	673,036	604,744	713,905	742,047
1984	930,705	989,155	1,010,686	990,559	1,164,779	1,226,530	1,132,911	868,431	702,455	661,378	703,674	721,510
1985	717,957	716,032	738,580	922,479	1,201,524	1,200,166	943,972	649,066	493,979	546,150	655,462	654,168
1986	681,089	796,714	960,244	1,074,492	1,194,929	1,160,625	902,424	608,349	447,409	428,470	558,263	585,783
1987	593,528	611,241	725,074	918,676	1,127,141	1,038,412	782,765	505,834	314,050	258,571	246,121	277,872
1988	280,640	322,224	412,449	653,139	888,304	936,842	743,584	490,198	326,960	347,387	453,361	533,909
1989	609,786	639,357	681,116	900,645	1,096,971	1,134,358	905,776	622,877	414,541	345,397	462,414	585,961
1990	688,364	756,287	825,221	1,060,224	1,222,680	1,226,167	1,058,412	790,285	591,732	622,390	955,011	939,359
1991	954,544	1,111,273	1,066,645	1,121,892	1,224,449	1,226,116	1,102,938	844,430	643,229	556,704	626,685	723,013
1992	796,386	875,676	1,002,073	1,141,764	1,162,552	997,294	735,081	461,352	319,493	291,182	330,716	346,514
1993	374,219	384,450	459,380	591,232	902,932	870,538	643,402	388,500	225,619	184,555	172,441	180,368
1994	223,503	235,646	326,201	527,434	682,820	623,444	415,106	171,350	28,141	21,854	78,451	186,775
1995	243,469	485,602	579,910	655,313	946,909	944,575	771,838	500,700	346,534	436,971	850,544	856,131
1996	913,518	1,097,219	1,045,150	1,118,191	1,224,228	1,209,565	1,038,505	778,866	605,382	575,867	661,372	715,841
1997	819,651	899,348	821,691	809,706	1,054,794	1,226,530	1,171,671	935,633	802,570	903,991	914,443	919,040
1998	926,820	961,554	1,003,923	1,006,999	1,221,268	1,200,741	983,968	694,795	489,088	427,092	516,457	634,413
1999	769,048	810,694	826,740	831,094	941,039	1,226,530	1,225,321	1,077,431	906,479	861,099	925,088	948,967
2000	946,254	963,460	970,836	1,046,689	1,222,647	1,226,205	1,038,501	753,082	587,306	552,658	553,624	544,676
2001	541,290	534,551	572,513	636,511	808,611	726,352	490,578	259,080	106,285	113,738	238,615	297,427
2002	424,662	473,950	529,998	690,828	962,617	1,163,085	1,031,361	747,830	549,520	462,858	466,865	471,649
2003	580,507	679,460	802,712	930,342	1,086,007	1,097,970	850,672	568,089	395,749	437,578	551,684	596,774
2004	635,484	670,469	769,026	943,158	1,111,425	1,080,252	823,174	570,074	454,396	467,510	554,041	670,174
2005	813,571	854,753	894,764	969,465	983,083	808,874	544,740	288,681	136,750	130,188	179,900	245,282
2006	376,221	424,092	446,564	537,841	867,081	1,019,457	832,412	554,332	374,699	338,490	606,251	644,739
2007	696,320	766,980	941,485	1,030,574	1,178,219	1,163,193	950,145	665,900	456,642	418,812	460,508	552,870
2008	568,265	586,353	616,382	637,086	1,034,468	1,217,574	1,089,620	823,053	619,028	549,694	710,434	754,382
2009	897,871	914,026	928,865	976,045	1,212,339	1,206,220	991,130	710,090	512,861	NA	NA	NA

Appendix C-11

Scenario IP5.2 (KKC, KDRPP, CEPR, and BRE)

(Uses BRE operational assumption 2)

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP5.2 Bumping

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	3,026	737	1,554	1,565	91.5%	475	64	90.9%	437	48	849	134
Avg. WY 1982 to 2009	2,901	647	1,553	1,527	91.6%	456	59	91.1%	418	43	1,639	403
1941 (Dry Year)	1,607	249	1,217	1,004	47.6%	-88	-168	47.1%	-66	-171	1,208	0
1994 (Dry Year)	1,793	254	1,294	1,052	53.3%	-77	-173	53.0%	-116	-189	7,031	704
2001 (Dry Year)	1,877	176	1,413	1,276	70.0%	89	-68	70.0%	67	-80	20,724	7,297
2005 (Dry Year)	1,877	179	1,415	1,290	70.0%	103	-78	70.0%	92	-85	10,750	1,001

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,904	224	1,407	1,266	70.0%	71	-71	70.0%	74	-77	15,475	0
1927	3,007	601	1,609	1,535	100.0%	486	39	100.0%	513	31	382	0
1928	3,023	709	1,609	1,512	100.0%	470	94	100.0%	444	71	0	0
1929	2,106	217	1,439	1,455	70.0%	222	-54	70.0%	188	-65	984	0
1930	1,870	273	1,388	1,130	65.9%	-62	-158	63.2%	-93	-173	1,036	0
1931	1,841	265	1,180	993	42.4%	-86	-165	41.6%	-117	-181	359	0
1932	2,972	580	1,609	1,443	100.0%	314	17	100.0%	244	-7	0	0
1933	3,765	1,028	1,609	2,022	100.0%	814	158	100.0%	768	158	0	0
1934	2,939	750	1,567	1,377	92.4%	389	72	89.7%	351	68	0	0
1935	3,192	739	1,609	1,646	100.0%	601	110	100.0%	531	82	0	0
1936	3,319	1,001	1,562	1,511	90.6%	497	95	87.9%	465	89	0	0
1937	2,923	515	1,589	1,606	100.0%	558	105	96.4%	522	99	0	0
1938	3,381	1,046	1,609	1,535	100.0%	488	94	100.0%	423	66	0	0
1939	2,497	341	1,532	1,381	92.6%	377	81	89.2%	346	69	0	0
1940	2,220	333	1,443	1,461	70.0%	218	-46	70.0%	189	-51	94	0
1941	1,607	249	1,217	1,004	47.6%	-88	-168	47.1%	-66	-171	1,208	0
1942	2,082	298	1,365	1,116	60.7%	-69	-181	57.3%	-109	-198	217	0
1943	3,396	907	1,609	1,544	100.0%	358	-18	100.0%	287	-43	88	0
1944	1,757	198	1,323	1,119	59.8%	-36	-146	57.4%	-54	-159	5,369	0
1945	2,254	286	1,447	1,295	70.0%	51	-109	70.0%	17	-124	110	0
1946	3,367	830	1,609	1,617	100.0%	474	48	100.0%	398	20	4	0
1947	3,039	635	1,609	1,561	100.0%	514	100	100.0%	493	79	0	0
1948	3,933	1,417	1,609	1,743	100.0%	663	129	100.0%	640	113	0	0
1949	4,020	1,478	1,609	1,760	100.0%	696	143	100.0%	656	128	0	0
1950	4,304	1,645	1,609	2,079	100.0%	818	154	100.0%	808	150	0	0
1951	3,802	1,372	1,609	1,640	100.0%	589	110	100.0%	564	89	0	0
1952	2,882	519	1,609	1,558	100.0%	515	111	100.0%	440	84	0	0
1953	3,111	575	1,609	1,770	100.0%	677	127	100.0%	619	103	0	0
1954	4,010	1,312	1,609	2,112	100.0%	858	157	100.0%	803	146	0	0
1955	3,455	889	1,609	1,857	100.0%	720	158	100.0%	703	155	2	0
1956	4,876	2,278	1,609	1,950	100.0%	759	146	100.0%	703	125	0	0
1957	3,223	952	1,609	1,464	100.0%	432	82	100.0%	370	56	0	0
1958	2,857	590	1,609	1,435	100.0%	412	77	100.0%	401	63	0	0
1959	3,536	945	1,609	1,809	100.0%	740	153	100.0%	767	157	0	0
1960	3,173	782	1,609	1,592	100.0%	545	105	100.0%	480	79	0	0
1961	3,618	1,184	1,609	1,632	100.0%	587	110	100.0%	545	89	0	0
1962	2,980	525	1,609	1,654	100.0%	607	113	100.0%	578	91	0	0
1963	2,725	418	1,609	1,495	100.0%	462	89	100.0%	391	61	0	0
1964	3,325	684	1,609	1,949	100.0%	787	156	100.0%	763	150	0	0
1965	3,416	982	1,609	1,643	100.0%	597	116	100.0%	537	89	0	0
1966	2,796	473	1,609	1,521	100.0%	475	99	100.0%	403	72	0	0
1967	3,067	678	1,587	1,592	97.9%	559	122	94.1%	556	124	0	0
1968	2,871	429	1,609	1,646	100.0%	600	118	100.0%	560	96	0	0
1969	3,625	1,253	1,609	1,570	100.0%	524	102	100.0%	494	79	0	0
1970	2,870	505	1,609	1,552	100.0%	509	96	100.0%	448	70	0	0
1971	3,959	1,271	1,609	2,033	100.0%	835	160	100.0%	768	146	0	0
1972	4,808	2,076	1,609	2,120	100.0%	896	172	100.0%	851	170	0	0
1973	2,291	199	1,488	1,323	75.3%	376	79	73.2%	349	75	0	0
1974	4,677	1,914	1,609	2,211	100.0%	902	161	100.0%	834	149	0	0
1975	3,886	1,291	1,609	1,942	100.0%	755	146	100.0%	696	122	0	0
1976	3,851	1,142	1,609	2,020	100.0%	871	155	100.0%	809	134	0	0
1977	1,938	194	1,430	1,344	70.0%	111	-84	70.0%	93	-87	39	0
1978	3,077	635	1,609	1,618	100.0%	561	82	100.0%	506	55	20	0
1979	2,328	289	1,449	1,257	71.6%	343	22	68.8%	296	4	0	0
1980	2,732	576	1,543	1,340	87.9%	357	30	85.0%	335	29	0	0
1981	2,467	280	1,535	1,378	83.4%	406	84	81.7%	425	89	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP5.2 Bumping

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
1982	3,473	925	1,609	1,779	100.0%	695	130	100.0%	643	110	89	89
1983	3,431	916	1,609	1,740	100.0%	672	132	100.0%	609	107	0	0
1984	3,313	769	1,609	1,793	100.0%	700	128	100.0%	651	102	0	0
1985	2,839	517	1,609	1,518	100.0%	474	86	100.0%	412	59	0	0
1986	2,562	320	1,561	1,420	90.3%	432	80	88.7%	411	79	0	0
1987	2,378	379	1,465	1,204	71.6%	309	40	70.0%	262	14	97	97
1988	2,402	382	1,477	1,232	75.9%	290	18	73.9%	265	4	0	0
1989	2,750	489	1,575	1,421	95.6%	421	71	93.4%	398	69	0	0
1990	3,173	738	1,609	1,632	100.0%	591	111	100.0%	556	93	0	0
1991	3,058	579	1,609	1,690	100.0%	635	117	100.0%	560	89	216	216
1992	2,194	270	1,439	1,511	70.0%	281	-20	70.0%	253	-23	0	0
1993	2,137	278	1,427	1,406	70.0%	175	-82	70.0%	149	-89	1,053	0
1994	1,793	254	1,294	1,052	53.3%	-77	-173	53.0%	-116	-189	7,031	704
1995	2,867	624	1,570	1,364	98.6%	262	-41	95.3%	302	-31	2,940	0
1996	3,255	826	1,609	1,640	100.0%	599	125	100.0%	541	99	0	0
1997	4,612	1,954	1,609	1,927	100.0%	800	151	100.0%	848	155	0	0
1998	3,173	852	1,609	1,526	100.0%	489	97	100.0%	431	70	0	0
1999	4,076	1,334	1,609	2,124	100.0%	906	165	100.0%	862	156	0	0
2000	3,307	884	1,609	1,630	100.0%	588	109	100.0%	546	90	0	0
2001	1,877	176	1,413	1,276	70.0%	89	-68	70.0%	67	-80	20,724	7,297
2002	3,188	743	1,609	1,608	100.0%	563	82	100.0%	493	54	2,684	1,569
2003	2,579	417	1,548	1,391	99.9%	395	75	98.6%	371	71	0	0
2004	2,554	340	1,550	1,451	99.8%	449	77	97.6%	436	77	0	0
2005	1,877	179	1,415	1,290	70.0%	103	-78	70.0%	92	-85	10,750	1,001
2006	3,056	762	1,609	1,392	100.0%	365	13	100.0%	293	-11	315	315
2007	2,947	654	1,609	1,474	100.0%	447	87	100.0%	395	63	0	0
2008	3,147	681	1,609	1,708	100.0%	614	122	100.0%	550	97	0	0
2009	3,222	880	1,601	1,552	100.0%	513	107	100.0%	NA	NA	0	0
Average	3,026	737	1,554	1,565	91.5%	475	64	90.9%	437	48	849	134

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP5.2 Bumping

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	5.0%	48.1%	3.3%	3.6%	2.5%
	0 -10% Above Target[1]	82.9%	44.2%	2.2%	0.3%	80.3%
	0-10% Below Target	0.5%	0.1%	88.6%	82.8%	4.5%
	> 10% Below Target	11.6%	7.6%	5.9%	13.2%	12.7%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	57.0%	74.0%	76.7%	8.0%
	0 -10% Above Target	8.5%	3.3%	2.7%	80.4%
	0-10% Below Target	8.0%	2.1%	3.5%	6.3%
	> 10% Below Target	26.5%	20.6%	17.1%	5.3%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			6.1%	
	0 -10% Above Target			5.5%	
	0-10% Below Target			6.5%	
	> 10% Below Target			81.9%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				34.4%	
	0 -10% Above Target				26.4%	
	0-10% Below Target				24.6%	
	> 10% Below Target				14.6%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				100.0%	
	0 -10% Above Target				0.0%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	12.6%	30.9%		5.5%
	0 -10% Above Target	1.1%	2.8%		1.7%
	0-10% Below Target	7.9%	2.8%		23.7%
	> 10% Below Target	78.4%	63.5%		69.1%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			47.6%	22.0%	18.2%
	0 -10% Above Target			20.7%	8.6%	2.7%
	0-10% Below Target			15.2%	8.5%	5.8%
	> 10% Below Target			16.5%	60.9%	73.3%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.4%	95.6%	90.1%
	0 -10% Above Target			0.1%	1.9%	4.5%
	0-10% Below Target			0.1%	1.6%	2.6%
	> 10% Below Target			0.4%	0.9%	2.8%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			60.0%	
	0 -10% Above Target			3.7%	
	0-10% Below Target			3.8%	
	> 10% Below Target			32.5%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.7%	94.7%	90.4%
	0 -10% Above Target			0.7%	2.1%	3.6%
	0-10% Below Target			0.2%	1.3%	2.4%
	> 10% Below Target			0.4%	1.9%	3.6%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP5.2 Bumping

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	70.2%	63.0%	95.3%		23.4%
	0 -10% Above Target	17.8%	26.3%	3.8%		68.3%
	0-10% Below Target	0.1%	0.1%	0.0%		0.1%
	> 10% Below Target	11.9%	10.6%	0.9%		8.2%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	13.5%			
	0 -10% Above Target	85.7%			
	0-10% Below Target	0.1%			
	> 10% Below Target	0.7%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		>=130 cfs	>=130 cfs	>=130 cfs	>=130 cfs
Flow %	> 10% Above Target	27.6%	61.4%	94.3%	23.3%
	0 -10% Above Target	71.0%	38.6%	5.7%	75.8%
	0-10% Below Target	0.1%	0.0%	0.0%	0.1%
	> 10% Below Target	1.3%	0.0%	0.0%	0.8%

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	72.7%			
	0 -10% Above Target	4.5%			
	0-10% Below Target	4.5%			
	> 10% Below Target	18.3%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 Bumping

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	388	841	74
1927	207	16	15	15	15	15	15	-	-	-	-	-	18
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	46	851	53
1930	246	114	98	34	15	15	22	12	442	683	955	842	211
1931	289	30	37	37	15	15	35	82	410	533	527	813	171
1932	307	21	16	15	16	15	15	12	-	-	-	-	25
1933	107	3	-	-	-	-	-	-	-	-	-	-	7
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	766	46
1941	148	79	17	25	20	15	7	-	490	808	965	793	204
1942	178	16	15	15	15	15	44	196	376	626	610	832	178
1943	280	17	15	15	15	15	17	84	21	-	-	300	47
1944	422	25	19	20	15	17	1	-	121	672	945	803	186
1945	279	25	20	15	15	15	42	106	222	495	563	835	160
1946	267	16	18	15	15	15	15	5	-	-	-	-	22
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	681	756	87
1978	121	12	-	-	-	-	-	-	-	-	-	-	8
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	368	22
1993	98	15	15	8	-	-	-	-	-	-	585	801	92
1994	191	108	32	16	17	16	24	107	480	885	970	829	223
1995	292	15	15	15	15	15	37	23	-	-	-	767	72
1996	37	3	-	-	-	-	-	-	-	-	-	-	2
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	368	878	75
2002	241	15	15	15	15	1	-	-	-	-	-	-	18
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	539	873	85
2006	171	16	25	15	15	15	16	-	-	-	-	-	17
2007	229	3	-	-	-	-	-	-	-	-	-	-	14
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	49	7	4	3	3	2	3	7	30	56	97	154	25

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 Bumping

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	21	33	310	213	110	-	-	-	45	281	4	-	62
1927	-	-	-	-	-	-	-	237	400	372	400	13	87
1928	-	53	287	326	41	-	-	-	-	400	400	13	93
1929	12	35	36	37	17	1	-	69	305	213	319	-	63
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	195	23	-	-	-	13
1932	-	-	-	-	-	244	400	400	400	394	400	13	137
1933	-	59	368	321	39	37	77	-	-	277	400	400	120
1934	400	122	354	325	6	335	-	-	-	400	400	13	145
1935	-	-	98	127	-	-	-	-	-	378	400	13	62
1936	10	29	36	0	-	135	211	-	-	400	400	13	75
1937	11	45	14	12	3	-	203	122	-	348	400	13	71
1938	3	82	400	-	-	-	-	-	-	386	400	13	79
1939	9	0	144	359	62	59	-	-	-	400	400	13	89
1940	15	21	-	12	-	202	200	-	120	321	270	-	71
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	105	-	123	-	-	-	14
1943	-	-	-	-	-	-	252	400	400	359	394	13	110
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	368	365	-	-	-	44
1946	-	-	-	-	-	13	275	400	400	400	400	13	116
1947	0	21	258	338	346	53	-	-	-	400	400	13	110
1948	-	395	248	-	-	-	-	-	-	312	400	154	92
1949	96	126	173	39	18	-	-	-	-	292	400	259	85
1950	185	280	111	-	-	361	-	-	4	216	400	400	119
1951	400	264	42	174	158	360	-	-	-	349	400	13	131
1952	71	180	81	11	61	41	58	-	-	362	400	13	78
1953	11	51	45	18	400	72	-	-	-	257	400	213	87
1954	-	210	400	-	-	6	-	-	-	295	400	400	104
1955	323	211	133	-	-	-	-	-	-	242	400	400	104
1956	400	120	194	48	55	400	27	21	-	286	400	400	143
1957	245	224	189	31	-	-	-	-	-	400	400	13	92
1958	1	30	1	-	37	116	301	39	-	400	400	13	81
1959	1	-	361	42	-	22	1	-	-	318	400	375	93
1960	400	258	229	20	-	77	-	-	-	387	400	13	109
1961	1	304	71	287	5	61	2	-	-	372	400	13	93
1962	1	94	204	246	-	-	-	-	-	380	400	13	82
1963	13	218	400	-	-	-	-	-	-	400	400	13	88
1964	3	14	11	-	-	8	177	137	-	384	400	400	93
1965	348	135	206	-	-	192	-	-	-	376	400	13	102
1966	2	35	36	81	18	58	280	-	-	400	400	13	81
1967	0	16	-	263	171	-	-	-	-	286	400	13	70
1968	74	374	135	133	31	188	-	-	-	400	400	13	107
1969	16	320	195	1	6	-	-	-	-	400	400	13	82
1970	9	38	32	15	47	160	234	91	-	400	400	13	88
1971	3	26	28	2	279	71	16	-	-	161	388	400	82
1972	357	317	78	-	97	400	5	52	-	193	400	400	140
1973	268	103	90	-	-	20	-	-	-	399	397	12	79
1974	13	26	3	1	-	-	49	58	-	228	376	400	70
1975	349	88	222	-	-	188	-	-	-	298	400	351	116
1976	113	400	330	334	5	216	-	-	-	210	400	400	146
1977	32	99	149	71	-	65	-	-	-	123	-	-	33
1978	-	-	335	175	83	205	400	293	-	237	376	2	128
1979	13	50	22	23	14	-	-	292	27	311	119	-	53
1980	-	-	-	-	-	-	118	400	59	324	106	-	62
1981	1	3	38	159	226	90	-	-	-	319	386	13	75
1982	7	12	1	5	114	61	-	-	-	297	400	224	68
1983	86	138	280	31	-	134	-	-	-	371	400	13	89
1984	8	86	57	124	-	129	-	-	-	277	400	165	76
1985	61	173	78	29	31	21	118	-	-	400	400	13	81
1986	39	400	41	23	100	65	-	-	-	400	400	13	90
1987	13	6	-	17	4	221	98	-	-	399	385	1	70
1988	-	-	17	19	4	-	-	258	147	387	112	-	58
1989	1	-	-	-	-	45	356	90	-	400	400	13	80
1990	4	1	-	302	78	-	-	-	-	361	400	13	71
1991	135	400	286	175	79	283	-	-	-	330	400	13	128
1992	6	109	400	69	-	-	-	-	-	384	400	13	85
1993	-	-	-	2	0	-	89	400	95	303	131	-	62
1994	-	-	-	-	-	-	-	19	-	-	-	-	1
1995	-	-	-	-	129	392	268	397	61	232	129	-	97
1996	-	27	400	400	114	354	-	-	-	390	400	13	128
1997	-	159	156	90	-	361	30	-	-	233	400	400	111
1998	264	299	8	-	-	-	-	-	-	400	400	13	85
1999	5	11	191	332	-	23	-	-	-	241	400	400	98
2000	250	303	123	59	17	0	-	-	-	382	400	57	97
2001	117	40	34	33	24	26	97	279	-	317	86	-	64
2002	-	-	-	-	29	146	357	400	138	400	400	13	115
2003	3	49	42	26	300	292	120	-	-	400	400	13	99
2004	1	-	0	11	-	38	84	-	-	400	400	13	58
2005	-	1	-	171	127	9	-	0	-	272	-	-	35
2006	-	-	-	-	-	-	-	367	373	295	272	-	80
2007	-	1	7	-	37	311	256	-	-	400	400	13	87
2008	10	15	21	18	-	3	-	114	-	361	400	160	67
2009	11	308	292	-	-	-	-	-	-	400	400	13	87
Average	63	96	113	74	42	88	63	70	41	308	327	87	84

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 Bumping

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	310	213	110	-	-	-	45	-	-	-	41
1927	-	-	-	-	-	-	-	237	400	130	-	-	46
1928	-	53	287	326	41	-	-	-	-	63	-	-	47
1929	-	-	-	-	-	-	-	69	305	-	-	-	22
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	195	23	-	-	-	13
1932	-	-	-	-	-	244	400	400	400	132	-	-	95
1933	-	59	368	321	39	37	77	-	-	70	0	387	82
1934	400	40	-	-	-	-	-	-	-	2	-	-	27
1935	-	-	98	127	-	-	-	-	-	30	-	-	16
1936	-	-	-	-	-	130	211	-	-	8	-	-	21
1937	-	-	-	-	-	-	203	122	-	125	-	-	27
1938	-	79	400	-	-	-	-	-	-	66	-	-	33
1939	-	-	144	359	62	59	-	-	-	16	-	-	39
1940	-	-	-	-	-	202	200	-	120	29	-	-	33
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	105	-	123	-	-	-	14
1943	-	-	-	-	-	-	252	400	400	170	-	-	74
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	368	365	-	-	-	44
1946	-	-	-	-	-	13	275	400	400	102	-	-	72
1947	-	-	258	338	346	53	-	-	-	11	-	-	60
1948	-	395	248	-	-	-	-	-	-	41	-	141	50
1949	94	116	173	39	18	-	-	-	-	139	-	245	50
1950	185	278	111	-	-	-	-	-	4	62	4	387	62
1951	400	264	-	-	-	-	-	-	-	71	-	-	45
1952	71	177	69	-	61	41	58	-	-	242	-	-	44
1953	-	-	-	13	400	72	-	-	-	87	-	200	45
1954	-	186	400	-	-	-	-	-	-	37	1	387	61
1955	323	202	130	-	-	-	-	-	-	11	-	387	64
1956	400	120	-	-	-	-	27	21	-	60	-	387	61
1957	245	221	111	-	-	-	-	-	-	-	-	-	35
1958	-	-	-	-	37	116	301	39	-	89	-	-	35
1959	-	-	361	42	-	-	1	-	-	34	-	361	48
1960	400	174	6	-	-	-	-	-	-	58	-	-	39
1961	-	301	57	285	5	-	2	-	-	123	-	-	47
1962	-	75	199	246	-	-	-	-	-	29	-	-	34
1963	8	208	400	-	-	-	-	-	-	5	-	-	38
1964	-	-	-	-	-	8	177	137	-	4	-	387	43
1965	340	122	206	-	-	-	-	-	-	121	-	-	48
1966	-	-	6	64	0	57	280	-	-	156	-	-	34
1967	-	-	-	263	171	-	-	-	-	23	-	-	27
1968	74	374	135	0	-	-	-	-	-	166	-	-	45
1969	16	320	195	-	-	-	-	-	-	22	-	-	33
1970	-	-	-	-	47	160	234	91	-	159	-	-	42
1971	-	-	-	-	279	71	16	-	-	11	25	387	46
1972	357	317	78	-	-	-	5	52	-	72	20	387	78
1973	268	100	88	-	-	-	-	-	-	20	-	-	29
1974	-	-	-	-	-	-	49	58	-	12	46	387	33
1975	345	63	220	-	-	-	-	-	-	25	-	338	60
1976	113	400	26	-	-	-	-	-	-	135	6	387	64
1977	25	73	139	71	-	-	-	-	-	-	-	-	19
1978	-	-	335	175	83	205	400	293	-	66	-	-	94
1979	-	-	-	-	-	-	-	292	27	-	-	-	20
1980	-	-	-	-	-	-	118	400	59	-	-	-	35
1981	-	-	38	159	226	90	-	-	-	252	-	-	46
1982	-	-	-	-	114	61	-	-	-	75	-	210	27
1983	86	135	279	31	-	-	-	-	-	359	23	-	56
1984	-	86	57	124	-	-	-	-	-	27	-	152	27
1985	49	171	62	0	-	21	118	-	-	-	-	-	25
1986	39	400	29	12	94	65	-	-	-	1	-	-	38
1987	-	-	-	-	-	221	98	-	-	-	-	-	19
1988	-	-	-	-	-	-	-	258	147	-	-	-	25
1989	-	-	-	-	-	42	356	90	-	40	-	-	32
1990	-	-	-	302	78	-	-	-	-	77	-	-	28
1991	135	307	21	5	-	-	-	-	-	103	-	-	35
1992	-	100	400	69	-	-	-	-	-	52	-	-	38
1993	-	-	-	-	-	-	89	400	95	-	-	-	36
1994	-	-	-	-	-	-	-	19	-	-	-	-	1
1995	-	-	-	-	129	392	268	397	61	-	-	-	75
1996	-	27	400	385	90	1	-	-	-	293	2	-	73
1997	-	159	156	90	-	-	30	-	-	46	-	387	52
1998	264	299	8	-	-	-	-	-	-	51	-	-	38
1999	-	-	190	332	-	-	-	-	-	87	63	387	64
2000	246	297	4	2	-	-	-	-	-	21	-	43	37
2001	117	17	-	-	-	17	97	279	-	-	-	-	32
2002	-	-	-	-	29	146	357	400	138	83	-	-	70
2003	-	-	-	-	300	292	120	-	-	57	-	-	45
2004	-	-	-	-	-	38	84	-	-	7	-	-	8
2005	-	-	-	168	127	-	-	0	-	-	-	-	17
2006	-	-	-	-	-	-	-	367	373	-	-	-	45
2007	-	-	-	-	37	311	256	-	-	76	-	-	41
2008	-	-	-	-	-	-	-	114	-	103	-	147	22
2009	-	307	290	-	-	-	-	-	-	16	-	-	37
Average	60	84	89	54	35	38	63	70	41	58	2	77	41

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 Bumping

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	21	33	-	-	-	-	-	-	-	281	4	-	21
1927	-	-	-	-	-	-	-	-	-	242	400	13	40
1928	-	-	-	-	-	-	-	-	-	337	400	13	46
1929	12	35	36	37	17	1	-	-	-	213	319	-	41
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	262	400	13	41
1933	-	-	-	-	-	-	-	-	-	207	400	13	38
1934	-	82	354	325	6	335	-	-	-	398	400	13	117
1935	-	-	-	-	-	-	-	-	-	349	400	13	47
1936	10	29	36	0	-	5	-	-	-	392	400	13	54
1937	11	45	14	12	3	-	-	-	-	223	400	13	44
1938	3	3	-	-	-	-	-	-	-	320	400	13	45
1939	9	0	-	-	-	-	-	-	-	384	400	13	50
1940	15	21	-	12	-	-	-	-	-	291	270	-	37
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	189	394	13	37
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	298	400	13	44
1947	0	21	-	-	-	-	-	-	-	389	400	13	51
1948	-	-	-	-	-	-	-	-	-	272	400	13	42
1949	2	10	0	-	-	-	-	-	-	153	400	13	36
1950	-	1	-	-	-	361	-	-	-	154	396	13	57
1951	0	-	42	174	158	360	-	-	-	278	400	13	87
1952	-	3	11	11	-	-	-	-	-	121	400	13	34
1953	11	51	45	5	-	-	-	-	-	170	400	13	43
1954	-	24	-	-	-	6	-	-	-	257	399	13	43
1955	-	9	3	-	-	-	-	-	-	231	400	13	40
1956	-	-	194	48	55	400	-	-	-	227	400	13	82
1957	-	3	79	31	-	-	-	-	-	400	400	13	57
1958	1	30	1	-	-	-	-	-	-	311	400	13	46
1959	1	-	-	-	-	22	-	-	-	284	400	13	44
1960	-	84	223	20	-	77	-	-	-	329	400	13	70
1961	1	3	14	2	-	61	-	-	-	250	400	13	46
1962	1	19	5	-	-	-	-	-	-	350	400	13	48
1963	5	10	-	-	-	-	-	-	-	395	400	13	51
1964	3	14	11	-	-	-	-	-	-	380	400	13	50
1965	9	13	-	-	-	192	-	-	-	256	400	13	54
1966	2	35	30	17	18	0	-	-	-	244	400	13	47
1967	0	16	-	-	-	-	-	-	-	263	400	13	43
1968	-	0	-	133	31	188	-	-	-	234	400	13	61
1969	-	-	-	1	6	-	-	-	-	378	400	13	49
1970	9	38	32	15	-	-	-	-	-	241	400	13	46
1971	3	26	28	2	-	-	-	-	-	150	363	13	36
1972	-	-	-	-	97	400	-	-	-	121	380	13	62
1973	0	2	2	-	-	20	-	-	-	379	397	12	50
1974	13	26	3	1	-	-	-	-	-	215	331	13	37
1975	3	25	2	-	-	188	-	-	-	274	400	13	56
1976	-	-	304	334	5	216	-	-	-	75	394	13	82
1977	7	25	11	-	-	65	-	-	-	123	-	-	14
1978	-	-	-	-	-	-	-	-	-	171	376	2	34
1979	13	50	22	23	14	-	-	-	-	311	119	-	34
1980	-	-	-	-	-	-	-	-	-	324	106	-	26
1981	1	3	-	-	0	-	-	-	-	67	386	13	29
1982	7	12	1	5	-	-	-	-	-	222	400	13	41
1983	-	3	0	0	-	134	-	-	-	12	377	13	33
1984	8	0	-	-	-	129	-	-	-	250	400	13	49
1985	11	2	16	29	31	-	-	-	-	400	400	13	55
1986	-	-	12	11	6	-	-	-	-	399	400	13	52
1987	13	6	-	17	4	-	-	-	-	399	385	1	51
1988	-	-	17	19	4	-	-	-	-	387	112	-	33
1989	1	-	-	-	-	3	-	-	-	360	400	13	48
1990	4	1	-	-	-	-	-	-	-	285	400	13	43
1991	-	93	265	170	79	283	-	-	-	226	400	13	93
1992	6	9	-	0	-	-	-	-	-	332	400	13	47
1993	-	-	-	2	0	-	-	-	-	303	131	-	27
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	232	129	-	22
1996	-	-	-	15	24	353	-	-	-	97	398	13	55
1997	-	-	-	-	-	361	-	-	-	187	400	13	59
1998	-	0	-	-	-	-	-	-	-	349	400	13	47
1999	5	11	1	-	-	23	-	-	-	154	337	13	33
2000	4	6	120	56	17	0	-	-	-	361	400	13	60
2001	-	23	34	33	24	9	-	-	-	317	86	-	32
2002	-	-	-	-	-	-	-	-	-	317	400	13	45
2003	3	49	42	26	-	-	-	-	-	343	400	13	54
2004	1	-	0	11	-	-	-	-	-	393	400	13	50
2005	-	1	-	3	-	9	-	-	-	272	-	-	18
2006	-	-	-	-	-	-	-	-	-	295	272	-	35
2007	-	1	7	-	-	-	-	-	-	324	400	13	46
2008	10	15	21	18	-	3	-	-	-	258	400	13	45
2009	11	1	2	-	-	-	-	-	-	384	400	13	50
Average	3	12	24	19	7	50	-	-	-	250	325	10	43

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 Bumping

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	16,553	-	-	-	-	-	9,355	39,190	40,743	53,643	54,790	18,172	232,447
1927	23	-	-	-	-	-	9,311	39,743	40,737	53,472	55,740	40,407	239,433
1928	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1929	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
1930	23	-	-	-	-	-	9,311	39,488	40,743	53,796	54,616	16,975	214,952
1931	23	-	-	-	-	-	8,243	36,238	36,515	41,062	38,963	12,743	173,786
1932	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1933	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1934	16,553	-	-	-	-	-	9,311	39,841	40,561	53,666	56,403	39,778	256,113
1935	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1936	16,553	-	-	-	-	-	8,217	39,743	40,743	53,754	56,428	39,213	254,651
1937	23	-	-	-	-	-	9,311	39,743	40,743	53,475	55,974	40,577	239,847
1938	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1939	16,553	-	-	-	-	-	9,313	37,542	39,961	53,677	56,420	39,645	253,112
1940	23	-	-	-	-	-	9,311	38,996	40,469	53,657	54,162	17,132	213,749
1941	23	-	-	-	-	-	8,144	39,160	39,838	45,829	43,632	13,837	190,464
1942	23	-	-	-	-	-	9,312	39,409	40,800	53,064	51,475	15,821	209,903
1943	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,652	40,407	239,351
1944	16,553	-	-	-	-	-	9,346	39,767	40,804	52,901	50,793	14,972	225,134
1945	23	-	-	-	-	-	6,880	39,840	40,743	53,643	54,804	18,172	214,105
1946	23	-	-	-	-	-	9,311	39,743	40,739	53,472	55,740	40,407	239,435
1947	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1948	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1949	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1950	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1951	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1952	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1953	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1954	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1955	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,738	40,407	255,967
1956	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1957	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1958	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1959	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1960	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1961	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1962	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1963	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1964	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1965	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1966	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1967	16,553	-	-	-	-	-	9,311	39,743	40,743	53,503	56,175	40,380	256,407
1968	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1969	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1970	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1971	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1972	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1973	16,553	-	-	-	-	-	7,065	39,985	40,743	51,575	49,249	33,464	238,634
1974	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1975	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1976	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1977	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,764	18,172	232,776
1978	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1979	16,553	-	-	-	-	-	7,175	40,102	40,743	49,961	47,649	18,063	220,246
1980	23	-	-	-	-	-	9,311	39,682	39,321	53,899	56,168	38,126	236,530
1981	23	-	-	-	-	-	7,769	39,743	40,743	53,904	54,197	36,767	233,147
1982	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1983	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1984	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1985	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1986	16,553	-	-	-	-	-	9,324	39,405	40,743	53,760	56,460	39,487	255,732
1987	23	-	-	-	-	-	9,311	39,484	40,743	49,993	47,063	23,539	210,156
1988	23	-	-	-	-	-	9,311	37,682	40,245	51,721	49,609	33,770	222,360
1989	23	-	-	-	-	-	9,311	38,931	40,743	53,528	56,230	40,319	239,085
1990	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1991	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1992	16,553	-	-	-	-	-	9,341	39,407	40,743	53,657	54,162	17,132	230,995
1993	23	-	-	-	-	-	9,438	37,475	40,743	53,643	53,751	18,172	213,245
1994	23	-	-	-	-	-	9,315	39,728	41,185	50,289	47,868	14,959	203,369
1995	23	-	-	-	-	-	9,320	39,743	40,120	52,907	55,551	40,486	238,151
1996	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1997	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1998	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1999	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2000	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2001	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
2002	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2003	16,553	-	-	-	-	-	9,311	37,644	39,878	53,473	55,887	40,660	253,406
2004	23	-	-	-	-	-	9,321	36,391	40,540	53,473	55,907	40,643	236,298
2005	23	-	-	-	-	-	9,158	39,743	40,743	53,545	53,931	18,172	215,316
2006	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2007	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2008	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2009	16,553	-	-	-	-	-	9,203	39,284	40,273	52,855	55,096	39,941	253,205
Average	10,453	-	-	-	-	-	9,166	39,512	40,625	53,087	54,716	35,438	242,998

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 Bumping

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	18,681	-	-	-	-	8,883	30,315	39,311	48,460	49,896	48,680	31,571	275,798
1927	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1928	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1929	18,681	-	-	-	-	8,883	26,534	39,776	48,460	49,896	48,680	31,571	272,482
1930	986	-	-	-	-	8,883	30,437	37,280	46,979	46,684	45,084	28,975	245,308
1931	986	-	-	-	-	8,883	22,383	25,088	30,402	30,931	29,892	19,123	167,689
1932	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1933	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1934	18,681	-	-	-	-	8,883	30,437	42,167	47,218	54,358	53,792	35,687	291,223
1935	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1936	18,681	-	-	-	-	8,883	30,337	42,062	47,350	54,489	53,991	35,571	291,364
1937	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,518	35,679	273,105
1938	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1939	18,681	-	-	-	-	8,883	30,454	40,382	46,677	54,372	53,852	35,654	288,956
1940	986	-	-	-	-	8,883	30,437	41,957	48,173	49,896	48,680	31,571	260,584
1941	986	-	-	-	-	8,883	29,218	28,291	33,977	34,995	33,966	21,658	191,974
1942	986	-	-	-	-	8,883	30,591	35,147	42,646	42,793	40,811	26,288	228,146
1943	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1944	18,681	-	-	-	-	8,883	23,240	33,532	42,280	42,362	40,903	26,311	236,194
1945	986	-	-	-	-	8,883	28,466	39,912	48,460	49,896	48,680	31,571	256,855
1946	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1947	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1948	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1949	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1950	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1951	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1952	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1953	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1954	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1955	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1956	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1957	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1958	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1959	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1960	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1961	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1962	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1963	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1964	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1965	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1966	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1967	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,545	35,748	290,896
1968	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1969	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1970	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1971	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1972	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1973	18,681	-	-	-	-	8,883	29,076	41,926	47,885	53,227	51,535	32,795	284,008
1974	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1975	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1976	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1977	18,681	-	-	-	-	8,883	26,618	39,776	48,460	49,896	48,680	31,571	272,566
1978	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1979	18,681	-	-	-	-	8,883	29,465	41,276	48,335	50,693	48,840	31,357	277,531
1980	986	-	-	-	-	8,883	30,475	42,044	45,960	54,790	54,306	35,352	272,797
1981	986	-	-	-	-	8,883	30,685	42,295	47,350	55,290	54,694	34,921	275,105
1982	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1983	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1984	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1985	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1986	18,681	-	-	-	-	8,883	30,465	41,801	47,350	54,504	53,965	35,614	291,263
1987	986	-	-	-	-	8,883	30,446	41,092	48,306	50,726	49,008	31,608	261,056
1988	986	-	-	-	-	8,883	30,562	40,562	47,228	53,518	51,951	33,048	266,739
1989	986	-	-	-	-	8,883	30,437	41,375	47,350	54,222	53,556	35,752	272,563
1990	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1991	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1992	18,681	-	-	-	-	8,883	29,495	39,668	48,460	49,896	48,680	31,571	275,335
1993	986	-	-	-	-	8,883	30,828	40,126	48,460	49,896	48,680	31,571	259,431
1994	986	-	-	-	-	8,883	30,704	31,870	38,047	39,250	37,668	24,287	211,695
1995	986	-	-	-	-	8,883	30,455	42,030	47,110	53,732	53,523	35,708	272,427
1996	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1997	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1998	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1999	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2000	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2001	18,681	-	-	-	-	8,883	26,592	39,776	48,460	49,896	48,680	31,571	272,540
2002	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2003	18,681	-	-	-	-	8,883	30,437	40,413	46,818	54,222	53,512	35,619	288,586
2004	986	-	-	-	-	8,883	30,452	39,204	47,156	54,222	53,512	35,643	270,059
2005	986	-	-	-	-	8,883	26,639	39,776	48,460	49,896	48,680	31,571	254,892
2006	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2007	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2008	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2009	18,681	-	-	-	-	8,758	30,006	41,434	46,680	53,454	52,754	34,944	286,711
Average	12,151	-	-	-	-	8,882	30,003	40,964	46,856	52,618	51,773	34,103	277,350

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 Bumping

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	25,229	-	-	-	-	6,232	47,967	88,794	89,080	97,312	90,146	55,333	500,093
1927	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1928	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1929	25,229	-	-	-	-	6,232	47,326	92,309	89,080	97,312	90,146	55,333	502,967
1930	21,815	-	-	-	-	6,232	51,572	87,805	86,469	93,701	86,537	53,960	488,090
1931	21,815	-	-	-	-	6,232	40,204	73,509	69,935	75,983	71,264	49,169	408,113
1932	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1933	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1934	25,229	-	-	-	-	6,232	51,572	99,787	104,478	113,454	104,375	59,770	564,898
1935	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1936	25,229	-	-	-	-	6,232	49,999	101,401	105,575	113,142	103,281	59,339	564,200
1937	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	107,326	61,224	573,113
1938	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1939	25,229	-	-	-	-	6,232	51,420	86,157	101,577	113,415	104,040	59,643	547,714
1940	21,815	-	-	-	-	6,232	51,572	88,423	88,495	97,312	90,146	55,333	499,328
1941	21,815	-	-	-	-	6,232	43,745	75,751	73,472	80,553	75,361	50,404	427,334
1942	21,815	-	-	-	-	6,232	50,633	84,787	82,049	89,325	82,240	52,653	469,735
1943	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1944	25,229	-	-	-	-	6,232	45,791	84,379	81,684	88,840	82,332	52,665	467,153
1945	21,815	-	-	-	-	6,232	48,016	92,663	89,080	97,312	90,146	55,333	500,597
1946	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1947	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1948	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1949	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1950	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1951	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1952	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1953	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1954	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1955	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1956	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1957	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1958	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1959	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1960	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1961	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1962	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1963	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1964	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1965	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1966	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1967	25,229	-	-	-	-	6,232	51,572	101,401	109,672	113,686	106,628	60,712	575,132
1968	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1969	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1970	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1971	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1972	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1973	25,229	-	-	-	-	6,232	48,318	96,878	93,276	101,219	93,022	56,115	520,289
1974	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1975	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1976	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1977	25,229	-	-	-	-	6,232	47,570	92,309	89,080	97,312	90,146	55,333	503,211
1978	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1979	25,229	-	-	-	-	6,232	48,131	95,485	90,654	98,209	90,312	55,192	509,445
1980	21,815	-	-	-	-	6,232	51,359	99,871	97,119	111,156	101,434	58,731	547,718
1981	21,815	-	-	-	-	6,232	49,060	101,071	99,442	107,720	98,772	57,967	542,079
1982	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1983	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1984	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1985	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1986	25,229	-	-	-	-	6,232	51,271	98,874	104,207	113,078	103,420	59,521	561,831
1987	21,815	-	-	-	-	6,232	51,526	95,576	90,820	98,246	90,479	55,354	510,048
1988	21,815	-	-	-	-	6,232	50,848	87,829	92,597	101,603	93,438	56,286	510,650
1989	21,815	-	-	-	-	6,232	51,572	96,179	107,854	113,659	106,240	60,563	564,114
1990	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1991	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1992	25,229	-	-	-	-	6,232	45,206	89,152	89,080	97,312	90,146	55,333	497,691
1993	21,815	-	-	-	-	6,232	47,837	85,534	89,080	97,312	90,146	55,333	493,289
1994	21,815	-	-	-	-	6,232	49,282	80,506	77,497	85,342	79,079	51,679	451,432
1995	21,815	-	-	-	-	6,232	51,367	101,401	101,917	110,854	107,324	61,021	561,931
1996	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1997	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1998	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1999	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2000	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2001	25,229	-	-	-	-	6,232	47,256	92,309	89,080	97,312	90,146	55,333	502,897
2002	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2003	25,229	-	-	-	-	6,232	51,572	87,903	100,391	113,698	107,599	61,726	554,351
2004	21,815	-	-	-	-	6,232	51,399	82,498	108,850	113,698	107,536	61,515	553,544
2005	21,815	-	-	-	-	6,232	47,597	92,309	89,080	97,312	90,146	54,489	498,981
2006	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2007	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2008	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2009	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
Average	23,969	-	-	-	-	6,232	50,684	97,721	103,717	109,120	103,314	67,776	562,534

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 Bumping

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	33,266	-	-	-	-	10,226	39,680	55,265	58,704	59,847	59,072	41,114	357,175
1927	24,068	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,054
1928	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1929	33,266	-	-	-	-	10,226	40,436	57,536	62,950	64,502	63,524	51,220	383,661
1930	24,004	-	-	-	-	10,226	41,928	54,338	55,222	56,466	55,880	48,854	346,917
1931	24,263	-	-	-	-	10,226	37,172	55,413	55,770	57,676	56,909	49,318	346,747
1932	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1933	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1934	33,266	-	-	-	-	10,226	41,526	58,479	64,730	70,035	69,621	55,692	403,575
1935	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1936	33,266	-	-	-	-	10,226	40,444	57,867	65,148	69,705	69,175	55,539	401,371
1937	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,215	56,199	395,128
1938	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1939	33,266	-	-	-	-	10,226	41,805	52,092	63,223	70,004	69,483	55,647	395,747
1940	24,263	-	-	-	-	10,226	41,928	53,702	63,017	65,274	64,137	52,434	374,981
1941	24,263	-	-	-	-	10,226	37,819	49,928	49,641	51,697	51,226	46,832	321,632
1942	24,263	-	-	-	-	10,226	41,233	56,310	60,041	61,420	60,437	50,849	364,780
1943	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1944	33,266	-	-	-	-	10,226	39,996	55,081	55,722	57,028	56,435	49,113	356,868
1945	24,263	-	-	-	-	10,226	40,514	57,866	63,801	66,127	65,050	52,844	380,690
1946	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1947	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1948	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1949	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1950	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1951	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1952	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1953	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1954	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1955	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1956	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1957	33,266	-	-	-	-	10,226	41,363	57,867	65,148	70,157	70,467	59,068	407,563
1958	33,283	-	-	-	-	10,226	41,053	57,995	65,148	70,157	70,467	59,068	407,397
1959	33,273	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,259
1960	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1961	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1962	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1963	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1964	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1965	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1966	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1967	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,156	70,144	56,017	403,878
1968	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1969	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1970	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1971	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1972	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1973	33,266	-	-	-	-	10,226	40,452	57,867	64,256	68,704	68,065	54,113	396,950
1974	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1975	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1976	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1977	33,266	-	-	-	-	10,226	40,613	57,244	60,266	61,481	60,658	50,954	374,709
1978	24,243	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,229
1979	33,266	-	-	-	-	10,226	40,159	57,867	64,072	67,975	67,000	53,629	394,195
1980	24,263	-	-	-	-	10,226	41,676	58,464	62,150	69,189	68,795	55,307	390,071
1981	24,263	-	-	-	-	10,226	40,256	57,867	65,127	68,830	68,671	54,976	390,217
1982	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1983	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1984	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1985	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1986	33,266	-	-	-	-	10,226	41,736	56,935	65,148	69,673	69,231	55,601	401,818
1987	24,263	-	-	-	-	10,226	41,871	57,543	64,090	67,990	67,070	53,700	386,754
1988	24,263	-	-	-	-	10,226	41,427	52,837	63,358	68,737	68,174	54,203	383,225
1989	24,263	-	-	-	-	10,226	41,226	56,405	65,148	70,156	70,122	55,964	393,511
1990	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1991	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1992	33,266	-	-	-	-	10,226	37,944	56,118	63,964	66,986	66,096	53,325	387,926
1993	24,263	-	-	-	-	10,226	40,231	52,255	62,435	63,709	62,802	51,888	367,809
1994	22,469	-	-	-	-	10,226	40,507	53,002	53,539	55,333	54,702	48,389	338,168
1995	24,263	-	-	-	-	10,226	41,317	59,101	62,949	68,847	70,199	56,131	393,032
1996	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1997	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1998	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1999	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2000	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2001	33,266	-	-	-	-	10,226	40,358	56,874	58,962	60,152	59,441	41,580	360,859
2002	23,296	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	397,282
2003	33,266	-	-	-	-	10,226	41,928	52,719	61,993	70,157	70,250	56,391	396,930
2004	24,263	-	-	-	-	10,226	41,820	50,117	64,695	70,157	70,242	56,308	387,828
2005	24,263	-	-	-	-	10,226	40,631	56,861	58,937	60,182	59,659	43,306	354,064
2006	24,263	-	-	-	-	10,226	41,217	57,867	65,148	70,157	70,467	59,068	398,413
2007	33,275	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,261
2008	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2009	33,266	-	-	-	-	10,179	40,863	57,599	64,847	69,832	70,140	59,283	406,009
Average	29,906	-	-	-	-	10,226	40,914	57,101	63,832	68,290	68,296	56,527	395,092

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 Bumping

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	3,644	-	-	-	-	421	4,415	12,673	16,421	17,949	17,890	9,948	83,359
1927	685	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,654
1928	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1929	3,644	-	-	-	-	421	3,470	13,084	16,423	18,347	18,395	15,548	89,332
1930	788	-	-	-	-	421	4,768	12,888	16,300	17,314	17,246	14,849	84,574
1931	798	-	-	-	-	421	2,828	13,084	16,342	17,554	17,455	15,239	83,720
1932	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1933	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1934	3,644	-	-	-	-	421	4,768	12,855	16,212	18,347	18,395	15,598	90,240
1935	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1936	3,644	-	-	-	-	421	4,392	13,084	16,423	18,347	18,395	15,595	90,301
1937	798	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,608	87,847
1938	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1939	3,644	-	-	-	-	421	4,756	11,049	15,799	18,347	18,395	15,597	88,009
1940	798	-	-	-	-	421	4,768	11,389	16,259	18,347	18,395	15,551	85,928
1941	798	-	-	-	-	421	4,077	12,856	15,630	16,369	16,298	14,123	80,572
1942	798	-	-	-	-	421	4,710	12,890	16,423	18,214	18,157	15,476	87,090
1943	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1944	3,644	-	-	-	-	421	2,282	13,084	16,338	17,426	17,359	11,456	82,010
1945	798	-	-	-	-	421	3,862	13,084	16,423	18,347	18,395	15,556	86,886
1946	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1947	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1948	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1949	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1950	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1951	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1952	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1953	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1954	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1955	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1956	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1957	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1958	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1959	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1960	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1961	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1962	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1963	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1964	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1965	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1966	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1967	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,605	90,689
1968	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1969	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1970	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1971	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1972	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1973	3,644	-	-	-	-	421	3,952	13,084	16,423	18,347	18,395	15,573	89,839
1974	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1975	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1976	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1977	3,644	-	-	-	-	421	3,011	13,084	16,423	18,226	18,200	15,485	88,493
1978	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1979	3,644	-	-	-	-	421	3,994	13,084	16,423	18,347	18,395	15,566	89,874
1980	798	-	-	-	-	421	4,755	12,867	15,516	18,347	18,395	15,591	86,690
1981	798	-	-	-	-	421	4,219	13,084	16,423	18,347	18,395	15,586	87,273
1982	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1983	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1984	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1985	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1986	3,644	-	-	-	-	421	4,747	12,821	16,423	18,347	18,395	15,597	90,394
1987	798	-	-	-	-	421	4,766	12,736	16,423	18,347	18,395	15,567	87,453
1988	798	-	-	-	-	421	4,722	11,293	16,112	18,347	18,395	15,574	85,661
1989	798	-	-	-	-	421	4,768	12,412	16,423	18,347	18,395	15,604	87,168
1990	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1991	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1992	3,644	-	-	-	-	421	4,180	12,425	16,423	18,347	18,395	15,562	89,398
1993	798	-	-	-	-	421	4,461	11,281	16,423	18,347	18,395	15,544	85,669
1994	798	-	-	-	-	421	4,569	12,848	16,141	17,090	17,006	12,916	81,789
1995	677	-	-	-	-	421	4,754	13,084	15,225	18,036	18,395	15,607	86,197
1996	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1997	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1998	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1999	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2000	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2001	3,644	-	-	-	-	421	2,824	13,084	16,423	18,004	17,962	13,432	85,793
2002	749	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,719
2003	3,644	-	-	-	-	421	4,768	11,400	15,057	18,347	18,395	15,612	87,644
2004	798	-	-	-	-	421	4,749	10,625	16,284	18,347	18,395	15,610	85,229
2005	798	-	-	-	-	421	2,848	13,084	16,423	18,010	18,005	14,889	84,477
2006	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
2007	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2008	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2009	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
Average	2,590	-	-	-	-	421	4,565	12,904	16,350	18,637	18,968	15,543	89,977

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 Bumping

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	7,393	-	-	-	-	20	10,981	13,606	14,527	14,065	14,735	13,329	88,656
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1929	7,393	-	-	-	-	20	10,732	13,791	14,527	14,065	14,735	13,329	88,592
1930	5,536	-	-	-	-	20	11,828	13,827	14,493	14,065	14,361	12,849	86,979
1931	5,536	-	-	-	-	20	9,533	13,406	13,121	11,427	13,468	12,611	79,122
1932	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	15,307	15,066	14,065	14,735	13,329	91,742
1935	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1936	7,393	-	-	-	-	20	11,157	15,063	15,090	14,065	14,735	13,329	90,852
1937	5,536	-	-	-	-	20	11,828	15,543	16,253	17,118	17,346	15,376	99,018
1938	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1939	7,393	-	-	-	-	20	11,793	13,285	14,837	14,065	14,735	13,329	89,457
1940	5,536	-	-	-	-	20	11,828	13,623	14,395	14,065	14,735	13,329	87,531
1941	5,536	-	-	-	-	20	10,390	13,396	14,230	13,127	14,194	12,849	83,741
1942	5,536	-	-	-	-	20	11,547	13,460	14,230	13,127	14,194	12,849	84,963
1943	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1944	7,393	-	-	-	-	20	10,465	13,571	14,230	13,127	14,194	12,849	85,848
1945	5,536	-	-	-	-	20	10,747	13,791	14,527	14,065	14,735	13,329	86,751
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1947	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1948	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1953	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1958	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1959	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1960	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1961	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1962	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1963	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1964	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1966	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1967	7,393	-	-	-	-	20	11,828	15,543	16,152	17,070	17,346	15,376	100,726
1968	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1969	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1970	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1971	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,730	13,791	14,527	14,065	14,735	13,329	88,591
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,789	13,791	14,527	14,065	14,735	13,329	88,650
1978	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1979	7,393	-	-	-	-	20	10,615	13,791	14,527	14,065	14,735	13,329	88,475
1980	5,536	-	-	-	-	20	11,765	15,321	13,866	14,065	14,735	13,329	88,638
1981	5,536	-	-	-	-	20	10,657	13,791	14,527	14,065	14,735	13,329	86,661
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1986	7,393	-	-	-	-	20	11,771	14,590	14,571	14,065	14,735	13,329	90,473
1987	5,536	-	-	-	-	20	11,817	14,807	14,527	14,065	14,735	13,329	88,837
1988	5,536	-	-	-	-	20	11,608	13,513	14,287	14,065	14,735	13,329	87,094
1989	5,536	-	-	-	-	20	11,828	14,634	15,644	17,070	17,346	15,376	97,453
1990	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1991	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1992	7,393	-	-	-	-	20	10,389	13,961	14,527	14,065	14,735	13,329	88,419
1993	5,536	-	-	-	-	20	11,062	13,277	14,527	14,065	14,735	13,329	86,551
1994	5,536	-	-	-	-	20	11,273	13,584	14,230	13,127	14,194	12,849	84,812
1995	5,536	-	-	-	-	20	11,790	15,543	15,101	16,819	17,346	15,376	97,530
1996	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1997	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1998	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1999	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2000	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2001	7,393	-	-	-	-	20	10,716	13,791	14,527	14,065	14,735	13,329	88,576
2002	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2003	7,393	-	-	-	-	20	11,828	13,560	14,833	17,070	17,346	15,376	97,425
2004	5,536	-	-	-	-	20	11,798	12,786	16,073	17,070	17,346	15,376	96,005
2005	5,536	-	-	-	-	20	10,797	13,791	14,527	14,065	14,735	13,329	86,801
2006	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2007	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2008	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2009	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
Average	6,707	-	-	-	-	20	11,602	14,992	15,672	16,450	16,798	14,970	97,210

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.2 Bumping (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	72,362	74,665	84,431
1926	80,060	80,872	99,465	120,373	91,978	58,207	13,410	8,839	9,067	24,160	34,070	48,419
1927	52,442	54,827	57,782	72,055	89,864	99,938	62,476	23,875	28,589	45,453	84,895	80,061
1928	82,964	80,996	96,457	111,411	157,253	153,792	104,450	66,016	60,746	71,251	71,779	69,595
1929	65,414	62,110	67,274	56,487	80,168	79,897	47,942	11,407	8,111	5,825	3,852	6,498
1930	8,166	26,599	38,573	68,738	51,537	43,108	15,514	9,252	7,318	10,740	14,343	12,114
1931	18,605	28,101	44,971	63,609	80,227	77,504	55,643	27,593	24,562	23,886	37,686	40,196
1932	53,321	70,692	82,998	86,793	97,834	97,651	61,442	25,988	23,572	29,137	81,009	80,145
1933	80,120	80,134	80,108	87,505	115,626	157,770	146,993	112,530	94,072	100,106	118,796	123,596
1934	118,796	130,697	134,293	156,721	155,898	127,768	75,143	33,161	29,195	45,804	72,249	80,284
1935	105,737	114,686	123,030	124,532	152,917	157,770	117,757	78,858	76,209	74,243	72,433	71,767
1936	78,227	79,273	79,920	95,383	155,159	156,366	108,528	69,184	65,447	61,740	56,140	70,929
1937	69,981	71,373	77,206	80,287	104,446	141,988	106,066	66,218	62,346	62,238	92,244	85,129
1938	93,286	93,179	96,720	123,394	156,205	156,367	107,797	67,240	62,216	59,513	69,987	81,640
1939	80,142	80,036	84,432	107,161	135,212	129,133	83,532	43,318	39,820	39,357	46,139	68,558
1940	69,285	78,853	83,142	96,866	111,365	87,409	41,899	11,207	7,666	8,186	14,189	25,643
1941	25,042	24,810	36,865	49,397	22,982	12,219	10,017	8,497	14,305	27,047	41,339	56,541
1942	57,361	58,594	63,219	78,706	77,813	79,113	56,771	26,157	23,766	18,519	36,631	52,270
1943	60,236	63,278	72,185	90,972	94,005	96,224	66,622	28,413	25,258	23,977	26,062	44,156
1944	43,715	47,320	52,923	57,006	53,522	43,122	14,875	11,063	14,768	11,931	15,307	24,812
1945	51,940	66,267	70,753	78,701	95,115	79,272	56,633	27,408	30,832	35,972	52,006	62,780
1946	71,792	73,932	80,249	85,683	121,984	130,664	99,246	62,764	60,902	70,007	74,594	90,961
1947	87,134	80,338	96,293	131,619	157,521	149,017	101,366	59,346	57,288	80,486	85,407	80,275
1948	84,118	87,577	90,722	102,067	122,602	157,770	125,212	88,567	80,151	79,935	82,428	80,187
1949	79,781	83,321	89,609	106,341	147,482	157,669	132,256	95,839	79,557	81,691	96,753	106,149
1950	113,921	119,172	98,299	94,224	113,704	159,354	149,096	114,843	89,478	81,160	92,824	118,796
1951	118,796	133,981	113,224	117,253	153,576	157,650	114,797	74,826	70,981	80,522	80,260	79,992
1952	79,608	80,024	80,306	101,229	139,664	142,306	103,984	64,065	60,936	56,819	49,988	44,933
1953	83,784	84,193	84,789	99,266	132,032	153,674	133,323	94,535	78,534	79,760	80,830	89,618
1954	99,766	105,042	109,232	105,454	129,364	157,947	148,941	118,203	96,257	80,049	84,510	80,384
1955	84,597	94,557	96,854	101,955	128,786	157,774	151,011	117,943	92,681	90,373	115,084	118,796
1956	118,760	113,915	75,456	81,505	124,215	157,770	144,369	106,703	81,780	80,306	80,136	118,796
1957	118,796	120,397	125,078	127,669	157,113	142,246	93,205	53,472	48,720	46,808	48,924	62,337
1958	69,772	81,212	80,278	84,708	122,352	110,186	59,561	19,693	17,322	30,737	74,798	86,415
1959	108,070	113,425	122,621	124,089	149,323	157,770	124,526	86,171	84,836	88,093	119,969	118,796
1960	118,796	125,382	128,997	133,289	157,481	156,656	110,664	71,659	69,487	76,521	80,368	80,039
1961	80,920	107,113	116,707	116,319	150,325	156,992	112,551	71,981	69,591	76,569	80,240	82,937
1962	90,132	100,011	102,234	135,117	148,797	157,418	115,473	76,423	73,812	79,999	94,038	88,233
1963	99,970	123,337	132,075	145,742	157,770	143,132	92,697	51,924	47,090	47,293	61,640	64,529
1964	74,304	75,861	80,225	79,917	104,556	157,770	145,818	114,847	94,045	80,072	81,854	90,002
1965	112,177	129,114	123,999	128,141	156,788	154,865	112,016	72,410	68,358	69,968	76,675	80,044
1966	80,001	79,230	81,507	92,805	124,429	124,366	81,333	40,063	35,331	38,741	46,990	74,767
1967	81,222	86,306	91,494	90,560	122,014	153,899	118,458	76,499	71,052	87,120	80,137	107,855
1968	118,796	147,477	150,167	150,603	157,770	150,302	101,678	62,874	69,804	80,296	81,343	80,196
1969	94,283	93,929	97,420	116,156	154,168	152,532	105,559	67,109	67,132	71,209	73,238	72,986
1970	79,146	80,065	80,488	76,859	106,079	125,457	78,929	38,823	37,199	38,531	50,260	52,030
1971	73,828	80,530	80,127	88,298	127,387	157,770	156,226	120,918	95,885	80,514	80,236	86,156
1972	102,010	117,723	114,199	93,206	114,343	157,770	146,681	112,481	95,372	79,542	80,413	103,748
1973	116,826	117,521	120,985	126,338	127,470	103,316	53,825	13,914	11,478	13,157	18,171	28,536
1974	65,149	71,500	80,505	80,567	105,392	158,077	156,752	127,684	103,153	79,515	80,061	90,602
1975	114,659	120,017	113,239	105,910	129,612	157,770	135,527	101,870	79,619	81,491	91,419	118,796
1976	118,796	127,376	117,025	114,103	145,788	157,770	138,427	105,952	81,603	79,075	80,153	80,741
1977	90,897	99,694	100,712	104,422	52,800	36,013	10,539	6,316	8,835	12,304	54,239	87,027
1978	80,106	80,184	85,984	81,918	85,165	87,081	49,942	12,227	15,931	14,296	20,470	28,622
1979	27,893	33,674	51,369	68,404	82,471	66,217	27,236	10,957	9,137	9,389	8,801	46,891
1980	50,071	54,720	64,157	89,334	83,979	68,401	26,033	11,263	13,138	10,824	35,465	82,838
1981	80,024	92,878	94,927	110,822	110,207	108,162	65,479	23,970	18,806	25,906	30,782	38,036
1982	54,914	82,861	93,757	105,349	140,572	157,770	127,377	91,381	80,093	80,460	80,053	80,060
1983	103,296	112,174	124,773	124,542	142,716	136,753	100,084	61,461	62,556	60,826	80,209	80,156
1984	115,343	121,796	126,986	125,263	154,313	157,770	128,347	90,070	79,489	80,092	80,029	80,028
1985	78,168	77,322	80,884	108,651	152,364	150,642	104,354	64,149	63,087	81,644	81,287	77,762
1986	80,100	93,909	116,338	131,326	149,425	130,790	82,516	41,941	39,633	39,669	71,397	74,105
1987	73,297	75,013	80,209	110,020	132,826	99,983	49,764	12,259	8,789	5,987	5,066	12,091
1988	11,948	21,663	37,616	75,239	91,258	70,201	25,704	10,884	8,637	20,633	40,349	56,699
1989	73,730	77,463	80,223	100,118	117,976	113,450	67,044	29,858	26,853	24,278	54,723	76,166
1990	80,102	90,854	103,231	140,615	157,376	157,557	114,050	73,993	70,560	83,135	130,896	118,796
1991	118,796	145,179	133,317	144,147	157,547	157,513	116,534	77,604	73,758	70,225	81,941	80,721
1992	93,940	106,769	125,150	142,649	137,869	108,578	58,695	18,606	20,831	20,218	32,541	37,015
1993	45,713	47,403	63,584	83,510	85,667	69,403	28,531	10,127	6,947	5,942	7,613	12,484
1994	25,026	26,735	42,763	74,307	68,245	55,410	19,208	11,680	9,572	17,183	32,306	52,491
1995	60,706	88,562	80,456	80,715	83,606	65,077	27,994	10,928	8,245	28,754	106,210	101,439
1996	107,165	140,534	128,726	144,426	157,475	148,306	100,902	61,337	60,664	73,050	82,654	80,656
1997	92,897	108,940	89,541	94,171	135,529	157,770	138,400	102,672	80,850	87,635	82,350	88,577
1998	96,948	102,418	116,151	128,926	157,101	148,613	99,995	61,889	57,746	56,043	79,551	93,663
1999	96,467	101,809	106,360	103,458	119,413	157,770	148,504	120,046	93,880	80,618	92,575	118,796
2000	118,796	119,439	123,837	134,703	157,275	157,551	118,089	83,092	81,196	80,060	78,727	75,016
2001	74,416	72,927	80,833	83,272	77,594	64,530	23,000	10,400	7,686	18,892	43,576	54,645
2002	73,898	80,316	80,196	91,760	112,589	144,832	107,963	70,966	67,234	63,194	63,255	62,423
2003	82,929	80,172	85,362	97,036	113,032	103,199	56,557	16,417	12,102	25,356	49,656	54,905
2004	62,855	67,206	80,836	102,318	119,792	105,425	57,403	24,404	32,246	38,240	55,586	76,987
2005	91,235	88,420	92,618	99,700	78,030	50,868	11,999	10,533	8,953	12,548	25,105	34,279
2006	52,510	57,945	59,352	81,613	96,859	78,805	40,470	11,314	8,967	7,534	54,659	59,290
2007	71,495	80,243	99,440	106,033	130,445	128,248	80,506	41,467	37,501	44,858	52,044	64,016
2008	64,195	66,934	71,436	71,009	126,025	155,481	124,637	90,135	78,899	77,663	90,769	80,257
2009	113,375	113,806	116,260	124,794	155,975	151,847	104,906	66,351	62,705	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.2 Bumping (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	79,852	84,520	130,358
1926	156,001	172,957	195,222	218,954	186,532	121,021	35,290	-25,000	-71,180	-69,744	-58,289	-40,273
1927	-32,584	-25,589	-19,491	1,988	58,438	127,749	133,341	102,440	39,176	38,080	79,634	122,003
1928	169,153	176,457	196,478	214,315	238,524	237,635	209,381	164,783	94,455	72,776	77,234	80,670
1929	82,895	85,171	96,104	96,784	132,972	147,075	66,952	-3,748	-54,251	-68,346	-73,644	-73,099
1930	-71,513	-52,991	-34,830	-1,583	1,944	-13,797	-50,366	-108,744	-157,596	-171,530	-165,363	-162,922
1931	-156,639	-145,019	-124,172	-101,963	-54,524	-59,773	-87,305	-117,843	-165,472	-178,481	-166,952	-160,488
1932	-149,577	-124,843	-76,835	-19,460	48,341	105,533	112,642	85,097	17,163	-3,075	47,681	96,716
1933	140,081	149,273	158,362	181,415	207,096	238,980	236,203	198,284	158,402	194,219	203,025	203,025
1934	203,025	220,437	217,330	238,033	238,019	223,872	187,963	140,259	71,805	81,805	109,610	133,813
1935	179,616	192,709	207,554	208,320	237,044	238,980	218,555	180,623	109,940	81,150	82,902	86,704
1936	95,639	101,614	124,426	173,666	236,591	238,183	204,205	163,233	94,866	88,573	87,531	100,126
1937	104,072	110,350	120,710	151,928	195,952	235,361	214,066	172,877	105,087	98,793	131,659	176,714
1938	189,398	194,417	203,773	207,269	237,556	238,335	206,269	163,806	93,988	66,102	76,201	103,618
1939	147,564	159,264	176,823	205,333	230,795	228,927	193,492	147,144	80,689	71,555	79,147	99,386
1940	104,471	115,718	147,362	186,784	204,143	156,744	70,457	-822	-45,816	-50,793	-48,119	-36,019
1941	-30,987	-27,596	-11,371	8,369	724	-22,323	-70,224	-127,592	-168,167	-166,960	-152,321	-134,561
1942	-129,685	-124,722	-116,341	-85,056	-69,797	-64,574	-97,612	-133,549	-181,495	-196,589	-181,603	-164,476
1943	-152,584	-145,344	-132,678	-77,701	-13,623	48,158	63,279	42,928	-17,654	-41,658	-37,762	-21,240
1944	-17,561	-10,773	-623	13,123	22,310	-5,595	-44,653	-101,929	-146,080	-159,190	-154,203	-143,986
1945	-117,504	-101,716	-92,254	-77,986	-14,205	5,067	-29,323	-63,465	-109,092	-117,563	-102,407	-89,900
1946	-76,479	-70,678	-59,405	-15,103	76,058	139,325	147,373	115,973	47,699	28,501	37,194	86,769
1947	128,417	163,374	189,865	221,535	238,771	234,842	205,183	166,954	99,914	94,137	144,951	173,805
1948	182,977	192,282	192,614	187,583	207,090	238,980	221,005	184,843	129,064	114,290	133,327	157,282
1949	165,479	177,053	187,649	191,528	232,565	238,931	230,009	194,666	142,870	140,412	187,426	203,025
1950	203,025	208,267	184,104	180,343	198,325	238,980	236,517	198,758	153,585	170,358	203,025	203,025
1951	203,025	216,491	197,882	201,601	235,843	238,896	213,222	175,463	110,460	101,736	125,961	139,063
1952	143,640	154,113	163,381	195,147	229,945	235,585	222,407	179,241	110,762	82,786	81,586	82,276
1953	117,318	166,138	181,129	199,332	228,590	238,568	223,389	183,590	127,498	104,910	126,987	183,475
1954	200,452	210,640	194,197	190,710	213,736	238,980	235,581	200,971	157,330	156,801	185,204	201,107
1955	203,025	216,138	206,073	196,603	213,093	238,980	238,869	202,291	158,052	180,053	203,025	203,025
1956	203,025	197,459	163,019	170,761	207,600	238,980	231,815	189,625	145,727	146,283	171,883	203,025
1957	203,025	209,319	209,985	211,216	238,395	230,924	192,974	149,429	81,557	56,978	61,598	76,810
1958	86,960	105,453	124,120	167,120	213,493	214,699	188,744	142,114	76,812	66,920	107,656	165,938
1959	194,978	204,855	206,482	207,910	233,501	238,980	220,779	182,561	153,160	186,125	202,896	203,025
1960	203,025	212,844	212,442	217,993	238,735	238,410	209,759	171,515	105,149	85,036	124,197	134,457
1961	171,701	200,259	201,096	200,739	232,374	238,557	217,877	177,667	110,470	93,073	107,179	135,538
1962	177,203	193,139	200,469	229,007	238,157	238,774	212,839	178,121	112,998	95,118	134,215	179,580
1963	193,516	217,239	231,015	238,020	238,980	231,383	197,485	156,817	88,823	63,037	74,634	82,597
1964	97,925	104,420	115,606	143,956	190,347	238,980	230,228	196,187	156,352	160,115	176,741	203,025
1965	203,025	222,154	207,828	211,651	238,095	237,541	218,014	183,369	115,878	90,220	98,082	104,585
1966	116,229	119,808	132,304	178,258	209,737	219,358	205,359	164,394	99,044	76,994	85,344	112,504
1967	153,084	180,233	190,648	189,605	218,541	238,919	229,816	189,105	121,502	144,119	183,561	203,025
1968	203,025	229,321	233,656	232,452	238,980	236,538	216,147	179,707	117,976	104,701	144,444	174,580
1969	191,218	195,650	200,738	200,588	235,676	236,255	205,976	166,778	102,111	78,886	82,982	87,161
1970	95,987	105,861	128,418	156,632	197,042	224,704	207,544	164,513	95,928	71,819	83,084	89,333
1971	114,274	155,090	169,071	184,732	211,177	238,980	238,673	200,356	159,758	160,728	193,414	203,025
1972	203,025	197,253	170,868	167,275	198,915	238,980	237,019	202,026	171,600	175,307	189,030	203,025
1973	203,025	207,411	214,625	218,825	216,205	208,171	180,546	140,634	79,167	76,057	84,035	97,454
1974	132,959	146,091	160,010	168,248	190,653	238,980	239,070	205,396	160,783	158,666	168,036	203,025
1975	203,025	212,901	197,896	191,130	213,298	238,980	225,035	190,759	145,726	136,271	188,789	203,025
1976	203,025	216,911	201,391	198,693	229,556	238,980	234,825	202,664	155,318	134,401	144,481	163,751
1977	182,997	193,994	199,288	198,790	145,659	89,757	13,512	-41,825	-83,605	-85,232	-50,722	26,043
1978	45,557	57,073	90,164	136,230	174,914	189,313	176,985	145,229	82,153	53,166	58,936	67,632
1979	71,710	80,571	100,160	119,633	169,610	174,196	152,406	103,943	22,189	4,017	3,115	38,282
1980	45,422	52,912	67,173	108,433	158,775	166,771	145,366	95,043	30,425	29,168	49,497	103,047
1981	127,131	163,686	181,927	202,364	207,778	213,361	199,229	150,872	84,195	90,736	97,744	107,978
1982	125,623	166,228	189,930	198,268	223,679	238,980	222,861	184,656	130,346	116,633	131,802	164,895
1983	195,073	208,158	208,543	208,329	229,774	232,716	236,317	197,021	132,366	107,529	134,487	146,089
1984	193,726	205,968	210,585	208,994	235,817	238,980	222,857	185,299	127,856	107,688	128,479	140,157
1985	143,151	145,888	156,395	198,122	237,665	234,972	196,591	153,236	85,952	75,746	124,054	129,598
1986	137,277	163,179	197,015	215,743	232,622	226,199	190,583	144,788	79,746	79,873	106,070	113,405
1987	118,674	124,829	159,040	200,226	221,542	208,529	172,441	128,542	40,235	11,688	9,116	15,388
1988	17,915	30,166	51,128	90,169	139,142	155,465	129,436	77,752	17,590	13,165	35,396	53,429
1989	73,159	82,037	94,481	154,966	186,853	199,851	180,432	139,447	70,981	69,800	92,155	114,875
1990	157,163	180,165	197,052	224,880	238,638	238,830	215,836	178,005	111,196	114,799	200,046	203,025
1991	203,025	227,068	216,429	227,483	238,795	238,823	222,304	185,825	117,381	88,484	109,815	158,236
1992	180,686	196,900	217,922	236,642	223,983	170,883	101,948	26,168	-20,057	-22,700	-10,626	-2,538
1993	7,501	13,025	30,252	61,588	124,678	91,641	21,124	-35,529	-81,664	-92,042	-94,491	-89,809
1994	-75,813	-68,846	-49,926	-17,247	-2	-17,052	-66,952	-125,158	-173,075	-182,252	-169,260	-148,528
1995	-136,860	-94,178	-49,737	-12,942	48,364	60,264	51,329	11,311	-41,100	-21,558	54,973	105,758
1996	162,757	209,455	212,192	228,962	238,729	235,748	228,907	190,538	125,003	107,333	136,525	159,640
1997	184,469	199,872	174,275	180,294	218,656	238,980	227,967	189,945	150,861	171,831	203,025	203,025
1998	203,025	212,410	211,655	212,376	238,384	234,697	208,555	166,226	96,518	70,248	89,710	126,272
1999	175,418	187,884	191,546	188,867	203,594	238,980	238,207	207,610	164,608	160,007	203,025	203,025
2000	203,025	207,045	209,071	218,203	238,545	238,874	209,141	168,818	109,016	96,145	100,718	102,871
2001	105,895	108,192	120,944	139,460	169,480	114,667	30,017	-21,261	-68,017	-72,565	-49,505	-35,513
2002	-13,350	-786	21,363	76,936	147,211	201,844	196,568	151,897	82,013	52,744	55,710	58,980
2003	79,088	113,145	158,437	186,769	202,402	205,494	182,465	140,997	74,541	81,708	106,537	117,636
2004	128,679	137,806	161,049	195,065	213,598	209,567	174,333	134,584	77,100	83,072	100,357	123,296
2005	160,756	177,105	185,846	191,638	169,054	96,805	17,226	-30,373	-78,458	-82,670	-70,159	-58,566
2006	-35,725	-25,638	-18,942	6,429	74,738	121,182	109,240	75,289	12,927	-11,259	33,980	45,042
2007	61,772	78,813	139,034	180,486	207,588	218,061	197,803	156,320	87,399	67,245	75,743	92,129
2008	98,044	105,604	115,081	122,672	192,319	230,349	215,502	176,790	121,733	98,054	144,318	173,131
2009	203,025	207,722	208,913	208,562	237,344	235,900	205,522	168,762	107,433	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.2 Bumping (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	164,285	162,872	206,653
1926	222,822	229,628	272,244	355,951	373,546	284,727	147,293	52,719	21,707	45,489	67,346	102,409
1927	110,911	113,829	118,896	171,307	301,710	451,480	363,281	180,376	172,712	213,654	287,365	325,524
1928	326,985	329,183	358,897	361,547	449,838	445,966	313,808	141,091	119,538	136,606	137,673	134,549
1929	127,307	118,928	127,111	138,369	260,030	327,093	245,746	124,725	115,847	92,662	84,580	80,548
1930	73,827	97,275	129,786	228,980	271,138	295,039	240,424	112,797	77,194	69,488	75,123	73,347
1931	82,530	102,321	134,476	185,672	318,752	314,156	176,194	38,980	20,529	23,071	47,103	50,759
1932	72,933	132,912	216,281	300,906	445,343	451,480	340,688	157,435	138,742	144,257	242,199	291,524
1933	319,543	318,329	316,651	314,368	340,351	451,480	439,210	313,935	268,034	304,374	326,958	391,971
1934	366,811	385,087	392,666	448,120	451,417	390,159	239,874	78,316	60,865	82,297	152,843	176,641
1935	249,953	279,391	295,809	330,908	444,658	451,480	372,380	209,235	194,362	189,429	183,150	176,436
1936	176,044	170,481	181,800	282,951	443,072	447,900	319,280	152,596	133,538	127,055	117,575	124,130
1937	118,108	113,967	120,396	155,037	294,481	451,480	350,885	184,531	164,937	163,500	206,023	237,573
1938	251,860	250,272	256,673	340,447	446,450	451,480	332,121	158,033	131,009	125,702	132,352	154,712
1939	183,446	186,596	204,718	284,400	416,279	413,332	279,960	108,669	87,532	78,799	91,947	133,093
1940	137,120	148,265	183,074	262,279	377,946	356,813	233,575	95,702	85,280	87,963	91,440	109,946
1941	111,165	110,379	147,479	218,031	247,874	263,008	204,153	89,908	56,170	79,514	113,302	154,631
1942	158,245	160,414	169,883	238,660	302,906	339,822	204,053	54,464	31,038	24,179	42,011	67,163
1943	86,709	94,911	114,584	222,179	353,107	451,480	395,344	220,276	198,436	193,574	191,460	215,497
1944	210,900	210,907	221,873	257,019	324,345	323,682	261,815	133,140	79,633	78,128	85,980	104,969
1945	156,048	186,348	197,746	219,423	370,726	404,705	275,440	95,891	80,083	88,358	110,595	124,032
1946	140,677	144,222	155,767	227,338	428,907	451,480	376,973	204,635	186,077	198,003	204,660	259,355
1947	282,923	309,440	349,324	405,800	450,703	439,931	312,280	147,783	133,770	186,650	239,599	260,567
1948	266,303	269,627	272,674	273,693	360,791	451,480	384,694	241,479	222,918	233,734	244,579	256,573
1949	252,977	256,863	268,659	285,353	426,127	451,031	395,952	250,413	235,978	250,668	325,551	325,524
1950	325,497	328,978	316,086	302,106	308,990	451,480	439,612	325,594	282,448	297,307	325,551	325,524
1951	325,497	385,694	348,448	344,743	441,614	451,480	358,592	195,517	176,849	203,500	225,815	234,839
1952	232,103	233,652	234,574	307,990	445,751	440,105	322,737	161,380	140,050	126,208	117,621	110,759
1953	158,370	208,099	218,981	259,154	394,638	451,480	399,506	255,698	238,054	238,584	254,948	301,453
1954	318,569	325,115	325,709	320,879	364,813	451,480	438,904	340,924	290,576	269,502	308,176	318,448
1955	319,337	331,564	331,115	312,181	395,051	421,960	392,019	260,221	247,350	274,502	325,592	325,592
1956	325,592	325,676	277,933	273,328	347,807	451,480	427,935	287,949	264,453	276,200	298,003	325,524
1957	325,181	325,195	333,779	354,260	449,387	422,581	275,208	116,458	95,979	92,043	92,609	104,451
1958	109,522	124,594	144,290	189,869	391,579	439,205	282,953	103,314	88,864	109,489	182,543	256,189
1959	300,829	311,154	325,564	342,691	444,321	451,480	387,066	227,289	247,904	313,229	369,613	362,405
1960	343,085	346,771	358,404	378,669	450,576	450,677	336,534	173,465	155,306	159,836	186,502	189,468
1961	217,657	263,784	296,932	317,589	428,323	450,391	358,311	192,394	179,673	191,293	199,096	214,517
1962	269,447	294,530	297,384	388,698	450,591	451,480	357,961	207,491	187,785	199,744	263,352	298,154
1963	316,605	363,549	383,537	412,088	451,480	423,343	287,001	130,110	109,789	107,764	121,078	128,232
1964	145,382	145,990	148,693	177,540	287,767	451,480	417,822	303,236	287,014	286,555	293,625	325,524
1965	328,182	356,611	362,865	359,458	448,336	445,780	349,270	197,955	180,728	181,415	197,400	202,413
1966	203,502	198,990	204,756	273,769	407,290	436,364	316,810	142,627	120,412	126,133	134,259	185,081
1967	214,656	237,387	243,451	243,970	363,272	399,162	302,282	161,826	145,537	190,637	236,074	301,361
1968	327,438	387,456	423,847	433,884	451,480	438,028	310,646	169,002	167,338	187,071	228,238	249,135
1969	277,697	276,489	281,735	317,064	439,872	440,400	315,705	148,886	131,803	141,908	149,163	149,000
1970	151,315	152,279	162,859	186,498	311,551	448,830	329,766	157,296	141,198	139,726	150,059	153,817
1971	185,090	232,682	239,976	265,708	357,177	451,480	450,343	333,827	320,117	315,824	325,551	325,524
1972	325,497	360,421	324,585	289,982	328,525	451,480	441,533	342,137	308,175	275,863	283,188	319,128
1973	325,497	326,349	328,311	347,031	400,702	363,622	225,960	75,538	62,859	67,887	81,026	98,689
1974	165,812	181,289	199,778	203,879	282,288	451,480	451,480	367,818	313,753	279,521	283,308	313,322
1975	325,497	332,123	331,680	323,257	360,650	451,480	404,908	282,912	253,743	247,061	302,710	362,327
1976	356,230	371,821	354,043	346,622	420,916	451,480	433,434	353,100	295,065	262,558	269,890	277,637
1977	301,330	313,548	314,679	344,585	317,329	265,594	135,365	74,476	81,714	77,202	138,316	256,980
1978	267,017	274,746	320,787	380,795	449,800	451,480	346,118	188,182	187,555	185,729	200,007	202,952
1979	197,723	196,958	228,116	262,756	399,778	365,627	227,359	73,447	48,773	45,295	43,826	120,148
1980	125,361	131,118	153,321	238,286	359,560	392,205	251,400	87,956	74,415	71,730	109,815	232,983
1981	264,278	307,937	330,848	375,998	440,090	383,872	230,831	80,211	69,937	80,990	93,105	99,729
1982	116,418	179,309	211,168	243,602	378,697	451,480	393,970	245,512	234,452	245,479	251,673	279,381
1983	325,497	341,855	360,765	358,331	445,595	451,480	371,342	224,940	218,324	213,768	253,875	258,637
1984	325,497	340,674	356,118	353,822	427,646	451,480	398,477	248,167	237,158	242,368	254,590	257,846
1985	251,826	246,824	249,532	326,321	450,834	436,261	293,667	132,965	117,682	142,596	184,704	179,516
1986	184,198	221,101	282,504	330,838	423,168	406,912	260,212	98,745	83,245	81,644	125,410	132,548
1987	129,746	127,932	165,198	245,325	367,717	327,018	190,025	46,961	28,094	18,271	12,089	17,224
1988	13,501	22,717	53,518	155,743	276,397	310,645	203,192	60,834	46,286	70,079	113,039	143,652
1989	170,353	179,853	189,513	283,412	389,308	423,135	277,238	109,362	88,359	83,471	129,786	179,113
1990	204,618	222,574	244,598	367,695	450,236	451,480	359,487	207,705	191,112	230,574	380,893	354,499
1991	347,466	406,308	390,442	420,587	450,786	451,480	386,706	237,469	219,606	212,259	232,113	265,292
1992	287,688	314,602	366,211	433,936	443,983	355,552	226,306	99,876	79,643	77,486	89,711	92,743
1993	99,598	101,922	123,753	173,252	327,207	320,303	216,808	146,449	137,323	120,887	116,191	115,628
1994	125,144	127,674	162,577	253,726	351,392	376,017	271,349	136,186	83,416	72,887	89,757	122,306
1995	136,780	225,911	269,131	320,424	449,033	451,480	334,090	151,050	134,153	172,523	360,340	356,492
1996	352,492	413,239	384,345	408,915	450,555	446,397	343,219	193,987	179,323	186,475	219,250	235,432
1997	261,590	292,740	299,909	289,881	379,286	451,480	417,997	283,113	282,087	334,944	342,836	338,748
1998	336,222	342,115	357,163	358,321	449,348	439,130	313,585	148,425	124,036	119,067	144,554	180,401
1999	231,777	241,470	249,480	276,039	327,584	451,480	450,643	373,803	324,374	308,131	328,297	326,608
2000	324,543	322,560	325,736	375,526	449,910	451,480	345,530	186,213	174,470	184,511	182,000	174,654
2001	168,744	160,927	170,958	198,510	283,131	251,375	147,720	65,465	22,686	24,855	79,574	100,840
2002	144,697	161,567	181,189	258,021	391,182	451,480	358,186	198,941	179,448	170,746	171,150	170,110
2003	197,534	229,299	273,170	326,279	421,031	434,101	273,668	102,267	86,216	117,827	168,814	186,236
2004	193,822	202,798	240,217	318,823	421,527	387,658	235,502	86,818	96,571	107,039	145,269	196,594
2005	269,436	285,884	301,547	334,861	360,083	275,634	150,618	77,517	70,091	68,429	83,098	103,103
2006	141,080	151,528	155,778	210,946	380,698	451,480	326,100	142,870	118,962	112,074	223,069	234,199
2007	257,009	277,954	366,357	399,124	450,967	427,252	298,565	129,698	105,802	115,449	126,432	161,532
2008	161,432	161,788	167,782	177,145	365,268	451,480	365,531	215,643	195,660	195,427	267,065	280,747
2009	325,497	325,732	326,459	344,971	445,707	440,172	317,172	153,265	133,736	NA	NA	NA

IP5.2 Bumping (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	159,202	153,913	159,334
1926	162,726	163,127	167,058	180,300	180,300	178,723	161,714	119,226	111,558	112,921	116,066	125,232
1927	132,010	133,116	132,216	130,052	142,804	180,300	189,672	181,534	178,299	171,261	170,274	169,999
1928	169,999	169,445	169,999	156,700	179,790	180,300	176,126	167,192	164,149	160,871	159,371	156,063
1929	151,313	146,647	142,581	141,802	170,973	180,300	170,779	157,733	152,499	146,494	140,183	136,160
1930	131,144	137,097	137,372	157,004	175,285	119,849	41,745	17,328	10,778	4,394	1,843	1,588
1931	5,268	7,501	9,832	20,304	38,060	31,468	21,407	11,082	4,792	2,189	2,986	2,438
1932	3,068	9,825	22,457	27,093	45,333	84,921	92,336	86,702	84,216	79,755	99,429	109,200
1933	112,767	111,186	109,112	104,407	104,917	165,003	189,966	188,836	185,802	173,812	170,061	175,506
1934	171,263	174,840	171,605	179,240	180,279	177,925	170,214	161,808	157,201	163,851	170,775	169,999
1935	169,999	174,526	170,061	155,229	169,490	180,300	184,269	175,857	174,618	170,067	165,350	160,790
1936	157,542	153,099	150,204	158,511	177,696	180,300	173,784	164,764	161,819	156,658	150,753	148,450
1937	143,275	138,655	134,182	128,712	137,766	180,300	185,583	172,246	167,668	163,542	169,999	169,999
1938	169,999	169,314	167,439	160,085	178,742	180,300	177,834	168,482	163,255	158,996	156,000	156,667
1939	156,896	154,298	153,683	161,482	178,543	180,300	174,774	167,117	162,994	157,486	153,245	162,314
1940	165,059	167,821	175,884	179,841	180,300	180,300	169,512	157,383	151,272	146,339	144,488	147,451
1941	146,129	144,155	146,178	159,542	176,456	104,457	29,518	16,141	9,161	5,032	8,591	22,488
1942	22,317	19,290	16,036	28,932	45,605	31,433	27,451	16,712	12,383	6,216	13,615	19,687
1943	20,942	19,857	20,440	36,531	45,132	84,484	106,497	104,669	102,012	97,503	95,143	98,842
1944	95,316	93,310	93,588	98,864	122,188	116,679	38,580	20,912	15,192	8,985	5,356	3,684
1945	12,185	18,662	17,132	17,665	51,183	50,931	25,840	17,716	13,964	8,392	7,808	8,314
1946	12,425	9,599	7,271	18,035	58,051	99,651	116,743	109,522	105,722	104,851	109,880	130,036
1947	132,002	138,001	142,985	152,507	173,353	180,300	177,584	170,183	167,595	172,266	170,184	169,999
1948	168,613	169,040	169,790	152,363	161,992	180,300	184,191	174,553	171,491	169,792	169,676	168,140
1949	164,773	162,219	165,966	160,333	173,334	180,300	189,966	184,920	180,846	171,865	171,901	169,999
1950	169,999	170,106	169,999	157,719	160,333	180,883	189,966	188,383	183,394	172,154	170,514	171,205
1951	170,380	171,500	169,585	159,846	177,245	180,300	184,136	174,952	170,896	171,511	169,999	169,440
1952	166,969	166,973	164,152	160,578	179,807	180,300	179,633	169,956	164,973	158,729	152,867	147,594
1953	168,576	174,440	168,724	156,399	166,360	180,300	189,966	180,284	176,052	170,629	169,999	169,999
1954	169,999	169,311	169,953	158,839	161,305	180,300	189,966	189,966	184,623	171,477	169,999	169,934
1955	168,677	167,063	164,290	149,196	141,752	180,300	189,966	181,272	178,801	173,454	170,638	170,059
1956	169,999	168,493	166,335	160,244	167,236	180,300	189,966	186,540	182,214	171,425	169,964	169,999
1957	168,510	168,189	169,897	157,961	179,650	180,300	171,879	163,092	158,119	154,379	151,940	151,541
1958	153,352	156,069	157,163	156,546	180,289	180,257	173,946	166,481	161,941	159,627	169,999	169,999
1959	169,999	170,280	169,307	160,333	164,738	180,300	185,612	177,728	178,998	172,224	170,310	170,159
1960	169,999	171,777	169,999	156,595	162,411	180,300	178,832	167,628	163,020	159,226	167,873	168,074
1961	169,999	171,657	170,071	157,822	173,131	180,300	185,238	175,974	172,543	170,436	169,034	169,999
1962	169,976	170,339	168,072	162,771	160,251	180,300	184,102	177,228	173,397	170,841	171,272	170,210
1963	169,395	177,924	179,291	171,438	171,114	177,928	170,530	162,711	157,747	153,110	153,662	155,099
1964	159,114	157,357	153,946	145,115	142,150	180,300	189,966	186,804	181,872	170,883	169,999	169,999
1965	169,999	172,215	169,922	160,333	170,881	180,300	179,881	171,661	167,527	163,301	161,849	160,681
1966	158,260	154,338	151,639	155,588	172,288	180,300	179,075	172,392	168,081	163,650	163,601	169,999
1967	169,999	171,000	169,313	150,222	157,528	180,300	186,622	177,986	173,706	172,856	169,999	169,999
1968	169,999	180,463	180,052	169,499	173,368	180,222	174,495	167,108	165,132	165,972	169,999	169,691
1969	169,564	166,846	164,501	158,922	176,705	180,300	173,506	164,567	161,267	159,092	158,532	155,893
1970	159,868	159,825	161,185	151,896	160,945	180,300	179,930	172,415	167,835	163,587	164,983	168,590
1971	169,999	170,882	169,670	153,391	160,333	180,300	189,966	184,561	181,763	171,225	169,596	167,991
1972	168,050	169,999	169,999	154,902	163,594	180,300	189,966	188,536	186,272	171,033	169,482	170,137
1973	169,999	168,725	166,313	160,062	159,143	159,753	150,997	143,397	138,403	134,806	140,901	149,063
1974	169,999	169,834	169,999	157,882	160,333	180,300	189,966	189,651	185,010	170,798	169,636	169,999
1975	169,999	170,079	169,585	151,300	160,044	180,300	189,966	186,918	182,778	171,579	170,335	170,741
1976	170,528	170,962	168,391	154,288	169,824	180,300	189,966	189,899	185,724	170,939	167,360	163,624
1977	161,679	159,154	155,576	161,728	171,690	178,463	166,329	101,812	98,690	94,094	108,321	147,636
1978	147,417	145,937	152,527	154,534	157,043	177,484	176,846	166,522	164,537	160,761	158,960	155,740
1979	151,087	148,797	153,235	146,570	161,133	168,400	162,824	156,979	150,744	146,420	142,946	162,694
1980	168,555	173,450	169,715	166,674	180,030	180,300	174,498	167,597	164,372	159,456	169,999	179,772
1981	170,283	182,666	183,920	175,307	171,469	173,087	165,106	158,214	154,712	153,083	153,642	157,581
1982	157,599	172,711	170,123	154,858	166,522	180,300	187,441	178,420	176,580	171,511	169,999	169,999
1983	169,999	171,727	170,253	157,721	177,700	180,300	186,015	175,823	173,397	169,530	169,950	169,632
1984	169,999	172,629	170,166	154,922	158,634	180,300	188,394	177,469	173,411	170,649	169,607	166,455
1985	161,649	157,297	153,244	156,140	170,603	180,300	170,020	162,000	158,564	159,875	165,582	161,866
1986	164,377	174,802	174,436	173,127	178,385	178,397	167,401	157,695	154,078	150,001	161,720	163,018
1987	161,646	162,251	170,540	175,879	180,295	177,146	166,597	158,420	152,984	146,780	140,305	140,190
1988	138,121	136,705	140,087	151,813	160,078	169,429	163,201	154,930	150,193	145,109	151,963	155,143
1989	156,139	154,592	155,493	162,996	171,862	180,300	175,133	166,799	162,619	157,718	159,670	169,347
1990	170,126	171,447	169,999	162,623	164,143	180,300	180,316	170,394	167,384	170,183	174,836	169,999
1991	169,999	178,698	169,937	157,838	158,525	173,484	179,117	169,733	165,515	159,764	161,918	164,157
1992	167,052	172,445	182,363	180,300	180,300	178,054	166,810	151,710	146,344	139,525	136,461	131,609
1993	128,087	124,771	128,342	136,295	178,389	180,300	169,800	116,533	111,135	104,965	98,622	94,247
1994	92,844	89,545	93,498	108,524	115,736	51,130	23,269	8,274	2,843	4,134	3,545	13,776
1995	17,654	48,885	60,086	57,646	73,163	87,643	84,131	77,333	73,452	75,550	126,304	150,965
1996	169,999	175,234	170,359	164,033	162,954	174,591	171,438	163,683	160,774	158,208	161,873	165,190
1997	169,999	170,323	169,999	160,333	164,787	180,300	189,966	180,620	181,816	173,744	170,424	170,040
1998	169,999	169,812	169,999	159,482	178,161	180,300	175,044	163,902	159,352	154,795	160,365	169,999
1999	169,999	169,646	169,548	155,980	160,333	180,300	189,966	189,878	183,680	171,143	171,210	170,232
2000	169,456	169,293	168,298	159,797	168,638	180,300	178,250	168,079	165,190	162,730	159,479	154,884
2001	150,484	146,130	144,652	149,055	176,104	180,300	169,045	133,976	126,178	117,991	125,293	127,467
2002	142,353	144,669	147,087	154,715	163,603	180,300	185,600	178,449	174,153	169,022	165,261	162,243
2003	174,046	174,529	170,687	165,149	167,083	178,972	170,875	163,525	158,661	157,728	161,814	163,262
2004	163,982	164,878	168,805	176,788	180,300	179,858	172,291	162,882	161,296	159,001	160,637	169,303
2005	170,939	170,190	169,840	179,178	180,300	179,079	167,149	107,176	102,267	97,262	96,710	103,398
2006	120,812	124,239	122,996	121,322	151,995	180,300	177,445	171,839	168,149	163,672	170,741	169,999
2007	169,836	172,490	170,873	158,357	169,943	180,240	174,649	168,059	163,394	161,999	164,982	169,999
2008	168,805	166,378	164,082	151,422	173,962	180,300	189,197	178,143	174,895	170,794	170,030	169,316
2009	169,999	168,563	166,651	157,555	174,537	180,300	176,735	168,590	164,848	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.2 Bumping (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,387	2,755	18,140
1926	24,222	32,457	47,433	79,958	103,317	109,367	106,476	37,996	43	11,874	20,734	38,404
1927	45,913	54,945	64,171	86,576	134,998	198,000	191,880	170,428	67,658	77,920	105,024	126,029
1928	129,025	136,384	151,026	149,570	197,064	197,984	186,739	145,020	30,741	10,638	14,324	16,494
1929	16,794	16,435	19,646	27,218	67,808	108,137	121,943	98,380	0	1,088	25	2,620
1930	2,672	17,176	31,057	67,813	94,748	107,974	83,516	51,307	56	3,413	2,954	196
1931	4,362	9,142	16,969	42,467	93,342	108,781	105,405	90,534	29,129	23,926	25,691	27,658
1932	32,889	44,046	72,721	100,868	151,537	198,000	190,904	167,429	50,526	9,846	45,250	62,700
1933	74,114	78,165	83,901	108,401	136,509	198,000	198,000	172,850	107,885	123,756	129,025	170,333
1934	137,318	158,790	157,041	196,124	197,929	198,000	184,515	151,126	70,082	58,612	97,546	115,285
1935	129,025	146,172	145,951	139,174	182,853	198,000	188,851	156,481	45,948	3,057	22	570
1936	3,821	4,086	9,933	45,882	119,395	174,234	173,528	136,724	41,274	20,393	18,843	16,536
1937	16,226	16,417	19,454	38,046	83,343	154,035	174,364	151,466	58,092	34,762	52,502	74,053
1938	95,337	102,545	112,095	137,160	195,209	198,000	186,983	150,594	37,950	4,749	8,449	18,303
1939	24,740	28,847	39,753	69,423	112,833	133,432	131,199	98,859	6,099	1,641	3,506	17,238
1940	23,856	34,708	53,989	82,249	125,680	140,434	137,864	105,995	19,401	1,496	3,196	13,506
1941	17,447	20,080	29,939	53,426	73,087	75,469	41,717	9,471	58	7,767	17,280	42,268
1942	47,731	50,505	54,927	79,446	108,750	131,599	139,088	116,484	45,515	36,653	51,180	69,007
1943	80,688	88,880	100,148	127,977	165,719	198,000	194,171	168,812	49,727	10,706	15,782	24,217
1944	26,234	29,699	37,494	49,631	71,835	83,791	55,448	13,943	74	4,792	7,261	11,313
1945	26,764	41,936	46,760	57,568	104,177	130,772	122,596	107,688	34,878	28,399	34,550	41,138
1946	51,576	55,601	65,448	92,417	168,004	198,000	195,055	171,805	73,879	32,287	49,487	94,508
1947	107,565	125,774	146,168	166,563	197,538	198,000	186,959	156,117	55,218	54,562	77,206	90,573
1948	101,694	113,194	114,944	101,737	140,596	198,000	191,353	165,294	59,739	40,182	48,399	55,169
1949	58,297	63,924	74,453	106,989	176,676	198,000	191,583	160,700	56,656	35,307	61,716	78,362
1950	89,396	102,921	102,412	91,335	120,016	198,000	198,000	181,288	109,370	120,462	129,025	129,025
1951	129,025	159,153	124,515	126,295	191,529	198,000	189,528	162,031	60,047	48,994	59,839	72,000
1952	77,084	86,798	94,178	128,596	185,301	198,000	187,208	155,868	38,306	721	1,191	2,532
1953	31,733	56,720	65,750	84,580	131,274	176,359	196,361	172,026	57,238	21,609	28,912	52,442
1954	65,456	74,889	89,476	105,448	147,071	198,000	198,000	178,518	129,201	129,971	129,396	129,337
1955	129,257	135,757	137,169	122,736	142,602	198,000	193,157	150,060	43,363	41,046	76,731	114,338
1956	129,025	127,820	68,549	65,382	138,667	198,000	197,705	175,982	84,961	68,964	78,462	106,667
1957	113,139	119,665	134,486	144,724	196,817	198,000	185,264	152,209	47,392	20,020	24,460	33,139
1958	42,106	55,666	68,735	93,145	177,699	198,000	186,758	159,514	67,477	47,964	83,367	129,025
1959	129,025	142,596	138,975	138,389	171,080	198,000	190,542	155,757	75,529	90,295	123,490	129,928
1960	129,507	142,921	148,480	162,499	197,469	198,000	186,886	155,907	52,211	15,996	31,058	38,174
1961	56,038	88,056	109,065	124,643	170,414	198,000	187,902	160,303	55,080	22,997	29,293	40,884
1962	64,704	76,760	83,292	124,959	150,193	191,609	189,179	159,762	59,488	46,432	82,073	115,833
1963	126,699	163,183	178,822	197,667	198,000	198,000	186,569	156,888	58,880	21,022	27,903	36,155
1964	48,161	55,265	60,872	71,066	97,997	168,523	197,609	163,766	68,035	63,315	68,299	96,133
1965	122,527	150,269	141,300	145,558	190,770	198,000	187,087	160,525	64,993	32,844	40,162	44,811
1966	48,856	49,916	54,235	82,155	132,628	162,720	170,162	147,142	51,796	13,231	19,811	39,785
1967	54,023	67,952	76,166	83,962	130,316	198,000	186,607	137,699	47,405	49,857	68,353	87,772
1968	113,734	157,375	182,525	192,317	198,000	198,000	186,841	161,342	79,667	58,097	87,610	99,809
1969	123,009	129,769	129,047	124,506	191,607	198,000	185,483	151,209	61,920	38,857	45,027	49,140
1970	63,029	71,841	85,926	102,590	155,357	198,000	188,600	164,932	66,800	32,809	40,539	50,404
1971	69,387	100,462	109,515	99,377	144,163	198,000	198,000	175,271	77,423	50,319	56,116	62,008
1972	72,835	96,616	87,818	69,462	124,623	198,000	198,000	186,309	134,630	138,268	129,488	129,300
1973	129,300	136,397	143,043	155,944	181,863	198,000	183,786	151,720	83,788	65,974	81,732	98,933
1974	129,025	135,677	81,109	66,345	105,311	198,000	198,000	180,106	139,118	128,879	129,025	129,025
1975	129,025	142,907	124,291	110,135	143,940	198,000	197,065	178,550	93,495	83,940	101,648	131,917
1976	131,838	149,127	130,292	123,811	174,306	198,000	198,000	189,586	153,591	151,668	129,337	129,053
1977	129,025	132,050	134,465	145,967	153,629	167,450	142,769	77,972	5,800	4,608	21,891	116,654
1978	126,649	134,749	146,808	155,932	193,660	198,000	192,753	180,524	110,636	82,998	87,716	92,565
1979	94,807	98,855	111,468	123,669	169,898	190,799	183,789	148,805	112,069	94,761	94,491	113,706
1980	121,941	129,333	147,069	169,347	197,489	198,000	187,334	149,038	74,837	56,768	71,743	129,025
1981	129,025	161,896	179,929	197,876	198,000	198,000	187,532	158,993	77,951	78,815	85,499	98,877
1982	112,920	158,645	134,079	122,664	164,107	198,000	192,042	161,172	73,146	44,000	51,123	68,115
1983	97,210	114,401	142,490	139,191	194,741	198,000	187,532	171,063	85,442	50,457	69,440	76,717
1984	118,737	137,073	146,065	141,215	174,206	198,000	193,261	164,676	81,803	58,178	66,512	72,355
1985	75,733	78,319	83,544	111,650	157,258	197,991	179,528	135,853	48,849	16,629	26,697	29,116
1986	35,580	59,753	101,738	128,286	165,844	198,000	185,359	149,017	75,150	59,951	73,532	78,610
1987	82,228	88,893	114,194	146,182	195,407	198,000	183,638	144,932	79,342	68,656	68,361	77,671
1988	78,555	85,843	100,050	138,495	185,575	198,000	187,220	149,075	67,100	63,505	76,213	86,807
1989	94,491	99,229	110,651	153,442	195,712	198,000	187,286	162,500	71,733	59,114	71,014	91,522
1990	117,080	127,530	141,101	163,461	196,459	198,000	188,718	159,072	50,359	27,235	65,370	81,588
1991	98,932	133,250	149,843	164,320	195,498	198,000	190,446	165,686	58,856	17,733	30,840	42,911
1992	52,797	68,569	89,154	118,273	148,338	154,731	148,317	127,379	54,040	37,391	41,907	43,843
1993	45,789	48,042	59,494	79,443	134,593	153,018	150,065	96,139	813	1,078	35	55
1994	4,763	6,527	18,409	46,968	79,646	82,071	75,150	35,976	83	5,184	14,160	33,868
1995	47,409	101,257	131,467	146,244	196,624	198,000	189,169	166,003	86,854	98,402	150,534	132,031
1996	131,195	169,469	149,028	168,217	197,457	198,000	187,532	162,783	73,080	44,398	54,724	66,981
1997	102,654	122,361	89,188	85,457	152,910	198,000	197,341	176,411	104,193	133,688	130,748	129,585
1998	129,062	138,915	147,435	146,948	196,796	198,000	187,089	154,620	51,704	25,555	36,885	61,012
1999	87,401	97,457	109,283	101,889	130,116	198,000	198,000	185,804	139,656	138,967	130,865	130,667
2000	129,707	139,990	143,195	155,554	197,104	198,000	187,573	147,176	57,730	28,910	30,233	31,795
2001	33,620	35,128	39,718	50,619	80,475	89,170	86,618	27,540	67	4,858	19,899	28,981
2002	54,828	64,836	76,580	114,963	159,303	198,000	195,966	160,572	59,665	19,344	21,931	26,370
2003	49,714	78,312	105,260	133,471	172,774	198,000	183,588	151,845	62,986	52,269	59,095	66,129
2004	72,969	80,403	96,931	127,907	176,629	198,000	183,379	158,403	82,130	72,607	80,524	95,149
2005	120,860	128,768	136,581	153,671	177,590	179,938	160,253	77,866	46	3,622	10,087	23,334
2006	52,891	66,923	74,392	99,552	168,589	198,000	189,107	162,377	56,356	10,774	70,386	90,837
2007	110,604	127,639	151,428	167,143	197,683	198,000	187,378	160,229	52,423	18,542	27,546	51,497
2008	57,310	62,568	70,424	82,587	155,760	198,000	191,726	157,296	42,795	799	26,594	34,355
2009	66,234	74,020	81,494	105,961	167,585	198,000	186,938	153,050	44,008	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.2 Bumping (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.2 Bumping (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	481,088	478,725	598,916
1926	645,831	679,042	781,422	955,536	935,673	752,044	464,183	193,779	71,194	124,700	179,928	274,191
1927	308,693	331,128	353,573	461,978	727,814	1,057,468	940,650	658,653	486,434	546,368	727,192	823,617
1928	878,125	892,465	972,856	993,543	1,222,469	1,215,677	990,504	684,102	469,628	452,142	460,381	457,371
1929	443,722	429,291	452,716	460,660	711,952	842,502	653,361	388,497	222,206	177,724	154,996	152,727
1930	144,296	225,155	301,957	520,951	594,651	552,174	330,832	81,939	-62,249	-83,497	-71,101	-75,677
1931	-45,874	2,045	82,076	210,090	475,856	472,135	271,344	50,346	-86,459	-105,410	-53,486	-39,437
1932	12,634	132,633	317,622	496,199	788,390	937,585	798,012	522,652	314,219	259,920	515,568	640,285
1933	726,625	737,087	748,135	796,095	904,499	1,211,233	1,210,373	986,434	814,195	896,267	947,865	1,064,432
1934	997,213	1,069,851	1,072,935	1,218,238	1,223,541	1,117,723	857,709	564,671	389,148	432,369	603,023	676,022
1935	834,329	907,484	942,404	958,163	1,186,962	1,226,530	1,081,812	801,053	601,076	517,946	503,857	496,267
1936	511,273	508,554	546,283	756,394	1,131,913	1,196,983	979,325	686,501	496,943	454,418	430,842	460,171
1937	451,662	450,762	471,948	554,010	815,989	1,163,164	1,030,964	747,339	558,129	522,834	652,427	743,467
1938	799,880	809,727	836,701	968,354	1,214,161	1,224,482	1,011,004	708,155	488,417	415,063	442,990	514,940
1939	592,788	609,041	659,409	827,798	1,073,663	1,085,124	862,958	565,107	377,134	348,838	373,983	480,589
1940	499,792	545,365	643,452	808,019	999,433	921,700	653,307	369,465	217,804	193,191	205,194	260,526
1941	268,796	271,828	349,090	488,766	521,124	432,829	215,181	-3,577	-88,472	-47,599	28,191	141,366
1942	155,969	164,082	187,724	340,689	465,278	517,392	329,752	80,268	-68,792	-111,021	-38,166	43,651
1943	95,991	121,582	174,679	399,958	644,340	878,346	825,913	565,098	357,778	284,102	290,686	361,472
1944	358,605	370,464	405,255	475,643	594,200	561,679	326,064	77,129	-36,413	-55,354	-40,299	792
1945	129,432	211,497	240,136	295,372	606,997	670,747	451,186	185,239	50,666	43,558	102,551	146,364
1946	199,991	212,676	249,330	408,370	853,004	1,019,120	935,391	664,699	474,279	433,650	475,815	661,629
1947	738,041	816,927	924,635	1,078,024	1,217,886	1,202,090	983,373	700,383	513,786	588,100	717,346	775,219
1948	803,706	831,721	840,744	817,443	993,072	1,226,530	1,106,454	854,736	663,363	637,934	678,410	717,351
1949	721,308	743,380	786,336	850,545	1,156,184	1,225,932	1,139,766	886,538	695,908	679,944	843,348	883,059
1950	901,838	929,443	870,900	825,727	901,367	1,228,697	1,213,192	1,008,867	818,275	841,441	920,939	947,575
1951	946,724	1,066,820	953,654	949,736	1,199,807	1,226,326	1,060,275	782,789	589,233	606,264	661,875	695,334
1952	699,404	721,559	736,591	893,541	1,180,468	1,196,297	1,015,970	730,511	515,028	425,263	403,253	388,094
1953	559,781	689,590	719,372	798,732	1,052,894	1,200,382	1,142,544	886,133	677,377	615,492	661,677	796,987
1954	854,241	884,998	888,566	881,331	1,016,289	1,226,707	1,211,392	1,028,583	857,987	807,799	877,284	899,210
1955	904,892	945,079	935,501	882,672	1,021,284	1,197,015	1,165,022	911,786	720,248	759,429	891,070	931,810
1956	946,401	933,363	751,293	751,219	985,525	1,226,530	1,191,791	946,799	759,135	743,178	798,449	924,012
1957	928,651	942,765	973,225	995,830	1,221,363	1,174,051	918,529	634,659	431,767	370,229	379,531	428,277
1958	461,712	522,995	574,586	691,389	1,085,411	1,142,348	891,961	591,116	412,416	414,736	618,363	807,565
1959	902,901	942,309	962,949	973,411	1,162,963	1,226,530	1,108,525	829,507	740,426	849,965	986,277	984,313
1960	964,412	999,695	1,018,322	1,049,045	1,206,672	1,224,044	1,022,676	740,174	545,173	496,615	589,997	610,212
1961	696,316	830,869	893,871	917,111	1,154,567	1,224,241	1,061,879	778,320	587,357	554,368	584,843	643,875
1962	771,462	834,778	851,451	1,040,551	1,147,989	1,219,581	1,059,554	799,025	607,479	592,134	744,950	852,010
1963	906,185	1,045,233	1,104,740	1,164,954	1,217,344	1,173,786	934,282	658,449	462,328	392,226	438,916	466,613
1964	524,886	538,893	559,342	617,594	822,817	1,197,053	1,181,443	964,840	787,319	760,940	790,518	884,684
1965	935,911	1,030,363	1,005,915	1,005,140	1,204,870	1,216,486	1,046,270	785,920	597,483	537,748	574,168	592,533
1966	606,848	602,282	624,441	782,575	1,046,372	1,123,108	952,739	666,618	474,664	418,749	450,005	582,135
1967	672,983	742,878	771,073	758,319	991,671	1,170,280	1,023,785	743,116	559,203	644,589	738,124	870,012
1968	932,992	1,102,093	1,170,246	1,178,755	1,219,597	1,203,090	989,808	740,034	599,917	596,137	711,634	773,409
1969	855,772	862,682	873,441	917,237	1,198,029	1,207,487	986,229	698,549	524,234	489,952	508,943	514,179
1970	549,345	569,871	618,877	674,474	930,974	1,177,292	984,768	697,979	508,960	446,472	488,925	514,174
1971	612,577	739,646	768,359	791,506	1,000,237	1,226,530	1,233,209	1,014,934	834,946	778,611	824,913	844,704
1972	871,418	942,012	867,468	774,827	930,000	1,226,530	1,213,199	1,031,490	896,050	840,012	851,601	925,339
1973	944,648	956,403	973,277	1,008,201	1,085,383	1,032,863	795,113	525,202	375,696	357,881	405,865	472,674
1974	662,944	704,392	691,400	676,921	843,977	1,226,838	1,235,268	1,070,655	901,817	817,379	830,066	905,973
1975	942,205	978,026	936,691	881,732	1,007,543	1,226,530	1,152,501	941,008	755,360	720,341	854,901	986,806
1976	980,417	1,036,198	971,142	937,515	1,140,390	1,226,530	1,194,652	1,041,201	871,302	798,641	791,221	814,806
1977	865,928	898,439	904,720	955,492	841,107	737,277	468,513	218,752	111,434	102,976	272,045	634,340
1978	666,747	692,689	796,271	909,410	1,060,582	1,103,358	942,645	692,684	560,812	496,950	526,089	547,510
1979	543,219	558,855	644,348	721,032	982,889	965,240	753,614	494,131	342,913	299,881	293,179	481,721
1980	511,350	541,532	601,436	772,074	979,833	1,005,678	784,631	510,897	357,188	327,947	436,519	727,665
1981	770,741	909,063	971,551	1,062,367	1,127,545	1,076,482	848,178	572,259	405,601	429,530	460,772	502,200
1982	567,474	759,754	799,057	824,740	1,073,577	1,226,530	1,123,692	861,141	694,617	658,082	684,651	762,450
1983	891,076	948,316	1,006,824	988,115	1,190,526	1,199,248	1,081,290	830,308	672,085	602,111	707,960	731,232
1984	923,303	978,139	1,009,919	984,216	1,150,615	1,226,530	1,131,336	865,681	699,716	658,975	699,216	716,840
1985	710,527	705,649	723,598	900,884	1,168,725	1,200,166	944,160	648,203	474,133	476,490	582,324	577,858
1986	601,532	712,744	872,030	979,320	1,149,444	1,140,298	886,070	592,186	431,851	411,138	538,128	561,686
1987	565,591	578,918	689,181	877,632	1,097,786	1,010,677	762,465	491,114	309,443	251,382	234,937	262,564
1988	260,039	297,093	382,399	611,459	852,449	903,740	708,753	453,475	289,806	312,491	416,959	495,730
1989	567,872	593,174	630,361	854,935	1,061,712	1,114,737	887,133	607,966	420,545	394,381	507,348	631,022
1990	729,088	792,570	855,982	1,059,275	1,206,852	1,226,167	1,058,407	789,169	590,612	625,927	952,042	927,907
1991	938,218	1,090,504	1,059,967	1,114,375	1,201,150	1,219,300	1,095,106	836,316	635,115	548,464	616,628	711,316
1992	782,164	859,284	980,799	1,111,799	1,134,473	967,797	702,075	423,739	280,800	251,921	289,994	302,673
1993	326,688	335,163	405,425	534,088	850,534	814,666	586,329	333,719	174,553	140,831	127,970	132,605
1994	171,964	181,635	267,322	466,279	615,017	547,576	322,025	66,958	-77,161	-82,863	-29,492	73,913
1995	125,688	370,437	491,403	592,087	850,789	862,464	686,712	416,625	261,603	353,671	798,361	846,684
1996	923,608	1,107,931	1,044,650	1,114,552	1,207,169	1,203,043	1,031,999	772,328	598,843	569,464	655,026	707,899
1997	811,609	894,236	822,911	810,136	1,051,168	1,226,530	1,171,671	932,761	799,807	901,842	929,383	929,975
1998	935,256	965,670	1,002,403	1,006,054	1,219,790	1,200,741	984,268	695,063	489,356	425,708	511,065	631,347
1999	761,062	798,266	826,216	826,233	941,039	1,226,530	1,225,321	1,077,141	906,198	858,866	925,971	949,328
2000	945,528	958,326	970,138	1,043,783	1,211,472	1,226,205	1,038,584	753,377	587,602	552,358	551,156	539,221
2001	533,159	523,304	557,105	620,917	786,785	700,043	456,401	216,119	88,599	94,032	218,837	276,420
2002	402,425	450,602	506,415	696,395	973,888	1,176,456	1,044,282	760,824	562,514	475,050	477,307	480,126
2003	583,312	675,457	792,915	908,704	1,076,322	1,119,766	867,153	575,052	394,506	434,887	545,915	588,168
2004	622,308	653,091	747,837	920,902	1,111,847	1,080,508	822,908	567,091	449,342	459,960	542,373	661,330
2005	813,226	850,366	886,432	959,047	965,056	782,322	507,245	242,719	102,899	99,192	144,841	205,548
2006	331,568	374,996	393,576	519,861	872,878	1,029,766	842,361	563,689	365,361	282,795	552,835	599,367
2007	670,715	737,139	927,133	1,011,143	1,156,627	1,151,802	938,901	655,773	446,519	408,093	446,746	539,173
2008	549,787	563,273	588,805	604,836	1,013,333	1,215,609	1,086,594	818,008	613,982	542,736	698,777	737,806
2009	878,131	889,843	899,777	941,844	1,181,147	1,206,220	991,272	710,017	512,731	NA	NA	NA

Appendix C-12
Scenario IP6 (KKC, KDRPP, CEPR, WDR, and BRE)

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP6 Full Integrated Plan

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	3,027	741	1,561	1,586	92.3%	619	72	91.8%	580	57	229	7
Avg. WY 1982 to 2009	2,911	656	1,559	1,548	92.3%	612	72	91.8%	574	56	391	22
1941 (Dry Year)	1,640	253	1,371	1,136	68.5%	-59	-178	65.8%	-37	-181	1,216	0
1994 (Dry Year)	1,801	252	1,407	1,206	70.0%	4	-159	70.0%	-36	-175	4,285	0
2001 (Dry Year)	1,893	196	1,423	1,453	70.0%	237	-51	70.0%	207	-62	2,525	206
2005 (Dry Year)	1,867	187	1,424	1,444	70.0%	242	-67	70.0%	226	-68	327	0

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,913	239	1,419	1,436	70.0%	216	-51	70.0%	215	-55	4,034	0
1927	2,973	608	1,609	1,524	100.0%	623	44	100.0%	648	35	486	0
1928	3,003	697	1,609	1,508	100.0%	624	112	100.0%	599	90	0	0
1929	2,112	227	1,440	1,623	70.0%	382	-38	70.0%	346	-45	0	0
1930	1,873	280	1,419	1,284	70.0%	67	-147	70.0%	35	-162	0	0
1931	1,863	265	1,297	1,069	56.4%	-81	-182	52.9%	-111	-197	0	0
1932	2,961	570	1,609	1,392	100.0%	352	-11	100.0%	281	-36	368	0
1933	3,707	949	1,609	2,003	100.0%	975	165	100.0%	928	165	0	0
1934	2,939	756	1,566	1,407	92.8%	546	87	90.0%	508	84	0	0
1935	3,182	731	1,609	1,646	100.0%	763	120	100.0%	693	93	0	0
1936	3,334	991	1,571	1,528	92.1%	677	108	89.7%	645	104	0	0
1937	2,952	525	1,609	1,625	100.0%	725	117	100.0%	647	90	0	0
1938	3,351	1,016	1,609	1,534	100.0%	652	109	100.0%	587	83	0	0
1939	2,516	359	1,536	1,387	92.6%	538	93	89.1%	505	91	0	0
1940	2,232	343	1,445	1,626	70.0%	382	-30	70.0%	352	-35	0	0
1941	1,640	253	1,371	1,136	68.5%	-59	-178	65.8%	-37	-181	1,216	0
1942	2,043	305	1,387	1,135	64.1%	-65	-198	60.5%	-106	-200	116	0
1943	3,388	908	1,609	1,515	100.0%	382	-42	100.0%	312	-67	143	0
1944	1,729	204	1,366	1,158	65.3%	-30	-170	62.6%	-49	-184	1,118	0
1945	2,241	298	1,444	1,302	70.0%	57	-152	70.0%	23	-167	97	0
1946	3,364	824	1,609	1,548	100.0%	497	4	100.0%	420	-21	628	0
1947	2,961	623	1,609	1,510	100.0%	616	102	100.0%	595	82	0	0
1948	3,878	1,363	1,609	1,743	100.0%	825	136	100.0%	801	121	0	0
1949	4,035	1,495	1,609	1,760	100.0%	857	150	100.0%	816	135	0	0
1950	4,302	1,643	1,609	2,079	100.0%	980	161	100.0%	969	159	0	0
1951	3,800	1,372	1,609	1,640	100.0%	751	121	100.0%	725	100	0	0
1952	2,897	547	1,609	1,558	100.0%	665	122	100.0%	590	96	0	0
1953	3,111	587	1,609	1,768	100.0%	831	129	100.0%	772	105	0	0
1954	4,023	1,326	1,609	2,112	100.0%	1,020	164	100.0%	964	154	0	0
1955	3,444	870	1,609	1,869	100.0%	892	158	100.0%	874	156	53	0
1956	4,873	2,276	1,609	1,950	100.0%	920	152	100.0%	864	129	0	0
1957	3,223	952	1,609	1,488	100.0%	595	101	100.0%	533	76	0	0
1958	2,872	625	1,608	1,426	100.0%	559	90	100.0%	548	77	0	0
1959	3,533	943	1,609	1,809	100.0%	902	163	100.0%	928	167	0	0
1960	3,168	776	1,609	1,592	100.0%	708	117	100.0%	643	92	0	0
1961	3,630	1,197	1,609	1,632	100.0%	748	119	100.0%	706	99	0	0
1962	2,996	539	1,609	1,658	100.0%	773	125	100.0%	743	104	0	0
1963	2,724	440	1,609	1,506	100.0%	602	105	100.0%	528	78	0	0
1964	3,315	673	1,609	1,952	100.0%	953	164	100.0%	929	161	0	0
1965	3,414	981	1,609	1,646	100.0%	759	124	100.0%	698	97	0	0
1966	2,810	491	1,609	1,525	100.0%	634	113	100.0%	562	87	0	0
1967	3,089	698	1,587	1,598	98.1%	725	130	94.3%	721	132	0	0
1968	2,868	429	1,609	1,653	100.0%	760	128	100.0%	721	107	0	0
1969	3,620	1,247	1,609	1,575	100.0%	687	117	100.0%	657	94	0	0
1970	2,886	534	1,609	1,542	100.0%	661	109	100.0%	600	84	0	0
1971	3,969	1,283	1,609	2,033	100.0%	997	167	100.0%	930	154	0	0
1972	4,809	2,077	1,609	2,120	100.0%	1,058	180	100.0%	1,013	178	0	0
1973	2,279	203	1,479	1,362	74.1%	533	92	72.0%	507	90	0	0
1974	4,667	1,905	1,609	2,211	100.0%	1,064	170	100.0%	996	160	0	0
1975	3,880	1,285	1,609	1,942	100.0%	918	151	100.0%	859	128	0	0
1976	3,848	1,140	1,609	2,020	100.0%	1,033	164	100.0%	971	144	0	0
1977	1,947	194	1,431	1,514	70.0%	282	-65	70.0%	260	-63	0	0
1978	3,072	652	1,609	1,615	100.0%	721	84	100.0%	666	57	0	0
1979	2,340	305	1,475	1,288	75.3%	482	48	73.1%	435	35	0	0
1980	2,719	556	1,545	1,354	89.2%	526	57	86.4%	504	56	0	0
1981	2,475	279	1,539	1,405	84.5%	575	104	82.8%	594	109	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP6 Full Integrated Plan

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,494	948	1,609	1,779	100.0%	856	139	100.0%	805	118	89	89
1983	3,431	921	1,609	1,736	100.0%	830	137	100.0%	767	112	0	0
1984	3,312	769	1,609	1,793	100.0%	862	136	100.0%	813	110	0	0
1985	2,855	531	1,609	1,528	100.0%	639	103	100.0%	577	76	0	0
1986	2,580	329	1,564	1,453	91.1%	602	99	89.7%	581	99	0	0
1987	2,406	396	1,483	1,272	73.5%	469	78	71.2%	421	48	97	97
1988	2,448	382	1,498	1,271	80.3%	446	45	78.6%	419	40	0	0
1989	2,749	494	1,574	1,443	96.1%	587	94	94.0%	565	94	0	0
1990	3,200	767	1,609	1,632	100.0%	752	121	100.0%	718	103	0	0
1991	3,062	588	1,609	1,690	100.0%	795	126	100.0%	720	98	216	216
1992	2,210	264	1,441	1,244	70.3%	463	8	70.0%	436	-2	0	0
1993	2,207	282	1,437	1,602	70.0%	367	-66	70.0%	335	-70	245	0
1994	1,801	252	1,407	1,206	70.0%	4	-159	70.0%	-36	-175	4,285	0
1995	2,886	642	1,563	1,354	97.2%	371	-53	94.6%	409	-43	2,309	0
1996	3,254	828	1,609	1,643	100.0%	759	132	100.0%	701	106	0	0
1997	4,614	1,957	1,609	1,927	100.0%	962	157	100.0%	1,009	162	0	0
1998	3,170	850	1,609	1,539	100.0%	651	112	100.0%	593	86	0	0
1999	4,075	1,336	1,609	2,124	100.0%	1,067	172	100.0%	1,022	164	0	0
2000	3,297	875	1,609	1,630	100.0%	751	121	100.0%	709	101	0	0
2001	1,893	196	1,423	1,453	70.0%	237	-51	70.0%	207	-62	2,525	206
2002	3,166	736	1,609	1,602	100.0%	715	90	100.0%	646	63	800	0
2003	2,586	439	1,547	1,386	97.7%	543	81	96.6%	519	78	0	0
2004	2,556	361	1,548	1,460	97.9%	595	88	95.5%	581	88	0	0
2005	1,867	187	1,424	1,444	70.0%	242	-67	70.0%	226	-68	327	0
2006	3,041	767	1,610	1,390	100.0%	524	15	100.0%	451	-9	43	0
2007	2,941	661	1,609	1,482	100.0%	598	105	100.0%	546	81	0	0
2008	3,151	690	1,603	1,705	100.0%	781	126	99.7%	758	127	0	0
2009	3,258	918	1,601	1,559	100.0%	674	121	100.0%	NA	NA	0	0
Average	3,027	741	1,561	1,586	92.3%	619	72	91.8%	580	57	229	7

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP6 Full Integrated Plan

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	98.5%	97.9%	3.4%	3.5%	83.3%
	0 -10% Above Target[1]	0.6%	2.1%	2.7%	2.8%	4.7%
	0-10% Below Target	0.4%	0.0%	87.8%	82.3%	4.3%
	> 10% Below Target	0.5%	0.0%	6.1%	11.4%	7.7%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	64.9%	76.7%	68.5%	16.1%
	0 -10% Above Target	34.3%	20.5%	26.8%	75.9%
	0-10% Below Target	0.8%	0.1%	0.9%	3.1%
	> 10% Below Target	0.0%	2.7%	3.8%	4.9%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			7.5%	
	0 -10% Above Target			5.7%	
	0-10% Below Target			8.0%	
	> 10% Below Target			78.8%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				#VALUE!	
	0 -10% Above Target				#VALUE!	
	0-10% Below Target				10.9%	
	> 10% Below Target				6.8%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				100.0%	
	0 -10% Above Target				0.0%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	11.8%	31.4%		3.8%
	0 -10% Above Target	1.1%	3.1%		0.8%
	0-10% Below Target	7.4%	33.9%		12.1%
	> 10% Below Target	79.7%	31.6%		83.3%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			48.3%	22.4%	18.4%
	0 -10% Above Target			21.5%	8.8%	2.9%
	0-10% Below Target			15.2%	8.7%	6.0%
	> 10% Below Target			15.0%	60.1%	72.7%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			100.0%	95.8%	90.8%
	0 -10% Above Target			0.0%	2.1%	4.1%
	0-10% Below Target			0.0%	1.9%	2.7%
	> 10% Below Target			0.0%	0.2%	2.4%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			60.4%	
	0 -10% Above Target			4.0%	
	0-10% Below Target			3.2%	
	> 10% Below Target			32.4%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.4%	95.1%	90.8%
	0 -10% Above Target			0.4%	2.1%	3.7%
	0-10% Below Target			0.2%	1.4%	2.2%
	> 10% Below Target			0.0%	1.4%	3.3%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP6 Full Integrated Plan

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	97.7%	97.3%	99.4%		89.7%
	0 -10% Above Target	1.2%	1.7%	0.6%		6.2%
	0-10% Below Target	0.0%	0.0%	0.0%		0.1%
	> 10% Below Target	1.1%	1.0%	0.0%		4.0%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	17.3%			
	0 -10% Above Target	82.6%			
	0-10% Below Target	0.0%			
	> 10% Below Target	0.1%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		>=130 cfs	>=130 cfs	>=130 cfs	>=130 cfs
Flow %	> 10% Above Target	28.8%	62.5%	93.7%	22.7%
	0 -10% Above Target	69.8%	37.5%	6.3%	76.4%
	0-10% Below Target	0.2%	0.0%	0.0%	0.0%
	> 10% Below Target	1.2%	0.0%	0.0%	0.9%

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	68.7%			
	0 -10% Above Target	4.7%			
	0-10% Below Target	4.9%			
	> 10% Below Target	21.7%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP6

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	29.6	4.4	0.9	0.9	0.8	0.9	5.6	39.9	67.9	96.6	76.9	50.3	374.8
1927	10.7	1.1	0.9	0.9	0.9	0.9	1.3	4.7	7.5	33.2	58.5	71.6	192.2
1928	20.8	0.9	0.9	0.9	0.9	0.9	4.2	21.2	22.7	36.0	74.1	73.0	256.6
1929	28.3	4.6	5.0	5.0	2.9	0.9	15.5	13.3	36.8	80.5	100.8	51.7	345.2
1930	11.2	8.5	7.7	3.4	0.9	0.9	1.5	22.0	34.7	41.8	57.0	50.6	240.1
1931	18.1	3.3	6.8	5.6	0.8	0.9	2.0	6.2	27.2	34.7	31.4	49.1	186.3
1932	18.8	1.6	1.2	1.0	1.1	0.9	0.9	5.5	8.0	32.2	49.2	63.6	183.9
1933	26.4	0.9	0.9	0.9	0.8	0.9	1.8	4.8	6.2	36.9	67.2	69.9	217.7
1934	16.1	29.2	97.6	54.8	2.0	69.8	26.9	24.7	19.2	51.2	72.9	69.8	534.3
1935	4.1	0.9	0.9	0.9	0.8	9.8	19.0	16.9	33.9	39.9	70.6	72.6	270.5
1936	31.0	4.1	5.0	1.2	0.9	1.2	1.5	10.0	38.5	52.4	69.2	71.3	286.4
1937	7.5	5.8	2.9	2.7	1.3	0.9	3.5	8.7	10.0	40.6	71.1	71.3	226.5
1938	29.1	1.3	0.9	0.9	0.8	0.9	18.4	16.1	26.1	42.5	69.6	69.7	276.5
1939	29.4	1.1	0.9	0.9	0.8	0.9	3.1	15.7	23.0	57.7	71.3	68.2	273.2
1940	3.5	3.6	0.9	2.6	0.9	0.9	2.8	17.7	54.8	102.1	100.3	46.9	337.0
1941	8.2	5.5	1.2	1.7	1.3	0.9	3.4	25.5	45.1	57.0	60.5	49.4	259.7
1942	10.8	1.1	0.9	1.1	0.9	0.9	2.4	10.9	22.3	34.7	36.3	49.9	172.1
1943	3.0	1.2	0.9	0.9	0.8	0.9	1.0	5.5	5.5	26.3	46.9	59.3	152.2
1944	25.7	1.7	1.3	1.4	0.9	0.9	2.9	17.8	31.3	55.5	60.2	48.3	247.8
1945	17.5	3.5	1.5	0.9	0.8	0.9	2.9	6.8	24.7	35.9	32.3	49.6	177.4
1946	16.4	1.0	1.3	0.9	1.0	0.9	1.3	1.5	5.6	33.7	48.5	64.6	176.8
1947	26.6	1.6	0.9	0.9	0.8	0.9	3.7	16.5	17.2	35.3	59.0	69.3	232.8
1948	27.0	0.9	0.9	0.9	0.9	0.9	5.7	39.0	30.1	39.8	68.3	67.4	281.7
1949	26.0	2.2	1.0	0.9	0.8	2.8	29.4	32.6	36.2	37.7	66.6	68.0	304.3
1950	26.2	1.2	16.8	13.5	4.6	66.2	22.2	30.1	27.1	43.7	63.9	70.3	385.7
1951	22.0	14.6	34.7	27.2	26.7	50.8	28.0	20.4	28.8	40.3	66.8	67.0	427.3
1952	26.6	1.4	2.7	2.6	0.9	0.9	2.6	10.2	18.0	32.5	70.6	70.1	238.9
1953	27.1	6.4	6.3	1.6	0.8	0.9	5.5	12.1	23.1	42.5	68.4	70.4	265.2
1954	26.5	3.7	0.9	0.9	0.8	23.1	26.7	32.0	25.7	52.4	64.7	71.4	328.9
1955	25.1	2.2	3.5	7.6	1.0	18.7	22.7	19.4	34.6	45.3	68.3	69.1	317.5
1956	21.8	22.6	33.9	12.0	15.5	68.6	28.4	41.7	21.0	46.2	68.8	69.1	449.6
1957	26.9	1.5	32.2	9.2	1.0	9.9	26.2	27.2	24.5	52.2	67.1	68.0	345.9
1958	27.4	4.3	1.1	1.0	0.8	0.9	4.2	11.2	18.5	46.4	70.0	68.0	253.8
1959	21.8	0.9	0.9	2.9	1.3	22.9	33.9	15.0	34.1	38.0	71.6	68.7	312.1
1960	19.9	55.1	43.5	8.6	1.1	18.6	24.4	17.2	31.2	43.0	68.4	68.4	399.4
1961	28.1	1.3	2.9	1.2	0.8	28.1	32.6	18.8	36.1	37.0	70.9	69.7	327.5
1962	26.0	3.2	1.7	0.9	0.8	0.9	11.1	19.7	27.0	41.0	66.8	67.5	266.6
1963	27.1	1.9	0.9	0.9	0.8	6.3	16.3	23.0	19.8	45.8	66.4	69.5	278.6
1964	28.9	2.7	2.6	0.9	0.9	0.9	3.9	6.8	14.5	59.3	67.3	68.2	256.9
1965	21.9	2.8	13.0	22.6	2.8	41.3	31.8	11.8	30.3	35.7	67.0	69.5	350.4
1966	29.3	4.7	4.4	3.1	3.1	1.0	4.7	11.9	15.3	34.1	63.6	66.3	241.6
1967	27.6	3.0	0.9	0.9	0.8	0.9	10.9	10.0	22.0	25.9	66.9	68.8	238.7
1968	2.0	1.0	25.8	39.7	7.5	28.7	15.4	20.8	22.3	34.7	67.2	68.8	333.8
1969	25.7	0.9	0.9	1.1	2.1	14.1	28.5	27.1	35.7	45.9	67.3	67.8	317.3
1970	28.3	4.9	4.6	2.7	0.8	0.9	7.3	8.5	12.6	39.7	67.4	70.9	248.6
1971	27.9	4.1	4.4	1.2	0.8	0.9	2.8	40.9	21.1	42.6	61.2	66.9	274.8
1972	27.5	0.9	9.2	20.3	41.9	97.9	25.1	43.8	19.7	40.8	60.7	59.2	447.0
1973	16.9	1.6	23.3	17.7	1.0	3.1	10.5	29.8	20.5	48.6	66.0	62.3	301.3
1974	6.3	4.4	1.6	1.2	0.8	5.9	30.1	28.4	32.5	51.4	58.7	71.6	292.6
1975	24.4	4.3	5.9	27.8	1.2	35.4	20.0	30.7	28.7	50.2	66.5	68.0	363.0
1976	25.8	0.9	75.3	48.6	1.7	35.7	24.7	22.3	24.8	36.3	60.5	72.0	428.7
1977	22.6	4.0	2.7	0.9	0.8	8.2	22.4	57.6	64.1	92.0	59.1	45.8	380.1
1978	3.1	0.9	0.9	0.9	0.8	0.9	3.9	12.8	13.5	31.9	55.0	66.3	190.9
1979	30.2	6.6	3.9	4.0	2.7	0.9	1.7	11.4	16.4	32.7	51.3	64.9	226.7
1980	15.4	6.4	1.5	0.9	0.9	0.9	1.3	11.5	14.3	38.2	55.3	65.4	211.9
1981	5.8	2.0	0.9	0.9	0.9	0.9	4.1	17.8	14.7	33.7	70.1	70.6	222.5
1982	2.9	2.7	1.3	1.7	0.8	0.9	19.5	23.3	31.6	39.0	70.4	71.0	265.1
1983	26.7	1.5	1.1	1.0	0.9	33.9	22.5	16.5	19.8	28.9	65.0	69.9	287.8
1984	27.9	0.9	0.9	0.9	0.9	18.7	19.0	8.3	38.2	38.6	71.7	70.4	296.5
1985	29.8	1.1	3.0	4.5	4.4	1.0	3.6	6.9	30.3	58.1	67.7	70.8	281.3
1986	28.7	0.9	2.7	2.3	1.7	0.9	2.5	17.6	26.4	56.5	72.0	67.8	280.0
1987	4.5	1.7	0.9	3.1	1.5	0.9	1.7	15.4	26.8	62.3	70.5	67.2	256.6
1988	33.0	5.5	4.1	5.0	1.4	0.9	1.1	6.9	15.7	53.1	60.8	66.4	253.9
1989	7.3	0.9	0.9	0.9	0.9	1.5	1.0	12.4	15.5	45.3	68.8	70.3	225.8
1990	2.9	1.1	0.9	0.9	0.8	3.7	33.0	22.3	35.4	40.9	69.2	70.6	281.9
1991	26.3	17.8	35.3	30.8	11.9	41.4	18.6	21.9	23.2	34.2	68.8	70.5	400.5
1992	31.3	2.0	0.9	1.1	0.9	0.9	7.5	28.0	24.1	95.0	107.6	63.3	362.7
1993	15.1	0.9	0.9	1.7	0.9	0.9	2.2	9.6	50.2	89.6	74.6	47.6	294.3
1994	8.7	8.1	2.7	1.0	1.1	1.0	1.4	19.5	35.3	43.9	59.3	51.1	233.3
1995	17.9	0.9	0.9	0.9	0.8	0.9	1.7	7.3	10.3	31.1	55.9	59.5	188.3
1996	2.3	0.9	0.9	2.4	1.5	22.1	20.4	23.7	25.7	35.2	68.5	69.5	273.1
1997	27.7	0.9	0.9	0.9	6.9	79.2	33.7	36.9	31.1	42.9	69.2	72.1	402.5
1998	17.6	6.5	11.6	13.3	1.0	18.6	23.1	17.3	22.0	39.0	70.3	72.5	312.6
1999	31.4	2.2	1.2	0.9	0.8	17.7	26.5	31.6	22.3	47.4	57.1	72.6	311.7
2000	25.9	5.9	42.7	13.1	3.6	7.4	26.3	20.1	32.7	47.9	68.3	70.8	364.7
2001	28.8	3.4	4.8	4.7	3.6	2.1	9.3	22.4	53.1	100.5	80.8	52.5	366.0
2002	13.4	0.9	0.9	0.9	0.8	0.9	0.9	2.5	5.5	37.9	72.1	72.7	209.5
2003	31.2	5.9	5.5	3.8	0.8	0.9	2.0	14.2	16.2	41.4	66.1	71.7	259.6
2004	7.1	0.9	1.0	2.6	0.9	0.9	4.5	14.7	17.5	51.1	70.4	70.7	242.3
2005	4.3	1.2	0.9	1.4	0.8	2.1	13.6	35.7	65.9	104.8	54.3	51.9	337.0
2006	6.3	1.1	1.7	0.9	0.8	0.9	2.6	6.1	10.1	35.6	49.7	65.7	181.6
2007	28.5	1.0	2.0	0.9	0.8	0.9	1.3	13.8	13.5	32.6	63.4	71.1	229.8
2008	30.8	2.9	3.4	3.3	0.9	1.0	6.8	3.9	10.3	47.6	69.5	70.2	250.5
2009	5.0	1.0	1.5	29.3	1.0	7.6	22.4	22.8	29.7	44.3	66.9	69.7	301.2
Average	20.1	4.1	7.7	6.1	2.5	11.5	12.2	18.7	25.8	46.9	65.6	65.5	286.7

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full Integrated Plan

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	48	845	53
1927	174	19	15	15	16	10	-	-	-	-	-	-	15
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	627	37
1930	181	143	125	55	16	15	10	-	102	679	928	850	189
1931	294	56	111	92	15	15	34	101	457	564	511	826	186
1932	306	27	19	16	19	15	15	56	-	-	-	200	41
1933	430	6	-	-	-	-	-	-	-	-	-	-	27
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	514	31
1941	134	92	20	28	24	14	-	-	425	926	984	830	211
1942	175	18	15	17	16	15	40	178	375	564	590	839	172
1943	49	21	15	15	15	15	16	90	53	-	-	700	59
1944	419	28	21	23	16	15	49	67	385	902	979	812	226
1945	285	58	25	15	15	15	49	111	416	584	525	833	177
1946	267	17	21	15	18	15	22	15	-	-	-	-	24
1947	368	27	4	-	-	-	-	-	-	-	-	-	25
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	360	770	68
1978	50	12	-	-	-	-	-	-	-	-	-	-	4
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	49	3	-	-	-	-	-	-	-	-	326	799	71
1994	141	137	45	16	20	16	24	10	347	714	965	859	200
1995	291	16	15	15	15	15	29	24	-	-	-	1,000	85
1996	37	5	-	-	-	-	-	-	-	-	-	-	3
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	52	882	56
2002	219	15	15	11	-	-	-	-	-	-	-	-	16
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	325	872	72
2006	102	18	28	15	15	15	4	-	-	-	-	-	12
2007	206	3	-	-	-	-	-	-	-	-	-	-	13
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	50	9	6	4	3	2	3	8	30	59	78	155	25

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full Integrated Plan

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	6	38	213	155	66	-	-	-	80	246	124	-	56
1927	-	-	-	-	-	-	-	58	391	322	397	13	72
1928	-	-	127	319	41	11	-	-	-	394	400	13	80
1929	12	39	39	40	21	0	-	-	230	97	391	13	54
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	22	0	-	-	-	1
1932	-	-	-	-	-	-	320	400	400	348	400	13	114
1933	-	-	190	301	19	17	103	242	-	175	400	400	112
1934	400	58	353	318	4	329	-	-	-	400	400	13	140
1935	-	-	68	77	-	-	-	-	-	371	400	13	57
1936	10	35	41	3	-	3	187	-	-	400	400	13	67
1937	11	49	17	18	5	-	-	115	-	350	400	13	60
1938	3	35	357	70	-	-	-	-	-	384	400	13	78
1939	9	3	50	338	43	0	-	-	-	400	400	13	77
1940	3	26	-	16	0	48	107	-	26	355	394	13	60
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	24	-	-	-	1
1943	-	-	-	-	-	-	86	206	400	364	396	13	89
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	218	178	-	-	-	24
1946	-	-	-	-	-	-	47	400	400	400	400	13	101
1947	-	-	186	144	320	244	235	-	-	353	382	13	113
1948	-	-	28	49	34	29	-	-	-	303	400	147	60
1949	76	108	147	26	0	-	-	-	-	243	400	333	81
1950	167	262	65	-	-	361	-	-	4	217	400	400	114
1951	368	207	46	154	147	351	-	-	-	348	400	13	124
1952	30	160	63	16	13	20	44	-	-	363	400	13	68
1953	5	54	48	6	262	-	-	-	-	270	400	82	67
1954	0	135	400	-	-	-	-	-	-	277	400	400	98
1955	303	199	100	-	-	-	-	-	-	242	400	400	100
1956	400	120	166	31	49	400	27	21	-	295	400	400	141
1957	199	204	172	18	-	-	-	-	-	400	400	13	86
1958	1	35	1	0	-	76	212	-	-	389	400	13	69
1959	1	-	337	-	-	-	1	-	-	308	400	370	86
1960	400	160	225	4	-	47	-	-	-	360	400	13	99
1961	1	275	49	201	-	94	2	-	-	334	400	13	84
1962	2	78	188	181	-	-	-	-	-	353	400	13	75
1963	6	171	400	-	-	-	-	-	-	400	400	13	85
1964	3	18	16	-	-	-	-	76	-	381	400	400	79
1965	314	114	129	-	-	191	-	-	-	321	400	13	91
1966	3	41	54	53	24	14	251	-	-	394	392	13	75
1967	0	19	-	98	131	-	-	-	-	265	400	13	56
1968	39	312	116	130	20	182	-	-	-	362	400	13	96
1969	48	313	163	1	8	-	-	-	-	400	400	13	82
1970	10	43	36	18	-	68	221	47	-	400	397	13	77
1971	4	31	32	3	147	42	-	-	-	162	384	400	72
1972	321	298	39	-	90	400	5	52	-	180	398	400	132
1973	252	74	51	-	-	16	-	-	-	384	398	13	73
1974	13	31	5	2	-	-	4	58	-	232	383	400	69
1975	309	57	173	-	-	160	-	-	-	302	400	333	106
1976	90	400	357	321	4	178	-	-	-	216	400	398	144
1977	7	56	129	36	-	52	-	-	-	216	-	-	30
1978	-	-	310	89	40	176	312	231	-	197	360	2	105
1979	14	53	27	29	19	-	-	141	3	205	175	-	41
1980	-	-	-	-	0	-	67	258	-	244	218	0	48
1981	-	1	12	114	113	0	-	-	-	313	383	13	58
1982	8	16	3	6	-	-	-	-	-	264	400	245	57
1983	66	119	260	2	0	108	-	-	-	375	398	13	82
1984	9	0	10	149	-	74	-	-	-	272	400	162	66
1985	30	153	58	34	35	1	83	-	-	400	400	13	73
1986	39	392	20	13	51	-	-	-	-	400	400	13	81
1987	13	8	-	21	6	173	-	-	-	400	400	13	64
1988	10	45	26	38	5	-	-	208	-	341	224	-	55
1989	1	-	-	-	0	5	227	-	-	400	400	13	64
1990	4	2	-	221	-	-	-	-	-	323	400	13	59
1991	143	400	259	160	69	267	-	-	-	296	400	13	122
1992	6	80	388	17	-	-	-	-	-	350	399	13	77
1993	38	-	0	8	1	-	-	379	53	217	203	-	55
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	88	235	203	392	9	265	73	-	77
1996	-	27	400	400	110	269	-	-	-	366	400	13	122
1997	-	117	135	74	-	348	30	-	-	232	400	396	105
1998	233	241	8	-	-	-	-	-	-	400	400	13	79
1999	5	13	125	232	-	62	-	-	-	251	400	400	91
2000	207	255	117	44	21	0	-	-	-	383	400	48	90
2001	86	36	39	38	29	11	27	235	24	270	222	-	62
2002	-	-	-	-	-	-	320	400	107	400	400	13	100
2003	4	53	45	29	13	285	191	-	-	313	384	1	80
2004	1	0	0	14	0	-	-	-	-	396	400	13	51
2005	-	3	-	147	23	9	-	-	-	285	5	-	29
2006	-	-	-	-	-	-	-	194	324	292	262	-	65
2007	-	2	11	-	-	258	293	-	-	377	392	13	82
2008	10	19	23	22	-	1	-	13	-	309	400	109	55
2009	10	295	229	-	-	-	-	-	-	400	400	13	82
Average	57	78	94	60	25	67	43	52	32	293	335	86	74

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full Integrated Plan

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	213	155	66	-	-	-	80	-	-	-	31
1927	-	-	-	-	-	-	-	58	391	70	-	-	31
1928	-	-	127	319	41	11	-	-	-	344	-	-	52
1929	-	-	-	-	-	-	-	-	230	-	-	-	14
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	22	0	-	-	-	1
1932	-	-	-	-	-	-	320	400	400	55	-	-	71
1933	-	-	190	301	19	17	103	242	-	156	53	387	89
1934	400	29	-	-	-	-	-	-	-	176	-	-	37
1935	-	-	68	77	-	-	-	-	-	263	4	-	25
1936	-	-	-	-	-	-	187	-	-	101	-	-	17
1937	-	-	-	-	-	-	-	115	-	247	7	-	23
1938	-	30	357	70	-	-	-	-	-	221	-	-	42
1939	-	-	50	338	43	-	-	-	-	97	-	-	32
1940	-	-	-	-	-	48	107	-	26	73	-	-	15
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	24	-	-	-	1
1943	-	-	-	-	-	-	86	206	400	121	-	-	49
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	218	178	-	-	-	24
1946	-	-	-	-	-	-	47	400	400	53	-	-	54
1947	-	-	186	144	320	244	235	-	-	168	-	-	77
1948	-	-	28	49	34	29	-	-	-	193	7	134	29
1949	73	93	146	26	-	-	-	-	-	100	-	320	46
1950	167	259	65	-	-	-	-	-	4	80	58	387	61
1951	368	207	-	-	-	-	-	-	-	207	-	-	48
1952	30	154	46	-	13	20	44	-	-	333	10	-	40
1953	-	-	-	-	262	-	-	-	-	191	11	69	31
1954	-	104	400	-	-	-	-	-	-	63	59	387	61
1955	302	188	96	-	-	-	-	-	-	10	-	387	59
1956	400	120	-	-	-	-	27	21	-	103	10	387	64
1957	199	199	102	-	-	-	-	-	-	100	-	-	36
1958	-	-	-	-	-	76	212	-	-	144	-	-	26
1959	-	-	337	-	-	-	1	-	-	215	6	357	56
1960	400	67	2	-	-	-	-	-	-	190	-	-	40
1961	-	270	30	198	-	-	2	-	-	252	-	-	46
1962	-	53	181	181	-	-	-	-	-	225	0	-	39
1963	-	160	400	-	-	-	-	-	-	180	-	-	45
1964	-	-	-	-	-	-	-	76	-	72	25	387	34
1965	305	99	129	-	-	-	-	-	-	220	-	-	46
1966	-	-	19	30	-	13	251	-	-	259	-	-	35
1967	-	-	-	98	131	-	-	-	-	14	-	-	14
1968	39	311	116	0	-	-	-	-	-	270	-	-	45
1969	48	313	163	-	-	-	-	-	-	207	-	-	44
1970	-	-	-	-	-	68	221	47	-	251	-	-	36
1971	-	-	-	-	147	42	-	-	-	12	65	387	38
1972	321	297	39	-	-	-	5	52	-	78	95	387	77
1973	252	70	49	-	-	-	-	-	-	98	-	-	29
1974	-	-	-	-	-	-	4	58	-	16	68	387	32
1975	305	29	170	-	-	-	-	-	-	100	2	320	56
1976	90	400	26	-	-	-	-	-	-	158	75	387	68
1977	-	25	114	36	-	-	-	-	-	-	-	-	11
1978	-	-	310	89	40	176	312	231	-	32	-	-	72
1979	-	-	-	-	-	-	-	141	3	-	-	-	9
1980	-	-	-	-	-	-	67	258	-	-	-	-	20
1981	-	-	12	114	112	-	-	-	-	256	-	-	30
1982	-	-	-	-	-	-	-	-	-	169	2	231	24
1983	66	113	258	2	-	-	-	-	-	368	69	-	54
1984	-	-	10	149	-	-	-	-	-	180	9	149	30
1985	18	151	38	-	-	-	83	-	-	38	-	-	20
1986	39	392	4	-	43	-	-	-	-	84	-	-	34
1987	-	-	-	-	-	173	-	-	-	2	-	-	11
1988	-	-	-	-	-	-	-	208	-	-	-	-	13
1989	-	-	-	-	-	-	227	-	-	135	-	-	22
1990	-	-	-	221	-	-	-	-	-	201	-	-	26
1991	143	307	12	5	-	-	-	-	-	252	18	-	45
1992	-	68	388	15	-	-	-	-	-	70	-	-	33
1993	-	-	-	-	-	-	-	379	53	-	-	-	26
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	88	235	203	392	9	-	-	-	56
1996	-	27	400	383	103	27	-	-	-	313	38	-	79
1997	-	117	135	74	-	-	30	-	-	126	9	383	53
1998	233	241	8	-	-	-	-	-	-	246	-	-	44
1999	-	-	122	232	-	-	-	-	-	89	88	388	56
2000	203	248	4	2	-	-	-	-	-	134	-	35	38
2001	86	8	-	-	-	-	27	235	24	-	-	-	23
2002	-	-	-	-	-	-	320	400	107	140	-	-	59
2003	-	-	-	-	13	285	191	-	-	73	-	-	34
2004	-	-	-	-	-	-	-	-	-	85	-	-	5
2005	-	-	-	142	23	-	-	-	-	-	-	-	10
2006	-	-	-	-	-	-	-	194	324	-	-	-	31
2007	-	-	-	-	-	258	293	-	-	231	-	-	48
2008	-	-	-	-	-	-	-	13	-	133	-	95	15
2009	-	293	226	-	-	-	-	-	-	196	-	-	43
Average	53	65	69	41	18	21	43	52	32	120	9	76	36

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full Integrated Plan

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	6	38	-	-	-	-	-	-	-	246	124	-	25
1927	-	-	-	-	-	-	-	-	-	252	397	13	41
1928	-	-	-	-	-	-	-	-	-	50	400	13	28
1929	12	39	39	40	21	0	-	-	-	97	391	13	40
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	293	400	13	43
1933	-	-	-	-	-	-	-	-	-	19	347	13	23
1934	-	28	353	318	4	329	-	-	-	224	400	13	103
1935	-	-	-	-	-	-	-	-	-	107	396	13	32
1936	10	35	41	3	-	3	-	-	-	299	400	13	49
1937	11	49	17	18	5	-	-	-	-	103	393	13	37
1938	3	5	-	-	-	-	-	-	-	163	400	13	36
1939	9	3	-	-	-	0	-	-	-	303	400	13	45
1940	3	26	-	16	0	-	-	-	-	282	394	13	45
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	243	396	13	40
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	347	400	13	47
1947	-	-	-	-	-	-	-	-	-	184	382	13	36
1948	-	-	-	-	-	-	-	-	-	110	393	13	32
1949	3	14	1	-	0	-	-	-	-	143	400	13	35
1950	-	3	-	-	-	361	-	-	-	137	342	13	53
1951	0	-	46	154	147	351	-	-	-	141	400	13	76
1952	-	6	17	16	-	-	-	-	-	30	390	13	29
1953	5	54	48	6	-	-	-	-	-	79	389	13	36
1954	0	30	-	-	-	-	-	-	-	214	341	13	37
1955	0	11	4	-	-	-	-	-	-	231	400	13	41
1956	-	-	166	31	49	400	-	-	-	192	390	13	76
1957	0	5	70	18	-	-	-	-	-	300	400	13	50
1958	1	35	1	0	-	-	-	-	-	245	400	13	43
1959	1	-	-	-	-	-	-	-	-	92	394	13	31
1960	-	93	223	4	-	47	-	-	-	170	400	13	58
1961	1	5	19	3	-	94	-	-	-	82	400	13	38
1962	2	25	7	-	-	-	-	-	-	128	400	13	35
1963	6	11	-	-	-	-	-	-	-	220	400	13	40
1964	3	18	16	-	-	-	-	-	-	309	375	13	45
1965	9	15	-	-	-	191	-	-	-	101	400	13	45
1966	3	41	35	23	24	1	-	-	-	135	392	13	41
1967	0	19	-	-	-	-	-	-	-	250	400	13	42
1968	-	0	-	130	20	182	-	-	-	91	400	13	51
1969	-	-	-	1	8	-	-	-	-	193	400	13	38
1970	10	43	36	18	-	-	-	-	-	149	397	13	41
1971	4	31	32	3	-	-	-	-	-	149	320	13	34
1972	-	0	-	-	90	400	-	-	-	102	303	13	56
1973	1	4	2	-	-	16	-	-	-	287	398	13	44
1974	13	31	5	2	-	-	-	-	-	216	315	13	37
1975	4	28	3	-	-	160	-	-	-	202	398	13	50
1976	-	-	331	321	4	178	-	-	-	57	325	12	75
1977	7	30	14	-	-	52	-	-	-	216	-	-	20
1978	-	-	-	-	-	-	-	-	-	165	360	2	32
1979	14	53	27	29	19	-	-	-	-	205	175	-	32
1980	-	-	-	-	0	-	-	-	-	244	218	0	28
1981	-	1	-	-	1	0	-	-	-	57	383	13	28
1982	8	16	3	6	-	-	-	-	-	96	398	13	33
1983	-	6	1	0	0	108	-	-	-	7	329	13	29
1984	9	0	-	-	-	74	-	-	-	92	391	13	36
1985	12	2	20	34	35	1	-	-	-	362	400	13	54
1986	-	-	17	13	8	-	-	-	-	316	400	13	47
1987	13	8	-	21	6	-	-	-	-	398	400	13	53
1988	10	45	26	38	5	-	-	-	-	341	224	-	42
1989	1	-	-	-	0	5	-	-	-	265	400	13	42
1990	4	2	-	-	-	-	-	-	-	122	400	13	33
1991	-	93	247	154	69	267	-	-	-	44	382	13	77
1992	6	12	-	2	-	-	-	-	-	280	399	13	44
1993	38	-	0	8	1	-	-	-	-	217	203	-	29
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	265	73	-	21
1996	-	-	-	17	8	242	-	-	-	52	362	13	43
1997	-	-	-	-	-	348	-	-	-	106	391	13	53
1998	-	0	-	-	-	-	-	-	-	154	400	13	35
1999	5	13	3	-	-	62	-	-	-	161	312	12	35
2000	4	7	114	41	21	0	-	-	-	249	400	13	52
2001	-	28	39	38	29	11	-	-	-	270	222	-	39
2002	-	-	-	-	-	-	-	-	-	260	400	13	41
2003	4	53	45	29	-	-	-	-	-	240	384	1	46
2004	1	0	0	14	0	-	-	-	-	311	400	13	45
2005	-	3	-	5	0	9	-	-	-	285	5	-	19
2006	-	-	-	-	-	-	-	-	-	292	262	-	34
2007	-	2	11	-	-	-	-	-	-	146	392	13	35
2008	10	19	23	22	-	1	-	-	-	175	400	13	41
2009	10	2	3	-	-	-	-	-	-	204	400	13	39
Average	3	14	25	19	7	46	-	-	-	173	326	10	38

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full Integrated Plan

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	16,553	-	-	-	-	-	9,354	39,182	40,743	53,643	54,804	18,172	232,450
1927	23	-	-	-	-	-	9,311	39,743	40,739	53,472	55,740	40,407	239,435
1928	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1929	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
1930	23	-	-	-	-	-	9,311	39,514	40,743	53,643	54,804	18,172	216,209
1931	23	-	-	-	-	-	9,172	39,978	41,083	50,592	48,002	14,950	203,801
1932	23	-	-	-	-	-	9,311	39,743	40,736	53,472	55,379	40,407	239,071
1933	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1934	16,553	-	-	-	-	-	9,311	39,842	40,372	53,650	56,389	39,827	255,944
1935	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1936	16,553	-	-	-	-	-	9,311	39,743	40,743	53,677	56,402	39,749	256,179
1937	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1938	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1939	16,553	-	-	-	-	-	9,311	38,001	39,941	53,677	56,418	39,633	253,533
1940	23	-	-	-	-	-	9,311	39,195	40,467	53,657	54,162	17,132	213,948
1941	23	-	-	-	-	-	8,113	39,218	40,585	53,413	54,155	17,507	213,016
1942	23	-	-	-	-	-	9,311	39,334	40,743	53,554	53,737	16,454	213,156
1943	23	-	-	-	-	-	9,311	39,743	40,742	53,472	55,612	40,392	239,296
1944	16,553	-	-	-	-	-	9,311	39,743	40,743	53,668	53,700	15,884	229,602
1945	23	-	-	-	-	-	6,803	39,792	40,743	53,643	54,804	18,172	213,980
1946	23	-	-	-	-	-	9,311	39,743	40,737	53,472	55,117	40,407	238,811
1947	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1948	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1949	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1950	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1951	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1952	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1953	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1954	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1955	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,686	40,407	255,916
1956	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1957	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1958	16,553	-	-	-	-	-	9,311	39,743	40,823	53,472	55,740	40,407	256,049
1959	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1960	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1961	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1962	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1963	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1964	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1965	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1966	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1967	16,553	-	-	-	-	-	9,311	39,743	40,743	53,500	56,162	40,395	256,408
1968	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1969	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1970	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1971	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1972	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1973	16,553	-	-	-	-	-	7,011	40,045	40,743	51,094	48,514	32,974	236,935
1974	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1975	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1976	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1977	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
1978	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1979	16,553	-	-	-	-	-	7,139	39,920	40,743	51,593	49,246	33,429	238,624
1980	23	-	-	-	-	-	9,311	39,768	39,169	53,827	56,434	38,672	237,204
1981	23	-	-	-	-	-	7,788	39,743	40,743	53,978	54,840	37,192	234,308
1982	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1983	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1984	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1985	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1986	16,553	-	-	-	-	-	9,313	39,367	40,743	53,714	56,444	39,732	255,867
1987	23	-	-	-	-	-	9,311	39,260	40,743	50,769	48,057	32,706	220,870
1988	23	-	-	-	-	-	9,311	37,729	39,964	53,145	52,327	35,603	228,102
1989	23	-	-	-	-	-	9,311	38,819	40,743	53,514	56,192	40,369	238,972
1990	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1991	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1992	16,553	-	-	-	-	-	9,283	38,971	40,743	53,825	54,162	17,132	230,669
1993	23	-	-	-	-	-	9,359	37,592	40,743	53,643	54,559	18,172	214,092
1994	23	-	-	-	-	-	9,315	39,459	40,743	53,643	54,260	18,172	215,616
1995	23	-	-	-	-	-	9,311	39,743	40,332	52,083	54,662	40,452	236,606
1996	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
1997	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1998	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
1999	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2000	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2001	16,553	-	-	-	-	-	9,158	39,743	40,743	53,643	54,804	18,172	232,816
2002	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	239,439
2003	16,553	-	-	-	-	-	9,311	37,633	40,213	53,486	56,031	40,587	253,813
2004	23	-	-	-	-	-	9,311	36,987	40,134	53,483	56,045	40,512	236,494
2005	23	-	-	-	-	-	9,158	39,743	40,743	53,643	54,477	18,172	215,960
2006	23	-	-	-	-	-	9,311	39,743	40,743	53,472	55,696	40,407	239,396
2007	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,407	255,969
2008	16,553	-	-	-	-	-	9,311	39,743	40,743	53,472	55,740	40,537	256,098
2009	23	-	-	-	-	-	9,203	39,284	40,273	52,855	55,096	39,941	236,675
Average	10,453	-	-	-	-	-	9,186	39,559	40,677	53,376	55,146	35,906	244,302

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full Integrated Plan

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	18,681	-	-	-	-	8,883	30,291	39,304	48,460	49,896	48,680	31,571	275,767
1927	986	-	-	-	-	8,883	30,437	42,029	47,350	54,222	53,512	35,446	272,866
1928	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1929	18,681	-	-	-	-	8,883	26,556	39,776	48,460	49,896	48,680	31,571	272,504
1930	986	-	-	-	-	8,883	30,435	39,568	48,460	49,896	48,680	31,571	258,480
1931	986	-	-	-	-	8,883	24,670	31,829	39,216	39,649	37,778	24,261	207,273
1932	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1933	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1934	18,681	-	-	-	-	8,883	30,437	42,162	47,029	54,339	53,761	35,701	290,993
1935	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1936	18,681	-	-	-	-	8,883	30,436	42,033	47,350	54,371	53,803	35,677	291,235
1937	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1938	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1939	18,681	-	-	-	-	8,883	30,437	40,831	46,706	54,371	53,853	35,651	289,414
1940	986	-	-	-	-	8,883	30,434	42,130	48,171	49,896	48,680	31,571	260,752
1941	986	-	-	-	-	8,883	29,167	39,339	48,404	48,559	46,890	30,199	252,428
1942	986	-	-	-	-	8,883	30,589	37,053	45,645	45,181	43,128	27,764	239,229
1943	986	-	-	-	-	8,883	30,437	42,029	47,350	54,222	53,512	35,446	272,866
1944	18,681	-	-	-	-	8,883	25,085	37,247	46,838	46,041	44,306	28,624	255,706
1945	986	-	-	-	-	8,883	28,122	39,878	48,456	49,896	48,680	31,571	256,474
1946	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1947	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1948	18,681	-	-	-	-	8,883	30,436	42,030	47,350	54,222	53,512	35,446	290,561
1949	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1950	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1951	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1952	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,561
1953	18,681	-	-	-	-	8,883	30,435	42,030	47,350	54,222	53,512	35,446	290,560
1954	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1955	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1956	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1957	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1958	18,681	-	-	-	-	8,883	30,437	42,030	47,458	54,222	53,512	35,446	290,669
1959	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1960	18,681	-	-	-	-	8,883	30,436	42,030	47,350	54,222	53,512	35,446	290,561
1961	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1962	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1963	18,681	-	-	-	-	8,883	30,437	42,027	47,350	54,222	53,512	35,446	290,559
1964	18,681	-	-	-	-	8,883	30,436	42,030	47,350	54,222	53,512	35,446	290,561
1965	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1966	18,681	-	-	-	-	8,883	30,437	42,029	47,350	54,222	53,512	35,446	290,561
1967	18,681	-	-	-	-	8,883	30,435	42,030	47,350	54,222	53,543	35,746	290,890
1968	986	-	-	-	-	8,883	30,437	42,029	47,350	54,222	53,512	35,446	272,865
1969	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1970	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1971	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1972	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1973	18,681	-	-	-	-	8,883	28,842	41,743	48,025	52,442	50,685	32,382	281,683
1974	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1975	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1976	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1977	18,681	-	-	-	-	8,883	26,637	39,776	48,460	49,896	48,680	31,571	272,585
1978	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1979	18,681	-	-	-	-	8,883	28,604	41,966	47,881	53,263	51,531	32,767	283,577
1980	986	-	-	-	-	8,883	30,496	42,124	45,842	54,641	54,144	35,476	272,592
1981	986	-	-	-	-	8,883	30,595	42,306	47,350	55,159	54,617	35,085	274,982
1982	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1983	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1984	18,681	-	-	-	-	8,883	30,437	42,026	47,350	54,222	53,512	35,446	290,558
1985	18,681	-	-	-	-	8,883	30,436	42,028	47,350	54,222	53,512	35,446	290,559
1986	18,681	-	-	-	-	8,883	30,440	41,753	47,350	54,427	53,866	35,671	291,071
1987	986	-	-	-	-	8,883	30,444	41,223	48,083	51,955	50,157	32,161	263,892
1988	986	-	-	-	-	8,883	30,586	40,604	46,590	55,364	54,568	34,280	271,862
1989	986	-	-	-	-	8,883	30,436	41,282	47,348	54,222	53,547	35,748	272,453
1990	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1991	18,681	-	-	-	-	8,883	30,436	42,029	47,350	54,222	53,512	35,446	290,560
1992	18,681	-	-	-	-	8,883	29,777	39,861	48,471	49,925	48,680	31,571	275,850
1993	986	-	-	-	-	8,883	30,695	40,205	48,460	49,896	48,680	31,571	259,378
1994	986	-	-	-	-	8,883	30,703	39,522	48,460	49,896	48,680	31,571	258,702
1995	986	-	-	-	-	8,883	30,436	42,030	47,340	52,954	53,531	35,736	271,896
1996	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
1997	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1998	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
1999	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2000	18,681	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	290,562
2001	18,681	-	-	-	-	8,883	26,485	39,776	48,460	49,896	48,680	31,571	272,432
2002	986	-	-	-	-	8,883	30,437	42,030	47,350	54,222	53,512	35,446	272,867
2003	18,681	-	-	-	-	8,883	30,437	40,540	46,993	54,222	53,518	35,674	288,948
2004	986	-	-	-	-	8,883	30,436	39,854	46,770	54,222	53,523	35,704	270,378
2005	986	-	-	-	-	8,883	26,636	39,776	48,460	49,896	48,680	31,571	254,889
2006	986	-	-	-	-	8,883	30,494	42,029	47,350	54,222	53,512	35,446	272,924
2007	18,681	-	-	-	-	8,883	30,436	42,030	47,350	54,222	53,512	35,446	290,561
2008	18,681	-	-	-	-	8,883	30,432	42,029	47,350	54,222	53,512	35,446	290,556
2009	986	-	-	-	-	8,758	30,006	41,434	46,680	53,454	52,754	34,944	269,015
Average	12,151	-	-	-	-	8,882	30,035	41,387	47,348	53,163	52,323	34,466	279,756

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full Integrated Plan

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	25,229	-	-	-	-	6,232	48,063	88,775	89,080	97,312	90,146	55,333	500,169
1927	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1928	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1929	25,229	-	-	-	-	6,232	47,354	92,309	89,080	97,312	90,146	55,333	502,995
1930	21,815	-	-	-	-	6,232	51,572	90,793	89,080	97,312	90,146	55,333	502,283
1931	21,815	-	-	-	-	6,232	41,924	82,193	78,661	85,789	79,192	51,668	447,475
1932	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1933	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1934	25,229	-	-	-	-	6,232	51,572	99,844	103,943	113,479	104,551	59,820	564,670
1935	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1936	25,229	-	-	-	-	6,232	51,572	101,401	106,641	113,442	104,316	59,746	568,580
1937	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1938	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1939	25,229	-	-	-	-	6,232	51,572	88,032	101,231	113,416	104,038	59,633	549,384
1940	21,815	-	-	-	-	6,232	51,572	89,362	88,491	97,312	90,146	55,333	500,264
1941	21,815	-	-	-	-	6,232	43,656	89,976	88,543	95,809	88,352	54,558	488,942
1942	21,815	-	-	-	-	6,232	50,705	86,910	85,037	92,011	84,571	53,370	480,651
1943	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1944	25,229	-	-	-	-	6,232	46,455	89,152	86,285	92,977	85,752	53,787	485,869
1945	21,815	-	-	-	-	6,232	47,839	92,473	89,080	97,312	90,146	55,333	500,230
1946	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1947	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1948	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1949	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1950	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1951	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1952	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1953	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1954	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1955	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1956	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1957	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1958	25,229	-	-	-	-	6,232	51,572	101,401	108,554	113,698	108,774	74,355	589,817
1959	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1960	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1961	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1962	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1963	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1964	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1965	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1966	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1967	25,229	-	-	-	-	6,232	51,572	101,401	109,731	113,689	106,693	60,752	575,301
1968	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1969	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1970	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1971	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1972	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1973	25,229	-	-	-	-	6,232	48,216	96,369	92,447	100,261	92,168	55,840	516,763
1974	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1975	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1976	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1977	25,229	-	-	-	-	6,232	47,593	92,309	89,080	97,312	90,146	55,333	503,234
1978	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1979	25,229	-	-	-	-	6,232	41,909	97,310	93,293	101,265	93,019	56,096	514,352
1980	21,815	-	-	-	-	6,232	51,209	99,330	97,319	112,227	102,391	59,038	549,561
1981	21,815	-	-	-	-	6,232	48,900	101,004	100,134	108,597	99,539	58,205	544,428
1982	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1983	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1984	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1985	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1986	25,229	-	-	-	-	6,232	51,522	99,011	104,676	113,342	103,956	59,733	563,702
1987	21,815	-	-	-	-	6,232	51,536	95,375	92,115	99,679	91,635	55,691	514,078
1988	21,815	-	-	-	-	6,232	50,708	87,955	94,727	105,139	96,597	57,314	520,487
1989	21,815	-	-	-	-	6,232	51,572	95,634	107,997	113,673	106,504	60,687	564,113
1990	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1991	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1992	25,229	-	-	-	-	6,232	46,957	87,364	89,869	97,345	90,146	55,333	498,474
1993	21,815	-	-	-	-	6,232	49,464	86,577	89,080	97,312	90,146	55,333	495,959
1994	21,815	-	-	-	-	6,232	49,264	90,442	89,080	97,312	90,146	55,333	499,624
1995	21,815	-	-	-	-	6,232	51,572	101,401	102,743	107,518	107,214	60,861	559,356
1996	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
1997	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1998	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
1999	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2000	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2001	25,229	-	-	-	-	6,232	46,969	92,309	89,080	97,312	90,146	55,333	502,610
2002	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
2003	25,229	-	-	-	-	6,232	51,572	86,501	101,472	113,698	107,149	61,274	553,127
2004	21,815	-	-	-	-	6,232	51,572	84,586	105,816	113,698	107,117	61,058	551,894
2005	21,815	-	-	-	-	6,232	47,598	92,309	89,080	97,312	90,146	55,333	499,825
2006	21,815	-	-	-	-	6,232	51,243	101,401	109,844	113,698	108,774	74,355	587,364
2007	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	591,107
2008	25,229	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	69,574	586,325
2009	21,815	-	-	-	-	6,232	51,572	101,401	109,844	113,698	108,774	74,355	587,693
Average	23,969	-	-	-	-	6,232	50,692	98,263	104,324	109,760	103,931	68,074	565,245

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full Integrated Plan

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	33,266	-	-	-	-	10,226	39,745	55,342	58,918	60,063	59,256	48,539	365,356
1927	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1928	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1929	33,266	-	-	-	-	10,226	40,468	57,545	62,983	64,532	63,528	52,179	384,727
1930	24,263	-	-	-	-	10,226	41,928	54,762	55,362	56,568	55,971	48,879	347,960
1931	24,263	-	-	-	-	10,226	37,456	55,840	56,936	58,400	57,553	49,593	350,267
1932	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1933	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1934	33,266	-	-	-	-	10,226	41,503	58,500	64,304	70,071	69,687	55,709	403,266
1935	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1936	33,266	-	-	-	-	10,226	41,053	57,867	65,148	69,998	69,598	55,682	402,839
1937	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1938	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1939	33,266	-	-	-	-	10,226	41,928	53,061	63,026	70,006	69,483	55,644	396,640
1940	24,263	-	-	-	-	10,226	41,928	54,152	63,068	65,361	64,205	52,454	375,657
1941	24,263	-	-	-	-	10,226	37,761	51,562	51,541	52,761	52,315	47,330	327,760
1942	24,263	-	-	-	-	10,226	41,305	55,895	59,351	60,475	59,525	50,445	361,486
1943	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1944	33,266	-	-	-	-	10,226	39,928	55,122	55,093	56,244	55,605	48,423	353,908
1945	24,263	-	-	-	-	10,226	40,491	57,797	63,608	65,529	64,445	52,579	378,938
1946	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1947	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1948	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1949	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1950	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1951	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1952	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1953	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1954	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1955	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1956	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1957	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1958	33,266	-	-	-	-	10,226	41,053	57,995	64,978	70,157	70,467	59,068	407,211
1959	32,999	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	406,985
1960	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1961	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1962	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1963	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1964	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1965	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1966	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1967	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,156	70,149	56,031	403,897
1968	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1969	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1970	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1971	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1972	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1973	33,266	-	-	-	-	10,226	40,449	57,867	64,178	68,493	67,759	53,968	396,207
1974	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1975	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1976	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1977	33,266	-	-	-	-	10,226	40,641	57,263	60,449	61,659	60,840	51,033	375,378
1978	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1979	33,266	-	-	-	-	10,226	36,032	57,867	64,260	68,710	68,066	54,103	392,530
1980	24,263	-	-	-	-	10,226	41,418	58,176	61,767	69,408	68,964	55,429	389,652
1981	24,263	-	-	-	-	10,226	40,143	57,867	65,148	68,914	68,687	55,078	390,327
1982	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1983	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1984	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1985	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1986	33,266	-	-	-	-	10,226	41,872	56,984	65,148	69,851	69,443	55,676	402,466
1987	24,263	-	-	-	-	10,226	41,882	57,117	64,163	68,347	67,548	53,891	387,438
1988	24,263	-	-	-	-	10,226	41,307	52,906	63,422	68,715	68,611	54,699	384,150
1989	24,263	-	-	-	-	10,226	41,226	56,170	65,148	70,156	70,141	56,008	393,339
1990	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1991	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1992	33,266	-	-	-	-	10,226	38,822	54,728	64,030	67,692	66,815	53,623	389,203
1993	24,263	-	-	-	-	10,226	40,796	52,781	63,606	65,472	64,521	52,616	374,281
1994	24,263	-	-	-	-	10,226	40,497	53,903	54,273	55,499	55,006	48,540	342,208
1995	24,263	-	-	-	-	10,226	41,088	59,101	63,417	67,234	70,179	56,074	391,582
1996	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
1997	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1998	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
1999	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2000	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,253
2001	33,266	-	-	-	-	10,226	40,120	57,020	59,347	60,533	59,773	50,067	370,352
2002	24,263	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	398,249
2003	33,266	-	-	-	-	10,226	41,928	52,367	62,769	70,157	70,213	56,217	397,144
2004	24,263	-	-	-	-	10,226	41,928	51,250	63,788	70,157	70,198	56,139	387,950
2005	24,263	-	-	-	-	10,226	40,626	56,769	58,697	59,936	59,415	50,548	360,482
2006	24,263	-	-	-	-	10,226	41,084	58,164	65,656	70,157	70,467	59,068	399,085
2007	33,201	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	59,068	407,188
2008	33,266	-	-	-	-	10,226	41,053	57,867	65,148	70,157	70,467	58,255	406,440
2009	24,263	-	-	-	-	10,179	40,863	57,599	64,847	69,832	70,140	59,283	397,005
Average	29,940	-	-	-	-	10,226	40,881	57,148	63,883	68,324	68,362	56,860	395,624

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full Integrated Plan

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	3,644	-	-	-	-	421	4,422	12,671	16,423	17,988	17,926	13,537	87,031
1927	685	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,654
1928	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1929	3,644	-	-	-	-	421	3,487	13,084	16,423	18,347	18,395	15,548	89,349
1930	798	-	-	-	-	421	4,768	12,897	16,310	17,335	17,264	15,147	84,939
1931	798	-	-	-	-	421	2,902	13,084	16,401	17,682	17,586	15,296	84,171
1932	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1933	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1934	3,644	-	-	-	-	421	4,768	12,863	16,087	18,347	18,395	15,599	90,123
1935	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1936	3,644	-	-	-	-	421	4,768	13,084	16,423	18,347	18,395	15,598	90,681
1937	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1938	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1939	3,644	-	-	-	-	421	4,768	11,290	15,717	18,347	18,395	15,597	88,179
1940	798	-	-	-	-	421	4,768	11,505	16,258	18,347	18,395	15,551	86,044
1941	798	-	-	-	-	421	4,069	12,855	15,868	16,580	16,520	14,733	81,844
1942	798	-	-	-	-	421	4,715	12,836	16,423	18,057	17,979	15,435	86,664
1943	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1944	3,644	-	-	-	-	421	2,200	13,084	16,289	17,270	17,190	14,567	84,664
1945	798	-	-	-	-	421	3,817	13,084	16,423	18,347	18,395	15,553	86,838
1946	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1947	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1948	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1949	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1950	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1951	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1952	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1953	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1954	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1955	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1956	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1957	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1958	3,644	-	-	-	-	421	4,768	13,084	16,254	18,950	19,461	15,860	92,442
1959	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1960	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1961	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1962	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1963	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1964	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1965	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1966	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1967	3,644	-	-	-	-	421	4,768	13,084	16,425	18,347	18,395	15,605	90,690
1968	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1969	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1970	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1971	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1972	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1973	3,644	-	-	-	-	421	3,919	13,084	16,423	18,347	18,395	15,571	89,804
1974	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1975	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1976	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1977	3,644	-	-	-	-	421	3,037	13,084	16,423	18,255	18,234	15,492	88,590
1978	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1979	3,644	-	-	-	-	421	3,604	13,084	16,423	18,347	18,395	15,573	89,491
1980	798	-	-	-	-	421	4,738	12,798	15,400	18,347	18,395	15,593	86,490
1981	798	-	-	-	-	421	4,201	13,084	16,423	18,347	18,395	15,588	87,257
1982	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1983	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1984	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1985	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1986	3,644	-	-	-	-	421	4,765	12,818	16,423	18,347	18,395	15,598	90,410
1987	798	-	-	-	-	421	4,766	12,614	16,423	18,347	18,395	15,570	87,335
1988	798	-	-	-	-	421	4,713	11,310	15,947	18,347	18,395	15,581	85,512
1989	798	-	-	-	-	421	4,768	12,324	16,423	18,347	18,395	15,605	87,081
1990	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1991	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1992	3,644	-	-	-	-	421	4,354	12,028	16,423	18,347	18,395	15,566	89,177
1993	798	-	-	-	-	421	4,611	11,384	16,423	18,347	18,395	15,553	85,931
1994	798	-	-	-	-	421	4,568	12,861	16,204	17,123	17,068	13,543	82,585
1995	677	-	-	-	-	421	4,768	13,084	15,350	17,463	18,395	15,606	85,763
1996	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
1997	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1998	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
1999	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2000	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2001	3,644	-	-	-	-	421	2,857	13,084	16,423	18,067	18,028	14,586	87,110
2002	749	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,719
2003	3,644	-	-	-	-	421	4,768	11,179	15,235	18,347	18,395	15,609	87,597
2004	798	-	-	-	-	421	4,768	10,893	16,003	18,347	18,395	15,607	85,233
2005	798	-	-	-	-	421	2,821	13,084	16,421	17,966	17,957	15,446	84,913
2006	798	-	-	-	-	421	4,748	13,084	16,425	18,950	19,461	15,860	89,748
2007	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	92,613
2008	3,644	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,613	92,367
2009	798	-	-	-	-	421	4,768	13,084	16,425	18,950	19,461	15,860	89,768
Average	2,590	-	-	-	-	421	4,568	12,902	16,346	18,639	18,983	15,662	90,111

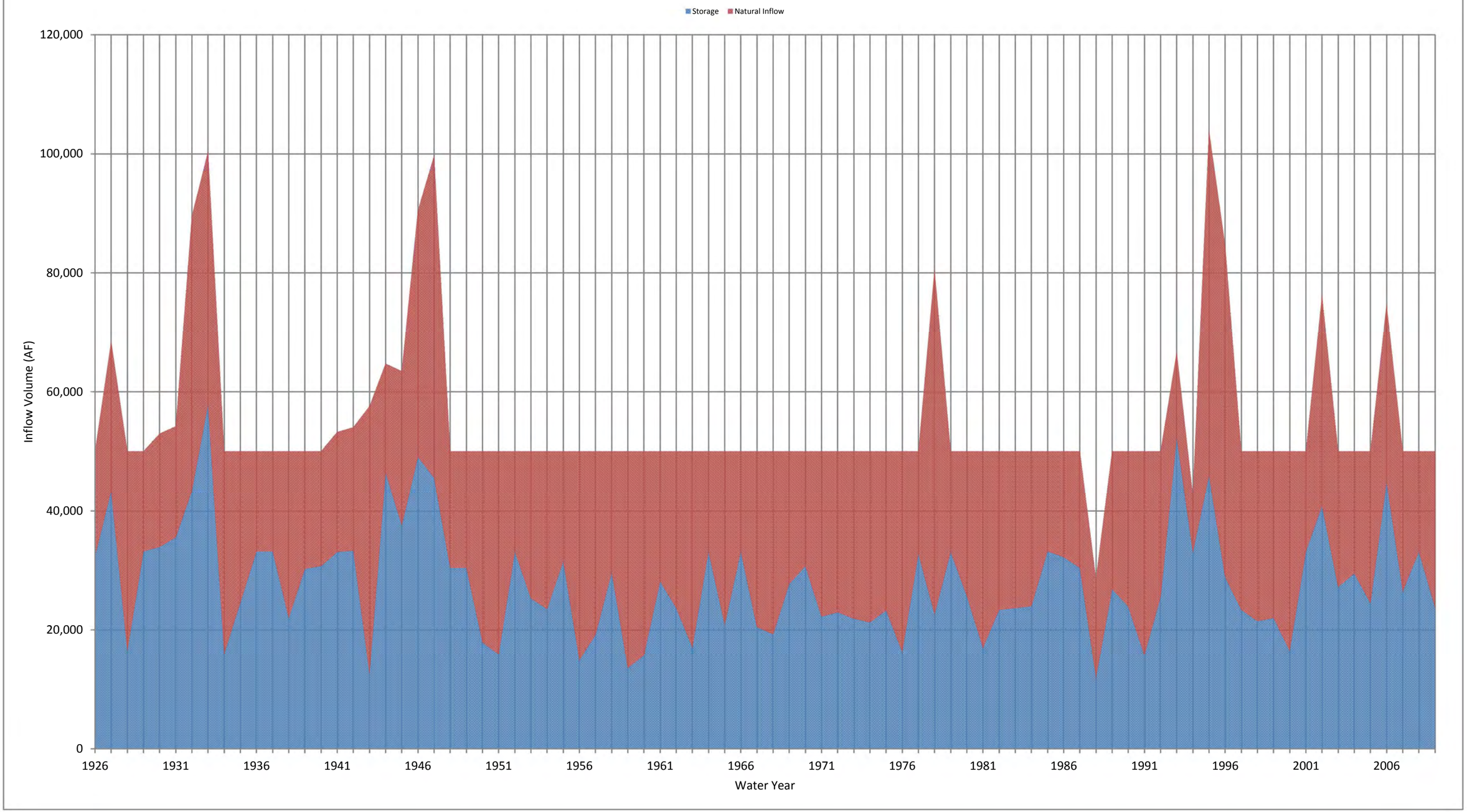
YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full Integrated Plan

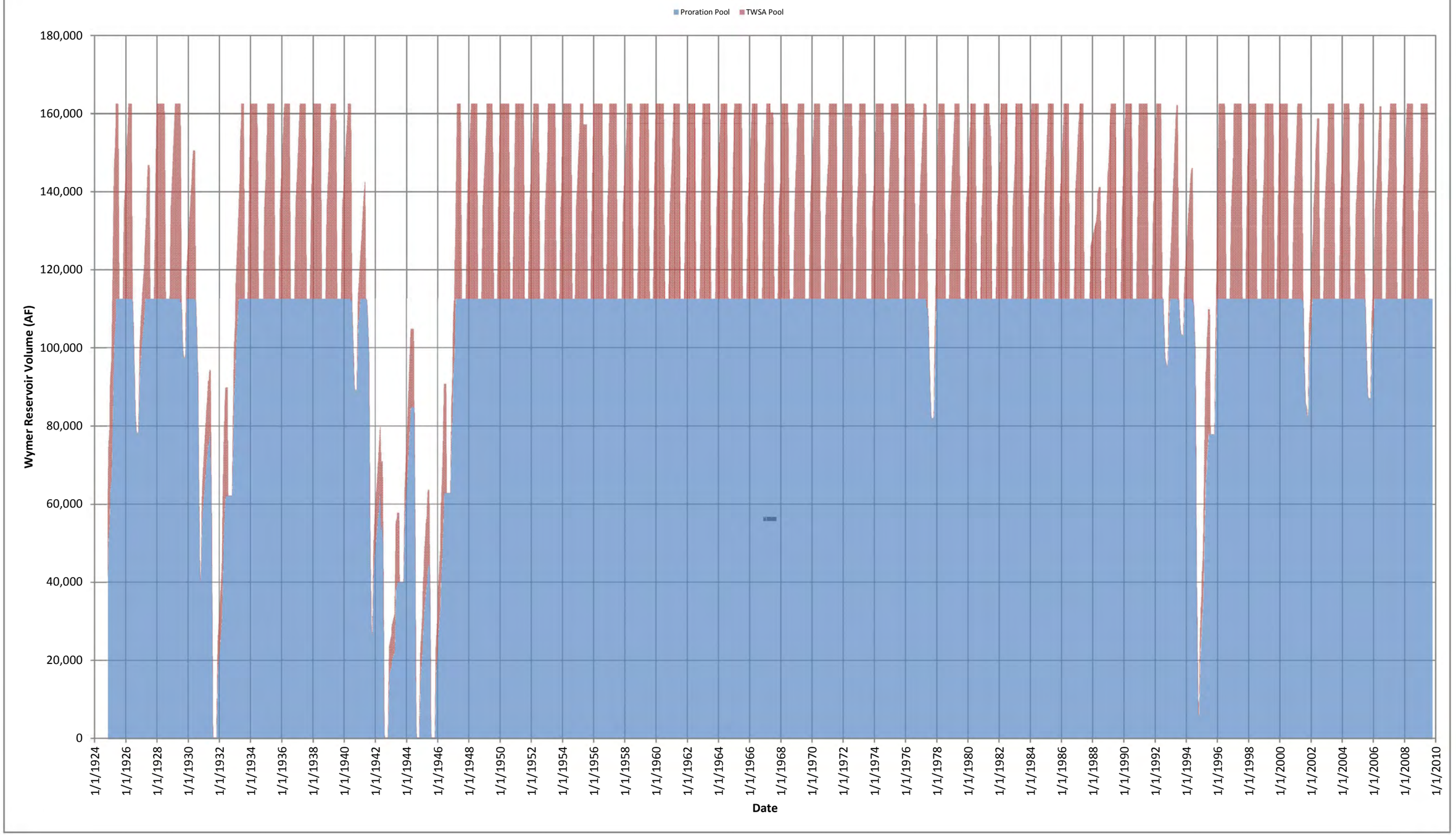
Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	7,393	-	-	-	-	20	11,006	13,603	14,527	14,065	14,735	13,329	88,678
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1929	7,393	-	-	-	-	20	10,740	13,791	14,527	14,065	14,735	13,329	88,600
1930	5,536	-	-	-	-	20	11,828	13,868	14,527	14,065	14,735	13,329	87,908
1931	5,536	-	-	-	-	20	9,603	13,571	14,230	13,127	14,194	12,849	83,130
1932	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	15,315	15,216	14,065	14,735	13,329	91,900
1935	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1936	7,393	-	-	-	-	20	11,828	15,311	15,299	14,065	14,735	13,329	91,979
1937	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1938	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1939	7,393	-	-	-	-	20	11,828	13,563	14,823	14,065	14,735	13,329	89,756
1940	5,536	-	-	-	-	20	11,828	13,763	14,394	14,065	14,735	13,329	87,670
1941	5,536	-	-	-	-	20	10,373	13,614	14,527	14,065	14,735	13,329	86,200
1942	5,536	-	-	-	-	20	11,566	13,636	14,249	13,127	14,194	12,849	85,178
1943	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1944	7,393	-	-	-	-	20	10,638	13,676	14,527	13,327	14,194	12,849	86,624
1945	5,536	-	-	-	-	20	10,740	13,791	14,527	14,065	14,735	13,329	86,744
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1947	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1948	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1953	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1958	7,393	-	-	-	-	20	11,828	15,543	16,068	17,629	17,780	15,757	102,017
1959	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1960	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1961	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1962	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1963	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1964	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1966	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1967	7,393	-	-	-	-	20	11,828	15,543	16,169	17,070	17,346	15,376	100,744
1968	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1969	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1970	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1971	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,729	13,791	14,527	14,065	14,735	13,329	88,590
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,796	13,791	14,527	14,065	14,735	13,329	88,656
1978	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1979	7,393	-	-	-	-	20	9,346	13,791	14,527	14,065	14,735	13,329	87,206
1980	5,536	-	-	-	-	20	11,725	15,244	13,792	14,065	14,735	13,329	88,445
1981	5,536	-	-	-	-	20	10,866	13,791	14,527	14,065	14,735	13,329	86,870
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1986	7,393	-	-	-	-	20	11,818	14,658	14,593	14,065	14,735	13,329	90,610
1987	5,536	-	-	-	-	20	11,820	14,740	14,527	14,065	14,735	13,329	88,773
1988	5,536	-	-	-	-	20	11,566	13,532	14,163	14,065	14,735	13,329	86,946
1989	5,536	-	-	-	-	20	11,828	14,567	15,644	17,070	17,346	15,376	97,386
1990	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1991	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1992	7,393	-	-	-	-	20	10,722	13,587	14,527	14,065	14,735	13,329	88,378
1993	5,536	-	-	-	-	20	11,331	13,441	14,527	14,065	14,735	13,329	86,985
1994	5,536	-	-	-	-	20	11,268	13,813	14,527	14,065	14,735	13,329	87,293
1995	5,536	-	-	-	-	20	11,828	15,543	15,221	16,277	17,346	15,376	97,146
1996	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1997	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1998	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1999	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2000	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2001	7,393	-	-	-	-	20	10,625	13,791	14,527	14,065	14,735	13,329	88,486
2002	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2003	7,393	-	-	-	-	20	11,828	13,361	14,984	17,070	17,346	15,376	97,377
2004	5,536	-	-	-	-	20	11,828	13,095	15,293	17,070	17,346	15,376	95,563
2005	5,536	-	-	-	-	20	10,797	13,791	14,527	14,065	14,735	13,329	86,801
2006	5,536	-	-	-	-	20	11,725	15,543	16,253	17,629	17,780	15,757	100,243
2007	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
2008	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,521	101,966
2009	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
Average	6,707	-	-	-	-	20	11,606	15,008	15,690	16,495	16,829	14,992	97,347

Annual Wymer (IP6 Full Integrated Plan) Inflow From Upstream Storage Releases and Natural Inflow
Water Years 1926 to 2009



Wymer Reservoir Storage by Pool Type (IP6 Full Integrated Plan)



Wymer (IP6 Full Integrated Plan)

Monthly Inflow Volume from Storage (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	2,168	7,236	6,856	8,349	6,766	1,015	0	0	0	0	0	0	32.4
1927	0	5,736	6,338	5,582	4,849	6,222	7,900	6,764	0	0	0	0	43.4
1928	2,139	7,157	7,196	0	0	0	0	0	0	0	0	0	16.5
1929	2,168	7,334	7,875	8,490	7,340	0	0	0	0	0	0	0	33.2
1930	0	6,292	6,209	6,044	5,041	6,032	4,348	0	0	0	0	0	34.0
1931	0	6,286	6,568	5,762	5,789	5,394	3,392	2,380	0	0	0	0	35.6
1932	0	5,478	6,064	5,541	5,764	6,764	8,542	5,236	0	0	0	0	43.4
1933	2,168	7,389	7,675	8,522	7,548	9,668	8,518	6,420	0	0	0	0	57.9
1934	2,168	7,389	6,459	0	0	0	0	0	0	0	0	0	16.0
1935	2,168	7,163	7,297	7,984	0	0	0	0	0	0	0	0	24.6
1936	2,168	7,267	7,744	8,151	7,114	749	0	0	0	0	0	0	33.2
1937	2,168	7,340	7,208	8,610	7,798	81	0	0	0	0	0	0	33.2
1938	2,168	6,762	7,929	5,166	0	0	0	0	0	0	0	0	22.0
1939	2,168	7,236	6,283	8,547	6,059	0	0	0	0	0	0	0	30.3
1940	2,060	6,185	5,805	6,289	4,820	5,575	0	0	0	0	0	0	30.7
1941	0	6,065	5,752	5,729	4,829	6,317	3,937	476	0	0	0	0	33.1
1942	0	5,616	6,007	5,870	5,000	5,554	4,027	1,269	0	0	0	0	33.3
1943	0	1,643	1,583	1,545	1,366	1,390	2,846	2,281	0	0	0	0	12.7
1944	2,168	7,061	8,158	8,560	9,006	9,419	2,045	0	0	0	0	0	46.4
1945	0	5,642	6,294	6,206	5,397	5,914	5,030	3,129	0	0	0	0	37.6
1946	35	6,317	6,014	6,870	5,563	7,651	9,944	6,684	0	0	0	0	49.1
1947	2,168	6,811	8,072	7,935	9,100	10,866	609	0	0	0	0	0	45.6
1948	2,168	7,238	7,243	7,704	6,089	0	0	0	0	0	0	0	30.4
1949	2,168	6,891	7,255	8,041	6,063	0	0	0	0	0	0	0	30.4
1950	2,168	7,074	8,098	574	0	0	0	0	0	0	0	0	17.9
1951	2,168	7,389	6,332	0	0	0	0	0	0	0	0	0	15.9
1952	2,168	6,999	7,367	8,309	8,363	0	0	0	0	0	0	0	33.2
1953	2,168	7,332	7,904	7,885	0	0	0	0	0	0	0	0	25.3
1954	2,168	6,590	7,948	6,790	0	0	0	0	0	0	0	0	23.5
1955	2,168	7,028	7,687	7,996	6,677	0	0	0	0	0	0	0	31.6
1956	2,071	6,630	6,258	0	0	0	0	0	0	0	0	0	15.0
1957	2,168	7,281	8,282	1,441	0	0	0	0	0	0	0	0	19.2
1958	2,166	7,168	6,910	7,781	5,664	0	0	0	0	0	0	0	29.7
1959	2,060	6,546	5,035	0	0	0	0	0	0	0	0	0	13.6
1960	2,168	7,389	6,208	0	0	0	0	0	0	0	0	0	15.8
1961	2,168	7,254	7,703	7,903	3,150	0	0	0	0	0	0	0	28.2
1962	2,168	6,973	7,066	7,455	0	0	0	0	0	0	0	0	23.7
1963	2,168	7,389	7,521	0	0	0	0	0	0	0	0	0	17.1
1964	2,168	6,914	7,682	8,146	7,901	395	0	0	0	0	0	0	33.2
1965	2,168	7,082	7,813	3,811	0	0	0	0	0	0	0	0	20.9
1966	2,168	7,304	7,396	8,056	7,644	639	0	0	0	0	0	0	33.2
1967	2,064	6,125	6,246	6,043	0	0	0	0	0	0	0	0	20.5
1968	2,060	6,458	5,783	4,986	0	0	0	0	0	0	0	0	19.3
1969	2,168	7,028	7,724	8,887	1,943	0	0	0	0	0	0	0	27.7
1970	2,167	7,245	7,598	7,798	5,921	0	0	0	0	0	0	0	30.7
1971	2,076	6,574	6,054	6,149	1,394	0	0	0	0	0	0	0	22.2
1972	2,168	6,921	7,261	6,625	0	0	0	0	0	0	0	0	23.0
1973	2,168	6,898	7,618	5,212	0	0	0	0	0	0	0	0	21.9
1974	2,060	6,060	5,915	6,593	655	0	0	0	0	0	0	0	21.3
1975	2,168	6,950	7,208	6,996	0	0	0	0	0	0	0	0	23.3
1976	2,168	7,096	7,033	0	0	0	0	0	0	0	0	0	16.3
1977	2,168	7,243	7,489	7,921	7,438	568	0	0	0	0	0	0	32.8
1978	0	6,271	6,764	6,764	2,836	0	0	0	0	0	0	0	22.6
1979	2,152	6,751	7,636	8,622	7,206	769	0	0	0	0	0	0	33.1
1980	2,056	6,429	5,451	6,044	4,614	1,091	0	0	0	0	0	0	25.7
1981	2,060	6,240	6,309	2,400	0	0	0	0	0	0	0	0	17.0
1982	2,060	6,367	5,816	6,052	3,086	0	0	0	0	0	0	0	23.4
1983	2,168	7,187	6,734	7,575	0	0	0	0	0	0	0	0	23.7
1984	2,168	7,268	6,980	7,580	0	0	0	0	0	0	0	0	24.0
1985	2,168	7,306	7,311	8,781	7,640	0	0	0	0	0	0	0	33.2
1986	2,168	7,348	7,381	7,703	7,626	0	0	0	0	0	0	0	32.2
1987	2,107	6,910	7,232	7,509	5,341	1,319	0	0	0	0	0	0	30.4
1988	0	1,651	1,672	1,508	1,358	1,422	2,770	1,666	0	0	0	0	12.0
1989	2,060	6,296	5,583	5,956	5,712	1,273	0	0	0	0	0	0	26.9
1990	2,060	6,454	6,375	6,359	2,682	0	0	0	0	0	0	0	23.9
1991	2,168	7,389	6,208	0	0	0	0	0	0	0	0	0	15.8
1992	2,168	6,372	7,853	8,643	512	0	0	0	0	0	0	0	25.5
1993	108	7,054	7,695	8,290	8,704	8,240	8,759	3,491	0	0	0	0	52.3
1994	0	6,088	6,090	4,878	5,698	5,483	4,344	476	0	0	0	0	33.1
1995	0	6,206	6,173	5,724	6,109	6,695	8,692	6,368	0	0	0	0	46.0
1996	2,168	7,389	8,453	9,284	1,575	0	0	0	0	0	0	0	28.9
1997	2,168	6,680	7,720	6,835	0	0	0	0	0	0	0	0	23.4
1998	2,168	7,389	7,720	4,203	0	0	0	0	0	0	0	0	21.5
1999	2,168	6,956	6,902	5,983	0	0	0	0	0	0	0	0	22.0
2000	2,168	7,324	7,033	0	0	0	0	0	0	0	0	0	16.5
2001	2,168	7,295	8,200	8,893	6,649	0	0	0	0	0	0	0	33.2
2002	0	3,967	6,257	6,320	5,759	6,013	5,775	6,764	0	0	0	0	40.9
2003	2,168	7,312	7,186	8,041	2,531	0	0	0	0	0	0	0	27.2
2004	2,168	7,060	8,166	8,011	4,091	0	0	0	0	0	0	0	29.5
2005	2,060	5,759	6,446	6,598	3,629	0	0	0	0	0	0	0	24.5
2006	0	6,275	5,824	5,982	5,262	6,019	9,000	6,533	0	0	0	0	44.9
2007	2,168	7,280	7,171	9,121	757	0	0	0	0	0	0	0	26.5
2008	2,168	7,245	8,238	8,393	7,128	0	0	0	0	0	0	0	33.2
2009	2,168	7,236	7,720	6,720	0	0	0	0	0	0	0	0	23.8
Average	1,739	6,681	6,873	5,948	3,388	1,530	1,196	714	0	0	0	0	28.1

Wymer (IP6 Full Integrated Plan)

Monthly Natural Inflow Volume (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	5,766	11,029	0	0	488	328	0	0	0	0	0	0	17.6
1927	7,456	11,250	681	0	0	2,472	1,726	1,442	0	0	0	0	25.0
1928	5,795	16,645	11,069	0	0	0	0	0	0	0	0	0	33.5
1929	5,766	11,029	0	0	0	0	0	0	0	0	0	0	16.8
1930	6,856	10,610	0	0	112	1,422	3	0	0	0	0	0	19.0
1931	7,640	10,847	0	0	0	153	0	0	0	0	0	0	18.6
1932	7,906	12,516	0	569	1,951	17,832	5,377	0	0	0	0	0	46.2
1933	5,766	16,413	3,921	5,968	0	548	2,301	7,478	0	0	0	0	42.4
1934	5,766	16,162	12,056	0	0	0	0	0	0	0	0	0	34.0
1935	5,766	11,032	3,592	4,999	0	0	0	0	0	0	0	0	25.4
1936	5,766	11,029	0	0	0	13	0	0	0	0	0	0	16.8
1937	5,766	11,029	0	0	0	0	0	0	0	0	0	0	16.8
1938	5,766	13,940	5,018	3,252	0	0	0	0	0	0	0	0	28.0
1939	5,766	11,029	754	2,159	0	0	0	0	0	0	0	0	19.7
1940	5,874	11,504	0	0	125	1,764	0	0	0	0	0	0	19.3
1941	7,934	11,642	0	0	0	556	0	0	0	0	0	0	20.1
1942	7,584	11,345	1,316	0	0	448	0	0	0	0	0	0	20.7
1943	7,934	14,295	136	1,874	0	2,453	18,193	33	0	0	0	0	44.9
1944	5,766	11,029	1,093	0	0	429	0	0	0	0	0	0	18.3
1945	7,082	11,347	0	4,379	2,459	575	0	0	0	0	0	0	25.8
1946	7,899	11,566	772	2,651	0	7,921	1,746	8,859	0	0	0	0	41.4
1947	5,766	11,029	10,530	3,397	10,109	13,203	48	0	0	0	0	0	54.1
1948	5,766	12,415	1,378	0	0	0	0	0	0	0	0	0	19.6
1949	5,766	11,375	0	0	2,441	0	0	0	0	0	0	0	19.6
1950	5,766	13,804	11,829	687	0	0	0	0	0	0	0	0	32.1
1951	5,766	16,290	12,056	0	0	0	0	0	0	0	0	0	34.1
1952	5,766	11,029	0	0	0	0	0	0	0	0	0	0	16.8
1953	5,766	11,029	0	7,916	0	0	0	0	0	0	0	0	24.7
1954	5,766	11,029	9,335	376	0	0	0	0	0	0	0	0	26.5
1955	5,766	11,280	91	0	1,307	0	0	0	0	0	0	0	18.4
1956	5,863	17,039	12,139	0	0	0	0	0	0	0	0	0	35.0
1957	5,766	11,029	11,705	2,328	0	0	0	0	0	0	0	0	30.8
1958	5,768	11,037	0	0	3,507	0	0	0	0	0	0	0	20.3
1959	5,874	17,256	13,230	0	0	0	0	0	0	0	0	0	36.4
1960	5,766	16,413	12,056	0	0	0	0	0	0	0	0	0	34.2
1961	5,766	11,029	0	1,587	3,442	0	0	0	0	0	0	0	21.8
1962	5,766	11,029	875	8,669	0	0	0	0	0	0	0	0	26.3
1963	5,766	16,413	10,744	0	0	0	0	0	0	0	0	0	32.9
1964	5,766	11,029	0	0	0	0	0	0	0	0	0	0	16.8
1965	5,766	11,029	11,532	800	0	0	0	0	0	0	0	0	29.1
1966	5,766	11,029	0	0	0	0	0	0	0	0	0	0	16.8
1967	5,870	11,489	5,903	6,260	0	0	0	0	0	0	0	0	29.5
1968	5,874	11,504	4,806	8,529	0	0	0	0	0	0	0	0	30.7
1969	5,766	11,434	1,672	3,379	0	0	0	0	0	0	0	0	22.3
1970	5,767	11,036	0	394	2,074	0	0	0	0	0	0	0	19.3
1971	5,858	11,435	0	7,635	2,826	0	0	0	0	0	0	0	27.8
1972	5,766	11,029	2,030	8,201	0	0	0	0	0	0	0	0	27.0
1973	5,766	11,029	5,297	6,014	0	0	0	0	0	0	0	0	28.1
1974	5,874	11,504	0	9,936	1,404	0	0	0	0	0	0	0	28.7
1975	5,766	11,029	3,352	6,533	0	0	0	0	0	0	0	0	26.7
1976	5,766	14,573	13,364	0	0	0	0	0	0	0	0	0	33.7
1977	5,766	11,029	0	378	0	0	0	0	0	0	0	0	17.2
1978	7,934	15,248	17,832	11,710	5,104	0	0	0	0	0	0	0	57.8
1979	5,782	11,083	0	0	0	0	0	0	0	0	0	0	16.9
1980	5,878	11,527	3,202	0	1,200	2,510	0	0	0	0	0	0	24.3
1981	5,874	11,505	9,779	5,835	0	0	0	0	0	0	0	0	33.0
1982	5,796	11,360	0	5,179	4,283	0	0	0	0	0	0	0	26.6
1983	5,766	11,029	78	9,464	0	0	0	0	0	0	0	0	26.3
1984	5,766	11,762	0	8,477	0	0	0	0	0	0	0	0	26.0
1985	5,766	11,029	0	0	0	0	0	0	0	0	0	0	16.8
1986	5,766	11,029	0	0	980	0	0	0	0	0	0	0	17.8
1987	5,538	13,961	0	0	0	85	0	0	0	0	0	0	19.6
1988	4,525	7,976	0	0	108	734	3,234	0	0	0	0	0	16.6
1989	5,801	11,451	2,298	1,078	2,493	0	0	0	0	0	0	0	23.1
1990	5,824	10,703	3,044	4,319	2,180	0	0	0	0	0	0	0	26.1
1991	5,766	16,413	12,056	0	0	0	0	0	0	0	0	0	34.2
1992	5,766	11,029	5,176	2,001	480	0	0	0	0	0	0	0	24.5
1993	3,930	9,701	0	0	0	631	0	0	0	0	0	0	14.3
1994	4,383	5,219	0	0	0	3	0	0	0	0	0	0	9.6
1995	5,501	11,722	4,895	2,016	16,106	15,900	0	1,726	0	0	0	0	57.9
1996	5,766	16,413	16,143	15,311	2,085	0	0	0	0	0	0	0	55.7
1997	5,766	11,029	0	9,803	0	0	0	0	0	0	0	0	26.6
1998	5,766	16,105	3,164	3,485	0	0	0	0	0	0	0	0	28.5
1999	5,747	10,235	2,036	9,973	0	0	0	0	0	0	0	0	28.0
2000	5,766	14,466	13,243	0	0	0	0	0	0	0	0	0	33.5
2001	5,766	11,029	0	0	0	0	0	0	0	0	0	0	16.8
2002	7,544	13,944	215	4,685	2,963	2,092	3,872	0	0	0	0	0	35.3
2003	5,766	11,029	0	2,242	3,727	0	0	0	0	0	0	0	22.8
2004	5,766	12,338	304	178	1,921	0	0	0	0	0	0	0	20.5
2005	5,874	11,504	790	7,116	223	0	0	0	0	0	0	0	25.5
2006	4,805	10,994	0	7,909	4,009	209	655	1,149	0	0	0	0	29.7
2007	5,766	11,029	0	6,709	0	0	0	0	0	0	0	0	23.5
2008	5,766	11,029	33	0	0	0	0	0	0	0	0	0	16.8
2009	5,766	11,029	0	9,362	0	0	0	0	0	0	0	0	26.2
Average	5,952	12,070	3,436	2,806	954	860	442	246	0	0	0	0	26.8

Wymer (IP6 Full Integrated Plan)

Total Monthly Inflow (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	7,934	18,265	6,856	8,349	7,255	1,343	0	0	0	0	0	0	50.0
1927	7,456	16,986	7,020	5,582	4,849	8,694	9,625	8,205	0	0	0	0	68.4
1928	7,934	23,802	18,265	0	0	0	0	0	0	0	0	0	50.0
1929	7,934	18,362	7,875	8,490	7,340	0	0	0	0	0	0	0	50.0
1930	6,856	16,902	6,209	6,044	5,153	7,454	4,352	0	0	0	0	0	53.0
1931	7,640	17,133	6,568	5,762	5,789	5,547	3,392	2,380	0	0	0	0	54.2
1932	7,906	17,994	6,064	6,111	7,715	24,595	13,919	5,236	0	0	0	0	89.5
1933	7,934	23,802	11,596	14,490	7,548	10,216	10,819	13,898	0	0	0	0	100.3
1934	7,934	23,551	18,516	0	0	0	0	0	0	0	0	0	50.0
1935	7,934	18,195	10,888	12,983	0	0	0	0	0	0	0	0	50.0
1936	7,934	18,295	7,744	8,151	7,114	762	0	0	0	0	0	0	50.0
1937	7,934	18,369	7,208	8,610	7,798	81	0	0	0	0	0	0	50.0
1938	7,934	20,702	12,947	8,418	0	0	0	0	0	0	0	0	50.0
1939	7,934	18,265	7,037	10,705	6,059	0	0	0	0	0	0	0	50.0
1940	7,934	17,689	5,805	6,289	4,946	7,338	0	0	0	0	0	0	50.0
1941	7,934	17,707	5,752	5,729	4,829	6,874	3,937	476	0	0	0	0	53.2
1942	7,584	16,961	7,323	5,870	5,000	6,002	4,027	1,269	0	0	0	0	54.0
1943	7,934	15,938	1,719	3,419	1,366	3,843	21,039	2,314	0	0	0	0	57.6
1944	7,934	18,090	9,251	8,560	9,006	9,849	2,045	0	0	0	0	0	64.7
1945	7,082	16,989	6,294	10,585	7,856	6,489	5,030	3,129	0	0	0	0	63.5
1946	7,934	17,884	6,786	9,521	5,563	15,572	11,690	15,542	0	0	0	0	90.5
1947	7,934	17,840	18,602	11,332	19,209	24,069	658	0	0	0	0	0	99.6
1948	7,934	19,654	8,620	7,704	6,089	0	0	0	0	0	0	0	50.0
1949	7,934	18,267	7,255	8,041	8,504	0	0	0	0	0	0	0	50.0
1950	7,934	20,878	19,928	1,261	0	0	0	0	0	0	0	0	50.0
1951	7,934	23,679	18,388	0	0	0	0	0	0	0	0	0	50.0
1952	7,934	18,028	7,367	8,309	8,363	0	0	0	0	0	0	0	50.0
1953	7,934	18,361	7,904	15,802	0	0	0	0	0	0	0	0	50.0
1954	7,934	17,618	17,283	7,166	0	0	0	0	0	0	0	0	50.0
1955	7,934	18,309	7,779	7,996	7,984	0	0	0	0	0	0	0	50.0
1956	7,934	23,669	18,398	0	0	0	0	0	0	0	0	0	50.0
1957	7,934	18,310	19,987	3,769	0	0	0	0	0	0	0	0	50.0
1958	7,934	18,205	6,910	7,781	9,171	0	0	0	0	0	0	0	50.0
1959	7,934	23,802	18,265	0	0	0	0	0	0	0	0	0	50.0
1960	7,934	23,802	18,265	0	0	0	0	0	0	0	0	0	50.0
1961	7,934	18,282	7,703	9,489	6,592	0	0	0	0	0	0	0	50.0
1962	7,934	18,002	7,941	16,124	0	0	0	0	0	0	0	0	50.0
1963	7,934	23,802	18,265	0	0	0	0	0	0	0	0	0	50.0
1964	7,934	17,943	7,682	8,146	7,901	395	0	0	0	0	0	0	50.0
1965	7,934	18,111	19,345	4,611	0	0	0	0	0	0	0	0	50.0
1966	7,934	18,332	7,396	8,056	7,644	639	0	0	0	0	0	0	50.0
1967	7,934	17,614	12,150	12,303	0	0	0	0	0	0	0	0	50.0
1968	7,934	17,963	10,589	13,515	0	0	0	0	0	0	0	0	50.0
1969	7,934	18,462	9,396	12,266	1,943	0	0	0	0	0	0	0	50.0
1970	7,934	18,281	7,598	8,192	7,996	0	0	0	0	0	0	0	50.0
1971	7,934	18,009	6,054	13,784	4,220	0	0	0	0	0	0	0	50.0
1972	7,934	17,949	9,291	14,826	0	0	0	0	0	0	0	0	50.0
1973	7,934	17,926	12,915	11,226	0	0	0	0	0	0	0	0	50.0
1974	7,934	17,564	5,915	16,529	2,058	0	0	0	0	0	0	0	50.0
1975	7,934	17,978	10,560	13,528	0	0	0	0	0	0	0	0	50.0
1976	7,934	21,670	20,397	0	0	0	0	0	0	0	0	0	50.0
1977	7,934	18,272	7,489	8,300	7,438	568	0	0	0	0	0	0	50.0
1978	7,934	21,519	24,595	18,474	7,941	0	0	0	0	0	0	0	80.5
1979	7,934	17,834	7,636	8,622	7,206	769	0	0	0	0	0	0	50.0
1980	7,934	17,956	8,653	6,044	5,814	3,601	0	0	0	0	0	0	50.0
1981	7,934	17,745	16,087	8,235	0	0	0	0	0	0	0	0	50.0
1982	7,857	17,727	5,816	11,232	7,370	0	0	0	0	0	0	0	50.0
1983	7,934	18,216	6,812	17,039	0	0	0	0	0	0	0	0	50.0
1984	7,934	19,030	6,980	16,057	0	0	0	0	0	0	0	0	50.0
1985	7,934	18,335	7,311	8,781	7,640	0	0	0	0	0	0	0	50.0
1986	7,934	18,376	7,381	7,703	8,606	0	0	0	0	0	0	0	50.0
1987	7,644	20,871	7,232	7,509	5,341	1,404	0	0	0	0	0	0	50.0
1988	4,525	9,627	1,672	1,508	1,466	2,156	6,004	1,666	0	0	0	0	28.6
1989	7,861	17,747	7,881	7,034	8,205	1,273	0	0	0	0	0	0	50.0
1990	7,884	17,158	9,419	10,678	4,862	0	0	0	0	0	0	0	50.0
1991	7,934	23,802	18,265	0	0	0	0	0	0	0	0	0	50.0
1992	7,934	17,401	13,028	10,645	993	0	0	0	0	0	0	0	50.0
1993	4,038	16,755	7,695	8,290	8,704	8,871	8,759	3,491	0	0	0	0	66.6
1994	4,383	11,307	6,090	4,878	5,698	5,486	4,344	476	0	0	0	0	42.7
1995	5,501	17,929	11,068	7,740	22,215	22,595	8,692	8,094	0	0	0	0	103.8
1996	7,934	23,802	24,595	24,595	3,660	0	0	0	0	0	0	0	84.6
1997	7,934	17,709	7,720	16,637	0	0	0	0	0	0	0	0	50.0
1998	7,934	23,494	10,884	7,689	0	0	0	0	0	0	0	0	50.0
1999	7,915	17,191	8,938	15,957	0	0	0	0	0	0	0	0	50.0
2000	7,934	21,790	20,277	0	0	0	0	0	0	0	0	0	50.0
2001	7,934	18,324	8,200	8,893	6,649	0	0	0	0	0	0	0	50.0
2002	7,544	17,911	6,472	11,005	8,722	8,105	9,647	6,764	0	0	0	0	76.2
2003	7,934	18,340	7,186	10,283	6,258	0	0	0	0	0	0	0	50.0
2004	7,934	19,397	8,470	8,189	6,011	0	0	0	0	0	0	0	50.0
2005	7,934	17,264	7,236	13,714	3,853	0	0	0	0	0	0	0	50.0
2006	4,805	17,269	5,824	13,891	9,271	6,229	9,655	7,683	0	0	0	0	74.6
2007	7,934	18,309	7,171	15,829	757	0	0	0	0	0	0	0	50.0
2008	7,934	18,274	8,271	8,393	7,128	0	0	0	0	0	0	0	50.0
2009	7,934	18,264	7,720	16,082	0	0	0	0	0	0	0	0	50.0
Average	7,691	18,752	10,309	8,754	4,341	2,391	1,638	960	0	0	0	0	54.8

Wymer (IP6 Full Integrated Plan)

Monthly Proration Pool Release (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	0	0	0	0	0	0	128	7,828	14,364	11,136	670	34.1
1927	0	0	0	0	0	0	0	0	0	0	0	0	-
1928	0	0	0	0	0	0	0	0	0	0	0	0	-
1929	0	0	0	0	0	0	0	0	278	1,347	11,600	1,743	15.0
1930	0	0	0	0	0	0	0	0	713	11,528	25,630	29,548	67.4
1931	4,367	0	0	0	0	0	598	0	16,105	55,770	5,563	1	82.4
1932	0	0	0	0	0	0	0	0	0	0	0	0	0.0
1933	0	0	0	0	0	0	0	0	0	0	0	0	-
1934	0	0	0	0	0	0	0	0	0	0	0	0	-
1935	0	0	0	0	0	0	0	0	0	0	0	0	-
1936	0	0	0	0	0	0	0	0	0	0	0	0	-
1937	0	0	0	0	0	0	0	0	0	0	0	0	-
1938	0	0	0	0	0	0	0	0	0	0	0	0	-
1939	0	0	0	0	0	0	0	0	0	0	0	0	-
1940	0	0	0	0	0	0	0	0	519	10,661	11,455	599	23.2
1941	0	0	0	0	0	0	0	0	2,971	9,439	46,236	25,117	83.8
1942	1,702	0	0	0	0	0	2,006	8,086	4,160	48,116	1,868	0	65.9
1943	0	0	0	0	0	0	0	0	0	0	0	0	0.0
1944	0	0	0	0	0	0	0	0	575	51,202	32,850	46	84.7
1945	0	0	0	0	0	0	0	0	631	42,321	980	0	43.9
1946	0	0	0	0	0	0	0	0	0	0	0	0	0.0
1947	0	0	0	0	0	0	0	0	0	0	0	0	-
1948	0	0	0	0	0	0	0	0	0	0	0	0	-
1949	0	0	0	0	0	0	0	0	0	0	0	0	-
1950	0	0	0	0	0	0	0	0	0	0	0	0	-
1951	0	0	0	0	0	0	0	0	0	0	0	0	-
1952	0	0	0	0	0	0	0	0	0	0	0	0	-
1953	0	0	0	0	0	0	0	0	0	0	0	0	-
1954	0	0	0	0	0	0	0	0	0	0	0	0	-
1955	0	0	0	0	0	0	0	0	0	0	0	0	-
1956	0	0	0	0	0	0	0	0	0	0	0	0	-
1957	0	0	0	0	0	0	0	0	0	0	0	0	-
1958	0	0	0	0	0	0	0	0	0	0	0	0	-
1959	0	0	0	0	0	0	0	0	0	0	0	0	-
1960	0	0	0	0	0	0	0	0	0	0	0	0	-
1961	0	0	0	0	0	0	0	0	0	0	0	0	-
1962	0	0	0	0	0	0	0	0	0	0	0	0	-
1963	0	0	0	0	0	0	0	0	0	0	0	0	-
1964	0	0	0	0	0	0	0	0	0	0	0	0	-
1965	0	0	0	0	0	0	0	0	0	0	0	0	-
1966	0	0	0	0	0	0	0	0	0	0	0	0	-
1967	0	0	0	0	0	0	0	0	0	0	0	0	-
1968	0	0	0	0	0	0	0	0	0	0	0	0	-
1969	0	0	0	0	0	0	0	0	0	0	0	0	-
1970	0	0	0	0	0	0	0	0	0	0	0	0	-
1971	0	0	0	0	0	0	0	0	0	0	0	0	-
1972	0	0	0	0	0	0	0	0	0	0	0	0	-
1973	0	0	0	0	0	0	0	0	0	0	0	0	-
1974	0	0	0	0	0	0	0	0	0	0	0	0	-
1975	0	0	0	0	0	0	0	0	0	0	0	0	-
1976	0	0	0	0	0	0	0	0	0	0	0	0	-
1977	0	0	0	0	0	0	272	2,020	8,059	12,220	7,891	0	30.5
1978	0	0	0	0	0	0	0	0	0	0	0	0	-
1979	0	0	0	0	0	0	0	0	0	0	0	0	-
1980	0	0	0	0	0	0	0	0	0	0	0	0	-
1981	0	0	0	0	0	0	0	0	0	0	0	0	-
1982	0	0	0	0	0	0	0	0	0	0	0	0	-
1983	0	0	0	0	0	0	0	0	0	0	0	0	-
1984	0	0	0	0	0	0	0	0	0	0	0	0	-
1985	0	0	0	0	0	0	0	0	0	0	0	0	-
1986	0	0	0	0	0	0	0	0	0	0	0	0	-
1987	0	0	0	0	0	0	0	0	0	0	0	0	-
1988	0	0	0	0	0	0	0	0	0	0	0	0	-
1989	0	0	0	0	0	0	0	0	0	0	0	0	-
1990	0	0	0	0	0	0	0	0	0	0	0	0	-
1991	0	0	0	0	0	0	0	0	0	0	0	0	-
1992	0	0	0	0	0	0	0	0	0	7,259	8,095	1,578	16.9
1993	0	0	0	0	0	0	0	0	232	4,266	4,408	269	9.2
1994	0	0	0	0	0	0	0	286	2,652	10,730	55,593	31,682	100.9
1995	5,528	0	0	0	0	0	0	0	0	0	0	0	5.5
1996	0	0	0	0	0	0	0	0	0	0	0	0	-
1997	0	0	0	0	0	0	0	0	0	0	0	0	-
1998	0	0	0	0	0	0	0	0	0	0	0	0	-
1999	0	0	0	0	0	0	0	0	0	0	0	0	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	-
2001	0	0	0	0	0	0	0	0	408	16,710	9,916	2,864	29.9
2002	0	0	0	0	0	0	0	0	0	0	0	0	-
2003	0	0	0	0	0	0	0	0	0	0	0	0	-
2004	0	0	0	0	0	0	0	0	0	0	0	0	-
2005	0	0	0	0	0	0	0	0	2,791	13,581	8,867	62	25.3
2006	0	0	0	0	0	0	0	0	0	0	0	0	-
2007	0	0	0	0	0	0	0	0	0	0	0	0	-
2008	0	0	0	0	0	0	0	0	0	0	0	0	-
2009	0	0	0	0	0	0	0	0	0	0	0	0	-
Average	138	0	0	0	0	0	34	125	571	3,685	2,882	1,121	8.6

Wymer (IP6 Full Integrated Plan)

Monthly TWSA Pool Release (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	0	0	0	0	0	0	37,685	12,316	0	0	0	50.0
1927	0	0	0	0	0	0	0	0	0	34,290	0	0	34.3
1928	0	0	0	0	0	0	0	0	5,022	44,979	0	0	50.0
1929	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1930	0	0	0	0	0	0	0	0	38,002	0	0	0	38.0
1931	0	0	0	0	0	0	0	0	16,680	0	0	0	16.7
1932	0	0	0	0	0	0	0	0	0	27,551	0	0	27.6
1933	0	0	0	0	0	0	0	0	0	13,981	36,019	0	50.0
1934	0	0	0	0	0	0	0	0	33,540	16,461	0	0	50.0
1935	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1936	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1937	0	0	0	0	0	0	0	0	0	41,654	8,347	0	50.0
1938	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1939	0	0	0	0	0	0	0	0	7,934	42,067	0	0	50.0
1940	0	0	0	0	0	0	0	0	43,611	6,389	0	0	50.0
1941	0	0	0	0	0	0	0	30,003	0	0	0	0	30.0
1942	0	0	0	0	0	0	0	0	11,147	5,480	0	0	16.6
1943	0	0	0	0	0	0	0	0	0	17,714	0	0	17.7
1944	0	0	0	0	0	0	0	0	19,918	0	0	0	19.9
1945	0	0	0	0	0	0	0	0	19,525	0	0	0	19.5
1946	0	0	0	0	0	0	0	0	0	27,844	0	0	27.8
1947	0	0	0	0	0	0	0	0	13,232	36,768	0	0	50.0
1948	0	0	0	0	0	0	0	0	0	45,621	4,380	0	50.0
1949	0	0	0	0	0	0	0	0	0	39,378	10,623	0	50.0
1950	0	0	0	0	0	0	0	0	0	9,918	40,083	0	50.0
1951	0	0	0	0	0	0	0	0	0	49,588	413	0	50.0
1952	0	0	0	0	0	0	0	0	12,556	37,445	0	0	50.0
1953	0	0	0	0	0	0	0	0	0	27,769	22,232	0	50.0
1954	0	0	0	0	0	0	0	0	0	13,885	36,116	0	50.0
1955	0	0	0	0	0	0	0	5,274	0	17,639	27,088	0	50.0
1956	0	0	0	0	0	0	0	0	0	15,868	34,133	0	50.0
1957	0	0	0	0	0	0	0	0	25,786	24,215	0	0	50.0
1958	0	0	0	0	0	0	0	0	5,951	44,050	0	0	50.0
1959	0	0	0	0	0	0	0	0	0	45,621	4,380	0	50.0
1960	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1961	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1962	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1963	0	0	0	0	0	0	0	0	19,835	30,166	0	0	50.0
1964	0	0	0	0	0	0	0	0	0	19,835	30,166	0	50.0
1965	0	0	0	0	0	0	0	0	3,967	46,034	0	0	50.0
1966	0	0	0	0	0	0	0	0	7,934	42,067	0	0	50.0
1967	0	0	0	0	0	0	0	2,324	0	47,163	513	0	50.0
1968	0	0	0	0	0	0	0	0	9,979	40,021	0	0	50.0
1969	0	0	0	0	0	0	0	0	5,951	44,050	0	0	50.0
1970	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1971	0	0	0	0	0	0	0	0	0	0	50,001	0	50.0
1972	0	0	0	0	0	0	0	0	0	12,943	37,058	0	50.0
1973	0	0	0	0	0	0	0	0	50,001	0	0	0	50.0
1974	0	0	0	0	0	0	0	0	0	0	50,001	0	50.0
1975	0	0	0	0	0	0	0	0	0	27,769	22,232	0	50.0
1976	0	0	0	0	0	0	0	0	0	15,622	34,379	0	50.0
1977	0	0	0	0	0	0	0	45,522	4,479	0	0	0	50.0
1978	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1979	0	0	0	0	0	0	0	0	25,786	24,215	0	0	50.0
1980	0	0	0	0	0	0	0	0	3,967	46,034	0	0	50.0
1981	0	0	0	0	0	0	0	4,011	12,199	33,791	0	0	50.0
1982	0	0	0	0	0	0	0	0	0	43,487	6,514	0	50.0
1983	0	0	0	0	0	0	0	0	0	45,813	4,187	0	50.0
1984	0	0	0	0	0	0	0	0	0	39,670	10,331	0	50.0
1985	0	0	0	0	0	0	0	0	9,918	40,083	0	0	50.0
1986	0	0	0	0	0	0	0	0	25,786	24,215	0	0	50.0
1987	0	0	0	0	0	0	0	9,148	40,852	0	0	0	50.0
1988	0	0	0	0	0	0	0	0	1,984	26,640	0	0	28.6
1989	0	0	0	0	0	0	0	0	17,852	32,149	0	0	50.0
1990	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1991	0	0	0	0	0	0	0	0	0	47,604	2,397	0	50.0
1992	0	0	0	0	0	0	0	13,643	36,358	0	0	0	50.0
1993	0	0	0	0	0	0	0	0	27,716	21,956	0	0	49.7
1994	0	0	0	0	0	0	0	0	33,487	0	0	0	33.5
1995	0	0	0	0	0	0	0	0	0	31,949	0	0	31.9
1996	0	0	0	0	0	0	0	0	3,289	46,712	0	0	50.0
1997	0	0	0	0	0	0	0	0	0	25,786	24,215	0	50.0
1998	0	0	0	0	0	0	0	0	14,012	35,989	0	0	50.0
1999	0	0	0	0	0	0	0	0	0	720	49,281	0	50.0
2000	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
2001	0	0	0	0	0	0	0	0	49,565	436	0	0	50.0
2002	0	0	0	0	0	0	0	0	0	46,272	0	0	46.3
2003	0	0	0	0	0	0	0	0	12,681	37,320	0	0	50.0
2004	0	0	0	0	0	0	0	0	27,769	22,232	0	0	50.0
2005	0	0	0	0	0	0	0	11,901	38,100	0	0	0	50.0
2006	0	0	0	0	0	0	0	0	0	49,325	0	0	49.3
2007	0	0	0	0	0	0	0	0	19,835	30,166	0	0	50.0
2008	0	0	0	0	0	0	0	0	0	39,670	10,331	0	50.0
2009	0	0	0	0	0	0	0	0	9,918	40,083	0	0	50.0
Average	0	0	0	0	0	0	0	1,899	9,267	28,502	6,612	0	46.3

Wymer (IP6 Full Integrated Plan)

Total Monthly Wymer Release (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	0	0	0	0	0	0	37,812	20,144	14,364	11,136	670	84.1
1927	0	0	0	0	0	0	0	0	0	34,290	0	0	34.3
1928	0	0	0	0	0	0	0	0	5,022	44,979	0	0	50.0
1929	0	0	0	0	0	0	0	0	278	51,347	11,600	1,743	65.0
1930	0	0	0	0	0	0	0	0	38,715	11,528	25,630	29,548	105.4
1931	4,367	0	0	0	0	0	598	0	32,785	55,770	5,563	1	99.1
1932	0	0	0	0	0	0	0	0	0	27,551	0	0	27.6
1933	0	0	0	0	0	0	0	0	0	13,981	36,019	0	50.0
1934	0	0	0	0	0	0	0	0	33,540	16,461	0	0	50.0
1935	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1936	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1937	0	0	0	0	0	0	0	0	0	41,654	8,347	0	50.0
1938	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1939	0	0	0	0	0	0	0	0	7,934	42,067	0	0	50.0
1940	0	0	0	0	0	0	0	0	44,131	17,050	11,455	599	73.2
1941	0	0	0	0	0	0	0	30,003	2,971	9,439	46,236	25,117	113.8
1942	1,702	0	0	0	0	0	2,006	8,086	15,307	53,596	1,868	0	82.6
1943	0	0	0	0	0	0	0	0	0	17,714	0	0	17.7
1944	0	0	0	0	0	0	0	0	20,494	51,202	32,850	46	104.6
1945	0	0	0	0	0	0	0	0	20,156	42,321	980	0	63.5
1946	0	0	0	0	0	0	0	0	0	27,844	0	0	27.8
1947	0	0	0	0	0	0	0	0	13,232	36,768	0	0	50.0
1948	0	0	0	0	0	0	0	0	0	45,621	4,380	0	50.0
1949	0	0	0	0	0	0	0	0	0	39,378	10,623	0	50.0
1950	0	0	0	0	0	0	0	0	0	9,918	40,083	0	50.0
1951	0	0	0	0	0	0	0	0	0	49,588	413	0	50.0
1952	0	0	0	0	0	0	0	0	12,556	37,445	0	0	50.0
1953	0	0	0	0	0	0	0	0	0	27,769	22,232	0	50.0
1954	0	0	0	0	0	0	0	0	0	13,885	36,116	0	50.0
1955	0	0	0	0	0	0	0	5,274	0	17,639	27,088	0	50.0
1956	0	0	0	0	0	0	0	0	0	15,868	34,133	0	50.0
1957	0	0	0	0	0	0	0	0	25,786	24,215	0	0	50.0
1958	0	0	0	0	0	0	0	0	5,951	44,050	0	0	50.0
1959	0	0	0	0	0	0	0	0	0	45,621	4,380	0	50.0
1960	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1961	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1962	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1963	0	0	0	0	0	0	0	0	19,835	30,166	0	0	50.0
1964	0	0	0	0	0	0	0	0	0	19,835	30,166	0	50.0
1965	0	0	0	0	0	0	0	0	3,967	46,034	0	0	50.0
1966	0	0	0	0	0	0	0	0	7,934	42,067	0	0	50.0
1967	0	0	0	0	0	0	0	2,324	0	47,163	513	0	50.0
1968	0	0	0	0	0	0	0	0	9,979	40,021	0	0	50.0
1969	0	0	0	0	0	0	0	0	5,951	44,050	0	0	50.0
1970	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1971	0	0	0	0	0	0	0	0	0	0	50,001	0	50.0
1972	0	0	0	0	0	0	0	0	0	12,943	37,058	0	50.0
1973	0	0	0	0	0	0	0	0	50,001	0	0	0	50.0
1974	0	0	0	0	0	0	0	0	0	0	50,001	0	50.0
1975	0	0	0	0	0	0	0	0	0	27,769	22,232	0	50.0
1976	0	0	0	0	0	0	0	0	0	15,622	34,379	0	50.0
1977	0	0	0	0	0	0	272	47,542	12,537	12,220	7,891	0	80.5
1978	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1979	0	0	0	0	0	0	0	0	25,786	24,215	0	0	50.0
1980	0	0	0	0	0	0	0	0	3,967	46,034	0	0	50.0
1981	0	0	0	0	0	0	0	4,011	12,199	33,791	0	0	50.0
1982	0	0	0	0	0	0	0	0	0	43,487	6,514	0	50.0
1983	0	0	0	0	0	0	0	0	0	45,813	4,187	0	50.0
1984	0	0	0	0	0	0	0	0	0	39,670	10,331	0	50.0
1985	0	0	0	0	0	0	0	0	9,918	40,083	0	0	50.0
1986	0	0	0	0	0	0	0	0	25,786	24,215	0	0	50.0
1987	0	0	0	0	0	0	0	9,148	40,852	0	0	0	50.0
1988	0	0	0	0	0	0	0	0	1,984	26,640	0	0	28.6
1989	0	0	0	0	0	0	0	0	17,852	32,149	0	0	50.0
1990	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1991	0	0	0	0	0	0	0	0	0	47,604	2,397	0	50.0
1992	0	0	0	0	0	0	0	13,643	36,358	7,259	8,095	1,578	66.9
1993	0	0	0	0	0	0	0	0	27,948	26,222	4,408	269	58.8
1994	0	0	0	0	0	0	0	286	36,139	10,730	55,593	31,682	134.4
1995	5,528	0	0	0	0	0	0	0	0	31,949	0	0	37.5
1996	0	0	0	0	0	0	0	0	3,289	46,712	0	0	50.0
1997	0	0	0	0	0	0	0	0	0	25,786	24,215	0	50.0
1998	0	0	0	0	0	0	0	0	14,012	35,989	0	0	50.0
1999	0	0	0	0	0	0	0	0	0	720	49,281	0	50.0
2000	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
2001	0	0	0	0	0	0	0	0	49,972	17,146	9,916	2,864	79.9
2002	0	0	0	0	0	0	0	0	0	46,272	0	0	46.3
2003	0	0	0	0	0	0	0	0	12,681	37,320	0	0	50.0
2004	0	0	0	0	0	0	0	0	27,769	22,232	0	0	50.0
2005	0	0	0	0	0	0	0	11,901	40,890	13,581	8,867	62	75.3
2006	0	0	0	0	0	0	0	0	0	49,325	0	0	49.3
2007	0	0	0	0	0	0	0	0	19,835	30,166	0	0	50.0
2008	0	0	0	0	0	0	0	0	0	39,670	10,331	0	50.0
2009	0	0	0	0	0	0	0	0	9,918	40,083	0	0	50.0
Average	138	0	0	0	0	0	34	2,024	9,838	32,187	9,494	1,121	54.8

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	66,734	67,579	82,071
1926	80,020	82,142	99,505	120,527	103,406	71,024	28,335	9,947	9,731	23,679	30,868	42,757
1927	44,313	44,386	44,881	54,338	80,433	88,488	54,053	15,624	19,186	34,821	76,247	80,021
1928	82,134	79,010	92,566	102,715	147,725	146,962	98,917	60,483	54,067	63,326	62,436	58,834
1929	53,243	48,584	52,590	44,811	74,676	79,929	55,083	14,106	9,752	7,131	5,157	7,629
1930	8,874	26,369	37,112	66,909	49,191	41,311	14,269	9,148	7,229	10,653	12,283	10,826
1931	17,352	24,627	39,038	56,653	79,862	74,871	50,171	21,204	18,180	17,701	28,383	27,810
1932	38,338	52,958	77,785	80,995	88,444	84,796	51,377	15,924	12,357	17,053	71,244	80,106
1933	80,080	80,094	80,068	82,260	92,207	142,241	146,753	112,289	92,681	97,486	118,796	123,596
1934	118,796	129,666	134,293	156,721	155,331	130,712	78,088	36,106	30,990	46,369	71,624	80,245
1935	107,527	115,366	122,480	123,965	151,862	157,770	118,227	79,328	75,528	72,301	68,972	66,779
1936	71,828	71,723	79,279	91,888	155,159	156,319	108,481	69,137	64,250	59,288	52,270	65,605
1937	63,110	63,245	67,848	78,857	101,951	138,036	101,144	61,297	56,273	54,916	86,538	80,825
1938	83,418	82,201	84,512	109,058	145,123	155,327	106,923	66,367	60,192	56,231	65,376	81,560
1939	80,102	79,976	86,771	105,374	132,554	126,812	81,212	40,998	36,348	35,555	40,895	62,077
1940	61,343	69,747	82,286	100,767	115,536	101,583	53,943	14,918	10,154	9,836	15,372	25,350
1941	23,138	21,461	32,287	45,342	20,506	11,678	9,932	8,445	14,538	27,681	39,359	52,099
1942	50,086	48,981	51,159	72,404	73,179	79,050	57,421	26,576	24,183	15,647	30,959	44,139
1943	49,646	50,466	56,913	80,383	92,260	91,028	60,987	22,618	18,332	15,817	16,339	32,976
1944	30,894	33,300	37,859	49,650	49,886	43,993	11,832	10,412	14,355	11,273	13,114	19,435
1945	44,068	56,173	58,200	61,325	84,964	78,584	55,681	27,967	31,391	36,538	49,975	57,678
1946	64,231	63,773	68,413	81,698	115,084	120,346	88,928	52,446	49,433	57,307	60,294	79,891
1947	86,777	80,298	83,302	100,551	122,969	112,738	68,005	27,118	23,909	45,877	73,103	80,235
1948	79,827	80,192	80,340	87,481	122,602	157,770	125,658	89,014	79,865	79,669	82,050	80,147
1949	79,318	82,756	87,814	106,341	147,009	157,669	137,814	101,396	79,528	81,532	96,436	107,457
1950	113,999	118,139	98,299	94,224	113,704	159,354	148,899	114,646	88,130	80,526	94,412	118,796
1951	118,796	133,981	113,224	117,253	152,719	157,580	114,575	74,603	69,607	80,483	80,209	79,785
1952	77,877	79,946	80,266	97,768	135,064	137,341	98,354	58,435	54,156	49,170	40,987	34,549
1953	72,907	79,855	83,640	95,023	126,231	145,811	124,563	85,775	76,424	76,418	80,791	88,351
1954	97,270	101,435	104,743	105,454	129,138	157,947	150,039	119,306	96,208	80,005	83,950	80,653
1955	83,636	92,486	93,553	95,421	121,347	157,774	151,040	117,972	91,560	88,022	111,542	118,796
1956	118,623	113,756	75,456	81,465	124,215	157,770	143,881	106,215	80,142	80,257	80,097	118,796
1957	118,398	118,888	122,340	127,669	157,113	146,459	97,417	57,685	51,783	48,612	49,233	61,355
1958	67,541	79,917	80,238	85,426	124,167	110,383	60,420	20,552	17,030	29,195	72,066	83,955
1959	106,966	111,210	120,986	124,089	148,205	157,770	125,183	86,828	84,598	86,625	120,697	118,796
1960	118,556	123,992	128,997	133,158	157,481	156,465	112,262	73,257	69,935	75,748	80,149	79,908
1961	84,876	110,257	116,707	116,319	149,804	156,782	115,162	74,592	71,052	76,754	80,188	82,580
1962	92,575	101,343	102,336	131,123	144,872	155,109	115,047	75,997	72,236	77,661	93,256	86,222
1963	96,729	118,985	126,493	136,153	150,505	140,352	89,917	49,144	43,160	42,098	54,998	56,349
1964	64,894	65,301	68,906	76,706	104,301	157,770	145,978	115,006	93,055	79,947	81,774	93,401
1965	114,346	130,172	123,999	128,141	156,788	155,370	117,623	78,016	72,814	73,152	78,294	79,275
1966	79,715	77,525	81,250	89,580	120,385	119,025	76,382	35,630	29,748	31,916	38,763	65,311
1967	80,698	86,916	90,874	88,329	119,324	150,817	116,125	74,166	67,569	84,560	80,090	107,759
1968	118,796	147,348	149,612	150,114	157,770	151,034	105,957	67,153	72,933	80,256	80,510	80,156
1969	92,997	91,396	93,658	111,523	154,168	153,414	106,440	67,990	66,863	69,680	70,225	68,456
1970	73,189	75,635	80,448	76,273	107,032	125,437	78,909	38,995	36,221	36,282	46,556	46,830
1971	67,336	80,276	80,418	85,343	127,387	157,770	156,132	121,054	94,870	80,475	80,193	87,317
1972	101,942	117,522	113,997	93,004	114,343	157,770	147,431	113,336	95,076	78,991	80,373	104,819
1973	116,668	116,252	118,762	124,057	126,005	107,235	58,647	18,713	15,085	15,508	19,072	28,050
1974	63,389	68,629	76,404	80,567	105,392	158,077	156,537	126,946	101,265	78,816	80,015	92,347
1975	115,174	119,422	113,239	105,385	129,573	157,770	135,294	101,636	79,284	81,372	90,110	118,796
1976	118,796	126,287	117,025	114,103	145,159	157,770	137,754	105,279	79,885	77,649	80,104	80,702
1977	91,827	99,512	100,108	104,706	67,933	53,243	12,406	7,468	9,744	12,461	52,055	83,970
1978	79,893	80,104	85,226	80,894	84,812	83,730	49,071	12,349	14,884	12,013	16,812	23,405
1979	21,126	25,506	41,971	57,854	79,910	65,388	32,900	11,123	9,281	9,477	8,856	45,951
1980	47,902	51,398	59,605	84,359	87,390	74,520	37,081	11,681	12,345	9,774	33,534	81,282
1981	79,984	98,037	104,405	116,426	115,792	112,838	69,751	28,391	22,077	27,915	31,373	37,288
1982	52,851	86,035	99,452	106,831	140,215	157,770	129,731	93,734	80,054	80,421	80,001	80,011
1983	103,812	111,570	124,773	124,542	141,589	134,161	96,504	57,985	57,930	54,933	78,232	79,832
1984	112,271	117,574	126,986	125,248	153,456	157,770	128,597	90,321	78,786	80,041	79,989	79,977
1985	76,602	74,442	78,032	104,957	147,694	152,469	106,181	65,976	63,763	81,091	79,994	76,521
1986	78,263	93,678	118,844	131,448	151,140	137,995	89,721	49,146	45,687	44,464	74,844	76,323
1987	74,032	74,492	81,385	113,342	141,287	118,148	67,864	29,408	23,975	19,415	13,465	18,075
1988	15,483	23,960	38,683	72,395	90,867	78,268	36,581	11,202	8,865	20,151	38,676	53,797
1989	69,598	72,203	76,181	99,778	122,896	117,945	71,538	34,353	30,197	26,359	55,587	75,800
1990	83,494	97,451	108,598	140,286	157,376	157,487	116,454	76,396	71,814	82,698	129,508	118,796
1991	118,796	145,179	133,317	143,657	157,547	157,323	118,190	79,260	74,263	69,465	81,703	80,004
1992	95,191	106,870	124,021	139,498	142,818	108,203	60,384	20,383	22,607	19,526	30,665	33,893
1993	41,133	41,643	56,594	78,919	82,966	72,077	36,467	10,850	7,475	6,470	8,104	11,879
1994	23,161	23,512	38,249	69,779	56,063	43,500	15,033	11,648	9,630	17,194	29,902	47,628
1995	53,383	81,292	80,377	80,549	80,457	61,532	22,443	10,852	8,191	27,858	104,124	98,123
1996	102,619	135,170	128,726	144,069	157,475	147,468	101,803	62,237	60,414	71,570	82,495	80,617
1997	92,595	107,527	89,457	94,171	135,400	157,770	138,545	102,817	80,063	87,516	84,530	89,527
1998	96,668	101,027	113,531	128,926	157,101	149,283	100,665	62,559	57,266	54,334	76,513	93,464
1999	101,188	105,420	106,360	103,458	119,413	157,770	147,738	119,280	91,963	80,150	93,742	118,796
2000	118,493	117,728	120,883	134,494	157,275	157,510	118,009	83,012	80,482	80,014	77,693	72,433
2001	70,303	67,430	75,031	83,231	82,222	74,830	36,217	10,705	7,679	18,324	40,667	49,276
2002	66,069	71,853	78,275	86,857	104,919	136,643	99,774	62,777	57,895	52,597	51,241	48,954
2003	68,042	80,132	84,529	88,943	103,736	92,570	51,263	12,108	8,584	21,725	44,827	48,822
2004	55,315	58,515	73,233	96,219	112,144	100,848	53,063	20,064	26,755	31,519	47,586	67,757
2005	82,253	84,143	87,123	94,888	77,313	56,166	14,067	10,688	9,061	12,587	23,808	31,494
2006	48,496	52,820	52,997	69,513	94,025	77,561	39,433	11,226	8,899	7,484	53,541	56,671
2007	67,646	77,312	98,535	99,631	123,075	120,712	74,353	35,822	30,705	36,812	42,561	53,123
2008	51,824	53,413	56,801	55,419	115,790	147,078	121,625	87,122	77,795	75,365	88,057	80,218
2009	112,106	111,426	112,650	123,427	155,975	152,919	105,977	67,422	62,626	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	94,655	98,997	138,841
1926	160,804	175,284	197,548	221,185	199,566	144,527	63,952	-4,723	-51,127	-47,664	-36,402	-18,387
1927	-10,702	-3,754	2,343	23,495	68,189	135,947	136,849	106,355	44,419	41,981	80,362	112,817
1928	159,506	166,732	187,427	205,303	238,368	237,126	229,516	180,590	111,831	92,117	96,208	99,217
1929	101,007	102,972	113,951	114,435	145,946	155,421	88,696	12,449	-38,292	-48,416	-55,442	-56,557
1930	-56,261	-37,775	-19,614	13,443	15,608	-4,215	-40,575	-97,297	-146,640	-160,845	-156,199	-158,288
1931	-155,343	-143,723	-122,876	-100,619	-64,974	-74,369	-103,824	-133,390	-181,761	-194,727	-183,523	-177,300
1932	-166,440	-141,890	-108,864	-56,267	11,151	68,045	72,392	49,859	-11,367	-31,659	15,587	53,667
1933	95,802	103,967	111,391	135,322	184,042	235,953	238,237	202,847	164,821	201,197	203,025	203,025
1934	203,025	220,437	217,330	238,033	237,823	226,867	201,764	154,599	87,143	98,682	126,487	148,875
1935	191,585	204,678	210,606	208,320	237,044	238,980	233,764	189,819	120,316	92,103	93,590	97,074
1936	105,904	111,879	126,768	174,488	236,591	238,179	218,260	176,192	108,052	103,294	101,885	114,226
1937	117,872	124,024	134,384	151,862	195,106	234,188	227,479	185,033	117,488	88,873	118,809	161,232
1938	178,250	183,269	192,660	207,269	237,556	238,117	222,568	178,144	109,452	82,297	92,311	113,967
1939	156,644	167,314	181,412	208,351	232,542	230,004	204,717	158,458	92,766	93,616	100,864	121,097
1940	125,890	137,126	159,291	193,157	209,928	168,792	90,358	15,109	-30,411	-34,512	-32,579	-20,615
1941	-15,817	-12,641	3,584	23,483	15,398	-21,666	-76,825	-135,332	-178,100	-176,731	-162,212	-144,453
1942	-139,708	-134,792	-126,407	-101,134	-84,767	-85,341	-114,611	-149,300	-197,642	-198,518	-183,731	-166,604
1943	-154,713	-147,472	-134,806	-89,629	-37,795	23,867	36,182	15,170	-42,388	-66,170	-62,460	-46,049
1944	-42,573	-35,810	-25,559	-7,607	4,120	-13,210	-66,409	-125,740	-170,410	-183,853	-180,864	-170,937
1945	-144,469	-128,680	-119,219	-105,334	-51,050	-42,985	-75,137	-106,946	-152,486	-160,948	-145,895	-133,595
1946	-120,174	-114,514	-104,023	-73,701	17,339	80,457	88,070	66,349	3,608	-12,422	-3,915	41,201
1947	70,860	104,389	142,607	186,542	208,864	210,544	201,958	168,250	102,352	97,134	124,454	139,814
1948	152,000	163,247	173,153	186,080	207,090	238,980	232,514	192,074	136,341	121,983	139,528	161,811
1949	169,048	179,605	188,344	191,528	232,565	238,931	234,424	196,507	150,119	147,149	192,908	203,025
1950	203,025	208,267	184,104	180,343	198,325	238,980	238,249	205,029	160,629	177,015	203,025	203,025
1951	203,025	216,491	197,882	201,601	235,729	238,847	226,229	185,014	120,838	110,128	132,861	144,262
1952	148,590	156,276	164,442	193,814	228,402	235,075	233,733	189,367	122,032	96,087	94,456	94,684
1953	128,850	169,981	180,582	198,147	227,620	238,512	231,739	191,708	128,749	106,722	123,716	180,202
1954	197,178	207,367	194,197	190,710	213,665	238,980	238,399	207,054	163,949	163,451	191,046	203,025
1955	203,025	216,138	206,073	195,840	213,023	238,980	238,866	201,121	158,183	180,723	203,025	203,025
1956	203,025	197,459	163,019	170,761	207,600	238,980	235,794	195,152	152,159	150,398	174,492	203,025
1957	203,025	209,319	209,985	211,216	238,395	233,901	209,524	167,610	100,999	76,990	81,319	96,486
1958	106,624	123,071	139,050	174,128	217,558	217,376	198,411	153,723	89,945	81,069	121,805	178,585
1959	203,025	212,474	206,482	207,910	233,131	238,980	233,930	190,604	162,659	196,163	202,884	203,025
1960	203,025	212,844	212,442	218,258	238,735	238,379	224,098	182,561	116,959	97,465	134,705	143,051
1961	174,912	203,170	201,096	200,739	232,311	238,524	230,885	185,936	119,463	102,592	115,150	142,225
1962	179,860	195,796	203,126	229,224	238,183	238,376	228,536	189,027	124,905	107,147	143,298	188,663
1963	202,600	226,323	234,759	235,508	238,980	232,240	213,808	172,365	105,438	80,232	91,583	99,269
1964	114,597	121,092	131,806	149,090	191,295	238,980	236,526	203,111	163,998	169,862	184,824	203,025
1965	203,025	222,154	207,828	211,651	238,095	237,921	229,305	190,266	123,741	98,630	106,273	113,449
1966	122,800	126,132	135,853	177,455	208,837	217,803	216,124	177,302	112,773	91,290	99,376	126,536
1967	156,954	181,859	192,273	190,788	220,115	238,948	237,860	196,649	129,589	150,308	185,975	203,025
1968	203,025	229,321	233,656	232,383	238,980	237,326	229,188	189,390	128,238	117,461	156,807	184,891
1969	201,420	205,432	200,738	200,588	235,676	236,944	222,053	180,858	117,341	94,691	98,486	102,337
1970	110,968	118,205	135,142	162,199	199,485	226,658	219,400	176,754	109,181	85,612	96,574	102,474
1971	127,359	160,825	173,122	185,915	211,177	238,980	238,516	207,053	167,181	166,523	198,002	203,025
1972	203,025	197,253	170,868	167,275	198,915	238,980	238,388	209,262	179,663	182,934	194,623	203,025
1973	203,025	207,411	214,914	220,864	217,966	213,008	191,885	152,025	92,021	91,413	99,055	112,311
1974	147,766	160,898	169,875	168,248	190,653	238,980	238,853	213,341	169,730	166,703	173,634	203,025
1975	203,025	212,901	197,896	191,130	213,298	238,980	232,336	197,055	151,439	141,097	193,616	203,025
1976	203,025	216,911	201,391	198,693	229,461	238,980	237,257	210,866	164,110	144,145	151,076	168,477
1977	185,617	196,614	202,624	201,988	162,252	111,980	34,828	-21,918	-64,521	-61,820	-27,310	47,868
1978	61,935	71,095	102,405	141,498	175,534	189,361	176,519	145,833	83,604	55,186	60,599	69,009
1979	72,793	81,390	100,978	121,816	162,436	167,323	151,245	111,001	47,902	35,032	32,194	67,097
1980	74,237	81,725	95,986	133,805	174,071	178,037	160,282	120,606	56,617	54,861	74,739	126,684
1981	147,924	178,234	190,916	211,644	216,486	221,194	213,651	169,979	103,869	110,735	117,452	127,569
1982	145,087	179,345	199,297	198,268	223,620	238,980	232,625	190,969	138,696	124,254	137,912	169,624
1983	197,874	210,948	208,543	208,329	229,414	232,039	237,592	201,093	137,028	112,692	134,524	143,232
1984	192,387	204,628	210,585	208,980	235,762	238,980	234,459	192,892	135,774	114,469	133,982	144,019
1985	146,712	149,206	158,428	197,164	236,535	236,239	210,443	168,749	102,599	92,979	140,836	144,606
1986	151,354	174,299	204,169	224,362	238,967	230,346	206,079	162,917	98,697	99,161	125,223	132,558
1987	137,552	143,571	174,854	209,352	233,028	221,198	185,911	143,274	78,496	46,869	46,769	53,293
1988	56,306	68,471	89,433	128,619	173,474	179,420	153,572	108,100	44,985	49,331	71,562	89,595
1989	109,325	118,191	127,881	180,823	205,639	215,959	202,239	161,714	94,016	94,142	116,466	139,185
1990	176,485	195,172	209,326	224,813	238,638	238,781	228,494	186,646	120,622	125,200	202,969	203,025
1991	203,025	227,068	216,429	227,447	238,795	238,700	234,889	193,643	126,217	97,900	117,232	164,902
1992	184,091	200,305	221,327	238,980	230,901	213,443	145,062	65,662	7,980	-1,420	10,633	18,712
1993	28,608	34,088	51,315	76,716	138,077	106,272	39,441	-19,556	-65,605	-72,903	-77,074	-73,147
1994	-59,180	-52,354	-33,471	-817	9,606	-12,189	-51,582	-109,493	-159,232	-168,293	-155,347	-134,615
1995	-122,947	-82,539	-47,748	-14,293	46,307	54,818	45,778	-286	-52,775	-33,238	43,294	94,078
1996	150,930	198,362	212,192	228,962	238,729	235,672	235,483	196,590	131,560	114,429	141,109	162,779
1997	186,640	199,872	174,275	180,294	218,656	238,980	235,126	196,210	157,255	177,814	203,025	203,025
1998	203,025	212,410	211,655	212,376	238,384	235,488	225,613	181,004	112,001	86,338	105,674	138,016
1999	181,012	193,478	191,546	188,867	203,594	238,980	238,101	214,668	172,292	165,633	203,025	203,025
2000	203,025	206,756	209,071	218,162	238,545	238,855	222,250	180,077	120,796	106,551	110,449	112,307
2001	115,017	117,032	128,646	143,877	172,246	136,520	55,475	-4,372	-51,346	-54,547	-31,487	-17,495
2002	4,668	15,644	28,792	82,226	152,188	203,968	205,896	159,289	90,340	61,657	64,255	67,136
2003	86,976	105,074	149,930	183,623	198,627	201,075	185,841	147,681	81,020	88,644	113,467	124,545
2004	135,320	144,447	165,371	192,750	210,384	208,653	183,913	144,511	87,752	94,265	111,471	134,410
2005	170,169	180,690	189,396	194,766	173,955	113,457	30,066	-18,604	-66,610	-66,548	-54,133	-42,698
2006	-19,857	-9,771	-3,074	20,743	77,941	121,009	109,707	77,139	14,811	-9,939	35,275	46,193
2007	62,923	77,936	134,900	179,334	205,560	215,457	210,995	172,747	104,939	85,350	93,568	109,633
2008	115,182	122,742	132,282	138,401	201,126	235,647	224,355	183,790	126,088	128,011	173,454	198,045
2009	203,025	207,722	208,913	208,562	237,344	236,725	221,740	182,343	120,575	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	191,660	185,486	224,348
1926	235,598	237,962	275,658	359,245	391,867	311,117	179,704	62,184	42,310	57,778	72,653	100,337
1927	101,460	97,714	95,402	140,673	263,876	444,068	388,953	199,605	187,999	226,667	295,849	325,543
1928	327,436	325,887	351,817	362,011	449,838	449,027	339,230	162,747	137,408	149,558	145,864	137,821
1929	125,660	112,839	116,170	124,703	242,927	310,526	258,390	140,371	115,384	108,236	95,553	86,602
1930	74,962	93,967	121,559	215,542	252,311	267,635	221,327	141,615	120,505	123,320	122,053	112,898
1931	114,703	127,830	152,606	197,365	322,912	331,417	226,004	66,481	42,181	44,754	63,074	59,351
1932	74,147	127,224	203,214	278,021	419,773	451,480	366,229	174,727	151,730	152,326	245,508	289,913
1933	313,013	307,357	302,130	301,381	340,351	451,480	449,359	350,448	300,841	332,588	349,300	398,871
1934	365,746	380,645	390,912	448,120	451,417	413,380	265,940	98,975	77,581	94,093	159,875	178,747
1935	247,128	272,111	283,591	308,367	444,658	451,480	401,805	238,425	219,773	209,921	198,881	187,248
1936	181,937	171,773	178,394	274,211	443,072	447,830	357,244	185,189	162,135	150,733	136,493	138,128
1937	127,188	118,603	120,114	149,994	284,520	451,480	384,871	222,783	197,012	190,656	228,419	255,049
1938	264,417	258,387	259,869	335,937	446,450	451,480	364,686	188,775	157,868	147,641	149,531	166,972
1939	190,787	189,494	202,697	274,841	402,321	409,329	302,408	128,028	102,917	95,420	103,808	140,034
1940	139,143	145,686	175,576	250,061	362,806	368,635	256,096	127,513	99,178	101,861	100,736	114,323
1941	110,623	105,394	137,576	203,863	234,535	215,759	151,628	65,470	60,821	85,314	112,200	146,149
1942	142,385	137,890	140,018	204,133	272,385	320,146	228,606	68,326	44,027	28,700	46,532	71,683
1943	91,229	99,431	119,104	226,699	357,021	451,480	413,757	238,123	212,063	202,282	195,408	214,526
1944	205,010	200,416	206,498	247,723	317,074	350,788	266,695	147,381	120,116	118,732	119,682	131,291
1945	174,992	198,628	202,648	220,442	365,795	441,253	323,780	132,913	115,914	124,144	139,203	144,707
1946	153,147	149,046	151,868	215,548	427,864	451,480	403,198	220,506	197,300	204,307	206,204	255,979
1947	274,628	296,702	331,668	404,568	450,703	449,801	334,303	155,138	136,742	184,703	232,891	248,940
1948	249,757	248,479	246,606	271,545	360,791	451,480	411,149	269,892	247,444	253,341	259,426	266,501
1949	257,985	257,429	264,306	285,353	424,540	451,031	417,319	281,352	263,108	272,879	326,543	325,524
1950	325,497	324,535	313,066	299,018	309,141	451,480	446,761	360,312	311,930	322,435	325,551	325,524
1951	325,497	382,459	346,456	342,694	441,614	451,480	391,180	226,273	203,595	225,327	242,882	246,986
1952	239,332	236,279	232,282	295,384	428,723	445,173	352,212	188,036	162,774	147,451	134,083	122,262
1953	164,894	210,108	215,972	252,703	383,269	451,480	416,421	284,630	263,175	258,786	270,390	311,975
1954	324,172	326,275	323,717	318,320	364,184	451,480	448,205	371,681	316,908	291,324	325,237	325,524
1955	321,095	328,879	323,512	309,456	391,755	434,393	419,237	316,793	299,956	323,180	331,616	331,447
1956	330,399	325,609	275,382	270,294	347,340	451,480	438,827	324,062	296,739	303,566	320,610	331,283
1957	326,992	322,563	326,227	354,260	449,387	439,905	302,329	140,404	115,924	107,069	102,873	109,793
1958	109,942	120,567	135,339	176,155	372,945	426,860	306,360	122,540	104,063	119,901	189,038	259,454
1959	301,695	310,568	324,161	342,691	444,321	451,480	412,949	254,751	271,358	332,463	378,605	361,719
1960	340,279	339,681	353,772	377,831	450,576	450,736	368,992	206,373	184,199	183,810	205,715	203,762
1961	227,033	268,716	296,946	317,589	428,323	450,451	388,120	222,511	205,745	212,445	215,488	225,991
1962	276,002	296,641	294,577	375,577	450,591	451,480	391,798	238,782	215,196	222,236	281,084	310,966
1963	323,900	366,402	381,470	400,129	451,480	436,318	309,394	145,757	121,045	114,101	122,655	124,890
1964	137,121	133,127	130,911	157,583	264,408	451,480	434,018	338,622	317,833	312,791	315,100	325,524
1965	332,163	356,044	361,113	357,378	448,336	448,262	377,860	228,231	207,021	202,789	214,014	214,108
1966	210,278	201,323	202,170	265,961	396,348	433,940	343,266	164,757	138,488	139,381	143,329	190,396
1967	216,791	237,142	241,117	242,825	358,552	408,203	347,175	193,346	172,962	213,142	253,820	314,187
1968	327,837	383,412	421,036	428,515	451,480	443,713	340,167	200,177	194,392	209,206	245,613	261,590
1969	285,234	279,583	279,909	317,064	439,872	444,052	346,838	177,978	156,947	162,134	164,628	159,546
1970	156,942	153,464	159,124	180,868	301,235	437,016	356,968	183,579	163,440	157,159	163,441	163,697
1971	192,168	237,829	243,649	265,708	357,177	451,480	450,442	363,620	343,799	333,637	334,208	332,275
1972	329,755	362,513	324,362	287,918	326,528	451,480	451,480	375,257	337,432	301,882	304,447	325,524
1973	325,497	321,927	319,413	336,473	389,419	393,839	247,597	92,690	76,081	76,189	84,568	97,312
1974	159,515	170,550	184,120	202,941	282,288	451,480	451,480	393,700	333,739	293,735	292,762	317,857
1975	325,497	327,839	325,626	318,197	360,491	451,480	424,288	318,897	283,859	271,502	322,391	362,681
1976	355,025	366,808	350,766	343,763	420,924	451,480	446,674	389,094	327,241	291,252	293,823	296,651
1977	315,426	323,201	320,133	350,191	341,583	294,481	172,002	90,898	95,837	97,276	151,409	262,694
1978	265,352	266,417	305,080	352,393	447,862	451,480	388,119	224,697	219,804	213,059	222,577	220,603
1979	210,455	205,247	231,486	266,340	398,779	394,834	265,037	96,842	78,300	70,167	63,938	135,341
1980	135,635	136,790	154,074	234,279	351,329	387,705	283,071	110,217	92,372	84,768	118,092	236,342
1981	262,717	301,934	319,926	356,673	432,366	398,469	272,113	115,149	100,381	106,563	114,228	116,555
1982	129,251	188,800	217,249	245,762	375,938	451,480	418,504	274,643	259,468	265,575	267,009	289,798
1983	325,497	337,571	359,236	356,523	445,595	451,480	408,088	252,523	241,607	232,132	267,479	267,322
1984	325,497	336,390	354,662	352,366	423,280	451,480	421,017	277,515	262,376	262,667	270,129	268,466
1985	257,527	248,082	245,871	314,342	444,178	442,254	322,992	156,355	136,937	156,932	194,280	184,173
1986	183,935	216,395	272,880	311,811	401,310	428,168	294,017	129,044	109,275	102,830	142,314	145,492
1987	139,201	134,642	169,318	245,980	371,803	362,590	217,057	63,995	40,888	31,805	25,512	30,277
1988	26,554	35,737	66,538	168,763	289,534	315,821	227,605	75,351	55,993	75,732	113,931	139,625
1989	161,408	166,465	171,205	260,344	365,083	424,825	305,407	136,883	111,709	102,033	144,431	190,528
1990	213,635	230,139	251,346	366,412	450,236	451,480	389,707	237,450	216,684	251,227	384,765	352,913
1991	345,204	401,048	388,957	417,611	450,786	451,480	412,818	262,719	241,054	228,788	243,882	272,141
1992	289,619	311,931	358,621	418,216	445,959	371,531	249,932	131,607	111,723	109,308	116,932	115,045
1993	116,980	114,861	131,773	176,864	326,718	328,584	241,505	157,642	148,945	141,385	132,088	126,606
1994	131,203	129,289	159,273	245,662	323,873	338,025	279,501	168,720	129,444	125,020	134,988	160,158
1995	167,253	249,721	285,562	324,161	449,033	451,480	371,024	187,228	166,008	199,460	380,820	356,721
1996	351,772	412,103	383,200	406,474	450,555	449,536	382,219	227,492	208,519	210,751	238,763	250,019
1997	271,249	297,944	302,077	289,274	378,429	451,480	435,147	319,716	313,903	362,351	352,860	340,337
1998	336,446	337,956	356,502	358,321	449,348	450,116	343,695	177,898	149,248	139,358	160,073	190,980
1999	237,406	242,617	245,657	276,039	327,584	451,480	451,480	405,050	350,236	329,083	334,290	332,601
2000	327,571	320,986	319,243	374,792	449,910	451,480	380,544	216,094	199,429	204,552	197,280	185,015
2001	174,186	161,926	167,037	191,249	273,625	266,949	172,533	67,224	43,310	32,462	82,421	96,308
2002	132,786	142,992	155,236	224,928	350,709	451,480	394,711	232,228	208,485	194,864	190,508	184,549
2003	207,054	234,376	273,328	316,123	405,955	445,862	305,843	126,616	106,234	132,926	179,153	191,656
2004	194,323	198,697	231,197	300,135	397,920	403,717	259,509	105,014	110,478	116,028	149,497	195,904
2005	263,826	275,832	286,826	320,610	351,648	290,563	172,609	90,001	83,001	83,426	93,494	108,579
2006	141,637	147,642	146,974	197,381	362,214	451,480	372,586	182,994	155,157	143,350	249,585	255,796
2007	273,686	290,189	366,357	396,969	450,967	445,735	329,982	154,525	126,667	131,395	137,617	167,799
2008	162,779	158,533	159,794	168,684	351,887	451,480	391,421	244,758	220,846	216,324	283,203	291,965
2009	325,497	321,289	317,097	344,971	445,707	445,987	347,366	182,974	159,615	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	159,367	154,078	159,500
1926	162,892	163,292	167,223	180,300	180,300	178,723	161,716	142,276	136,700	139,382	142,527	151,693
1927	158,471	159,577	158,677	156,513	166,692	180,300	189,672	179,751	176,517	171,254	170,273	169,999
1928	169,999	169,445	169,999	156,700	179,790	180,300	176,637	168,755	165,712	162,434	160,934	157,626
1929	152,875	148,210	144,144	143,364	172,536	180,300	171,566	159,703	154,061	148,056	141,745	137,721
1930	132,705	138,658	138,934	159,900	180,300	164,522	81,630	25,646	19,097	12,062	7,926	2,668
1931	5,291	7,524	9,856	20,328	35,543	30,815	20,809	10,515	4,226	2,170	2,979	2,437
1932	3,068	9,825	22,457	27,093	45,333	84,921	92,336	88,914	86,428	81,967	101,641	111,412
1933	114,979	113,398	111,325	106,619	107,129	167,215	189,966	188,836	185,802	173,812	170,061	175,506
1934	171,263	174,840	171,605	179,240	180,279	177,925	170,214	162,091	157,484	164,134	170,775	169,999
1935	169,999	174,526	170,061	155,229	169,490	180,300	184,269	176,097	174,858	170,307	165,507	160,947
1936	157,698	153,256	150,361	158,668	177,696	180,300	176,265	168,303	165,358	160,197	154,293	151,989
1937	146,815	142,195	137,721	132,252	141,306	180,300	187,579	176,502	171,924	167,803	169,999	169,999
1938	169,999	169,314	167,439	160,085	178,742	180,300	178,922	170,689	165,462	161,203	158,207	158,874
1939	159,103	156,505	155,890	163,688	180,242	180,300	174,775	167,118	162,995	157,487	153,246	162,315
1940	165,061	167,822	175,885	179,841	180,300	180,300	169,927	157,799	151,688	146,755	144,905	147,867
1941	146,545	144,572	146,594	159,958	176,872	128,907	47,933	21,720	14,771	9,685	13,243	27,140
1942	26,969	23,942	20,688	33,584	46,522	31,600	27,624	16,889	12,562	6,392	13,791	19,863
1943	21,117	20,033	20,616	36,707	45,308	84,659	106,673	104,845	102,188	97,679	95,319	99,018
1944	95,492	93,486	93,764	77,673	85,067	43,170	21,358	11,265	5,641	1,665	2,052	2,116
1945	11,398	17,875	16,345	16,878	55,498	36,054	28,946	20,822	17,071	11,347	10,763	11,269
1946	15,380	12,554	10,226	20,990	59,141	100,742	117,834	114,361	110,561	109,690	114,719	134,875
1947	136,841	142,840	147,824	157,346	178,192	180,300	178,368	173,498	170,911	172,324	170,184	169,999
1948	168,613	169,040	169,790	152,363	161,992	180,300	184,191	174,245	171,183	169,484	169,368	168,140
1949	164,773	162,219	165,966	160,333	173,334	180,300	189,966	184,920	180,846	171,865	171,901	169,999
1950	169,999	170,106	169,999	157,719	160,333	180,883	189,966	188,529	183,453	172,154	170,514	171,205
1951	170,380	171,500	169,585	159,846	177,245	180,300	184,260	174,824	170,767	171,511	169,999	169,440
1952	166,969	166,973	164,152	160,578	179,807	180,300	179,633	171,938	166,954	160,710	154,849	149,575
1953	169,999	174,440	168,724	156,399	166,360	180,300	189,966	180,690	176,458	170,633	169,999	169,999
1954	169,999	169,311	169,953	158,839	161,305	180,300	189,966	189,966	184,623	171,477	169,999	169,934
1955	168,677	167,063	164,290	149,196	141,752	180,300	189,966	181,195	178,724	173,453	170,638	170,059
1956	169,999	168,493	166,335	160,244	167,236	180,300	189,966	186,541	182,214	171,425	169,964	169,999
1957	168,510	168,189	169,897	157,961	179,650	180,300	173,278	164,491	159,518	155,779	153,340	152,941
1958	154,752	157,469	158,562	157,946	180,289	180,257	174,132	167,015	162,475	160,114	169,999	169,999
1959	169,999	170,280	169,307	160,333	164,738	180,300	185,612	177,410	178,680	172,223	170,160	170,119
1960	169,999	171,777	169,999	156,595	162,411	180,300	179,365	168,961	164,353	160,559	169,206	169,407
1961	169,999	171,657	170,071	157,822	173,131	180,300	185,238	175,879	172,447	170,340	168,987	169,999
1962	169,976	170,339	168,072	162,771	160,251	180,300	184,102	176,987	173,156	170,801	171,272	170,210
1963	169,395	177,924	179,291	171,438	171,114	177,928	170,843	163,276	158,312	153,676	154,227	155,665
1964	159,680	157,923	154,512	145,680	142,715	180,300	189,966	186,804	181,872	170,883	169,999	169,999
1965	169,999	172,215	169,922	160,333	170,881	180,300	179,877	171,383	167,249	163,023	161,571	160,403
1966	157,983	154,060	151,361	155,311	172,010	180,300	179,075	172,667	168,356	163,925	163,876	169,999
1967	169,999	171,000	169,313	150,222	157,528	180,300	186,779	178,431	174,151	172,944	169,999	169,999
1968	169,999	180,463	180,052	169,499	173,368	180,222	174,782	167,794	165,818	166,658	169,999	169,691
1969	169,564	166,846	164,501	158,922	176,705	180,300	173,798	165,336	162,036	159,861	159,301	156,661
1970	160,637	160,594	161,954	151,997	161,045	180,300	179,930	172,808	168,228	163,980	165,375	168,983
1971	169,999	170,882	169,670	153,391	160,333	180,300	189,966	184,905	181,917	171,226	169,596	167,991
1972	168,050	169,999	169,999	154,902	163,594	180,300	189,966	188,536	186,272	171,033	169,482	170,137
1973	169,999	168,725	166,313	160,062	159,143	159,753	150,997	143,228	138,234	134,633	140,728	148,890
1974	169,999	169,834	169,999	157,882	160,333	180,300	189,966	189,768	185,047	170,798	169,636	169,999
1975	169,999	170,079	169,585	151,300	160,044	180,300	189,966	187,040	182,894	171,579	170,335	170,741
1976	170,528	170,962	168,391	154,288	169,824	180,300	189,966	189,946	185,726	170,939	167,360	163,624
1977	161,679	159,154	155,576	161,728	171,690	178,463	166,330	127,309	124,187	119,535	133,761	169,999
1978	169,106	167,626	169,999	157,248	159,757	180,198	179,367	168,126	166,141	162,365	160,564	157,344
1979	152,691	150,401	154,839	148,174	162,737	170,004	165,033	160,060	155,798	151,984	148,668	168,416
1980	169,999	173,450	169,715	166,674	180,030	180,300	174,498	168,328	165,103	160,187	169,999	179,772
1981	170,283	182,666	183,920	175,307	171,469	173,087	165,106	158,188	154,686	153,056	153,616	157,554
1982	157,573	172,711	170,123	154,858	166,522	180,300	187,441	178,420	176,580	171,511	169,999	169,999
1983	169,999	171,727	170,253	157,721	177,700	180,300	186,015	175,079	172,653	168,787	169,950	169,632
1984	169,999	172,629	170,166	154,922	158,634	180,300	188,394	177,445	173,387	170,635	169,607	166,455
1985	161,649	157,297	153,244	156,140	170,603	180,300	172,259	164,239	160,802	162,113	167,821	164,105
1986	166,616	175,939	174,436	173,128	178,385	178,397	168,604	158,899	155,282	151,205	162,924	164,222
1987	162,850	163,455	170,561	175,885	180,295	177,146	165,942	157,152	151,716	145,512	139,036	138,922
1988	136,852	135,436	138,819	150,545	158,810	168,161	161,932	153,834	149,097	145,558	152,564	155,743
1989	156,739	155,192	156,094	162,996	171,862	180,300	175,133	166,990	162,809	157,909	159,860	169,537
1990	170,126	171,447	169,999	162,623	164,143	180,300	180,368	170,533	167,523	170,322	174,836	169,999
1991	169,999	178,698	169,937	157,838	158,525	173,484	179,117	168,654	164,435	158,685	160,839	163,078
1992	165,973	171,366	181,284	180,300	179,590	169,874	157,177	142,077	136,175	129,334	126,269	121,417
1993	117,895	114,579	118,151	117,375	159,430	172,124	169,932	137,923	132,525	126,355	120,012	115,637
1994	114,235	110,936	114,888	130,516	155,560	114,076	36,089	17,702	12,275	9,048	8,460	18,691
1995	22,568	53,799	65,001	62,560	78,077	92,557	89,045	82,921	79,040	80,995	131,748	156,410
1996	169,999	175,234	170,359	164,033	162,954	174,591	171,438	163,062	160,153	157,543	161,208	164,525
1997	169,999	170,323	169,999	160,333	164,787	180,300	189,966	181,064	182,120	173,752	170,424	170,040
1998	169,999	169,812	169,999	159,482	178,161	180,300	175,282	165,052	160,501	155,944	161,515	169,999
1999	169,999	169,646	169,548	155,980	160,333	180,300	189,966	189,899	183,702	171,143	171,210	170,232
2000	169,456	169,293	168,298	159,797	168,638	180,300	178,855	169,044	166,156	163,696	160,444	155,850
2001	151,450	147,095	145,618	150,021	177,070	180,300	169,538	160,422	154,677	148,142	155,445	157,619
2002	169,995	171,504	169,933	158,740	167,628	180,300	186,102	178,951	174,656	169,525	165,764	162,746
2003	174,046	174,529	170,687	165,149	167,083	178,972	170,875	163,875	159,011	158,077	162,164	163,611
2004	164,332	165,228	169,154	176,923	180,300	179,858	172,291	163,809	162,223	159,929	161,565	169,999
2005	171,119	170,217	169,868	179,205	180,300	179,079	167,312	123,073	118,165	113,160	112,608	119,296
2006	136,709	140,137	138,894	137,220	167,893	180,300	177,445	171,349	167,658	163,182	170,739	169,999
2007	169,836	172,490	170,873	158,357	169,943	180,240	174,649	168,288	163,623	162,228	165,211	169,999
2008	168,805	166,378	164,082	151,422	173,962	180,300	189,293	178,548	175,300	170,820	170,030	169,316
2009	169,999	168,563	166,651	157,555	174,537	180,300	176,735	169,122	165,381	NA	NA	NA

IP6 Full Integrated Plan (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,362	5,730	21,114
1926	27,196	35,432	50,408	82,929	106,290	112,339	110,181	74,122	43	12,162	21,022	38,692
1927	46,201	55,233	64,459	86,864	135,286	198,000	196,509	180,923	81,945	92,714	119,818	129,025
1928	129,025	136,384	151,026	149,570	197,064	197,984	187,532	153,561	42,637	24,251	27,937	30,108
1929	30,407	30,048	33,260	40,831	81,421	121,750	135,556	126,109	43,912	23,071	14,915	14,930
1930	14,405	28,895	42,775	79,532	106,459	123,119	98,961	63,924	21,594	17,754	16,506	10,827
1931	12,533	17,313	25,140	50,638	101,418	115,956	112,458	100,217	35,621	30,548	32,313	34,281
1932	39,512	50,669	79,344	107,490	158,159	198,000	191,025	168,276	50,210	12,990	48,394	65,843
1933	77,257	81,309	87,044	111,545	136,509	198,000	198,000	180,093	118,129	136,240	130,229	171,105
1934	137,324	158,796	157,041	196,124	197,929	198,000	187,272	157,370	80,301	70,336	109,271	127,009
1935	129,025	146,172	145,951	139,174	182,853	198,000	193,000	166,877	60,044	20,439	16,280	16,595
1936	19,847	20,112	25,963	61,772	135,288	190,127	187,950	156,405	64,677	45,318	43,768	41,461
1937	41,151	41,342	44,379	62,971	108,268	178,960	193,527	175,466	69,460	25,481	43,221	64,772
1938	86,056	93,264	102,814	137,160	195,209	198,000	187,669	155,106	46,399	16,278	19,978	29,832
1939	36,269	40,376	51,282	80,952	124,113	144,796	148,026	118,340	30,004	10,466	12,331	26,063
1940	32,681	43,532	62,814	91,074	134,385	149,225	146,695	128,339	61,731	43,941	44,489	54,799
1941	58,740	61,374	71,233	94,725	114,391	109,019	65,281	30,094	44	8,996	18,509	43,497
1942	48,960	51,734	56,156	80,667	110,423	133,908	141,902	123,436	51,393	39,429	53,956	71,783
1943	83,464	91,656	102,924	127,977	165,719	198,000	194,171	168,973	51,990	16,514	21,589	30,024
1944	32,041	35,506	42,968	55,109	77,288	88,492	79,712	46,291	74	2,715	2,533	6,245
1945	21,652	36,824	41,648	52,457	99,065	124,283	124,111	116,801	45,155	38,538	44,689	51,277
1946	61,715	65,740	75,587	102,556	174,964	198,000	194,654	170,973	73,357	32,498	49,699	94,719
1947	107,777	125,986	146,380	166,563	197,538	197,984	187,532	165,693	69,207	71,175	93,819	107,187
1948	118,307	129,808	115,767	101,774	140,596	198,000	198,000	178,642	77,650	60,542	68,760	75,529
1949	78,658	84,284	94,813	106,989	176,676	198,000	197,801	170,543	70,509	52,170	78,579	95,225
1950	106,258	119,783	102,790	91,355	120,016	198,000	198,000	189,397	123,242	134,810	130,849	130,849
1951	130,714	159,270	124,515	126,295	191,539	198,000	192,668	170,846	73,216	65,074	75,919	88,080
1952	93,164	102,878	110,258	144,676	197,094	198,000	187,532	160,212	46,616	6,563	7,032	8,374
1953	37,574	62,562	71,591	90,422	137,115	182,200	198,000	184,071	73,339	40,939	48,242	71,772
1954	84,786	94,219	108,806	108,140	147,071	198,000	198,000	189,949	145,684	147,632	130,218	129,405
1955	129,271	135,771	137,172	122,736	142,602	198,000	198,000	153,639	50,778	49,992	85,677	123,285
1956	129,025	127,813	68,549	65,327	138,667	198,000	198,000	183,619	96,694	83,319	92,817	121,023
1957	127,494	134,021	144,609	144,724	196,817	198,000	186,632	155,120	54,221	29,817	34,256	42,935
1958	51,902	65,463	78,532	102,942	187,495	198,000	187,440	161,326	72,972	56,137	91,540	129,025
1959	129,025	142,596	138,975	138,389	171,080	198,000	195,883	168,993	92,241	108,060	130,117	130,236
1960	129,516	142,930	148,489	162,499	197,469	198,000	187,865	159,728	60,452	27,602	42,664	49,779
1961	67,644	99,662	120,671	124,643	170,414	198,000	191,133	167,964	67,232	38,371	44,667	56,257
1962	80,077	92,134	98,666	140,332	165,567	198,000	193,069	170,963	74,742	64,493	100,134	129,025
1963	129,025	165,509	181,148	197,667	198,000	197,983	187,290	160,211	61,936	24,270	31,151	39,403
1964	51,408	58,513	64,120	74,313	101,244	171,770	198,000	174,464	83,741	77,940	82,924	110,758
1965	132,842	155,047	141,302	145,558	190,770	198,000	190,910	167,055	75,711	46,368	53,686	58,335
1966	62,380	63,441	67,760	95,679	146,153	176,245	184,200	162,835	71,891	36,530	43,111	63,084
1967	77,322	91,251	99,466	107,262	153,616	198,000	188,414	153,824	68,178	72,565	91,060	110,480
1968	129,025	172,314	182,521	192,313	198,000	198,000	187,367	163,573	86,604	67,859	97,372	109,571
1969	129,025	135,722	129,266	124,513	191,607	198,000	187,220	156,984	71,669	51,782	57,952	62,066
1970	75,954	84,766	98,852	115,515	168,283	198,000	188,738	165,387	71,453	40,657	48,387	58,252
1971	77,234	108,310	112,193	99,428	144,163	198,000	198,000	187,957	96,856	73,886	79,683	85,575
1972	96,402	120,183	88,819	69,494	124,613	198,000	198,000	194,188	146,663	151,256	129,574	129,313
1973	129,313	136,410	143,056	155,958	181,877	198,000	187,532	162,505	99,473	82,144	97,902	115,103
1974	133,784	136,380	81,115	66,346	105,311	198,000	198,000	196,315	161,475	152,865	129,610	129,346
1975	129,346	143,228	124,292	110,135	143,940	198,000	198,000	186,080	107,582	101,390	119,098	132,211
1976	131,950	149,072	130,292	123,811	174,306	198,000	198,000	195,433	163,741	162,502	129,344	129,053
1977	129,025	132,050	134,465	145,967	153,629	167,450	161,681	103,277	34,278	18,654	35,936	129,025
1978	129,025	137,125	146,808	155,932	193,660	198,000	198,000	189,129	123,854	99,312	103,957	108,806
1979	111,048	115,096	127,709	139,889	186,118	198,000	187,532	155,165	77,748	55,210	54,990	74,186
1980	82,421	89,814	107,550	151,307	197,489	198,000	187,475	156,946	86,565	70,808	85,644	129,149
1981	129,149	162,020	180,052	197,876	198,000	198,000	187,532	158,802	81,974	84,244	90,927	104,305
1982	118,348	161,921	134,079	122,664	164,107	198,000	198,000	172,531	89,070	63,236	70,360	87,352
1983	116,447	133,638	143,468	139,191	194,741	198,000	195,306	189,017	108,272	76,709	95,692	102,968
1984	129,025	146,781	146,301	141,216	174,206	198,000	198,000	176,935	98,846	78,451	86,784	92,627
1985	96,006	98,591	103,816	131,923	177,531	198,000	184,911	145,514	62,683	33,854	43,921	46,341
1986	52,805	76,978	118,962	145,511	183,071	198,000	186,218	150,093	80,230	67,708	81,288	86,367
1987	89,985	96,649	121,950	153,938	197,958	198,000	186,890	153,457	61,322	55,219	57,751	67,814
1988	69,369	76,658	90,865	129,310	176,374	198,000	184,733	152,870	74,475	58,666	71,226	81,820
1989	89,504	94,242	105,664	148,455	190,815	198,000	187,385	162,513	76,085	64,499	76,398	96,906
1990	122,464	132,914	143,419	163,461	196,459	198,000	192,478	167,326	63,170	42,914	81,812	98,025
1991	115,368	149,687	156,090	165,144	196,322	198,000	196,229	179,489	76,621	38,863	51,971	64,041
1992	73,928	89,699	110,284	139,306	169,781	176,089	168,144	150,009	88,714	81,961	86,477	88,413
1993	90,359	92,612	104,064	123,923	178,967	197,392	187,532	136,247	40,445	21,554	16,391	15,453
1994	20,156	21,920	33,802	62,362	95,202	100,284	69,228	32,537	83	8,111	17,086	36,794
1995	50,335	104,183	134,393	146,244	196,624	198,000	190,549	167,737	93,033	105,361	152,624	132,057
1996	131,205	169,469	149,028	168,217	197,457	198,000	189,605	170,975	86,240	60,448	70,774	83,031
1997	118,703	131,870	89,337	85,457	152,910	198,000	198,000	182,765	116,288	145,733	130,812	129,592
1998	129,068	138,921	147,435	146,948	196,796	198,000	187,472	158,067	59,871	36,649	47,979	72,105
1999	98,495	108,551	112,824	101,889	130,116	198,000	198,000	196,283	156,045	158,127	131,128	130,696
2000	129,708	139,990	143,195	155,554	197,104	198,000	189,072	155,863	71,501	45,634	46,957	48,519
2001	50,344	51,852	56,461	67,363	97,218	105,913	103,433	71,213	67	4,847	19,888	28,970
2002	54,818	64,826	76,569	114,953	159,293	198,000	197,925	167,705	71,282	34,326	36,912	41,351
2003	64,696	93,293	120,241	148,453	187,982	198,000	187,528	159,930	75,537	66,161	72,987	80,022
2004	86,862	94,295	110,823	141,779	190,224	198,000	187,260	165,757	94,992	87,314	95,231	109,856
2005	129,025	136,766	144,586	161,676	185,595	187,944	181,042	104,091	11,003	3,662	10,127	23,374
2006	52,931	66,963	74,432	99,592	168,629	198,000	190,183	166,817	64,703	22,175	81,785	102,235
2007	122,002	139,037	151,428	167,143	197,683	198,000	187,532	163,196	59,415	28,588	37,592	61,544
2008	67,356	72,615	80,470	92,633	165,806	198,000	195,661	170,190	68,281	49,510	75,305	83,066
2009	114,945	122,731	130,205	139,637	194,802	198,000	187,271	156,500	52,825	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	120,434	138,698	145,554
1926	153,903	161,157	162,500	162,500	124,688	104,544	90,180	79,044	78,374	85,829	102,815	109,834
1927	115,417	120,266	128,959	138,584	146,790	146,790	112,500	112,500	112,500	120,434	144,236	162,500
1928	162,500	162,500	162,500	162,500	162,500	157,478	112,500	112,500	112,500	120,434	138,796	146,670
1929	155,160	162,500	162,500	162,500	162,500	162,222	110,876	99,276	97,533	104,388	121,290	127,499
1930	133,542	138,695	146,150	150,501	150,501	111,787	100,259	74,629	45,082	48,354	65,487	72,055
1931	77,817	83,606	89,153	91,947	94,328	61,543	5,773	211	210	8,116	26,110	32,174
1932	38,284	45,999	70,594	84,513	89,750	89,750	62,199	62,199	62,199	70,133	93,935	105,530
1933	120,020	127,568	137,784	148,602	162,500	162,500	148,519	112,500	112,500	120,434	143,985	162,500
1934	162,500	162,500	162,500	162,500	162,500	128,961	112,500	112,500	112,500	120,434	138,629	149,517
1935	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,729	146,473
1936	154,624	161,738	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,803	146,011
1937	154,621	162,419	162,500	162,500	162,500	162,500	120,847	112,500	112,500	120,434	141,136	154,082
1938	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,699	145,736
1939	156,441	162,500	162,500	162,500	162,500	154,566	112,500	112,500	112,500	120,434	138,122	143,927
1940	150,216	155,162	162,500	162,500	162,500	118,370	101,320	89,865	89,266	97,200	114,906	120,659
1941	126,387	131,216	138,089	142,027	112,500	109,529	100,090	53,855	28,738	34,621	51,582	58,905
1942	64,775	69,775	75,776	77,797	70,981	55,674	2,078	210	210	8,144	24,081	25,800
1943	29,219	30,585	34,428	55,467	57,781	57,781	40,067	40,067	40,067	48,001	66,090	75,341
1944	83,901	92,907	102,756	104,800	104,800	84,307	33,106	256	210	7,292	24,281	30,575
1945	41,160	49,016	55,506	60,536	63,665	43,510	1,190	210	210	8,144	26,027	32,814
1946	42,334	47,898	63,470	75,159	90,701	90,701	62,858	62,858	62,858	70,792	88,631	107,233
1947	118,565	137,774	161,842	162,500	162,500	149,268	112,500	112,500	112,500	120,434	140,087	148,707
1948	156,411	162,500	162,500	162,500	162,500	162,500	116,880	112,500	112,500	120,434	138,700	145,955
1949	153,997	162,500	162,500	162,500	162,500	162,500	123,123	112,500	112,500	120,434	141,312	161,239
1950	162,500	162,500	162,500	162,500	162,500	162,500	152,583	112,500	112,500	120,434	144,112	162,500
1951	162,500	162,500	162,500	162,500	162,500	162,500	112,913	112,500	112,500	120,434	138,462	145,829
1952	154,137	162,500	162,500	162,500	162,500	149,945	112,500	112,500	112,500	120,434	138,794	146,699
1953	162,500	162,500	162,500	162,500	162,500	162,500	134,731	112,500	112,500	120,434	138,052	155,334
1954	162,500	162,500	162,500	162,500	162,500	162,500	148,616	112,500	112,500	120,434	138,742	146,521
1955	154,516	162,500	162,500	162,500	157,226	157,226	139,588	112,500	112,500	120,434	144,103	162,500
1956	162,500	162,500	162,500	162,500	162,500	162,500	146,632	112,500	112,500	120,434	138,744	158,731
1957	162,500	162,500	162,500	162,500	162,500	136,715	112,500	112,500	112,500	120,434	138,639	145,549
1958	153,330	162,500	162,500	162,500	162,500	156,550	112,500	112,500	112,500	120,434	144,236	162,500
1959	162,500	162,500	162,500	162,500	162,500	162,500	116,880	112,500	112,500	120,434	144,236	162,500
1960	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,716	146,419
1961	155,908	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,435	146,377
1962	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	144,236	162,500
1963	162,500	162,500	162,500	162,500	162,500	142,665	112,500	112,500	112,500	120,434	138,376	146,058
1964	154,204	162,105	162,500	162,500	162,500	162,500	142,665	112,500	112,500	120,434	138,544	157,889
1965	162,500	162,500	162,500	162,500	162,500	158,533	112,500	112,500	112,500	120,434	138,766	146,162
1966	154,218	161,862	162,500	162,500	162,500	154,566	112,500	112,500	112,500	120,434	138,048	150,197
1967	162,500	162,500	162,500	162,500	160,176	160,176	113,013	112,500	112,500	120,434	138,396	148,985
1968	162,500	162,500	162,500	162,500	162,500	152,521	112,500	112,500	112,500	120,434	138,896	148,291
1969	160,557	162,500	162,500	162,500	162,500	156,550	112,500	112,500	112,500	120,434	138,714	146,313
1970	154,504	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,442	144,496
1971	158,280	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	120,434	138,383	147,674
1972	162,500	162,500	162,500	162,500	162,500	162,500	149,557	112,500	112,500	120,434	138,360	151,274
1973	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	112,500	120,434	137,998	143,913
1974	160,442	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	120,434	138,412	148,972
1975	162,500	162,500	162,500	162,500	162,500	162,500	134,731	112,500	112,500	120,434	142,103	162,500
1976	162,500	162,500	162,500	162,500	162,500	162,500	146,878	112,500	112,500	120,434	138,705	146,195
1977	154,494	161,932	162,500	162,228	114,686	102,149	89,929	82,038	82,038	89,972	111,491	136,086
1978	154,559	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,268	145,904
1979	154,525	161,731	162,500	162,500	162,500	136,715	112,500	112,500	112,500	120,434	138,389	147,042
1980	153,085	158,899	162,500	162,500	162,500	158,533	112,500	112,500	112,500	120,434	138,178	154,266
1981	162,500	162,500	162,500	162,500	158,489	146,291	112,500	112,500	112,500	120,356	138,083	143,899
1982	155,131	162,500	162,500	162,500	162,500	162,500	119,014	112,500	112,500	120,434	138,649	145,461
1983	162,500	162,500	162,500	162,500	162,500	162,500	116,687	112,500	112,500	120,434	139,463	146,443
1984	162,500	162,500	162,500	162,500	162,500	162,500	122,831	112,500	112,500	120,434	138,769	146,080
1985	154,861	162,500	162,500	162,500	162,500	152,583	112,500	112,500	112,500	120,434	138,810	146,191
1986	153,894	162,500	162,500	162,500	162,500	136,715	112,500	112,500	112,500	120,144	141,015	148,246
1987	155,755	161,096	162,500	162,500	153,352	112,500	112,500	112,500	112,500	117,025	126,652	128,324
1988	129,831	131,297	133,453	139,457	141,123	139,139	112,500	112,500	112,500	120,361	138,107	145,988
1989	153,022	161,227	162,500	162,500	162,500	144,649	112,500	112,500	112,500	120,384	137,541	146,960
1990	157,638	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	144,236	162,500
1991	162,500	162,500	162,500	162,500	162,500	162,500	114,897	112,500	112,500	120,434	137,835	150,863
1992	161,507	162,500	162,500	162,500	148,858	112,500	105,241	97,146	95,568	99,606	116,361	124,056
1993	132,346	141,050	149,921	158,680	162,171	134,223	108,001	103,593	103,325	107,707	119,014	125,104
1994	129,983	135,681	141,167	145,511	145,701	109,562	98,832	43,240	11,559	11,531	29,460	40,527
1995	48,268	70,482	93,077	101,769	109,863	109,863	77,915	77,915	77,915	85,849	109,650	134,245
1996	158,840	162,500	162,500	162,500	162,500	159,211	112,500	112,500	112,500	120,434	138,143	145,863
1997	162,500	162,500	162,500	162,500	162,500	162,500	136,715	112,500	112,500	120,434	143,927	154,811
1998	162,500	162,500	162,500	162,500	162,500	148,488	112,500	112,500	112,500	120,415	137,606	146,543
1999	162,500	162,500	162,500	162,500	162,500	162,500	161,780	112,500	112,500	120,434	142,224	162,500
2000	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,758	146,958
2001	155,851	162,500	162,500	162,500	162,500	112,529	95,383	85,467	82,603	90,147	108,057	114,529
2002	125,534	134,256	142,361	152,008	158,771	158,771	112,500	112,500	112,500	120,434	138,774	145,959
2003	156,242	162,500	162,500	162,500	162,500	149,820	112,500	112,500	112,500	120,434	139,831	148,300
2004	156,489	162,500	162,500	162,500	162,500	134,731	112,500	112,500	112,500	120,434	137,697	144,933
2005	158,647	162,500	162,500	162,500	150,599	109,709	96,129	87,261	87,199	92,004	109,273	115,097
2006	128,987	138,259	144,487	154,142	161,824	161,824	112,500	112,500	112,500	120,434	138,743	145,914
2007	161,743	162,500	162,500	162,500	162,500	142,665	112,500	112,500	112,500	120,434	138,708	146,979
2008	155,372	162,500	162,500	162,500	162,500	162,500	122,831	112,500	112,500	120,434	138,698	146,418
2009	162,500	162,500	162,500	162,500	162,500	152,583	112,500	112,500	112,500	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	641,212	650,568	771,429
1926	820,413	855,268	952,842	1,126,687	1,106,117	922,273	634,067	362,850	216,031	271,166	333,482	424,927
1927	455,161	473,421	494,721	600,468	861,266	1,193,593	1,078,536	794,757	622,566	687,871	886,784	979,905
1928	1,030,600	1,039,957	1,115,335	1,138,798	1,375,285	1,368,877	1,144,332	838,636	624,155	612,120	632,176	630,276
1929	618,353	605,153	622,614	630,644	880,005	1,010,148	820,166	552,012	382,349	342,466	323,218	317,824
1930	308,228	388,809	466,916	685,828	754,370	704,158	475,872	217,665	66,866	51,298	68,056	50,986
1931	72,354	117,176	192,916	316,313	569,089	540,233	311,391	65,239	-81,342	-91,437	-30,664	-21,246
1932	26,909	144,784	344,530	521,845	812,610	976,992	835,559	559,900	351,556	302,808	576,307	706,472
1933	801,152	813,693	829,743	885,728	1,022,737	1,357,389	1,370,834	1,147,013	974,774	1,061,756	1,115,396	1,234,604
1934	1,158,654	1,226,884	1,233,680	1,380,738	1,385,279	1,275,845	1,015,777	721,642	545,999	594,048	776,660	854,391
1935	1,007,764	1,075,352	1,095,189	1,097,555	1,348,407	1,389,030	1,243,564	963,046	763,019	685,505	681,958	675,116
1936	691,838	690,481	723,265	923,527	1,310,306	1,375,255	1,160,700	867,727	676,971	639,264	627,511	657,420
1937	650,757	651,828	666,945	738,435	993,651	1,345,464	1,215,448	933,581	724,657	648,162	788,121	885,959
1938	944,640	948,934	969,794	1,112,008	1,365,579	1,385,724	1,173,269	871,581	651,872	584,084	624,103	696,941
1939	779,346	796,164	840,550	995,706	1,234,271	1,245,807	1,023,637	725,441	537,531	512,977	549,265	655,513
1940	674,332	719,075	818,351	977,400	1,165,456	1,086,905	818,340	533,543	381,607	365,080	387,829	442,383
1941	449,617	451,375	529,362	669,397	674,202	553,227	298,040	44,253	-59,188	-10,435	72,680	183,337
1942	193,466	197,531	217,391	367,451	488,722	535,036	343,020	86,136	-65,267	-100,207	-14,412	66,665
1943	119,964	144,700	199,180	437,603	680,294	906,815	851,837	589,797	382,252	314,123	332,285	405,837
1944	404,765	419,807	458,285	527,347	638,235	597,540	346,294	89,865	-30,013	-42,176	-19,201	18,726
1945	148,801	229,836	255,127	306,304	617,937	680,698	458,570	191,768	57,255	57,763	124,762	164,150
1946	216,634	224,497	265,540	422,250	885,094	1,041,726	955,541	687,493	497,117	462,172	515,632	713,899
1947	795,448	887,989	1,013,622	1,178,070	1,320,766	1,300,635	1,082,666	802,197	615,621	691,647	834,538	894,882
1948	924,914	953,266	948,157	961,743	1,155,572	1,389,030	1,268,393	1,016,366	824,984	805,454	857,832	898,083
1949	903,779	928,792	963,744	1,013,045	1,316,625	1,388,432	1,300,446	1,047,218	856,611	846,029	1,007,679	1,062,469
1950	1,081,279	1,103,330	1,030,758	985,159	1,064,018	1,391,197	1,374,458	1,170,412	979,885	1,007,374	1,068,464	1,111,899
1951	1,110,912	1,226,202	1,114,162	1,110,188	1,361,346	1,388,707	1,221,825	944,060	750,525	772,956	840,332	874,382
1952	880,069	904,851	913,900	1,054,720	1,331,591	1,345,834	1,163,964	880,487	665,031	580,416	570,201	556,142
1953	736,724	859,444	883,009	955,194	1,203,095	1,360,803	1,295,421	1,039,375	830,644	773,930	831,190	977,634
1954	1,035,905	1,061,108	1,063,915	1,043,962	1,177,863	1,389,207	1,373,225	1,190,456	1,019,872	974,322	1,039,192	1,055,063
1955	1,060,220	1,102,837	1,087,099	1,035,149	1,167,705	1,366,674	1,336,697	1,083,219	891,701	935,804	1,046,602	1,109,112
1956	1,113,571	1,095,630	911,241	910,591	1,147,558	1,389,030	1,353,102	1,108,089	920,448	909,399	976,723	1,102,856
1957	1,106,919	1,115,479	1,135,557	1,158,330	1,383,863	1,335,280	1,081,681	797,811	594,944	538,700	559,660	609,059
1958	644,091	708,987	754,222	859,096	1,244,955	1,289,427	1,039,263	737,656	558,985	566,849	788,684	983,518
1959	1,073,210	1,109,627	1,122,411	1,135,911	1,323,975	1,389,030	1,270,437	991,085	902,034	1,015,967	1,146,698	1,146,395
1960	1,123,875	1,153,724	1,176,199	1,210,842	1,369,172	1,386,380	1,185,082	903,380	708,397	665,617	771,155	792,327
1961	880,372	1,015,963	1,067,991	1,079,611	1,316,483	1,386,557	1,223,038	939,383	748,439	720,936	762,915	823,428
1962	960,990	1,018,752	1,029,276	1,201,527	1,321,964	1,385,766	1,225,051	964,255	772,734	762,772	933,280	1,047,586
1963	1,084,149	1,217,643	1,265,661	1,303,395	1,372,578	1,327,487	1,083,752	803,254	602,392	534,810	592,990	621,633
1964	681,903	698,059	712,755	765,873	966,464	1,362,801	1,347,153	1,130,508	953,000	931,857	973,165	1,060,596
1965	1,114,876	1,198,132	1,166,664	1,165,560	1,367,370	1,378,387	1,208,074	947,451	759,036	704,397	752,604	771,732
1966	787,373	784,342	800,894	946,486	1,206,233	1,281,879	1,111,548	825,691	633,756	583,477	626,502	765,524
1967	864,264	930,668	955,543	941,926	1,169,311	1,336,444	1,189,365	908,916	724,948	813,952	919,340	1,054,435
1968	1,111,182	1,275,359	1,329,376	1,335,325	1,382,097	1,362,816	1,149,961	900,586	760,485	761,873	889,197	954,190
1969	1,038,797	1,041,480	1,030,572	1,075,111	1,360,529	1,369,259	1,148,850	861,646	687,356	658,582	689,307	695,378
1970	732,195	755,163	798,020	849,352	1,099,581	1,329,911	1,136,446	850,023	661,023	604,123	658,775	684,733
1971	792,375	920,622	941,551	952,286	1,162,737	1,389,030	1,395,556	1,177,088	997,124	946,181	1,000,065	1,023,857
1972	1,061,674	1,129,969	1,030,545	935,093	1,090,493	1,389,030	1,374,822	1,193,078	1,057,607	1,006,529	1,016,859	1,084,093
1973	1,107,002	1,113,225	1,124,958	1,159,914	1,236,911	1,184,336	949,160	681,662	533,394	520,321	579,324	645,578
1974	834,896	868,792	844,013	838,482	1,006,477	1,389,338	1,397,337	1,232,571	1,063,758	983,351	984,069	1,061,547
1975	1,105,542	1,135,968	1,093,138	1,038,648	1,169,845	1,389,030	1,314,616	1,103,208	917,558	887,375	1,037,653	1,149,954
1976	1,141,824	1,192,541	1,130,364	1,097,156	1,302,173	1,389,030	1,356,529	1,203,118	1,033,203	966,920	960,413	984,701
1977	1,038,067	1,072,463	1,075,406	1,126,809	1,011,773	907,766	637,176	389,072	281,562	276,076	457,342	829,643
1978	859,870	884,867	972,018	1,050,465	1,224,125	1,265,269	1,103,575	852,634	720,788	662,368	702,778	725,071
1979	722,638	739,371	819,483	896,573	1,152,480	1,132,265	914,248	646,692	481,529	442,304	447,035	638,033
1980	663,280	692,075	749,431	932,924	1,152,808	1,177,096	954,907	680,277	525,501	500,832	620,186	907,494
1981	952,557	1,085,391	1,141,720	1,220,426	1,292,603	1,249,878	1,020,654	743,009	575,486	602,870	645,680	687,170
1982	758,242	951,312	982,700	990,883	1,232,902	1,389,030	1,285,315	1,022,797	856,368	825,431	863,931	942,245
1983	1,076,129	1,127,954	1,168,772	1,148,807	1,351,538	1,358,480	1,240,191	988,197	829,990	765,687	885,340	909,430
1984	1,091,680	1,140,501	1,171,199	1,145,231	1,307,837	1,389,030	1,293,297	1,027,607	861,668	826,697	879,260	897,624
1985	893,357	890,118	901,892	1,067,026	1,339,042	1,361,845	1,109,286	813,333	639,284	647,403	765,662	761,937
1986	786,867	899,789	1,051,792	1,148,759	1,315,374	1,309,620	1,057,137	762,598	601,671	585,512	727,608	753,208
1987	759,375	773,905	880,568	1,060,998	1,277,724	1,189,582	936,163	659,787	468,897	415,845	409,186	436,704
1988	434,395	471,558	557,791	789,089	1,030,181	1,078,809	876,923	613,857	445,915	469,799	586,065	666,568
1989	739,596	767,518	799,524	1,014,897	1,218,794	1,281,678	1,054,202	774,953	587,316	565,326	690,283	818,917
1990	923,841	989,623	1,045,188	1,220,095	1,369,352	1,388,548	1,220,001	950,851	752,312	792,794	1,118,126	1,105,258
1991	1,114,892	1,264,180	1,227,229	1,274,197	1,364,474	1,381,488	1,256,140	996,264	795,090	714,135	793,462	895,029
1992	970,310	1,042,671	1,158,037	1,278,800	1,317,907	1,151,639	885,939	606,884	462,768	438,316	487,338	501,535
1993	527,321	538,833	611,817	732,478	1,048,329	1,010,673	782,878	526,698	367,109	330,569	318,536	321,533
1994	359,557	368,984	453,909	653,012	786,004	693,258	447,102	164,355	3,759	2,611	64,549	169,183
1995	218,861	476,938	610,661	700,991	960,360	968,251	796,754	526,366	371,411	466,284	922,260	971,634
1996	1,065,366	1,252,838	1,206,005	1,274,254	1,369,669	1,364,478	1,193,048	932,856	759,386	735,175	832,492	886,833
1997	1,001,687	1,070,037	987,646	972,029	1,212,681	1,389,030	1,333,500	1,095,072	962,131	1,067,600	1,085,578	1,087,333
1998	1,097,706	1,122,626	1,161,622	1,168,554	1,382,290	1,361,675	1,145,227	857,080	651,387	593,037	689,359	811,108
1999	950,600	982,212	988,434	988,733	1,103,539	1,389,030	1,387,066	1,237,679	1,066,738	1,024,569	1,075,619	1,117,850
2000	1,110,752	1,117,253	1,123,191	1,205,298	1,373,972	1,388,646	1,201,230	916,590	750,865	720,880	731,581	721,082
2001	717,150	707,835	735,294	798,241	964,882	877,041	632,579	390,658	236,989	239,376	374,992	429,208
2002	553,870	601,075	651,166	819,710	1,093,508	1,329,162	1,196,907	913,450	715,157	633,402	647,454	650,695
2003	757,056	849,905	961,214	1,064,792	1,225,884	1,266,298	1,013,850	722,709	542,886	587,968	712,428	756,957
2004	792,641	823,682	912,279	1,070,307	1,253,472	1,225,808	968,535	711,655	594,700	609,490	703,047	822,859
2005	975,039	1,010,147	1,040,298	1,113,645	1,119,410	936,918	661,224	396,510	241,820	238,291	295,176	355,142
2006	488,904	536,050	554,709	678,590	1,032,526	1,190,175	1,001,855	722,026	523,729	446,685	729,667	776,808
2007	857,836	919,463	1,084,594	1,163,935	1,309,729	1,302,810	1,090,013	807,078	597,848	564,807	615,257	709,076
2008	721,319	736,181	755,929	769,059	1,171,070	1,375,005	1,245,185	976,907	780,810	760,465	928,747	969,028
2009	1,088,072	1,094,231	1,098,016	1,136,652	1,370,864	1,366,514	1,151,589	870,861	673,522	NA	NA	NA

Appendix D
Model Scenario Results Summary Tables Under Climate Change Conditions

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Appendix D-1	Baseline Scenario
Appendix D-2	Scenario IP0 (Baseline with IP Conservation)
Appendix D-3	Scenario IP1A (KKC Only)
Appendix D-4	Scenario IP2A (KDRPP Only)
Appendix D-5	Scenario IP2 (KKC and KDRPP)
Appendix D-6	Scenario IP3A (CEPR Only)
Appendix D-7	Scenario IP3 (KKC, KDRPP, and CEPR)
Appendix D-8	Scenario IP4 (KKC, KDRPP, CEPR, and WDR at 162.5 kaf)
Appendix D-9	Scenario IP5.2 (KKC, KDRPP, CEPR, and BRE)
Appendix D-10	Scenario IP6 (KKC, KDRPP, CEPR, WDR, and BRE) under Adverse Climate Change Conditions
Appendix D-11	Scenario IP6 (KKC, KDRPP, CEPR, WDR, and BRE) under Less Adverse Climate Change Conditions
Appendix D-12	Scenario IP6 (KKC, KDRPP, CEPR, WDR, and BRE) under More Adverse Climate Change Conditions

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Appendix D-1
Baseline Scenario under Adverse Climate Change Conditions

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: Baseline CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	2,493	501	1,459	1,188	66.2%	136	31	66.4%	99	20	3,930	28
Avg. WY 1982 to 2009	2,379	459	1,409	1,138	61.7%	120	26	62.1%	79	17	4,038	91
1941 (Dry Year)	1,337	189	694	732	0.2%	107	23	1.8%	107	25	0	0
1994 (Dry Year)	1,540	263	830	786	10.9%	94	18	12.9%	36	8	8,113	207
2001 (Dry Year)	1,644	292	882	791	14.6%	67	16	15.6%	39	9	200	200
2005 (Dry Year)	1,802	279	1,057	891	29.5%	73	14	30.8%	46	9	3,719	0

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,571	198	907	848	18.4%	103	20	20.0%	87	18	21	0
1927	2,537	401	1,589	1,244	80.0%	128	21	79.9%	166	26	0	0
1928	2,788	639	1,611	1,233	79.2%	119	23	78.9%	136	24	0	0
1929	1,691	205	1,000	884	25.3%	93	14	26.7%	48	8	0	0
1930	1,455	216	765	761	6.2%	91	25	6.8%	49	11	0	0
1931	1,980	374	1,134	914	34.4%	67	8	35.7%	37	5	2,210	0
1932	3,173	806	1,815	1,417	100.0%	138	27	100.0%	70	10	20,312	0
1933	3,153	707	1,820	1,505	100.0%	192	50	100.0%	107	17	24,597	0
1934	2,534	574	1,529	1,147	68.3%	95	14	67.6%	42	6	12,887	0
1935	2,468	334	1,597	1,269	80.6%	143	43	80.2%	95	27	0	0
1936	2,121	342	1,297	1,039	48.6%	98	16	50.0%	55	10	214	0
1937	2,056	285	1,288	1,032	48.1%	89	10	48.8%	41	5	109	0
1938	3,015	746	1,713	1,329	92.2%	142	44	94.6%	129	36	867	0
1939	2,072	268	1,336	1,040	50.9%	80	10	52.0%	45	7	0	0
1940	2,077	311	1,285	1,003	44.4%	94	15	46.6%	62	11	0	0
1941	1,337	189	694	732	0.2%	107	23	1.8%	107	25	0	0
1942	1,874	216	1,188	965	38.9%	88	10	40.5%	38	5	0	0
1943	3,007	677	1,730	1,383	95.4%	178	45	95.9%	141	27	0	0
1944	1,595	200	913	856	19.1%	104	23	20.1%	81	19	924	0
1945	2,283	314	1,471	1,120	61.1%	97	10	61.4%	45	5	0	0
1946	2,941	599	1,804	1,397	100.0%	117	24	100.0%	58	10	14,470	0
1947	2,484	472	1,535	1,141	66.7%	96	18	65.1%	98	19	24,684	0
1948	3,057	750	1,701	1,413	93.8%	204	64	92.6%	215	63	0	0
1949	3,015	665	1,808	1,399	100.0%	117	26	100.0%	85	14	12,374	0
1950	3,898	1,262	1,820	1,819	100.0%	387	96	100.0%	363	75	22,532	0
1951	3,411	1,026	1,819	1,430	100.0%	145	34	100.0%	81	13	7,575	0
1952	2,237	378	1,351	1,054	54.6%	88	9	53.1%	39	4	10,177	0
1953	2,333	287	1,507	1,189	70.7%	125	11	69.1%	104	9	1,520	0
1954	2,991	660	1,735	1,410	95.9%	198	61	95.1%	165	47	0	0
1955	2,637	373	1,652	1,343	86.5%	179	53	85.1%	206	54	196	0
1956	4,085	1,581	1,820	1,566	100.0%	252	72	100.0%	164	32	3,858	0
1957	2,851	727	1,591	1,199	74.7%	113	27	73.1%	71	18	11,759	0
1958	1,996	311	1,235	996	43.8%	88	10	45.2%	88	15	55	0
1959	2,975	616	1,791	1,434	99.8%	165	38	100.0%	144	23	0	0
1960	2,542	366	1,636	1,287	86.9%	122	24	85.8%	88	16	518	0
1961	2,752	544	1,673	1,314	91.6%	125	28	92.4%	106	20	0	0
1962	2,131	286	1,372	1,063	55.9%	90	11	54.0%	81	11	2,732	0
1963	1,740	239	1,053	897	27.6%	89	10	28.4%	39	5	10	0
1964	3,091	617	1,820	1,536	100.0%	235	66	100.0%	201	42	3,858	0
1965	2,658	492	1,632	1,276	83.4%	139	43	83.3%	110	34	394	0
1966	2,238	417	1,340	1,036	48.8%	91	14	49.6%	44	7	0	0
1967	2,370	344	1,517	1,170	69.2%	115	33	69.0%	84	25	0	0
1968	2,402	383	1,534	1,172	73.1%	96	15	72.0%	80	14	455	0
1969	2,726	616	1,591	1,212	76.6%	113	20	75.3%	109	20	0	0
1970	2,389	379	1,524	1,148	70.1%	76	10	69.9%	41	5	1,617	0
1971	3,596	987	1,820	1,664	100.0%	363	100	100.0%	262	62	8,413	0
1972	3,720	1,163	1,820	1,653	100.0%	346	93	100.0%	248	59	6,725	0
1973	1,871	195	1,177	991	39.8%	108	17	41.0%	64	10	216	0
1974	3,493	924	1,820	1,639	100.0%	335	91	100.0%	244	53	3,925	0
1975	3,239	757	1,820	1,564	100.0%	253	69	100.0%	191	35	6,861	0
1976	3,805	1,259	1,820	1,632	100.0%	309	92	100.0%	217	53	4,660	0
1977	1,266	183	649	692	0.0%	103	35	0.0%	54	18	4,205	0
1978	2,335	267	1,544	1,201	74.6%	114	12	73.4%	68	6	1,413	0
1979	1,770	269	1,028	909	26.7%	110	26	27.7%	50	13	0	0
1980	2,421	439	1,482	1,115	60.2%	100	12	61.1%	57	6	27	0
1981	2,227	313	1,415	1,078	58.9%	83	10	57.1%	105	16	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: Baseline CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,069	662	1,817	1,503	100.0%	193	52	100.0%	130	20	3,947	89
1983	2,583	494	1,573	1,228	77.6%	120	25	76.5%	73	16	17,758	0
1984	2,540	398	1,609	1,258	82.2%	130	20	81.3%	87	10	0	0
1985	1,789	303	984	885	23.0%	109	17	24.1%	59	10	147	0
1986	1,917	281	1,205	968	40.6%	79	8	41.7%	35	4	0	0
1987	2,197	364	1,333	1,018	46.0%	96	14	47.3%	43	7	2,602	97
1988	1,966	294	1,227	987	40.8%	96	11	41.7%	41	5	200	0
1989	2,602	543	1,567	1,184	72.6%	113	25	71.8%	66	13	0	0
1990	2,682	483	1,659	1,281	85.8%	124	26	85.8%	116	23	0	0
1991	2,848	568	1,705	1,360	93.9%	155	49	94.1%	104	32	0	0
1992	1,573	183	908	851	18.5%	109	24	20.2%	52	12	190	0
1993	1,899	321	1,118	908	33.2%	66	10	34.6%	34	5	32	32
1994	1,540	263	830	786	10.9%	94	18	12.9%	36	8	8,113	207
1995	2,128	324	1,344	1,035	54.0%	74	7	52.9%	72	10	1,048	0
1996	3,042	822	1,650	1,294	85.2%	139	42	84.6%	90	26	1,245	528
1997	3,923	1,441	1,820	1,626	100.0%	314	84	100.0%	271	57	4,597	0
1998	2,340	345	1,491	1,157	67.8%	105	26	67.3%	74	20	0	0
1999	2,778	413	1,746	1,427	97.4%	216	63	98.1%	190	53	593	0
2000	2,587	466	1,592	1,218	77.9%	113	33	77.4%	78	25	344	0
2001	1,644	292	882	791	14.6%	67	16	15.6%	39	9	200	200
2002	3,118	780	1,806	1,424	100.0%	138	29	100.0%	71	11	23,554	1,123
2003	2,006	260	1,273	1,017	46.8%	86	11	48.4%	43	6	13,771	0
2004	2,062	324	1,273	996	45.7%	74	6	46.5%	40	4	2,710	0
2005	1,802	279	1,057	891	29.5%	73	14	30.8%	46	9	3,719	0
2006	2,828	565	1,750	1,360	98.0%	105	19	100.0%	NA	NA	16,179	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,493	501	1,459	1,188	66.2%	136	31	66.4%	99	20	3,930	28

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.
5) Climate Change inflow dataset provided only extended to the end of Water Year 2006.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: Baseline CC Adverse (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

	Flow Season (Date)	Winter	Spring	Summer		Fall
				July	August	
	Target Flow (cfs)	>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	31.9%	54.0%	23.7%	72.5%	15.7%
	0 -10% Above Target[1]	11.4%	6.0%	2.3%	0.8%	10.5%
	0-10% Below Target	4.0%	1.2%	2.0%	0.9%	6.9%
	> 10% Below Target	52.7%	38.8%	72.0%	25.8%	66.9%

R2: Easton *(Yakima 202 at Easton EASW)*

	Flow Season (Date)	Winter	Spring	Summer	Fall
					September 1 - October 31
	Target Flow	>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	43.4%	59.9%	67.9%	23.4%
	0 -10% Above Target	3.7%	3.7%	3.2%	5.2%
	0-10% Below Target	4.7%	3.5%	3.7%	24.8%
	> 10% Below Target	48.2%	32.9%	25.2%	46.6%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

	Flow Season (Date)	Winter	Spring	Summer	Fall
				July 1 - September 10	
	Target Flow	NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			2.5%	
	0 -10% Above Target			10.9%	
	0-10% Below Target			5.5%	
	> 10% Below Target			81.1%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

	Flow Season (Date)	Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
	Target Flow	NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				12.2%	
	0 -10% Above Target				7.7%	
	0-10% Below Target				17.3%	
	> 10% Below Target				62.8%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

	Flow Season (Date)	Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
	Target Flow	NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				90.8%	
	0 -10% Above Target				6.8%	
	0-10% Below Target				1.4%	
	> 10% Below Target				1.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

	Flow Season (Date)	Winter	Spring	Summer	Fall
	Target Flow	1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	16.7%	21.1%		10.4%
	0 -10% Above Target	1.7%	2.4%		2.1%
	0-10% Below Target	6.5%	2.6%		12.9%
	> 10% Below Target	75.1%	73.9%		74.6%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

	Flow Season (Date)	Winter	Spring	Summer	Fall
	Target Flow	NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

	Flow Season (Date)	Winter	Spring	Summer		Fall
				June to October 15		
	Target Flow	NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			14.1%	9.5%	9.0%
	0 -10% Above Target			5.3%	0.7%	0.4%
	0-10% Below Target			12.3%	1.1%	0.6%
	> 10% Below Target			68.3%	88.7%	90.0%

R9: Mabton *(Yakima River at Grandview)*

	Flow Season (Date)	Winter	Spring	Summer		Fall
				June to October 15		
	Target Flow	NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			96.6%	76.0%	57.9%
	0 -10% Above Target			2.0%	9.5%	14.2%
	0-10% Below Target			0.6%	6.7%	11.9%
	> 10% Below Target			0.8%	7.8%	16.0%

R10: Chandler *(Yakima River at Prosser)*

	Flow Season (Date)	Winter	Spring	Summer	Fall
				September	
	Target Flow	NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			15.6%	
	0 -10% Above Target			7.0%	
	0-10% Below Target			15.8%	
	> 10% Below Target			61.6%	

R11: Lower Yakima *(Yakima River at Kiona)*

	Flow Season (Date)	Winter	Spring	Summer		Fall
				June to October 15		
	Target Flow	NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.2%	89.0%	72.6%
	0 -10% Above Target			0.8%	5.5%	13.7%
	0-10% Below Target			0.5%	2.3%	7.3%
	> 10% Below Target			0.5%	3.2%	6.4%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: Baseline CC Adverse (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	2.5%	29.4%	97.7%		16.6%
	0 -10% Above Target	11.2%	7.4%	0.1%		10.2%
	0-10% Below Target	0.0%	0.5%	0.0%		1.6%
	> 10% Below Target	86.3%	62.7%	2.2%		71.6%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	7.6%			
	0 -10% Above Target	0.6%			
	0-10% Below Target	0.8%			
	> 10% Below Target	91.0%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	50.8%			
	0 -10% Above Target	2.8%			
	0-10% Below Target	3.6%			
	> 10% Below Target	42.8%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline CC Adverse (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26	-	-	-	-	-	4,194	16,972	17,400	19,488	20,806	7,877	86,763
1927	26	-	-	-	-	-	11,908	46,089	52,205	56,305	52,567	35,984	255,084
1928	26	-	-	-	-	-	11,862	49,625	51,365	55,941	52,013	35,616	256,448
1929	26	-	-	-	-	-	5,564	23,453	23,040	25,795	26,202	9,440	113,519
1930	26	-	-	-	-	-	2,523	8,276	7,901	8,582	9,538	4,689	41,535
1931	26	-	-	-	-	-	7,692	32,394	30,491	34,197	33,765	11,575	150,140
1932	26	-	-	-	-	-	11,930	50,924	52,037	66,825	69,252	51,775	302,768
1933	14,138	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	317,048
1934	21,210	-	-	-	-	-	11,930	49,591	52,103	61,369	58,644	17,758	272,605
1935	26	-	-	-	-	-	7,750	48,736	52,205	56,835	52,978	36,154	254,685
1936	26	-	-	-	-	-	10,434	42,287	40,959	47,078	44,131	13,606	198,521
1937	26	-	-	-	-	-	9,034	41,833	40,771	46,608	44,170	14,017	196,460
1938	26	-	-	-	-	-	11,930	50,105	50,443	63,397	60,955	41,722	278,577
1939	26	-	-	-	-	-	11,254	42,030	42,611	48,984	46,630	14,745	206,281
1940	26	-	-	-	-	-	11,890	40,722	37,668	42,761	41,617	12,994	187,679
1941	26	-	-	-	-	-	1,412	3,034	2,950	3,417	4,866	3,500	19,205
1942	26	-	-	-	-	-	9,807	33,269	33,681	38,218	37,372	12,495	164,867
1943	26	-	-	-	-	-	11,930	49,624	52,205	64,660	62,111	42,298	282,853
1944	26	-	-	-	-	-	4,608	17,473	18,192	20,090	20,835	7,601	88,825
1945	26	-	-	-	-	-	10,794	49,070	48,689	57,317	54,536	16,652	237,083
1946	26	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	302,936
1947	13,158	-	-	-	-	-	11,919	50,924	50,749	60,016	57,162	17,344	261,272
1948	26	-	-	-	-	-	8,399	50,903	52,205	63,951	60,589	41,032	277,105
1949	26	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	302,936
1950	17,490	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	320,400
1951	21,210	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	324,120
1952	21,210	-	-	-	-	-	7,771	48,692	44,124	50,103	46,750	14,105	232,755
1953	26	-	-	-	-	-	7,560	45,542	51,200	52,184	58,956	17,980	233,448
1954	26	-	-	-	-	-	11,930	50,924	52,205	64,876	61,910	42,026	283,896
1955	26	-	-	-	-	-	8,433	50,780	52,205	60,178	56,081	38,116	265,819
1956	26	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	302,936
1957	21,210	-	-	-	-	-	11,930	50,924	50,796	52,765	48,797	33,383	269,804
1958	26	-	-	-	-	-	8,536	38,628	37,254	42,829	41,220	13,422	181,915
1959	26	-	-	-	-	-	11,930	50,157	52,205	66,511	65,037	51,775	297,640
1960	21,210	-	-	-	-	-	11,072	50,271	45,227	60,445	56,327	38,389	282,940
1961	26	-	-	-	-	-	10,629	48,169	48,090	62,481	60,051	40,920	270,365
1962	26	-	-	-	-	-	11,876	45,019	44,726	51,338	47,997	15,169	216,151
1963	26	-	-	-	-	-	8,641	25,548	24,798	27,685	27,953	9,894	124,544
1964	26	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	302,936
1965	21,210	-	-	-	-	-	11,911	50,066	52,205	58,635	54,776	37,396	286,199
1966	26	-	-	-	-	-	10,024	45,162	41,278	46,447	44,988	14,327	202,252
1967	26	-	-	-	-	-	7,529	46,015	51,613	62,174	59,837	18,042	245,236
1968	26	-	-	-	-	-	7,426	47,303	51,824	51,840	48,173	32,465	239,058
1969	26	-	-	-	-	-	11,930	50,083	48,284	54,013	50,179	34,337	248,851
1970	26	-	-	-	-	-	7,248	45,821	51,579	60,868	59,230	28,907	253,679
1971	26	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	302,936
1972	21,210	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	324,120
1973	21,210	-	-	-	-	-	7,414	34,078	34,367	39,207	37,897	12,602	186,775
1974	26	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	302,936
1975	21,210	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	324,120
1976	21,210	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	324,120
1977	21,210	-	-	-	-	-	1,690	4,011	3,058	3,034	3,034	2,936	38,972
1978	26	-	-	-	-	-	10,888	46,243	52,144	52,760	49,040	32,128	243,229
1979	26	-	-	-	-	-	6,615	26,868	24,132	27,098	27,344	9,709	121,793
1980	26	-	-	-	-	-	11,930	50,447	47,688	56,672	53,261	15,645	235,668
1981	26	-	-	-	-	-	11,557	47,804	47,298	53,766	50,897	15,773	227,120
1982	26	-	-	-	-	-	11,884	50,924	52,205	66,825	69,252	51,775	302,890
1983	21,210	-	-	-	-	-	7,720	48,807	52,205	54,733	50,881	34,737	270,292
1984	26	-	-	-	-	-	9,851	50,135	52,205	57,503	53,498	36,567	259,784
1985	26	-	-	-	-	-	6,025	25,274	21,213	23,604	24,296	8,849	109,287
1986	26	-	-	-	-	-	7,900	36,814	35,139	39,852	38,571	12,766	171,068
1987	26	-	-	-	-	-	10,872	47,415	38,956	43,949	42,947	13,845	198,010
1988	26	-	-	-	-	-	11,862	36,333	35,279	39,744	37,873	12,142	173,258
1989	26	-	-	-	-	-	11,930	49,737	49,308	51,591	47,871	32,860	243,322
1990	26	-	-	-	-	-	11,930	50,893	48,462	60,112	56,136	38,326	265,885
1991	26	-	-	-	-	-	11,930	49,182	50,414	64,074	60,867	41,525	278,018
1992	26	-	-	-	-	-	4,524	17,273	17,586	19,778	20,723	7,601	87,511
1993	26	-	-	-	-	-	7,819	33,529	29,301	33,176	32,807	11,344	148,001
1994	26	-	-	-	-	-	3,117	11,537	11,679	12,880	14,195	6,135	59,569
1995	26	-	-	-	-	-	10,350	47,654	43,555	49,692	47,090	14,656	213,023
1996	26	-	-	-	-	-	11,930	49,832	52,205	59,574	55,542	37,866	266,975
1997	26	-	-	-	-	-	11,930	50,924	52,205	66,825	69,252	51,775	302,936
1998	21,210	-	-	-	-	-	7,505	44,090	52,184	61,031	58,441	17,697	262,157
1999	26	-	-	-	-	-	11,930	50,924	52,205	65,532	63,381	43,139	287,135
2000	26	-	-	-	-	-	11,748	48,864	52,205	55,021	51,187	35,022	254,073
2001	26	-	-	-	-	-	5,005	18,492	14,513	15,997	16,986	6,803	77,822
2002	26	-	-	-	-	-	11,930	48,790	52,205	66,825	69,252	51,775	300,802
2003	17,760	-	-	-	-	-	8,458	39,400	39,480	45,700	43,659	14,036	208,494
2004	26	-	-	-	-	-	10,101	39,671	38,783	44,342	41,662	12,225	186,810
2005	26	-	-	-	-	-	6,362	26,318	26,306	29,653	29,753	10,425	128,843
2006	26	-	-	-	-	-	11,930	50,113	44,958	64,857	68,349	50,645	290,879
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	4,197	-	-	-	-	-	9,691	42,344	42,708	50,549	49,580	28,323	227,392

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline CC Adverse (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	1,075	-	-	-	-	10,579	11,587	10,393	12,959	13,254	14,635	9,314	83,796
1927	1,075	-	-	-	-	10,579	34,920	45,617	56,567	56,792	55,371	36,192	297,113
1928	1,075	-	-	-	-	10,579	35,724	49,557	55,772	56,386	54,731	35,827	299,649
1929	1,075	-	-	-	-	10,579	14,683	15,217	18,013	18,342	19,082	12,281	109,273
1930	1,075	-	-	-	-	10,579	13,057	3,913	4,449	4,469	5,368	3,284	46,193
1931	1,075	-	-	-	-	10,579	27,435	22,067	24,691	25,125	25,370	16,410	152,752
1932	1,075	-	-	-	-	10,579	36,245	50,049	56,404	64,568	63,723	42,209	324,852
1933	24,556	-	-	-	-	10,579	36,245	50,049	56,385	64,568	63,723	42,209	348,314
1934	22,246	-	-	-	-	10,579	36,245	46,585	47,873	48,495	47,079	30,843	289,944
1935	1,075	-	-	-	-	10,578	32,085	47,896	56,620	57,389	55,846	36,364	297,855
1936	1,075	-	-	-	-	10,579	23,957	29,622	34,547	36,091	35,011	22,891	193,773
1937	1,075	-	-	-	-	10,579	22,882	29,531	34,444	35,671	34,448	22,357	190,988
1938	1,075	-	-	-	-	10,579	36,245	49,862	55,204	64,579	63,939	40,678	322,160
1939	1,075	-	-	-	-	10,579	35,488	31,034	36,192	37,688	36,594	23,798	212,448
1940	1,075	-	-	-	-	10,579	35,716	36,088	31,426	32,413	32,774	21,348	201,419
1941	1,075	-	-	-	-	10,579	13,254	-	12	307	1,534	1,032	27,793
1942	1,075	-	-	-	-	10,579	34,509	23,042	27,707	28,517	28,519	18,564	172,511
1943	1,075	-	-	-	-	10,577	36,245	49,513	56,385	64,920	64,031	41,013	323,759
1944	1,075	-	-	-	-	10,579	10,849	10,657	13,642	13,748	14,886	9,366	84,802
1945	1,075	-	-	-	-	10,579	32,375	49,584	46,248	44,771	43,490	28,215	256,337
1946	1,075	-	-	-	-	10,579	35,007	50,049	56,385	64,568	63,723	42,209	323,595
1947	24,532	-	-	-	-	10,579	36,236	50,049	48,007	47,252	45,784	29,845	292,284
1948	1,075	-	-	-	-	10,579	34,811	50,171	56,385	64,847	63,849	40,286	322,002
1949	1,075	-	-	-	-	10,579	35,367	50,049	56,385	64,568	63,723	42,209	323,955
1950	24,410	-	-	-	-	10,577	36,245	50,049	56,385	64,568	63,723	42,209	348,166
1951	22,246	-	-	-	-	10,579	36,254	50,049	56,385	64,568	63,723	42,209	346,013
1952	24,560	-	-	-	-	10,579	28,037	34,782	37,527	38,666	37,327	24,283	235,761
1953	1,075	-	-	-	-	10,579	31,127	44,633	51,299	50,080	48,484	31,585	268,861
1954	1,075	-	-	-	-	10,579	36,245	50,049	56,385	64,883	64,008	40,886	324,109
1955	1,075	-	-	-	-	10,577	35,619	49,725	56,407	61,236	59,433	38,154	312,225
1956	1,075	-	-	-	-	10,579	36,245	50,049	56,385	64,568	63,723	42,209	324,833
1957	22,246	-	-	-	-	10,579	36,245	50,049	53,928	52,893	51,012	33,327	310,279
1958	1,075	-	-	-	-	10,573	24,105	26,991	31,101	32,441	31,875	20,720	178,883
1959	1,075	-	-	-	-	10,579	36,245	49,686	56,385	64,651	63,840	42,209	324,670
1960	24,560	-	-	-	-	10,579	35,599	50,116	52,252	61,543	59,717	38,387	332,753
1961	1,075	-	-	-	-	10,579	35,704	48,780	53,703	63,792	63,519	40,201	317,353
1962	1,075	-	-	-	-	10,579	35,589	33,607	38,202	39,693	38,210	24,777	221,732
1963	1,075	-	-	-	-	10,575	32,658	16,775	19,587	19,862	20,520	13,130	134,182
1964	1,075	-	-	-	-	10,579	36,245	50,049	56,385	64,568	63,723	42,209	324,833
1965	22,246	-	-	-	-	10,579	34,856	49,204	56,542	59,454	57,924	37,519	328,323
1966	1,075	-	-	-	-	10,579	34,952	41,280	34,927	35,510	35,162	22,810	216,293
1967	1,075	-	-	-	-	10,579	31,295	45,101	51,432	49,238	48,124	31,490	268,333
1968	1,075	-	-	-	-	10,579	33,716	46,467	52,800	51,876	50,291	32,792	279,595
1969	1,075	-	-	-	-	10,579	36,245	49,883	53,383	54,266	52,610	34,428	292,469
1970	1,075	-	-	-	-	10,579	32,372	44,905	52,143	49,782	48,550	31,877	271,284
1971	1,075	-	-	-	-	10,578	36,245	50,049	56,385	64,568	63,723	42,209	324,833
1972	22,246	-	-	-	-	10,579	36,245	50,049	56,385	64,568	63,723	42,209	346,004
1973	22,246	-	-	-	-	10,579	17,880	23,350	28,359	29,349	28,976	18,809	179,549
1974	1,075	-	-	-	-	10,579	36,245	50,049	56,385	64,568	63,723	42,209	324,833
1975	22,246	-	-	-	-	10,579	36,245	50,049	56,385	64,568	63,723	42,209	346,004
1976	22,246	-	-	-	-	10,579	36,245	50,049	56,385	64,568	63,723	42,209	346,004
1977	22,246	-	-	-	-	10,579	7,930	736	109	-	-	-	41,598
1978	1,075	-	-	-	-	10,579	34,882	45,323	53,960	52,888	51,294	33,510	283,510
1979	1,075	-	-	-	-	10,579	15,542	17,818	18,992	19,393	20,020	12,785	116,203
1980	1,075	-	-	-	-	10,579	35,627	49,944	44,208	44,246	43,112	28,065	256,856
1981	1,075	-	-	-	-	10,579	36,157	37,277	40,629	41,757	40,315	26,183	233,972
1982	1,075	-	-	-	-	10,579	35,558	50,049	56,385	64,568	63,723	42,209	324,147
1983	22,246	-	-	-	-	10,579	33,071	47,940	55,452	55,057	53,422	34,890	312,656
1984	1,075	-	-	-	-	10,579	33,469	48,928	56,490	58,160	56,447	36,760	301,908
1985	1,075	-	-	-	-	10,579	14,300	16,599	16,375	16,574	17,510	11,156	104,169
1986	1,075	-	-	-	-	10,579	27,666	25,503	29,092	29,898	29,565	19,183	172,560
1987	1,075	-	-	-	-	10,579	35,255	43,565	32,720	33,400	33,382	21,698	211,673
1988	1,075	-	-	-	-	10,577	35,838	26,002	29,164	29,834	29,628	19,177	181,294
1989	1,075	-	-	-	-	10,579	36,113	49,909	52,973	51,602	49,942	32,723	284,915
1990	1,075	-	-	-	-	10,579	36,245	50,053	54,260	61,158	59,497	38,315	311,180
1991	1,075	-	-	-	-	10,579	36,250	49,029	55,181	64,896	63,931	40,558	321,498
1992	1,075	-	-	-	-	10,579	9,935	10,515	13,098	13,495	14,796	9,374	82,867
1993	1,075	-	-	-	-	10,579	23,066	23,001	23,621	24,288	24,533	15,890	146,054
1994	1,075	-	-	-	-	10,579	19,839	6,340	7,834	7,931	9,206	6,029	68,832
1995	1,075	-	-	-	-	10,579	27,736	34,196	37,074	38,293	36,998	24,118	210,068
1996	1,075	-	-	-	-	10,579	36,275	49,130	56,457	60,539	58,809	37,925	310,789
1997	1,075	-	-	-	-	10,579	36,245	50,049	56,385	64,568	63,723	42,209	324,833
1998	22,246	-	-	-	-	10,579	31,051	42,086	48,564	48,175	46,903	30,691	280,294
1999	1,075	-	-	-	-	10,579	36,245	50,049	56,385	64,787	63,970	41,331	324,420
2000	1,075	-	-	-	-	10,579	36,201	47,644	55,748	55,374	53,776	35,196	295,592
2001	1,075	-	-	-	-	10,579	16,276	11,563	10,373	10,443	11,487	7,286	79,082
2002	1,075	-	-	-	-	10,579	36,256	48,814	56,385	64,568	63,723	42,209	323,610
2003	24,560	-	-	-	-	10,579	24,050	27,563	33,216	34,895	34,006	22,150	211,018
2004	1,075	-	-	-	-	10,579	32,041	27,538	32,483	33,745	32,923	21,280	191,664
2005	1,075	-	-	-	-	10,579	24,821	17,367	20,938	21,450	22,004	14,146	132,380
2006	1,075	-	-	-	-	10,579	36,106	49,989	52,676	63,566	63,749	42,209	319,949
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,687	-	-	-	-	10,578	30,814	38,407	42,516	45,669	44,972	29,324	247,967

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline CC Adverse (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	23,894	-	-	-	-	6,904	40,512	54,581	52,685	56,103	55,918	44,402	334,999
1927	23,894	-	-	-	-	6,904	53,272	97,331	97,177	105,068	96,869	57,525	538,038
1928	23,894	-	-	-	-	6,904	54,773	107,641	100,110	104,612	96,227	57,318	551,479
1929	23,894	-	-	-	-	6,904	42,709	60,804	57,683	61,820	60,388	45,842	360,045
1930	23,894	-	-	-	-	6,904	38,142	46,241	44,268	46,223	46,594	41,472	293,738
1931	23,894	-	-	-	-	6,904	45,404	69,642	64,288	69,450	66,711	47,850	394,142
1932	23,894	-	-	-	-	6,904	56,318	110,491	119,275	123,857	118,505	79,758	639,003
1933	24,400	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	641,218
1934	26,656	-	-	-	-	6,904	56,318	102,182	87,219	95,736	88,534	54,859	518,408
1935	23,894	-	-	-	-	6,904	51,169	103,219	96,972	105,739	97,351	57,621	542,868
1936	23,894	-	-	-	-	6,904	48,180	79,370	74,036	81,789	76,400	50,998	441,571
1937	23,894	-	-	-	-	6,904	47,170	79,246	73,934	81,316	75,837	50,739	439,041
1938	23,894	-	-	-	-	6,904	56,318	108,673	111,280	115,046	106,611	60,740	589,466
1939	23,894	-	-	-	-	6,904	52,509	79,317	75,663	83,584	77,995	51,440	451,305
1940	23,894	-	-	-	-	6,904	54,624	83,483	70,950	77,646	74,153	50,248	441,902
1941	23,894	-	-	-	-	6,904	36,587	41,197	39,881	41,542	42,732	40,377	273,115
1942	23,894	-	-	-	-	6,904	48,049	70,376	67,272	73,265	69,875	48,894	408,530
1943	23,894	-	-	-	-	6,904	56,318	106,772	115,253	117,296	107,960	61,067	595,463
1944	23,894	-	-	-	-	6,904	40,571	54,917	53,360	56,655	56,173	44,428	336,904
1945	23,894	-	-	-	-	6,904	46,898	106,336	88,246	91,548	84,928	53,591	502,346
1946	23,894	-	-	-	-	6,904	53,284	110,491	119,660	123,857	118,505	78,576	635,171
1947	24,061	-	-	-	-	6,904	55,565	110,491	91,262	94,339	87,233	54,381	524,235
1948	23,894	-	-	-	-	6,904	52,622	108,652	107,444	116,070	106,201	60,359	582,145
1949	23,894	-	-	-	-	6,904	54,600	110,491	119,660	123,857	118,505	79,504	637,416
1950	24,089	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,906
1951	27,579	-	-	-	-	6,904	56,226	110,491	119,660	123,857	118,505	80,450	643,672
1952	25,669	-	-	-	-	6,904	49,508	86,047	76,991	84,683	78,731	51,675	460,209
1953	23,894	-	-	-	-	6,904	51,164	98,552	90,601	97,519	89,948	55,224	513,807
1954	23,894	-	-	-	-	6,904	56,318	110,491	114,606	117,771	107,730	60,916	598,629
1955	23,894	-	-	-	-	6,904	53,739	107,379	102,517	110,163	100,959	58,724	564,280
1956	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1957	27,559	-	-	-	-	6,904	56,312	110,491	103,088	100,683	92,491	56,068	553,596
1958	23,894	-	-	-	-	6,904	44,709	75,979	70,629	77,682	73,251	49,943	422,989
1959	23,894	-	-	-	-	6,904	56,318	107,907	118,694	121,151	111,672	81,083	627,623
1960	27,579	-	-	-	-	6,904	53,648	109,023	98,428	110,531	101,240	58,877	566,231
1961	23,894	-	-	-	-	6,904	52,855	104,348	109,925	113,518	105,569	60,292	577,306
1962	23,894	-	-	-	-	6,904	54,662	83,041	77,651	85,837	79,621	51,917	463,527
1963	23,894	-	-	-	-	6,904	47,125	62,814	59,240	63,529	61,837	46,256	371,600
1964	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1965	27,579	-	-	-	-	6,904	52,451	105,568	100,612	108,061	99,437	58,319	558,931
1966	23,894	-	-	-	-	6,904	51,433	92,412	74,411	81,131	76,555	50,962	457,701
1967	23,894	-	-	-	-	6,904	51,006	99,192	90,729	96,571	89,583	55,176	513,055
1968	23,894	-	-	-	-	6,904	50,178	101,042	92,087	99,540	91,766	55,808	521,218
1969	23,894	-	-	-	-	6,904	56,318	108,650	100,374	102,227	94,094	56,606	549,067
1970	23,894	-	-	-	-	6,904	46,883	98,904	91,431	97,184	90,010	55,362	510,573
1971	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1972	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1973	27,579	-	-	-	-	6,904	45,317	71,273	67,916	74,203	70,336	49,014	412,543
1974	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1975	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1976	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1977	27,579	-	-	-	-	6,904	35,299	39,356	37,293	38,443	39,075	37,441	261,390
1978	23,894	-	-	-	-	6,904	50,263	99,110	93,271	100,677	92,773	56,158	523,051
1979	23,894	-	-	-	-	6,904	44,080	64,177	58,651	63,002	61,334	46,088	368,131
1980	23,894	-	-	-	-	6,904	54,395	109,410	84,040	90,958	84,545	53,517	507,664
1981	23,894	-	-	-	-	6,904	54,979	88,654	80,061	88,159	81,737	52,601	476,989
1982	23,894	-	-	-	-	6,904	54,627	110,491	119,660	123,857	118,505	81,083	639,021
1983	26,502	-	-	-	-	6,904	50,627	103,293	94,887	103,117	94,913	56,828	537,072
1984	23,894	-	-	-	-	6,904	48,065	105,463	100,946	106,606	97,952	57,852	547,681
1985	23,894	-	-	-	-	6,904	43,541	62,619	56,064	59,831	58,809	45,298	356,959
1986	23,894	-	-	-	-	6,904	45,395	74,046	68,642	74,820	70,927	49,197	413,825
1987	23,894	-	-	-	-	6,904	51,897	99,635	72,229	78,757	74,765	50,419	458,500
1988	23,894	-	-	-	-	6,904	54,667	73,519	68,711	74,747	70,990	49,197	422,629
1989	23,894	-	-	-	-	6,904	55,855	107,836	100,060	99,231	91,411	55,774	540,965
1990	23,894	-	-	-	-	6,904	56,318	110,421	103,901	110,039	101,020	58,837	571,334
1991	23,894	-	-	-	-	6,904	56,267	106,588	105,096	116,283	106,517	60,630	582,178
1992	23,894	-	-	-	-	6,904	40,689	54,738	52,823	56,371	56,081	44,431	335,930
1993	23,894	-	-	-	-	6,904	43,966	70,872	63,231	68,509	65,870	47,595	390,841
1994	23,853	-	-	-	-	6,904	38,808	49,363	47,616	50,116	50,449	42,803	309,912
1995	23,894	-	-	-	-	6,904	47,516	85,281	76,545	84,263	78,400	51,593	454,396
1996	23,894	-	-	-	-	6,904	56,015	105,106	102,213	109,324	100,329	58,581	562,366
1997	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1998	27,579	-	-	-	-	6,904	50,828	95,290	87,898	95,377	88,356	54,787	507,019
1999	23,894	-	-	-	-	6,904	56,318	110,491	116,890	119,025	109,436	61,537	604,494
2000	23,894	-	-	-	-	6,904	55,927	103,002	95,300	103,473	95,269	56,984	540,753
2001	23,894	-	-	-	-	6,904	41,068	56,128	50,127	52,941	52,750	43,415	327,229
2002	22,405	-	-	-	-	6,904	56,203	105,691	119,660	123,857	118,505	79,742	632,966
2003	25,573	-	-	-	-	6,904	47,200	76,698	72,720	80,442	75,391	50,638	435,567
2004	23,894	-	-	-	-	6,904	50,001	76,677	71,995	79,147	74,305	50,216	433,140
2005	23,894	-	-	-	-	6,904	41,819	63,568	60,577	65,316	63,329	46,748	372,155
2006	23,894	-	-	-	-	6,904	55,711	108,664	102,439	119,713	116,646	78,507	612,478
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,450	-	-	-	-	6,904	50,983	92,181	89,473	94,904	89,370	58,691	506,956

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline CC Adverse (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26,590	-	-	-	-	11,326	42,754	51,686	50,747	52,520	52,765	47,576	335,963
1927	26,590	-	-	-	-	11,326	44,232	61,004	69,282	70,700	69,716	54,995	407,844
1928	26,590	-	-	-	-	11,326	45,304	64,119	68,765	70,528	69,450	54,878	410,961
1929	26,590	-	-	-	-	11,326	43,411	53,949	52,863	54,652	54,615	48,390	345,797
1930	26,590	-	-	-	-	11,326	42,410	48,651	47,183	48,683	49,067	45,919	319,830
1931	24,380	-	-	-	-	11,326	43,965	56,959	55,661	57,523	57,232	49,525	356,570
1932	17,573	-	-	-	-	11,326	46,438	65,458	72,729	77,704	78,047	59,792	429,067
1933	28,111	-	-	-	-	11,326	45,469	64,092	72,157	77,704	78,047	65,422	442,328
1934	29,722	-	-	-	-	11,326	46,438	63,105	65,535	67,190	66,266	53,488	403,069
1935	26,635	-	-	-	-	11,326	44,233	63,850	69,201	70,953	69,914	55,049	411,162
1936	26,590	-	-	-	-	11,326	44,277	60,027	59,977	61,967	61,243	51,305	376,712
1937	26,590	-	-	-	-	11,326	43,633	60,054	59,912	61,814	61,010	51,158	375,497
1938	25,995	-	-	-	-	11,326	46,438	64,650	70,569	74,188	73,749	56,813	423,728
1939	26,590	-	-	-	-	11,326	44,267	59,054	60,574	62,718	61,903	51,555	377,986
1940	26,590	-	-	-	-	11,326	45,263	56,140	58,484	60,600	60,313	50,881	369,596
1941	26,590	-	-	-	-	11,326	42,120	46,673	45,251	46,930	47,455	45,301	311,645
1942	26,590	-	-	-	-	11,326	41,796	56,963	56,925	58,949	58,542	50,116	361,207
1943	26,590	-	-	-	-	11,326	46,361	63,014	71,690	75,184	74,307	56,997	425,469
1944	26,590	-	-	-	-	11,326	42,664	51,810	51,032	52,727	52,870	47,591	336,610
1945	26,590	-	-	-	-	11,326	39,538	63,672	63,652	65,766	64,772	52,770	388,087
1946	26,507	-	-	-	-	11,326	43,963	65,458	72,355	77,704	78,047	58,047	433,406
1947	25,367	-	-	-	-	11,326	46,024	65,458	65,470	66,664	65,727	53,217	399,251
1948	26,590	-	-	-	-	11,326	44,716	64,092	71,214	74,813	73,577	56,597	422,924
1949	26,590	-	-	-	-	11,326	44,776	64,461	72,157	77,704	78,047	58,925	433,985
1950	27,340	-	-	-	-	11,326	45,469	64,092	72,157	77,704	78,047	65,422	441,557
1951	36,700	-	-	-	-	11,326	46,327	65,223	72,157	77,704	78,047	62,961	450,445
1952	29,846	-	-	-	-	11,326	44,384	61,476	61,239	63,031	62,208	51,687	385,198
1953	26,480	-	-	-	-	11,326	44,457	63,540	66,760	67,860	66,851	53,694	400,967
1954	26,590	-	-	-	-	11,326	45,469	64,092	71,618	75,292	74,211	56,912	425,509
1955	26,590	-	-	-	-	11,326	45,336	64,092	70,706	72,617	71,408	55,672	417,746
1956	26,590	-	-	-	-	11,326	45,469	64,092	72,157	77,704	78,047	65,422	440,806
1957	29,943	-	-	-	-	11,326	46,430	65,458	68,600	69,051	67,903	54,171	412,881
1958	26,590	-	-	-	-	11,326	42,198	59,073	58,344	60,606	59,939	50,708	368,785
1959	26,590	-	-	-	-	11,326	46,438	63,688	71,963	76,065	75,632	65,422	437,124
1960	35,990	-	-	-	-	11,326	44,967	64,808	64,546	72,755	71,525	55,759	421,676
1961	26,590	-	-	-	-	11,326	44,706	62,566	68,606	73,458	73,316	56,560	417,128
1962	25,247	-	-	-	-	11,326	44,942	60,124	61,510	63,466	62,576	51,824	381,015
1963	26,590	-	-	-	-	11,326	41,599	54,680	53,524	55,300	55,214	48,624	346,857
1964	26,590	-	-	-	-	11,326	45,469	64,092	72,157	77,704	78,047	65,422	440,806
1965	36,700	-	-	-	-	11,326	43,373	63,631	70,164	71,826	70,778	55,444	423,242
1966	26,590	-	-	-	-	11,326	43,890	59,485	59,949	61,899	61,307	51,284	375,730
1967	26,590	-	-	-	-	11,326	44,371	63,584	66,816	67,504	66,700	53,667	400,558
1968	26,590	-	-	-	-	11,326	44,533	63,690	67,387	68,620	67,603	54,024	403,773
1969	26,590	-	-	-	-	11,326	46,438	64,653	66,520	69,631	68,567	54,475	408,199
1970	26,590	-	-	-	-	11,326	42,041	63,544	67,112	67,734	66,877	53,773	398,997
1971	22,080	-	-	-	-	11,326	45,469	64,092	72,157	77,704	78,047	65,422	436,297
1972	36,700	-	-	-	-	11,326	45,469	64,092	72,157	77,704	78,047	65,422	450,916
1973	36,700	-	-	-	-	11,326	43,745	57,589	57,196	59,308	58,733	50,184	374,780
1974	26,590	-	-	-	-	11,326	45,469	64,092	72,157	77,704	77,980	65,422	440,739
1975	35,667	-	-	-	-	11,326	45,469	64,092	72,157	77,704	78,047	65,422	449,883
1976	35,898	-	-	-	-	11,326	45,469	64,092	72,157	77,704	78,047	65,422	450,114
1977	34,717	-	-	-	-	11,326	40,770	44,075	42,385	43,769	44,435	42,465	303,943
1978	26,590	-	-	-	-	11,326	42,903	63,362	67,853	69,048	68,020	54,222	403,324
1979	26,590	-	-	-	-	11,326	43,587	55,167	53,273	55,115	55,006	48,529	348,593
1980	26,590	-	-	-	-	11,326	44,864	64,981	62,118	65,544	64,614	52,728	392,765
1981	26,590	-	-	-	-	11,326	45,747	61,079	62,522	64,339	63,452	52,210	387,265
1982	26,590	-	-	-	-	11,326	45,113	64,250	72,157	77,704	78,047	65,422	440,608
1983	25,163	-	-	-	-	11,326	44,513	63,851	68,471	69,966	68,906	54,601	406,796
1984	26,590	-	-	-	-	11,326	41,111	64,057	70,333	71,279	70,164	55,180	410,039
1985	26,590	-	-	-	-	11,326	43,559	54,602	52,177	53,934	53,961	48,082	344,232
1986	26,590	-	-	-	-	11,326	43,848	58,494	57,504	59,520	58,977	50,287	366,546
1987	24,084	-	-	-	-	11,326	43,720	62,464	59,025	60,995	60,566	50,978	373,157
1988	26,590	-	-	-	-	11,326	45,422	57,431	57,535	59,502	59,004	50,286	367,095
1989	26,590	-	-	-	-	11,326	46,041	64,256	67,102	68,504	67,457	54,005	405,280
1990	26,590	-	-	-	-	11,326	46,438	65,416	67,959	72,570	71,433	55,738	417,469
1991	26,590	-	-	-	-	11,326	46,377	63,518	69,296	74,884	73,709	56,751	422,450
1992	26,590	-	-	-	-	11,326	42,823	51,744	50,805	52,620	52,832	47,592	336,332
1993	26,590	-	-	-	-	11,326	42,643	57,330	55,212	57,170	56,884	49,381	356,536
1994	18,725	-	-	-	-	11,326	41,565	49,787	48,602	50,143	50,657	46,673	317,477
1995	25,762	-	-	-	-	11,326	43,446	61,343	61,030	62,874	62,070	51,641	379,492
1996	25,968	-	-	-	-	11,326	46,193	63,358	70,620	72,301	71,147	55,592	416,506
1997	26,590	-	-	-	-	11,326	45,469	64,092	72,157	77,704	78,047	65,422	440,806
1998	36,700	-	-	-	-	11,326	44,354	63,098	65,608	67,054	66,192	53,447	407,780
1999	26,590	-	-	-	-	11,326	45,469	64,092	71,858	75,035	74,878	57,264	426,511
2000	26,590	-	-	-	-	11,326	46,272	63,355	68,636	70,100	69,053	54,690	410,021
2001	26,590	-	-	-	-	11,326	42,620	52,240	49,664	51,270	51,530	47,018	332,258
2002	15,009	-	-	-	-	11,326	46,316	63,095	73,124	77,704	78,047	61,475	426,097
2003	29,473	-	-	-	-	11,326	44,605	59,366	59,302	61,536	60,825	51,101	377,535
2004	24,754	-	-	-	-	11,326	45,240	59,285	58,924	61,156	60,375	50,863	371,923
2005	22,925	-	-	-	-	11,326	41,976	54,955	54,089	55,984	55,832	48,902	345,990
2006	26,590	-	-	-	-	11,326	45,935	64,655	65,264	75,946	77,505	56,345	423,565
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	27,232	-	-	-	-	11,326	44,430	60,876	63,950	66,871	66,469	54,635	395,788

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline CC Adverse (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	869	-	-	-	-	458	1,686	14,116	16,047	16,532	16,612	15,122	81,442
1927	869	-	-	-	-	458	4,902	13,465	17,395	18,447	18,447	16,568	90,550
1928	869	-	-	-	-	458	5,036	13,880	17,144	18,447	18,447	16,566	90,846
1929	869	-	-	-	-	458	2,105	14,203	16,457	16,955	16,989	15,359	83,395
1930	869	-	-	-	-	458	1,810	13,939	15,307	15,771	15,859	14,592	78,605
1931	869	-	-	-	-	458	3,676	14,249	16,940	17,524	17,522	15,682	86,918
1932	869	-	-	-	-	458	5,193	14,249	17,833	20,637	21,193	16,847	97,278
1933	3,261	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,149
1934	3,218	-	-	-	-	458	5,193	13,841	17,395	18,447	18,447	16,541	93,538
1935	869	-	-	-	-	458	4,242	14,249	17,395	18,447	18,447	16,568	90,674
1936	869	-	-	-	-	458	3,403	14,249	17,395	18,404	18,339	16,164	89,280
1937	869	-	-	-	-	458	3,209	14,249	17,395	18,374	18,291	16,126	88,971
1938	869	-	-	-	-	458	5,193	14,030	17,004	18,447	18,447	16,590	91,037
1939	869	-	-	-	-	458	4,893	13,983	17,395	18,447	18,416	16,223	90,685
1940	869	-	-	-	-	458	5,032	12,951	17,318	18,134	18,149	16,052	88,963
1941	869	-	-	-	-	458	1,723	13,818	14,894	15,423	15,531	14,379	77,095
1942	869	-	-	-	-	458	4,486	14,183	17,113	17,807	17,788	15,844	88,547
1943	869	-	-	-	-	458	5,193	13,911	17,570	18,447	18,447	16,592	91,486
1944	869	-	-	-	-	458	1,675	14,127	16,106	16,573	16,633	15,127	81,567
1945	869	-	-	-	-	458	4,408	13,723	16,811	18,447	18,447	16,485	89,647
1946	869	-	-	-	-	458	4,897	14,249	17,887	20,637	21,193	16,641	96,831
1947	3,548	-	-	-	-	458	5,127	14,249	17,160	18,447	18,447	16,534	93,969
1948	869	-	-	-	-	458	4,521	14,249	17,395	18,447	18,447	16,587	90,972
1949	869	-	-	-	-	458	5,076	14,249	17,887	20,637	21,193	16,842	97,210
1950	3,638	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,527
1951	3,968	-	-	-	-	458	5,188	14,249	17,887	20,637	21,193	17,096	100,675
1952	3,968	-	-	-	-	458	3,788	14,249	17,395	18,447	18,427	16,254	92,986
1953	869	-	-	-	-	458	4,167	14,249	17,395	18,447	18,447	16,545	90,575
1954	869	-	-	-	-	458	5,193	14,249	17,480	18,447	18,447	16,591	91,732
1955	869	-	-	-	-	458	4,664	14,249	17,395	18,447	18,447	16,576	91,103
1956	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1957	3,126	-	-	-	-	458	5,192	14,249	16,968	18,447	18,447	16,555	93,441
1958	869	-	-	-	-	458	3,262	14,249	17,296	18,135	18,073	16,005	88,347
1959	869	-	-	-	-	458	5,193	14,040	17,813	18,447	18,464	17,272	92,554
1960	3,968	-	-	-	-	458	4,992	14,072	15,263	18,447	18,447	16,577	92,222
1961	869	-	-	-	-	458	4,866	13,502	16,391	18,129	18,447	16,587	89,247
1962	869	-	-	-	-	458	5,087	14,016	17,395	18,447	18,436	16,287	90,995
1963	869	-	-	-	-	458	4,487	14,227	16,581	17,083	17,110	15,426	86,241
1964	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1965	3,968	-	-	-	-	458	4,859	14,036	17,395	18,447	18,447	16,573	94,182
1966	869	-	-	-	-	458	4,725	13,415	17,395	18,392	18,351	16,159	89,764
1967	869	-	-	-	-	458	4,182	14,249	17,395	18,447	18,447	16,544	90,590
1968	869	-	-	-	-	458	4,353	14,249	17,395	18,447	18,447	16,552	90,769
1969	869	-	-	-	-	458	5,193	14,009	16,247	18,447	18,447	16,561	90,229
1970	869	-	-	-	-	458	4,037	14,249	17,395	18,447	18,447	16,547	90,448
1971	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1972	3,751	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,639
1973	3,968	-	-	-	-	458	2,688	14,249	17,147	17,878	17,827	15,862	90,077
1974	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1975	3,940	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,828
1976	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1977	3,886	-	-	-	-	458	1,041	13,481	13,955	14,416	14,635	13,476	75,348
1978	869	-	-	-	-	458	4,623	14,092	17,395	18,447	18,447	16,557	90,886
1979	869	-	-	-	-	458	2,372	14,220	16,533	17,046	17,068	15,399	83,965
1980	869	-	-	-	-	458	4,995	14,095	16,617	18,447	18,447	16,479	90,404
1981	869	-	-	-	-	458	5,100	13,997	17,395	18,447	18,447	16,378	91,090
1982	869	-	-	-	-	458	5,007	14,249	17,887	20,637	21,193	17,272	97,571
1983	2,739	-	-	-	-	458	4,329	14,249	17,395	18,447	18,447	16,562	92,625
1984	869	-	-	-	-	458	4,385	14,249	17,395	18,447	18,447	16,570	90,819
1985	869	-	-	-	-	458	2,289	14,202	16,330	16,812	16,855	15,272	83,087
1986	869	-	-	-	-	458	3,654	14,249	17,178	17,920	17,877	15,891	88,096
1987	869	-	-	-	-	458	4,795	14,062	17,383	18,212	18,200	16,078	90,057
1988	869	-	-	-	-	458	5,056	14,103	17,189	17,917	17,882	15,891	89,364
1989	869	-	-	-	-	458	5,149	13,878	16,553	18,447	18,447	16,552	90,351
1990	869	-	-	-	-	458	5,193	14,239	16,307	18,447	18,447	16,577	90,535
1991	869	-	-	-	-	458	5,190	13,779	16,832	18,447	18,447	16,589	90,611
1992	869	-	-	-	-	458	1,622	14,119	16,059	16,552	16,625	15,127	81,431
1993	869	-	-	-	-	458	3,076	14,248	16,873	17,454	17,451	15,641	86,069
1994	869	-	-	-	-	458	2,679	14,016	15,604	16,060	16,183	14,843	80,712
1995	869	-	-	-	-	458	3,662	14,249	17,395	18,447	18,423	16,243	89,745
1996	869	-	-	-	-	458	5,176	13,960	17,395	18,447	18,447	16,575	91,325
1997	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1998	3,968	-	-	-	-	458	4,129	14,249	17,395	18,447	18,447	16,539	93,632
1999	869	-	-	-	-	458	5,193	14,249	17,682	18,447	18,447	16,596	91,939
2000	869	-	-	-	-	458	5,161	14,179	17,395	18,447	18,447	16,564	91,519
2001	869	-	-	-	-	458	2,199	14,104	15,824	16,284	16,360	14,952	81,049
2002	869	-	-	-	-	458	5,186	13,661	17,887	20,637	21,193	17,065	96,956
2003	3,883	-	-	-	-	458	3,296	14,249	17,395	18,320	18,253	16,111	91,966
2004	869	-	-	-	-	458	4,319	14,249	17,369	18,245	18,161	16,047	89,716
2005	869	-	-	-	-	458	3,283	14,236	16,685	17,219	17,236	15,505	85,491
2006	869	-	-	-	-	458	5,159	14,029	15,345	19,987	20,372	16,841	93,059
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,461	-	-	-	-	458	4,297	14,097	17,091	18,492	18,615	16,315	90,826

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline CC Adverse (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	5,536	-	-	-	-	20	7,373	12,454	11,508	10,903	11,990	11,798	71,583
1927	5,536	-	-	-	-	20	11,165	13,805	14,527	14,065	14,735	13,329	87,183
1928	5,536	-	-	-	-	20	11,486	15,141	14,648	14,065	14,735	13,329	88,959
1929	5,536	-	-	-	-	20	8,508	12,833	12,155	11,120	12,579	12,125	74,876
1930	5,536	-	-	-	-	20	8,304	12,454	11,508	10,903	11,990	11,798	72,514
1931	5,536	-	-	-	-	20	10,568	13,395	12,179	11,195	13,468	12,611	78,971
1932	5,536	-	-	-	-	20	11,828	15,543	16,202	17,629	17,780	15,757	100,294
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	14,905	14,527	14,065	14,735	13,329	90,802
1935	5,536	-	-	-	-	20	10,598	13,791	14,527	14,065	14,735	13,329	86,602
1936	5,536	-	-	-	-	20	10,573	13,571	14,230	13,127	14,194	12,849	84,100
1937	5,536	-	-	-	-	20	10,416	13,571	14,230	13,127	14,194	12,849	83,942
1938	5,536	-	-	-	-	20	11,828	15,293	15,279	14,065	17,133	15,376	94,530
1939	5,536	-	-	-	-	20	11,085	13,469	14,230	13,127	14,194	12,849	84,509
1940	5,536	-	-	-	-	20	11,461	13,421	13,121	11,855	14,194	12,849	82,456
1941	5,536	-	-	-	-	20	8,507	12,454	11,508	10,903	11,990	11,798	72,717
1942	5,536	-	-	-	-	20	10,278	13,357	13,121	11,427	13,468	12,611	79,818
1943	5,536	-	-	-	-	20	11,828	14,851	16,021	17,070	17,346	15,376	98,047
1944	5,536	-	-	-	-	20	7,195	12,454	11,508	10,903	11,990	11,798	71,404
1945	5,536	-	-	-	-	20	9,776	14,965	14,101	13,127	14,194	12,849	84,568
1946	5,536	-	-	-	-	20	11,078	15,543	16,253	17,629	17,780	15,757	99,596
1947	7,393	-	-	-	-	20	11,671	15,543	14,396	14,065	14,735	13,329	91,152
1948	5,536	-	-	-	-	20	11,131	14,763	15,398	17,070	15,864	13,329	93,111
1949	5,536	-	-	-	-	20	11,347	15,543	16,253	17,629	17,780	15,757	99,865
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,804	15,543	16,253	17,629	17,780	15,757	102,178
1952	7,393	-	-	-	-	20	10,701	13,571	14,230	13,127	14,194	12,849	86,084
1953	5,536	-	-	-	-	20	10,714	13,791	14,527	14,065	14,735	13,329	86,717
1954	5,536	-	-	-	-	20	11,828	15,543	15,973	17,070	17,346	15,376	98,691
1955	5,536	-	-	-	-	20	11,421	14,630	14,527	14,065	14,735	13,329	88,264
1956	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1957	7,393	-	-	-	-	20	11,827	15,543	14,827	14,065	14,735	13,329	91,738
1958	5,536	-	-	-	-	20	9,983	13,553	13,121	12,450	14,194	12,849	81,706
1959	5,536	-	-	-	-	20	11,828	14,955	16,191	17,070	17,358	15,757	98,714
1960	7,393	-	-	-	-	20	11,363	15,337	13,510	14,065	14,735	13,329	89,752
1961	5,536	-	-	-	-	20	11,263	14,705	14,948	13,927	14,735	13,329	88,463
1962	5,536	-	-	-	-	20	11,384	13,622	14,230	13,127	14,194	12,849	84,961
1963	5,536	-	-	-	-	20	10,332	12,833	12,155	11,120	12,579	12,125	76,700
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	10,874	14,496	14,527	14,065	14,735	13,329	89,439
1966	5,536	-	-	-	-	20	11,046	14,096	14,230	13,127	14,194	12,849	85,097
1967	5,536	-	-	-	-	20	10,689	13,791	14,527	14,065	14,735	13,329	86,692
1968	5,536	-	-	-	-	20	10,826	13,791	14,527	14,065	14,735	13,329	86,830
1969	5,536	-	-	-	-	20	11,828	15,283	14,225	14,065	14,735	13,329	89,021
1970	5,536	-	-	-	-	20	9,994	13,791	14,527	14,065	14,735	13,329	85,998
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	9,873	13,395	13,121	11,427	13,468	12,611	81,306
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	7,664	12,454	11,508	10,903	11,990	11,798	73,731
1978	5,536	-	-	-	-	20	10,634	14,189	14,527	14,065	14,735	13,329	87,035
1979	5,536	-	-	-	-	20	9,892	12,917	12,155	11,120	12,579	12,125	76,343
1980	5,536	-	-	-	-	20	11,348	15,399	13,817	13,127	14,194	12,849	86,289
1981	5,536	-	-	-	-	20	11,583	14,057	14,230	13,127	14,194	12,849	85,595
1982	5,536	-	-	-	-	20	11,438	15,543	16,253	17,629	17,780	15,757	99,955
1983	7,393	-	-	-	-	20	10,619	13,791	14,527	14,065	14,735	13,329	88,479
1984	5,536	-	-	-	-	20	10,112	13,791	14,527	14,065	14,735	13,329	86,116
1985	5,536	-	-	-	-	20	8,772	12,778	11,508	10,917	12,403	11,798	73,732
1986	5,536	-	-	-	-	20	10,603	13,486	13,121	11,427	13,468	12,611	80,271
1987	5,536	-	-	-	-	20	10,953	15,032	14,230	13,127	14,194	12,849	85,940
1988	5,536	-	-	-	-	20	11,488	13,391	13,121	11,427	13,468	12,611	81,062
1989	5,536	-	-	-	-	20	11,706	15,186	14,454	14,065	14,735	13,329	89,032
1990	5,536	-	-	-	-	20	11,828	15,534	14,336	14,065	14,735	13,329	89,382
1991	5,536	-	-	-	-	20	11,815	14,993	15,277	17,070	17,346	15,376	97,432
1992	5,536	-	-	-	-	20	7,093	12,454	11,508	10,903	11,990	11,798	71,303
1993	5,536	-	-	-	-	20	10,137	13,287	12,155	11,195	13,468	12,415	78,213
1994	5,536	-	-	-	-	20	9,147	12,454	11,508	10,903	11,990	11,798	73,357
1995	5,536	-	-	-	-	20	10,274	13,571	14,230	13,127	14,194	12,849	83,800
1996	5,536	-	-	-	-	20	11,744	14,655	14,676	14,065	14,735	13,329	88,760
1997	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1998	7,393	-	-	-	-	20	10,640	13,791	14,527	14,065	14,735	13,329	88,500
1999	5,536	-	-	-	-	20	11,828	15,543	16,114	17,070	17,346	15,376	98,832
2000	5,536	-	-	-	-	20	11,770	13,745	14,527	14,065	14,735	13,329	87,727
2001	5,536	-	-	-	-	20	7,972	12,454	11,508	10,903	11,990	11,798	72,182
2002	5,536	-	-	-	-	20	11,801	14,897	16,253	17,629	17,780	15,757	99,672
2003	7,393	-	-	-	-	20	10,702	13,571	14,230	13,127	14,194	12,849	86,085
2004	5,536	-	-	-	-	20	11,229	13,571	14,230	13,127	14,194	12,849	84,755
2005	5,536	-	-	-	-	20	9,645	12,833	12,155	11,120	12,579	12,125	76,013
2006	5,536	-	-	-	-	20	11,662	15,298	13,967	17,069	17,673	15,757	96,981
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,926	-	-	-	-	20	10,787	14,265	14,288	14,132	14,977	13,621	88,016

Run: Baseline (Adverse Climate Change)

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	13.8	2.1	1.3	1.4	0.8	1.1	4.5	12.1	11.0	15.0	40.1	43.2	146.4
1927	7.9	2.0	1.7	1.2	1.1	1.0	2.6	14.9	14.1	17.3	41.0	64.7	169.5
1928	4.5	1.0	1.3	1.5	1.2	1.0	2.9	10.7	15.4	38.7	65.0	65.9	209.0
1929	8.1	1.9	2.0	1.8	2.7	1.2	8.1	7.3	8.5	14.8	29.4	43.8	129.6
1930	7.9	3.4	1.8	2.1	0.9	1.4	3.2	6.8	6.8	9.2	25.6	39.7	108.7
1931	16.7	2.7	2.4	1.5	1.3	1.0	7.5	13.2	11.7	19.5	48.2	37.3	163.0
1932	6.5	1.3	1.5	1.2	1.7	0.9	0.9	10.4	13.4	31.5	53.1	90.8	213.1
1933	17.7	0.9	1.2	1.0	1.5	1.2	0.9	17.8	9.3	32.0	57.0	85.5	226.0
1934	36.4	1.0	1.0	29.0	1.4	35.6	19.9	18.7	44.2	65.4	66.4	49.2	368.3
1935	10.1	1.1	1.4	1.2	0.8	1.2	1.7	13.7	13.7	26.6	41.4	67.2	180.1
1936	16.8	2.2	2.1	1.2	2.6	1.1	4.4	13.8	15.8	23.9	51.4	49.0	184.4
1937	8.1	4.3	2.3	1.9	2.2	1.5	2.9	10.5	12.5	23.1	48.6	41.7	159.6
1938	6.5	1.5	1.1	1.0	1.1	0.9	1.1	9.6	13.3	23.0	53.0	72.4	184.6
1939	13.7	1.7	1.6	0.9	1.0	1.0	5.5	20.1	17.8	27.4	62.2	43.0	195.9
1940	6.0	2.2	2.0	1.2	0.9	0.9	2.5	10.2	13.2	23.2	58.1	48.8	169.1
1941	8.7	2.3	1.4	1.5	1.2	1.8	7.5	5.5	7.1	9.0	26.7	26.1	98.8
1942	5.0	1.5	1.7	1.8	1.1	1.7	5.5	21.1	11.4	22.1	52.8	42.0	167.8
1943	7.2	1.4	1.1	1.8	1.4	1.2	2.6	16.6	10.8	16.7	32.8	69.3	163.0
1944	21.0	2.1	1.9	1.8	1.4	1.7	5.6	8.9	10.6	13.9	35.3	38.5	142.7
1945	8.5	2.6	2.2	1.4	1.0	1.1	3.5	13.3	16.9	27.8	61.6	41.2	180.9
1946	6.8	1.0	1.5	1.1	1.3	0.9	1.3	5.4	9.8	31.2	54.1	90.1	204.6
1947	17.9	2.0	1.6	1.3	0.8	0.9	2.4	14.1	15.0	31.3	66.8	51.2	205.3
1948	5.3	1.0	1.0	1.2	1.6	1.3	1.9	6.7	4.3	32.1	64.1	66.9	187.4
1949	8.1	1.4	1.2	1.8	1.7	1.0	2.2	6.6	14.3	44.6	62.0	91.3	236.2
1950	19.2	1.9	1.2	2.0	2.0	1.7	2.2	2.5	1.7	20.4	36.0	91.3	182.1
1951	32.7	1.3	0.9	1.1	1.5	1.7	5.3	22.3	21.9	47.2	69.7	95.2	300.7
1952	24.0	1.6	1.6	1.8	1.8	1.5	1.1	16.6	15.0	22.7	49.4	42.4	179.5
1953	6.9	4.9	2.7	1.2	0.8	1.0	6.2	12.3	16.4	21.4	50.9	47.2	172.0
1954	5.6	1.2	0.9	1.2	1.3	0.9	3.4	14.2	10.1	30.8	50.9	68.8	189.2
1955	16.3	2.0	1.5	1.2	1.7	3.0	11.6	12.4	6.6	17.9	41.0	67.2	182.3
1956	9.1	1.0	0.9	1.0	2.0	1.1	8.5	25.2	22.2	39.2	43.9	92.8	247.1
1957	42.7	1.6	1.6	1.5	1.3	0.9	2.1	8.3	16.7	34.9	59.8	66.7	238.2
1958	11.2	1.9	1.2	1.1	0.8	1.1	3.3	15.9	10.4	32.0	61.5	43.7	184.0
1959	4.6	1.2	1.2	0.9	1.2	0.9	2.1	9.9	15.2	34.1	61.1	87.0	219.5
1960	23.7	1.7	1.0	1.4	1.0	1.2	2.7	6.1	9.2	36.0	68.6	66.8	219.4
1961	11.3	1.1	1.2	1.1	0.8	0.9	3.4	9.8	13.4	36.1	65.0	70.8	214.9
1962	12.7	2.0	1.4	1.2	0.9	1.4	4.2	21.3	14.3	19.5	45.6	46.8	171.3
1963	6.3	1.6	1.1	1.8	1.0	1.1	6.3	16.7	9.7	16.4	46.9	40.8	149.7
1964	6.5	1.0	1.3	1.0	1.0	1.0	2.4	10.6	3.6	15.3	44.7	88.0	176.4
1965	33.1	2.5	1.2	2.4	0.8	1.0	1.4	13.9	13.5	38.1	56.0	67.3	231.0
1966	12.9	1.8	1.8	2.0	1.3	1.2	3.9	12.1	14.7	25.3	57.3	49.1	183.4
1967	9.4	1.4	1.6	0.9	0.8	0.9	10.5	17.1	9.8	30.5	51.3	53.5	187.9
1968	11.0	2.1	1.7	1.2	1.0	1.0	3.5	16.1	15.8	52.2	56.9	57.7	220.2
1969	6.0	1.3	1.1	2.1	2.7	1.3	1.7	7.8	12.3	28.9	56.8	63.1	185.2
1970	6.0	2.1	1.4	1.5	0.8	1.0	7.3	14.6	12.2	31.3	57.4	49.0	184.7
1971	7.2	2.3	2.3	1.3	0.9	2.1	0.9	1.0	3.1	16.3	26.1	88.4	151.8
1972	43.0	1.7	1.1	1.1	1.9	0.9	0.9	23.5	28.6	33.6	38.6	87.4	262.4
1973	39.4	1.9	1.7	1.1	1.3	1.2	6.3	21.2	12.4	40.9	54.7	48.5	230.6
1974	9.0	1.1	0.9	1.4	0.8	0.9	1.2	11.3	13.5	23.0	40.5	87.8	191.5
1975	43.3	1.5	1.3	1.1	1.6	1.2	2.2	2.4	9.9	29.4	44.4	91.3	229.6
1976	39.4	1.2	1.0	0.9	1.3	3.6	27.6	26.9	20.9	29.7	36.1	86.9	275.6
1977	44.9	2.4	2.2	2.4	1.7	1.4	7.5	13.0	7.4	10.9	32.7	22.6	149.1
1978	19.6	1.3	1.1	1.1	0.9	1.0	2.6	15.7	14.5	42.6	66.3	52.7	219.5
1979	7.5	1.6	1.4	2.9	1.6	1.1	5.9	4.2	10.9	14.7	31.6	44.4	127.8
1980	14.2	2.6	1.5	1.9	1.9	0.9	1.4	13.5	14.8	22.9	52.0	47.4	175.0
1981	7.3	1.3	1.4	1.5	1.1	1.0	3.4	21.2	11.3	22.8	56.8	42.0	170.9
1982	4.0	1.5	0.9	1.4	1.1	0.9	1.6	8.5	8.5	35.1	50.6	91.8	205.9
1983	38.9	1.7	1.1	1.2	0.9	0.9	4.0	17.0	16.5	21.6	54.8	66.4	224.9
1984	10.8	0.9	1.8	1.3	0.9	0.9	7.6	21.1	13.0	22.8	39.8	64.6	185.6
1985	11.7	1.1	2.1	1.5	2.2	3.0	4.7	6.0	7.4	14.1	25.4	43.1	122.3
1986	8.4	1.5	2.5	2.8	1.7	0.9	5.0	11.9	13.4	22.4	53.1	36.0	159.9
1987	6.3	1.5	1.7	1.4	0.8	0.9	5.1	16.8	12.6	18.0	51.3	48.8	165.2
1988	9.1	4.1	1.6	1.8	1.0	0.9	6.9	13.8	13.6	18.3	37.5	44.8	153.7
1989	6.8	1.1	1.4	1.1	1.7	1.4	2.6	11.9	12.3	20.2	41.8	66.3	168.7
1990	13.7	1.4	1.8	1.1	1.0	0.9	1.7	13.7	12.3	24.9	54.7	67.9	195.1
1991	6.8	0.9	1.1	1.4	0.9	0.9	2.6	11.5	22.9	44.2	61.3	69.6	224.1
1992	18.5	1.3	1.5	1.0	0.9	1.5	8.2	13.2	12.4	20.0	45.3	43.3	167.2
1993	13.3	1.7	2.0	2.5	1.7	1.2	3.8	4.6	11.8	20.1	50.3	42.2	155.2
1994	6.5	3.7	1.7	1.4	1.4	0.9	1.6	3.9	8.3	11.0	29.9	41.1	111.5
1995	13.0	2.2	1.5	1.3	0.9	1.2	7.3	15.6	15.0	23.3	53.5	36.9	171.7
1996	3.8	1.3	1.1	1.1	1.2	1.0	1.9	13.7	13.2	40.1	57.9	68.1	204.3
1997	18.3	2.1	2.7	1.4	1.1	0.9	0.9	3.6	22.7	36.1	40.6	88.6	218.9
1998	36.6	1.4	1.2	1.2	0.8	1.0	5.2	12.1	16.5	34.9	68.9	53.3	232.9
1999	8.0	1.6	1.0	1.0	1.0	0.9	3.2	25.5	10.4	20.4	40.1	69.3	182.6
2000	15.4	1.1	1.1	1.1	1.1	0.9	3.7	10.7	15.7	44.7	62.8	69.2	227.4
2001	11.3	2.3	3.0	2.7	1.7	1.4	6.4	6.3	8.1	12.8	32.1	42.9	130.9
2002	10.0	1.4	1.2	1.1	1.1	1.0	2.2	7.6	7.2	29.2	53.3	93.2	208.4
2003	22.0	3.9	2.2	1.6	0.8	1.1	3.9	19.2	10.4	16.7	52.6	45.6	179.9
2004	6.5	1.6	1.1	1.9	1.3	0.9	7.4	16.4	14.1	28.5	55.0	23.6	158.2
2005	4.2	1.6	1.3	1.8	1.1	1.1	3.1	10.0	12.7	17.9	43.7	44.2	142.8
2006	7.9	1.6	2.2	1.0	1.7	0.9	1.5	6.2	8.8	22.9	61.3	83.9	199.9
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	13.9	1.7	1.5	1.7	1.2	1.6	4.2	12.2	12.5	25.7	47.9	57.8	182.1

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline CC Adverse (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline CC Adverse (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline CC Adverse (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: Baseline CC Adverse (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Baseline CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	15,282	19,030	58,633
1926	68,798	90,957	103,501	103,756	95,417	63,623	33,102	11,656	9,392	17,871	26,372	37,418
1927	56,146	72,279	78,931	93,746	103,242	82,238	42,596	11,115	9,681	18,092	47,543	63,366
1928	87,720	93,286	132,851	134,070	143,131	107,302	70,586	24,442	20,391	28,129	34,608	39,076
1929	39,204	32,874	46,668	51,084	82,094	74,631	37,292	10,137	6,447	6,385	6,921	17,287
1930	19,168	39,783	53,626	68,387	76,109	63,329	39,443	16,109	12,321	17,380	20,247	22,466
1931	42,899	52,128	83,598	92,179	88,578	63,154	18,830	8,357	6,867	15,837	32,396	40,527
1932	50,434	55,309	99,389	125,957	138,866	119,979	62,225	12,061	9,464	13,304	86,287	118,796
1933	117,138	112,545	118,337	132,128	130,542	118,756	74,983	28,695	28,278	33,082	68,660	129,663
1934	121,738	134,857	153,376	156,904	150,335	107,704	58,530	12,881	9,561	31,614	50,368	79,202
1935	113,015	129,560	132,556	146,239	134,558	108,010	53,166	15,296	11,655	12,861	16,555	26,806
1936	62,302	56,648	61,208	86,117	106,835	77,247	27,906	9,883	8,002	6,737	6,261	33,407
1937	31,686	30,329	42,185	84,105	98,064	78,444	24,156	10,115	7,502	9,340	52,844	80,991
1938	102,234	105,917	123,195	128,599	138,265	114,913	72,015	25,823	21,738	27,092	36,374	66,122
1939	94,407	91,795	99,894	117,077	108,548	69,660	26,226	9,211	6,171	11,436	18,443	80,408
1940	87,628	112,161	138,970	147,079	129,088	85,939	38,742	10,335	6,522	10,807	14,681	43,153
1941	52,743	57,973	63,168	58,073	59,356	41,204	18,415	9,688	10,459	14,910	31,755	88,201
1942	91,690	102,128	107,830	107,685	85,664	69,232	36,248	11,036	7,662	6,863	33,365	52,570
1943	53,395	59,382	73,116	113,556	115,012	94,887	53,462	15,591	11,675	20,290	26,114	43,525
1944	52,587	56,799	59,795	71,609	92,094	65,192	30,577	10,084	8,477	8,646	14,731	19,516
1945	43,314	53,609	58,368	75,727	107,246	76,618	20,230	8,262	9,679	23,603	40,198	59,067
1946	78,870	80,749	108,775	125,777	151,330	130,123	65,692	11,735	8,119	16,952	29,200	92,359
1947	102,325	115,519	135,072	151,310	129,952	93,097	39,779	10,675	8,910	31,855	63,566	89,350
1948	100,136	100,285	102,434	121,128	154,744	155,798	87,615	32,116	27,692	31,578	50,631	68,052
1949	67,315	63,120	78,007	103,880	153,704	133,033	67,900	15,529	11,543	15,911	29,919	54,381
1950	53,692	52,341	53,632	71,866	120,608	157,770	124,873	62,534	57,189	71,909	104,373	118,796
1951	116,682	129,586	120,542	126,944	156,712	143,126	82,527	29,325	25,134	21,112	31,386	44,832
1952	44,058	50,944	56,255	86,107	100,632	72,195	22,694	9,141	5,606	3,704	5,192	8,040
1953	42,036	68,139	79,082	85,559	100,972	72,573	27,838	10,595	7,340	9,879	31,228	99,849
1954	116,066	140,617	131,243	126,451	132,296	107,269	69,446	30,502	27,570	24,348	38,597	47,608
1955	63,643	62,627	56,627	59,422	87,784	103,805	66,263	29,111	24,882	44,140	85,218	118,796
1956	118,192	111,830	98,157	105,742	139,771	157,059	101,206	43,402	37,668	34,474	46,506	101,237
1957	99,185	97,627	112,507	133,528	141,515	102,572	46,550	11,148	7,696	11,197	21,476	52,410
1958	72,827	109,482	113,965	128,731	111,607	79,260	48,771	11,364	8,014	16,587	42,352	91,271
1959	118,796	120,313	130,825	141,944	144,582	123,209	71,973	23,676	28,162	44,596	79,743	110,931
1960	113,389	131,381	138,657	152,395	152,578	126,826	65,793	19,730	16,859	22,479	55,165	63,335
1961	93,646	136,515	133,994	137,259	138,205	118,850	73,396	23,377	19,233	25,255	30,766	51,543
1962	70,280	87,005	92,570	106,053	86,727	56,234	21,621	10,106	7,925	12,613	33,802	54,013
1963	62,888	89,319	95,725	102,873	85,864	59,129	29,819	11,162	8,241	16,773	40,932	57,156
1964	77,233	82,821	98,308	113,983	126,535	149,703	94,581	41,567	37,876	33,297	45,275	67,086
1965	83,293	112,172	118,632	145,438	136,374	109,279	67,540	26,715	22,550	28,572	36,821	44,327
1966	51,705	53,862	72,930	102,195	115,527	84,702	32,475	10,239	7,139	15,061	23,776	81,500
1967	112,306	127,634	133,291	116,266	117,656	93,345	56,909	16,759	12,776	18,868	26,004	56,975
1968	82,225	118,571	147,898	150,743	125,741	92,888	51,669	12,518	10,719	19,407	39,203	61,080
1969	60,584	54,911	64,440	99,716	134,123	108,993	43,998	10,544	10,921	12,467	20,427	48,067
1970	75,073	95,010	106,923	109,252	101,020	78,228	47,636	12,319	10,686	13,312	18,000	18,493
1971	43,338	65,006	60,830	83,905	146,107	157,356	118,646	65,396	61,645	52,039	67,710	80,637
1972	83,837	89,920	112,692	110,212	143,084	157,612	112,656	54,792	53,469	40,945	52,810	118,796
1973	118,336	122,793	128,715	122,851	102,130	76,982	41,798	10,812	7,590	8,881	24,593	69,725
1974	101,729	111,226	119,268	117,720	124,324	123,207	98,172	56,836	50,933	33,039	37,469	70,242
1975	93,034	92,261	95,243	102,485	146,931	142,503	92,363	37,040	32,340	47,615	89,199	118,796
1976	118,796	122,799	112,640	112,582	141,380	129,847	99,033	57,533	52,503	35,286	35,776	40,101
1977	45,972	50,568	65,716	61,084	56,333	39,512	17,032	12,801	12,741	12,618	37,412	104,823
1978	113,128	121,152	137,492	147,860	126,295	89,495	54,894	12,905	15,313	14,448	25,316	37,765
1979	33,929	34,330	53,308	68,764	106,269	81,076	41,343	10,633	7,181	9,395	8,229	45,157
1980	45,222	53,866	72,620	101,057	106,894	77,018	26,720	10,214	8,627	6,967	21,908	68,625
1981	76,685	107,873	111,865	124,499	96,223	71,822	35,594	10,302	8,863	17,819	32,794	58,159
1982	76,350	108,554	121,651	126,269	145,153	154,255	86,006	25,790	22,046	17,307	31,390	54,984
1983	81,235	102,195	131,279	137,481	121,137	88,558	49,035	12,570	10,785	10,148	49,801	52,829
1984	81,533	89,316	112,620	108,731	99,695	77,671	42,072	13,680	9,993	10,244	20,033	20,142
1985	18,997	13,192	13,488	35,325	63,088	57,992	24,460	9,674	6,223	15,569	30,039	27,571
1986	44,088	54,275	83,727	89,792	99,963	67,480	18,900	8,145	6,594	8,255	45,475	51,868
1987	60,762	81,244	112,479	121,442	106,526	74,890	35,914	10,078	6,230	3,710	8,564	23,400
1988	28,718	42,903	64,485	74,892	86,754	61,234	19,759	8,512	5,879	14,493	34,922	45,167
1989	62,828	58,698	74,331	112,594	128,135	102,139	50,292	12,075	8,445	10,136	24,268	40,876
1990	67,116	69,235	90,141	125,259	127,283	109,168	56,109	12,666	9,248	21,607	85,336	98,473
1991	114,754	145,959	135,064	148,546	151,592	128,037	77,100	29,412	24,656	19,852	31,444	57,233
1992	82,045	109,322	113,818	110,021	99,846	65,561	33,255	10,724	9,053	9,141	16,178	20,599
1993	20,775	22,658	43,063	70,060	101,500	75,443	30,014	10,427	7,088	8,997	12,884	27,007
1994	45,606	46,210	66,009	78,248	83,918	64,735	36,059	11,148	7,692	17,270	23,210	48,788
1995	54,596	87,256	105,960	102,481	97,739	63,327	13,764	10,291	6,858	16,294	53,148	98,758
1996	116,970	131,276	128,203	145,622	142,473	114,836	69,027	25,395	22,287	24,692	31,866	39,315
1997	57,077	69,539	95,975	101,779	134,586	157,770	108,206	46,552	42,955	46,556	68,316	87,539
1998	106,273	125,767	147,186	140,060	137,935	99,931	41,110	9,999	6,153	8,952	30,302	65,670
1999	90,135	96,466	102,731	105,566	104,389	107,442	71,201	31,589	27,442	30,811	72,831	109,447
2000	111,844	118,207	129,767	147,787	140,966	114,983	61,146	17,311	14,156	18,338	20,649	20,776
2001	22,170	22,926	29,922	36,960	69,661	63,088	32,671	11,415	8,215	12,372	35,022	56,440
2002	75,913	81,385	80,874	105,384	139,691	150,732	78,512	14,196	9,994	7,496	12,437	20,466
2003	42,355	61,682	91,940	111,789	95,359	76,587	38,727	10,649	8,525	24,771	34,738	45,663
2004	55,443	63,683	75,734	80,683	81,373	53,272	11,516	11,681	11,195	13,296	30,871	53,077
2005	73,653	76,716	96,526	111,966	111,833	75,272	34,460	10,235	7,141	8,993	24,939	46,863
2006	91,234	94,490	98,609	119,346	145,019	128,841	71,915	15,304	10,884	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Baseline CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	11,861	19,080	50,942
1926	67,086	99,465	112,393	120,527	122,300	115,594	101,771	62,449	19,931	23,367	31,531	43,039
1927	64,297	81,806	91,491	109,974	131,346	137,985	124,626	83,965	21,387	28,005	49,667	73,111
1928	98,633	107,534	148,913	170,926	198,259	189,382	152,745	88,380	22,820	25,374	33,718	40,097
1929	43,940	41,995	59,710	67,574	93,454	98,937	86,050	57,347	13,862	8,637	9,851	21,064
1930	28,461	50,756	66,612	83,299	96,752	96,551	89,207	64,361	25,015	17,387	23,319	28,302
1931	42,519	55,196	83,218	104,146	111,459	109,450	91,091	43,277	7,863	12,679	26,603	37,569
1932	56,322	67,604	113,224	149,282	183,133	192,309	168,657	116,184	26,651	14,872	75,138	115,848
1933	146,545	149,529	156,976	183,316	195,021	212,695	187,652	132,028	49,723	33,490	69,362	178,606
1934	203,025	221,860	236,137	238,089	231,339	192,324	128,454	62,876	14,339	27,510	45,432	80,946
1935	117,578	134,348	141,689	161,965	170,935	171,783	150,564	109,629	42,917	30,220	36,632	44,170
1936	79,909	79,505	92,521	120,325	139,454	136,956	114,592	63,785	16,263	9,803	9,108	31,003
1937	34,256	37,181	53,916	88,546	112,595	118,860	98,016	50,509	9,986	7,816	38,745	68,498
1938	94,766	101,800	121,907	155,356	184,137	186,987	168,053	115,713	43,558	39,075	54,620	76,557
1939	107,116	114,879	129,182	143,840	143,419	138,266	113,423	51,982	9,551	10,178	18,140	55,716
1940	65,568	92,520	131,318	147,611	154,010	142,891	121,205	63,697	15,260	13,251	21,730	46,111
1941	59,280	68,727	77,698	79,625	84,225	79,311	71,298	45,473	23,407	24,951	41,139	78,448
1942	87,404	103,225	112,304	123,998	120,835	124,106	103,667	51,461	10,041	3,897	32,157	49,245
1943	55,923	64,766	79,407	116,648	138,260	152,772	145,213	113,497	44,655	33,789	42,728	56,269
1944	65,601	74,876	81,508	94,632	111,280	106,712	93,837	59,426	22,668	18,180	25,429	31,753
1945	54,066	72,567	81,705	100,503	133,256	132,737	108,432	47,559	10,206	15,338	29,478	48,440
1946	69,884	75,891	98,145	117,876	171,206	191,886	167,776	114,159	24,165	17,238	25,753	76,077
1947	96,170	112,431	133,644	162,361	167,040	163,493	133,824	67,650	18,091	37,189	64,045	90,494
1948	107,364	115,182	121,593	141,205	185,716	216,675	190,813	128,762	64,101	62,431	80,995	104,963
1949	108,157	108,869	128,075	157,740	211,596	216,113	178,250	116,537	25,702	15,798	29,462	56,440
1950	61,612	64,644	71,233	95,804	158,709	209,947	218,941	186,567	95,574	84,281	111,816	147,909
1951	161,944	177,248	178,078	210,546	238,018	237,156	197,961	128,968	34,104	21,492	32,539	43,885
1952	46,832	54,290	62,211	92,541	118,345	118,061	100,225	51,117	9,172	2,808	2,824	6,778
1953	33,943	65,155	78,708	91,754	118,966	121,329	107,045	57,753	10,646	10,989	28,033	90,505
1954	116,934	140,778	149,694	168,511	190,627	200,657	177,734	128,229	60,526	47,573	61,755	69,488
1955	89,336	95,266	96,033	105,844	129,015	169,243	160,290	120,258	53,204	62,504	95,862	140,047
1956	155,729	156,989	164,511	190,998	231,339	238,581	207,697	164,186	71,831	41,811	55,680	102,481
1957	105,973	110,323	129,569	160,713	190,584	184,997	151,524	92,788	26,526	21,363	33,940	59,378
1958	84,013	117,779	127,090	148,086	148,946	144,466	113,781	52,934	9,734	17,576	46,526	83,357
1959	119,248	125,884	147,036	181,427	204,996	207,952	178,030	117,527	37,628	33,968	69,832	101,627
1960	110,089	131,903	143,276	164,605	185,834	190,421	156,744	90,403	23,746	21,496	43,960	54,836
1961	81,732	119,606	145,862	166,438	193,429	196,424	162,947	98,624	28,188	24,981	33,416	51,607
1962	70,103	86,319	96,129	121,307	117,956	117,651	100,548	57,279	11,398	12,035	31,252	51,207
1963	64,699	91,957	102,762	117,967	115,813	110,109	95,781	49,963	9,811	14,415	33,904	51,194
1964	72,828	82,719	98,016	119,284	147,648	194,335	192,966	151,857	66,215	40,527	51,721	74,732
1965	94,314	127,136	138,345	171,226	188,315	195,979	164,528	109,844	43,094	36,244	46,518	53,337
1966	60,722	65,235	80,808	111,971	140,431	140,821	118,997	62,223	13,674	15,487	27,610	63,810
1967	100,457	126,060	137,435	136,406	154,297	163,853	137,177	86,534	33,312	32,038	42,549	67,740
1968	94,386	128,280	161,247	176,070	177,132	174,091	123,206	70,410	14,714	19,303	36,116	62,266
1969	66,388	64,603	81,151	118,284	158,601	162,930	135,605	79,442	19,927	18,209	25,685	44,074
1970	68,869	87,252	101,081	111,552	132,204	140,128	114,127	57,139	9,957	8,360	14,240	17,876
1971	41,822	63,699	64,402	93,646	161,295	203,135	209,645	185,961	99,957	68,241	81,794	99,976
1972	118,483	126,651	163,052	188,961	228,942	238,916	214,673	177,023	93,186	56,074	68,197	116,264
1973	140,707	149,655	160,585	165,899	162,112	158,406	118,672	64,798	16,873	11,749	27,386	76,023
1974	109,387	127,881	147,434	169,055	190,131	222,464	213,106	178,093	90,741	48,894	57,466	83,000
1975	109,100	114,411	122,834	137,442	188,923	219,553	199,752	159,256	69,021	52,034	83,156	154,600
1976	182,747	192,041	197,343	197,289	228,164	230,404	210,247	177,985	92,266	50,253	53,575	60,382
1977	67,228	76,162	91,225	94,812	95,082	92,252	82,596	53,912	35,024	18,942	40,391	106,521
1978	116,936	128,422	149,456	168,915	171,310	165,280	124,154	59,665	12,121	6,924	17,652	30,067
1979	29,727	34,089	55,904	73,271	110,114	113,339	100,537	69,605	25,522	15,468	16,407	43,052
1980	46,636	54,890	76,226	108,124	129,885	129,221	108,751	57,404	11,812	5,700	21,788	49,903
1981	65,369	98,252	107,752	128,989	123,929	126,885	105,677	49,315	9,611	16,475	32,389	59,551
1982	86,287	120,189	139,435	154,246	186,136	219,814	192,762	142,513	52,402	22,211	38,195	67,427
1983	98,596	125,347	153,631	167,186	169,296	162,110	143,735	90,077	25,435	17,313	49,121	58,512
1984	90,312	101,945	128,938	135,018	137,455	141,744	123,313	84,016	19,975	12,365	25,657	30,075
1985	33,793	33,862	39,026	59,009	89,549	97,348	84,783	59,821	17,219	20,891	34,465	36,246
1986	44,185	55,606	88,379	103,362	122,162	114,572	93,922	41,582	7,977	6,004	35,572	44,238
1987	55,645	74,021	104,212	125,335	133,641	129,752	113,297	62,704	14,214	5,643	10,784	25,497
1988	34,799	52,816	78,641	99,220	112,369	108,439	92,196	55,240	11,112	15,954	33,469	45,812
1989	67,332	70,509	89,366	125,346	149,258	150,497	132,064	90,604	24,672	15,505	32,239	49,803
1990	79,874	87,780	113,666	151,450	164,659	169,955	147,056	93,615	26,225	33,723	98,701	116,939
1991	134,968	170,169	179,023	209,991	228,114	219,214	178,817	117,957	48,764	32,783	49,737	70,460
1992	95,612	123,073	134,573	140,409	138,730	128,523	110,270	65,774	24,116	13,155	21,376	25,749
1993	29,245	32,551	51,186	76,806	120,624	119,398	100,894	51,602	10,028	8,178	11,660	24,832
1994	38,591	42,876	66,794	86,661	99,956	97,958	88,138	59,021	18,364	12,212	20,436	42,884
1995	52,028	82,788	100,063	109,215	124,080	117,564	95,842	43,534	7,064	14,416	48,192	96,695
1996	122,978	138,635	148,095	187,207	202,325	203,080	166,716	109,597	42,006	33,480	39,679	46,528
1997	62,933	78,847	118,567	152,246	217,800	238,980	210,494	170,467	83,809	56,776	76,704	95,633
1998	114,143	136,524	160,653	167,518	188,760	180,781	146,854	78,734	25,697	21,962	42,354	75,706
1999	104,452	116,344	127,592	136,818	146,768	180,640	170,473	131,493	62,797	53,825	84,574	121,508
2000	131,050	140,861	158,816	188,110	208,385	207,031	164,212	101,824	33,205	27,967	31,418	33,771
2001	36,989	40,878	49,035	58,733	93,629	100,111	89,212	58,631	16,367	12,674	30,224	52,356
2002	73,305	83,263	89,770	119,551	157,868	196,689	174,845	122,294	29,466	8,402	14,056	21,424
2003	35,577	61,069	93,083	113,863	118,801	122,773	107,839	55,886	10,726	17,804	31,182	41,207
2004	53,680	63,935	84,779	100,916	107,792	104,610	77,110	26,431	5,788	6,227	23,466	43,236
2005	59,747	67,443	90,801	113,837	123,907	116,776	100,706	57,507	13,841	10,138	27,027	47,347
2006	83,605	93,427	97,792	121,767	167,611	181,452	162,624	102,047	18,577	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Baseline CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	20,608	30,253	98,565
1926	123,591	185,404	229,793	274,385	306,160	226,629	116,548	25,001	9,916	31,686	49,597	75,237
1927	105,366	133,190	144,627	195,201	279,367	386,138	240,069	67,001	46,051	71,261	125,231	163,231
1928	210,638	221,277	314,062	368,073	436,572	377,503	205,756	53,739	28,606	51,049	68,305	81,217
1929	84,661	78,940	99,102	117,473	220,597	234,550	138,101	29,429	11,129	11,216	12,683	34,436
1930	44,151	81,694	113,299	174,852	226,842	189,635	117,962	36,201	18,510	22,793	30,258	36,714
1931	60,510	76,505	122,500	176,966	301,923	288,242	147,727	28,908	13,857	25,309	51,907	62,360
1932	85,357	92,830	184,324	280,482	433,615	436,950	275,029	97,189	69,391	50,324	224,790	312,521
1933	334,014	332,903	339,054	355,529	416,878	373,897	260,230	93,369	70,596	81,711	183,998	397,522
1934	374,291	397,546	431,061	436,768	434,034	316,264	169,019	36,907	15,845	58,174	101,433	183,827
1935	261,362	296,462	307,099	354,329	436,950	387,205	228,364	69,736	44,568	39,150	49,128	68,066
1936	143,327	138,472	149,199	231,483	368,825	324,148	170,720	35,840	18,525	12,241	11,329	63,607
1937	62,254	62,310	72,996	143,113	267,600	310,211	186,535	46,357	28,351	22,300	95,458	145,017
1938	190,887	197,218	230,114	311,159	434,972	420,584	242,988	69,222	42,470	48,722	88,471	142,949
1939	215,320	223,206	261,698	339,055	383,108	278,635	151,242	34,734	14,780	19,450	37,070	155,987
1940	178,061	232,353	324,092	385,847	426,895	310,610	157,648	34,042	13,835	22,818	37,932	92,225
1941	121,186	134,071	172,161	187,516	219,790	168,319	86,088	17,179	10,087	19,235	60,471	151,657
1942	164,078	195,567	208,617	254,768	274,610	240,802	127,116	28,977	10,888	9,561	72,219	100,196
1943	106,037	113,535	138,806	228,084	324,712	380,583	278,537	103,286	77,005	77,226	95,494	134,416
1944	159,933	171,406	179,015	212,838	284,863	227,569	127,041	28,137	14,162	13,117	30,373	49,127
1945	100,162	151,589	164,747	198,779	350,994	319,739	180,248	41,782	24,425	46,088	74,145	112,390
1946	143,872	148,703	193,282	249,996	433,588	416,457	261,135	85,529	54,764	48,275	57,538	167,847
1947	199,144	230,967	295,529	376,618	436,950	351,712	175,047	42,356	22,766	89,419	159,514	217,005
1948	241,416	246,835	251,569	282,549	403,719	363,983	220,607	74,985	53,730	62,154	97,737	135,121
1949	133,830	133,608	158,941	237,531	433,688	395,967	247,761	79,174	48,658	46,566	93,539	173,043
1950	183,065	184,509	190,175	226,020	316,851	436,950	379,307	200,962	178,763	222,985	276,776	313,588
1951	312,135	348,623	336,647	337,323	433,856	407,737	251,322	82,828	52,263	51,722	79,451	106,260
1952	104,784	110,036	118,768	200,264	326,663	303,431	180,947	46,653	24,286	11,116	11,020	20,731
1953	77,300	137,668	165,461	194,218	311,273	329,262	220,627	72,736	49,434	56,321	111,065	246,337
1954	302,968	347,619	356,282	365,468	409,791	359,025	242,670	81,433	60,292	55,512	94,606	105,551
1955	136,479	144,255	137,925	133,869	226,644	332,786	225,321	71,988	46,443	102,950	193,872	244,907
1956	270,363	266,896	266,328	269,213	410,683	436,950	325,013	133,193	99,553	97,929	122,563	220,882
1957	216,947	216,836	238,172	319,188	436,340	365,514	191,704	51,125	27,186	29,891	57,523	108,557
1958	156,518	236,325	255,112	300,046	393,145	299,767	138,865	28,639	10,749	24,780	110,347	204,485
1959	276,917	283,248	319,526	394,825	436,425	424,693	247,540	76,772	54,895	90,767	166,397	234,956
1960	242,396	278,360	313,100	369,374	436,914	388,491	216,669	63,009	39,242	44,833	101,184	119,876
1961	168,697	248,393	297,645	350,103	436,638	420,384	229,067	68,595	43,258	49,621	66,342	100,898
1962	136,130	174,784	188,576	276,467	319,978	297,928	166,494	39,528	18,214	25,408	80,747	119,115
1963	151,457	209,327	244,559	268,730	302,895	231,606	113,553	24,348	9,547	27,799	72,010	99,495
1964	131,469	141,442	166,282	220,056	320,112	373,535	269,419	108,588	87,560	86,303	101,952	137,677
1965	168,175	226,489	261,352	351,263	418,654	354,563	200,421	54,684	29,794	35,910	64,638	80,071
1966	89,048	91,659	110,597	192,264	322,882	290,189	165,951	36,007	15,155	28,142	50,456	143,240
1967	223,851	284,719	311,528	288,530	382,020	356,027	191,560	44,407	21,107	35,769	66,295	136,329
1968	190,991	270,997	373,128	393,048	419,099	323,132	149,392	31,664	14,918	26,724	61,831	106,779
1969	109,484	103,375	117,640	198,209	370,961	375,435	197,408	46,405	24,683	29,417	44,829	80,553
1970	111,604	145,649	170,182	184,659	275,467	335,214	171,374	35,188	18,154	18,891	32,839	35,545
1971	67,026	97,683	91,454	140,307	389,086	436,950	360,739	166,154	144,449	142,907	165,935	191,514
1972	216,478	222,872	297,697	296,482	409,990	436,950	351,860	155,794	125,873	106,019	132,736	256,080
1973	303,118	318,113	342,809	357,925	369,519	263,365	138,037	29,169	11,003	14,315	44,960	122,496
1974	205,996	250,815	292,196	310,481	375,179	396,569	328,371	155,997	141,123	113,652	135,490	190,583
1975	238,297	238,575	244,583	270,746	423,494	428,140	302,410	128,304	100,897	152,921	236,644	335,958
1976	331,978	343,500	332,261	326,698	426,198	414,357	328,837	137,586	112,535	88,619	94,093	102,947
1977	111,986	123,593	147,192	160,776	171,438	135,985	58,862	14,316	9,817	13,033	71,406	217,439
1978	231,090	258,692	333,338	381,851	404,560	325,731	160,974	33,131	21,705	16,909	47,138	67,060
1979	64,969	67,357	96,871	137,430	284,229	258,184	148,559	32,732	13,772	16,206	13,052	88,067
1980	91,511	98,651	126,321	212,212	346,417	324,169	187,524	45,344	26,742	19,093	62,074	113,170
1981	145,267	210,912	246,821	310,962	349,615	317,632	160,366	32,094	16,375	30,210	70,494	119,992
1982	169,366	253,061	290,630	335,972	432,805	436,950	297,682	114,603	83,867	69,375	94,962	192,112
1983	244,622	300,826	395,824	430,868	436,937	370,858	201,932	49,768	29,572	26,803	99,275	112,495
1984	178,164	206,075	271,621	280,310	313,047	344,699	246,602	75,549	50,415	47,025	68,149	69,501
1985	68,210	63,045	65,064	110,684	227,398	253,766	154,288	38,512	18,715	38,760	80,889	77,876
1986	88,821	109,369	204,491	245,492	316,828	289,894	146,097	28,979	13,879	15,542	91,087	108,304
1987	126,443	160,321	223,653	282,780	378,813	312,363	157,288	33,957	13,682	8,011	24,880	63,801
1988	74,008	115,860	164,619	228,866	309,665	289,658	165,896	38,913	17,790	40,395	89,645	117,744
1989	150,886	152,108	177,011	290,892	434,076	381,095	207,333	50,894	27,082	28,520	73,110	120,579
1990	196,885	205,882	253,965	397,489	436,685	413,757	232,994	62,952	38,117	66,648	259,739	297,369
1991	309,941	380,695	378,717	426,994	436,772	373,117	228,096	69,138	42,996	32,774	71,280	117,642
1992	164,864	220,544	256,255	282,332	304,100	226,783	115,015	24,931	11,688	10,659	32,081	35,463
1993	36,693	37,026	60,576	116,380	301,644	270,618	143,998	27,673	10,422	13,972	21,919	60,226
1994	89,432	93,264	138,027	194,769	253,998	200,299	103,033	20,976	8,653	19,566	35,871	80,511
1995	101,970	158,729	196,462	220,364	349,857	322,412	180,943	39,253	17,756	38,436	136,294	256,995
1996	304,463	312,881	331,450	391,324	423,927	359,667	209,160	57,319	34,372	43,913	59,205	66,215
1997	93,515	117,230	167,219	251,537	403,103	436,950	349,750	157,860	128,508	132,113	173,112	197,338
1998	220,888	268,650	314,212	339,385	436,950	361,660	189,007	45,992	22,429	22,798	71,580	132,883
1999	187,853	208,902	233,989	269,472	338,948	377,345	264,308	96,649	76,199	78,608	172,922	280,894
2000	295,713	302,298	336,854	407,735	407,305	337,222	177,821	37,767	15,794	22,496	30,272	29,350
2001	32,055	32,500	44,920	76,352	211,196	192,467	109,168	22,069	9,143	20,403	73,838	110,361
2002	140,244	158,238	163,280	240,962	410,759	436,950	281,762	97,102	65,887	27,093	44,419	63,172
2003	95,207	146,413	201,075	263,946	336,035	314,727	157,885	33,683	13,661	40,368	68,870	88,116
2004	99,245	106,663	153,640	212,966	318,862	291,079	137,886	30,413	15,207	17,124	51,118	86,596
2005	115,311	124,030	173,750	232,649	331,459	255,476	141,879	31,549	12,520	11,787	51,000	89,615
2006	146,245	158,019	163,491	231,850	387,378	436,709	256,416	76,207	45,409	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Baseline CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,387	3,255	12,847
1926	15,000	32,359	33,970	33,970	33,970	29,966	22,956	16,684	10,258	9,592	10,220	15,000
1927	15,000	16,990	14,103	20,272	33,657	33,970	29,848	20,335	15,007	11,797	15,000	15,000
1928	15,000	14,535	16,797	21,369	45,148	33,970	29,848	20,335	14,014	13,171	12,939	13,258
1929	11,070	5,705	2,593	4,446	29,963	33,970	30,191	20,200	14,237	8,634	2,729	2,356
1930	1,783	7,816	9,968	18,359	33,970	33,281	29,053	18,348	12,141	2,283	1,865	1,939
1931	3,617	3,182	4,316	12,706	33,970	33,743	28,610	16,763	10,515	5,077	8,915	11,585
1932	15,000	15,598	16,447	15,525	32,936	33,970	30,039	20,382	12,017	2,223	16,724	17,942
1933	15,166	14,828	11,200	15,000	32,163	33,970	29,848	20,335	15,253	13,966	14,985	58,367
1934	18,428	22,518	31,574	33,912	33,970	32,268	25,258	19,355	13,048	9,560	15,158	19,396
1935	16,468	20,828	26,829	33,789	33,970	33,970	29,848	20,335	14,012	8,062	6,143	5,155
1936	15,000	12,185	10,647	25,226	33,970	33,886	29,096	20,335	14,069	7,521	1,949	15,000
1937	10,444	5,554	2,245	10,394	33,929	33,970	28,873	20,346	13,894	2,762	15,665	24,135
1938	15,250	14,262	14,913	15,000	38,791	33,970	29,848	20,335	13,956	9,524	14,240	15,000
1939	15,328	16,749	19,147	33,964	33,970	33,970	29,770	20,321	14,183	4,188	2,002	15,593
1940	15,042	26,901	33,543	33,955	33,970	32,982	25,850	19,762	13,336	8,789	10,331	15,000
1941	15,000	17,760	22,495	28,683	33,970	31,962	25,198	13,891	8,417	3,640	6,412	15,518
1942	15,000	16,848	18,016	25,454	33,970	33,970	29,296	20,330	13,951	5,311	15,007	15,000
1943	13,254	11,851	15,000	15,630	36,289	33,970	29,848	20,386	14,977	13,167	12,239	14,996
1944	15,000	17,318	20,639	24,209	33,970	32,709	26,068	18,669	13,009	6,882	10,064	10,157
1945	15,000	25,039	16,077	23,991	33,956	33,970	29,540	20,006	14,341	3,916	7,448	14,581
1946	15,171	16,219	15,071	15,000	33,294	33,970	29,848	20,340	10,267	4,935	5,244	15,522
1947	15,029	18,664	19,952	33,556	34,290	33,970	29,052	20,341	14,074	15,373	15,116	15,000
1948	15,109	15,970	12,403	15,000	33,929	33,970	29,848	20,361	14,790	12,387	15,000	14,803
1949	12,491	5,622	5,007	15,000	34,628	33,970	29,848	20,342	11,010	4,627	13,233	17,380
1950	15,139	15,000	14,638	15,000	20,896	37,065	32,892	20,820	14,931	13,172	15,026	21,268
1951	15,218	18,602	14,958	15,000	33,010	33,970	29,726	20,348	13,962	15,072	15,000	15,000
1952	14,344	13,757	10,990	26,223	33,906	33,970	29,376	20,335	14,015	2,182	1,692	2,127
1953	15,000	20,419	15,201	21,576	33,920	33,970	29,848	20,381	14,746	10,340	14,351	16,930
1954	15,074	16,184	13,344	18,216	34,911	33,970	29,848	20,426	15,203	10,904	15,000	15,000
1955	15,154	18,898	13,357	15,000	32,014	36,085	29,848	20,402	14,975	15,033	17,005	18,073
1956	15,118	13,865	10,606	15,091	28,874	33,970	30,234	20,397	14,054	12,237	14,578	15,790
1957	15,000	14,182	15,000	18,617	33,779	33,944	29,180	20,335	14,073	9,244	12,373	15,000
1958	15,000	31,011	31,520	33,965	33,970	32,689	25,679	19,653	13,227	11,520	15,986	16,453
1959	16,566	16,315	15,000	22,996	33,806	33,970	29,848	20,335	15,970	14,851	22,646	15,874
1960	15,020	23,681	19,096	33,306	33,957	33,970	29,331	20,335	14,014	10,687	15,000	14,905
1961	15,000	24,580	15,633	23,464	33,872	33,970	29,819	20,335	13,952	11,591	10,591	15,000
1962	15,000	21,668	23,021	33,947	33,970	33,970	29,848	20,337	14,426	10,646	15,705	15,000
1963	15,000	32,734	33,896	33,968	33,970	33,531	27,893	20,069	13,702	9,309	15,000	15,000
1964	15,000	16,029	15,000	15,000	28,558	33,970	29,848	20,448	15,977	11,796	13,571	15,100
1965	17,485	23,167	15,098	29,609	33,899	33,970	29,848	20,335	14,190	9,580	14,274	12,078
1966	8,241	4,489	7,256	23,501	33,937	33,926	28,943	20,335	14,133	8,332	11,423	15,836
1967	15,426	21,271	23,976	23,560	34,115	33,970	29,554	20,335	13,958	15,529	14,054	15,136
1968	15,079	26,343	32,868	33,930	33,970	33,808	28,523	20,547	14,084	13,406	15,052	15,000
1969	14,955	11,049	8,098	15,277	34,836	33,741	28,886	20,335	14,553	9,745	13,237	14,998
1970	15,000	20,761	15,460	18,733	33,929	33,970	29,811	20,335	13,909	2,477	4,517	2,467
1971	11,252	15,103	12,006	14,148	28,007	36,479	30,431	20,439	15,275	10,995	12,744	13,045
1972	12,984	10,726	15,000	15,000	27,511	46,779	31,041	20,502	16,823	10,411	13,043	18,471
1973	15,093	17,224	21,713	26,711	33,970	33,742	26,917	20,335	13,731	9,354	15,000	17,377
1974	16,327	15,684	15,000	15,000	26,573	39,485	29,848	20,355	14,610	8,428	12,532	15,939
1975	15,335	14,800	11,849	10,956	29,796	33,970	29,848	20,573	15,053	15,000	15,000	16,280
1976	15,566	15,193	13,247	15,000	30,640	33,970	29,848	20,435	15,533	10,643	8,020	6,002
1977	5,628	6,497	10,494	22,930	33,970	32,744	26,165	13,995	9,117	3,034	13,206	15,401
1978	15,000	18,101	31,075	33,925	33,970	33,970	29,677	20,335	15,005	8,580	8,907	8,741
1979	3,722	1,904	5,073	11,559	33,970	33,863	29,050	20,337	14,135	10,565	5,268	16,337
1980	14,982	13,174	12,805	26,288	33,844	33,970	29,848	20,335	14,425	7,286	14,849	27,174
1981	15,305	27,499	33,251	33,954	33,970	33,970	29,050	19,903	14,012	11,324	14,327	15,000
1982	15,000	17,756	15,000	15,000	32,685	38,694	30,234	20,399	14,703	11,239	11,995	14,775
1983	15,000	21,209	22,924	33,534	39,859	33,970	29,848	20,406	15,024	9,566	15,364	14,965
1984	15,091	20,110	15,971	20,589	35,039	33,970	29,848	20,361	14,617	11,373	13,760	7,953
1985	3,295	1,879	1,908	7,406	33,970	33,970	29,453	20,338	14,313	12,971	13,241	7,459
1986	4,164	3,704	26,578	33,914	34,956	33,900	29,271	18,592	12,653	3,119	13,710	12,465
1987	10,209	13,707	21,924	33,739	33,970	33,970	28,598	20,335	13,957	6,763	3,481	14,270
1988	10,997	14,627	25,387	33,896	33,970	33,970	29,848	20,335	14,132	7,160	15,000	14,437
1989	15,000	11,152	8,754	23,782	33,828	33,970	29,848	20,335	14,131	8,687	15,000	15,000
1990	15,422	14,869	15,000	30,971	33,886	33,970	29,693	20,337	14,244	15,519	28,706	15,067
1991	15,000	23,707	15,006	25,586	33,913	33,970	29,848	20,335	14,010	7,154	10,911	15,000
1992	15,450	29,274	33,970	33,970	33,970	29,806	22,858	16,586	10,041	3,935	5,919	2,021
1993	1,836	1,689	4,238	11,557	33,967	33,793	29,150	18,713	12,550	1,927	1,911	2,517
1994	2,319	1,967	5,665	16,971	33,970	33,892	29,208	18,670	12,496	5,860	7,508	15,000
1995	15,000	23,227	30,266	33,770	33,970	33,942	29,357	20,201	14,012	7,946	21,165	15,445
1996	15,401	19,686	15,275	22,043	33,718	33,970	29,848	20,335	14,132	12,304	9,509	4,148
1997	4,157	4,520	15,000	15,000	35,628	50,770	31,877	20,638	15,900	13,701	15,000	15,000
1998	15,000	19,659	28,409	32,277	33,970	33,760	27,023	20,335	14,017	9,347	16,229	18,066
1999	15,435	17,556	15,000	15,005	33,149	33,970	29,848	20,365	14,619	9,285	16,688	15,587
2000	15,000	14,700	15,315	31,738	33,957	33,970	28,686	20,335	14,016	9,599	6,398	2,495
2001	2,212	1,978	6,767	11,289	33,970	33,886	28,376	14,480	8,589	2,995	12,876	14,966
2002	15,287	17,254	13,946	15,000	32,981	33,970	30,277	20,395	12,939	1,597	4,356	6,589
2003	13,229	24,923	31,796	33,900	33,970	33,966	27,191	20,335	13,844	7,839	13,347	15,000
2004	15,000	14,651	25,965	33,812	33,970	33,764	27,146	16,577	10,905	2,152	6,905	9,850
2005	14,834	15,600	28,942	33,965	33,970	29,368	22,666	16,886	10,519	3,524	9,682	10,947
2006	15,276	14,849	11,898	15,000	33,239	33,970	29,780	20,337	10,415	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Baseline CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	15,156	24,894	52,621
1926	68,018	100,200	122,099	156,152	181,999	173,186	149,387	124,950	53,826	39,334	52,809	78,297
1927	105,966	124,793	140,473	163,894	194,746	198,000	177,973	131,231	35,807	46,298	81,805	103,318
1928	129,025	142,384	154,664	170,074	197,792	198,000	178,500	142,450	32,841	24,905	43,055	56,310
1929	66,204	72,328	83,585	96,428	126,722	147,735	141,841	120,212	46,896	16,841	21,176	30,318
1930	33,384	45,880	57,440	75,224	98,243	103,892	93,688	82,786	22,703	14,574	21,375	24,280
1931	31,465	41,471	51,974	84,870	147,520	161,272	146,132	115,536	27,692	21,047	38,838	53,241
1932	68,975	82,326	131,147	141,694	196,173	198,000	179,186	132,652	20,000	16,349	73,756	129,025
1933	132,551	149,706	147,209	153,099	182,364	198,000	180,208	141,587	28,431	32,073	68,252	174,720
1934	145,983	171,945	194,774	197,899	198,000	192,282	170,230	133,306	42,543	21,623	57,001	103,977
1935	130,683	157,236	180,909	197,683	198,000	198,000	178,505	137,922	29,893	14,766	26,424	35,654
1936	68,183	76,681	91,684	130,692	177,430	189,633	172,919	132,783	41,501	11,500	17,153	44,074
1937	50,654	55,472	62,764	88,280	142,800	172,541	162,165	122,258	28,958	13,495	63,092	96,971
1938	129,025	142,625	144,298	148,416	196,916	198,000	178,446	133,407	20,244	15,710	34,972	58,522
1939	91,900	106,118	134,771	165,942	198,000	198,000	174,041	126,563	35,039	14,323	22,901	76,456
1940	100,180	147,297	197,246	197,975	198,000	187,729	163,057	129,480	44,883	22,364	35,848	60,320
1941	76,061	87,502	104,178	120,482	142,416	141,552	123,332	103,134	54,746	40,952	56,489	102,443
1942	117,569	135,729	151,038	168,922	193,206	198,000	173,806	131,626	45,035	11,594	52,201	67,063
1943	79,084	91,746	110,931	150,159	192,157	198,000	178,504	143,618	29,712	32,610	42,404	60,025
1944	76,319	94,891	110,939	124,021	148,036	145,357	126,666	106,064	45,223	26,304	40,920	53,951
1945	87,627	114,118	139,697	166,357	197,977	198,000	173,309	120,118	38,661	15,525	31,891	49,416
1946	76,901	91,396	124,230	141,376	196,158	198,000	178,493	128,036	20,000	19,363	31,696	115,926
1947	129,025	147,722	174,043	197,270	197,998	193,637	175,839	127,987	32,062	48,718	75,128	100,762
1948	129,025	143,458	144,542	139,333	186,397	198,000	179,607	148,985	43,935	40,465	60,463	88,317
1949	99,633	107,371	125,633	139,529	196,212	197,990	178,501	130,245	20,000	17,326	35,502	64,932
1950	80,877	92,809	101,292	93,839	132,230	198,000	194,606	168,569	40,928	28,465	61,655	99,767
1951	129,025	158,754	136,415	143,441	196,304	198,000	178,925	137,119	20,000	28,264	43,442	67,299
1952	76,468	88,208	99,768	138,039	188,160	198,000	175,455	127,820	34,624	11,164	17,115	27,610
1953	61,538	100,859	118,813	141,102	186,023	198,000	178,509	142,954	43,240	25,283	41,261	99,296
1954	128,318	146,312	152,937	163,405	197,499	198,000	178,631	146,506	34,749	28,699	48,057	63,797
1955	93,618	110,113	121,046	137,298	168,937	198,000	178,557	144,158	39,845	47,104	91,481	129,226
1956	129,226	142,389	102,401	106,143	183,614	198,000	184,227	155,662	28,853	31,120	48,393	100,512
1957	111,786	123,005	139,115	160,734	197,665	195,119	178,514	137,893	38,001	15,769	34,001	62,198
1958	88,392	142,541	165,291	196,371	198,000	186,315	163,099	133,127	46,592	27,589	76,282	124,949
1959	129,025	146,375	153,061	172,203	197,711	198,000	178,503	136,267	28,548	30,798	70,762	103,274
1960	118,517	139,976	168,322	196,827	197,979	198,000	178,511	139,128	28,165	19,002	53,547	66,270
1961	93,509	146,048	158,679	176,516	197,828	198,000	178,511	134,015	20,470	20,745	33,907	52,845
1962	74,243	92,959	109,991	142,765	171,643	198,000	175,350	127,698	38,370	20,425	61,547	81,953
1963	108,393	152,697	177,622	197,999	198,000	192,003	173,339	131,367	47,674	20,180	41,463	54,578
1964	77,119	91,525	107,820	135,882	165,717	198,000	180,219	148,355	27,818	21,347	31,845	60,365
1965	88,588	134,739	160,162	181,240	197,748	197,999	178,493	139,824	29,748	15,128	31,146	40,047
1966	49,848	54,374	70,484	111,110	173,012	183,418	168,587	129,541	41,332	21,146	37,325	68,683
1967	102,652	147,914	172,386	190,569	198,000	198,000	177,861	131,191	33,929	29,067	45,738	69,155
1968	94,362	149,643	196,005	197,932	198,000	195,184	176,357	140,339	41,907	29,884	52,521	77,406
1969	91,979	100,365	114,876	152,476	197,374	195,148	176,842	129,930	43,307	32,221	49,531	71,843
1970	106,768	134,815	162,238	178,591	197,930	197,975	174,205	123,789	22,976	16,827	26,821	37,028
1971	91,860	131,014	114,213	103,928	166,332	198,000	188,738	163,732	41,810	27,279	42,348	60,493
1972	86,687	101,037	123,631	118,336	170,371	198,000	190,075	163,514	56,620	22,581	36,256	90,380
1973	120,745	137,184	160,599	180,181	197,904	193,242	171,243	137,353	58,335	30,830	53,625	82,463
1974	129,025	163,563	136,292	129,862	162,646	198,000	187,532	163,588	37,486	23,199	39,676	74,004
1975	115,877	131,039	138,446	129,069	170,687	198,000	182,756	159,006	35,698	36,839	56,415	132,164
1976	132,102	157,259	125,168	120,879	180,426	198,000	185,598	160,997	36,252	24,814	33,599	42,958
1977	53,806	65,153	82,728	105,158	113,047	119,702	105,383	81,360	36,258	14,708	42,902	117,855
1978	129,025	145,224	174,307	197,923	198,000	198,000	174,199	132,861	49,901	20,481	30,278	42,578
1979	47,510	50,242	67,764	92,330	151,025	159,423	146,409	125,593	49,254	20,296	24,434	82,144
1980	93,083	104,085	119,703	162,358	197,778	197,959	175,765	126,377	38,348	12,965	34,498	88,967
1981	115,960	165,832	187,898	197,973	198,000	197,959	173,354	124,406	34,350	31,788	50,536	77,220
1982	94,696	118,188	143,087	142,701	195,729	198,000	181,445	143,146	20,000	26,920	40,489	60,903
1983	86,666	106,937	154,283	186,581	197,992	198,000	178,526	138,329	39,453	13,827	79,788	90,979
1984	121,846	141,195	163,001	183,025	197,897	198,000	178,499	139,348	35,095	18,900	39,449	49,590
1985	55,060	56,572	63,037	91,636	137,283	159,810	148,615	121,444	52,344	28,062	46,103	52,070
1986	59,386	68,413	115,697	141,261	170,345	190,120	172,533	125,661	38,238	14,674	47,846	58,179
1987	67,930	84,091	110,531	138,734	197,323	194,226	175,511	134,452	48,020	10,588	22,200	55,286
1988	66,427	81,166	107,417	139,589	195,084	198,000	175,228	131,896	47,348	17,191	56,460	68,406
1989	83,256	91,934	104,293	147,928	197,751	198,000	178,514	139,470	38,460	15,558	36,259	58,861
1990	92,926	105,533	131,419	180,842	197,854	198,000	178,519	143,332	36,609	43,175	91,185	113,689
1991	129,025	177,022	159,465	185,742	197,901	198,000	178,491	138,279	25,005	14,560	35,189	53,574
1992	79,522	110,034	135,852	164,332	187,794	175,858	152,608	124,948	54,468	19,475	33,185	38,270
1993	38,379	38,439	51,779	74,079	141,230	157,153	143,531	114,501	25,491	14,258	22,122	36,636
1994	48,662	51,279	70,603	93,741	138,555	144,773	128,226	112,806	46,427	17,430	30,538	56,117
1995	67,615	104,158	131,548	155,129	198,000	196,858	173,067	125,508	28,222	19,585	62,840	129,025
1996	129,025	170,694	149,584	165,333	197,556	198,000	178,501	138,307	26,264	21,320	31,735	40,134
1997	55,633	69,354	94,087	98,918	171,424	198,000	191,097	163,194	42,884	24,229	55,283	68,454
1998	82,495	99,933	126,189	143,907	198,000	194,897	176,826	131,002	36,284	17,356	55,930	88,140
1999	129,025	150,054	155,442	152,664	181,912	198,000	180,209	147,022	34,626	25,167	65,154	98,418
2000	118,955	133,417	149,711	185,542	197,978	198,000	178,522	137,184	36,025	17,592	27,308	33,648
2001	36,119	39,181	52,811	68,425	113,668	121,246	111,203	94,538	24,738	17,012	46,237	67,573
2002	97,886	117,213	131,672	133,442	181,780	198,000	181,354	134,568	20,000	10,773	21,947	38,133
2003	63,826	105,209	160,487	190,459	198,000	194,673	173,854	131,677	38,861	20,834	37,059	55,321
2004	71,173	86,134	118,046	151,049	198,000	196,817	170,366	125,119	31,076	16,382	32,377	50,467
2005	68,595	81,146	103,632	132,442	158,286	149,720	132,695	106,128	28,906	12,736	36,253	50,852
2006	92,569	112,784	128,709	144,717	196,708	198,000	178,291	130,279	20,000	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Baseline CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Baseline CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	70,293	96,512	273,608
1926	342,493	508,384	601,756	688,790	739,845	608,997	423,764	240,740	103,323	121,851	170,529	248,990
1927	346,775	429,059	469,625	583,087	742,358	838,330	615,113	313,647	127,933	175,453	319,247	418,026
1928	541,015	579,017	767,288	864,513	1,020,902	906,157	637,435	329,346	118,673	142,628	192,625	229,959
1929	245,078	231,842	291,658	337,004	552,831	589,823	433,475	237,326	92,571	51,713	53,360	105,462
1930	126,947	225,930	300,945	420,120	531,916	486,689	369,353	217,806	90,691	74,418	97,065	113,700
1931	181,011	228,482	345,606	470,868	683,451	655,861	432,390	212,841	66,794	79,949	158,659	205,282
1932	276,087	313,666	544,530	712,940	984,723	981,208	715,136	378,468	137,524	97,072	476,696	694,132
1933	745,414	759,512	772,776	839,072	956,968	937,317	732,922	416,014	192,280	194,322	405,257	938,878
1934	863,465	948,725	1,046,923	1,063,572	1,047,678	840,842	551,490	265,325	95,336	148,481	269,392	467,348
1935	639,106	738,435	789,082	894,005	974,413	898,968	640,448	352,919	143,046	105,060	134,882	179,851
1936	368,722	363,491	405,259	593,843	826,514	761,871	515,233	262,625	98,360	47,801	45,799	187,092
1937	189,294	190,845	234,106	414,439	654,987	714,026	499,744	249,585	88,690	55,714	265,803	415,613
1938	532,163	561,823	634,427	758,530	993,081	954,454	691,351	364,500	141,967	140,124	228,676	359,150
1939	524,071	552,747	644,692	799,879	867,044	718,531	494,702	242,811	79,725	59,576	98,557	384,160
1940	446,478	611,232	825,170	912,466	941,964	760,152	506,502	257,317	93,836	78,029	120,522	256,809
1941	324,270	366,033	439,701	474,379	539,757	462,349	324,332	189,365	107,116	103,687	196,267	436,267
1942	475,741	553,498	597,804	680,827	708,284	666,110	470,133	243,431	87,578	37,226	204,949	284,074
1943	307,693	341,280	417,259	624,077	806,431	860,211	685,564	396,378	178,023	177,083	218,978	309,231
1944	369,440	415,289	451,896	527,308	670,244	577,539	404,189	222,380	103,539	73,129	121,516	164,504
1945	300,168	416,922	460,594	565,357	823,431	761,065	511,758	237,726	97,313	104,470	183,159	283,894
1946	384,697	412,957	539,503	650,025	985,576	970,436	702,944	359,799	117,316	106,762	149,431	467,731
1947	541,693	625,303	758,240	921,115	966,230	835,909	553,541	269,010	95,904	222,553	377,370	512,612
1948	593,050	621,730	632,540	699,215	964,506	968,426	708,491	405,209	204,248	209,014	304,827	411,257
1949	421,428	418,590	495,663	653,680	1,029,829	977,072	702,261	361,827	116,914	100,228	201,655	366,176
1950	394,385	409,303	430,971	502,529	749,294	1,039,731	950,620	639,451	387,385	420,812	569,646	701,328
1951	735,004	832,813	786,640	833,255	1,057,900	1,019,990	740,461	398,587	145,464	137,663	201,818	277,275
1952	286,485	317,235	347,991	543,174	767,707	725,657	508,697	255,066	87,703	30,975	37,842	65,286
1953	229,817	392,240	457,264	534,209	751,154	755,134	563,868	304,420	125,406	112,810	225,939	552,917
1954	679,360	791,511	803,501	842,052	965,125	898,921	698,329	407,095	198,339	167,037	258,015	301,444
1955	398,230	431,158	424,988	451,433	644,393	839,919	660,279	385,919	179,349	271,731	483,438	651,049
1956	688,628	691,968	642,004	687,187	994,281	1,064,560	848,377	516,840	251,958	217,570	287,720	540,903
1957	548,892	561,973	634,362	792,780	999,883	882,146	597,472	313,290	113,483	87,464	159,313	297,544
1958	416,750	637,137	692,978	807,198	885,669	742,497	490,195	245,717	88,316	98,052	291,494	520,515
1959	660,552	692,135	765,449	913,395	1,017,520	987,823	705,894	374,578	165,201	214,979	409,380	566,661
1960	599,411	705,302	782,451	916,508	1,007,263	937,708	647,049	332,605	122,025	118,498	268,856	319,222
1961	452,584	675,141	751,812	853,780	999,972	967,628	673,740	344,947	125,101	132,194	175,022	271,893
1962	365,757	462,736	510,287	680,540	730,274	703,783	493,862	254,948	90,332	81,127	223,051	321,288
1963	402,437	576,033	654,565	721,538	736,542	626,378	440,384	236,909	88,975	88,476	203,310	277,423
1964	373,649	414,537	485,426	604,205	788,570	949,543	767,033	470,815	235,446	193,270	244,364	354,960
1965	451,854	623,703	693,589	878,776	974,989	891,790	640,830	351,403	139,376	125,434	193,397	229,861
1966	259,565	269,619	342,075	541,040	785,789	733,054	514,954	258,345	91,432	88,167	150,588	373,070
1967	554,690	707,598	778,616	755,331	886,088	845,195	593,061	299,226	115,082	131,270	194,639	345,335
1968	477,043	693,833	911,146	951,722	953,942	819,104	529,147	275,478	96,343	108,724	204,723	322,531
1969	343,390	334,303	386,205	583,961	895,894	876,247	582,740	286,656	113,391	102,059	153,709	259,537
1970	377,314	483,487	555,884	602,787	740,550	785,516	537,153	248,770	75,683	59,867	96,418	111,409
1971	255,298	372,504	342,905	435,934	890,826	1,031,920	908,200	601,682	363,135	301,460	370,532	445,665
1972	518,468	551,208	712,072	728,992	979,898	1,078,257	900,304	571,625	345,970	236,031	303,042	599,991
1973	698,000	744,969	814,422	853,566	865,635	725,737	496,667	262,468	107,531	75,129	165,564	368,084
1974	562,464	669,169	710,190	742,118	878,852	979,727	857,030	574,869	334,894	227,212	282,633	433,768
1975	571,643	591,086	612,955	650,698	959,831	1,022,166	807,130	504,179	253,009	304,409	480,414	757,799
1976	781,189	830,792	780,659	772,448	1,006,808	1,006,579	853,564	554,536	309,089	209,615	225,063	252,390
1977	284,620	321,972	397,354	444,760	469,870	420,195	290,038	176,383	102,957	62,336	205,317	562,039
1978	605,179	671,590	825,668	930,474	934,134	812,477	543,897	258,898	114,044	67,343	129,291	186,210
1979	179,858	187,921	278,920	383,353	685,607	645,885	465,898	258,900	109,864	71,930	67,390	274,757
1980	291,434	324,666	407,674	610,038	814,818	762,337	528,609	259,673	99,955	52,011	155,118	347,839
1981	418,585	610,368	687,587	796,377	801,737	748,268	504,041	236,020	83,211	107,616	200,540	329,922
1982	441,699	617,749	709,804	774,187	992,508	1,047,713	788,128	446,451	193,018	147,051	217,030	390,201
1983	526,119	656,514	857,942	955,650	965,220	853,496	603,077	311,150	120,270	77,656	293,349	329,781
1984	486,945	558,640	692,150	727,674	783,132	796,083	620,334	332,953	130,096	99,907	167,048	177,263
1985	179,355	168,550	182,522	304,061	551,287	602,886	441,599	249,790	108,814	116,253	204,736	201,221
1986	240,644	291,367	518,871	613,821	744,255	695,967	460,722	222,960	79,341	47,594	233,690	275,054
1987	320,988	413,384	572,798	702,030	850,272	745,201	510,608	261,526	96,104	34,714	69,909	182,254
1988	214,950	307,371	440,549	576,463	737,843	691,301	482,928	254,896	96,260	95,192	229,496	291,567
1989	379,301	384,401	453,754	700,542	943,048	865,701	598,052	313,378	112,791	78,405	180,877	285,119
1990	452,222	483,298	604,190	886,011	960,367	924,849	644,372	332,903	124,444	180,672	563,667	641,538
1991	703,687	897,552	867,275	996,859	1,048,292	952,338	692,352	375,122	155,431	107,122	198,562	313,908
1992	437,493	592,246	674,467	731,065	764,439	626,531	434,006	242,964	109,367	56,366	108,740	122,102
1993	126,928	132,363	210,842	348,882	698,965	656,405	447,586	222,916	65,580	47,332	70,495	151,217
1994	224,610	235,595	347,098	470,389	610,397	541,656	384,664	222,621	93,632	72,337	117,563	243,300
1995	291,209	456,158	564,300	620,958	803,645	734,103	492,974	238,786	73,911	96,677	321,640	596,917
1996	688,837	773,172	772,607	911,529	999,998	909,552	653,252	350,954	139,061	135,708	171,994	196,340
1997	273,316	339,490	490,848	619,480	962,542	1,082,470	891,425	558,711	314,055	273,375	388,414	463,964
1998	538,798	650,533	776,649	823,147	995,615	871,029	580,821	286,061	104,581	80,414	216,395	380,464
1999	526,899	589,322	634,754	679,525	805,167	897,397	716,039	427,118	215,684	197,696	412,168	625,854
2000	672,562	709,484	790,463	960,913	988,591	891,206	610,388	314,420	113,196	95,992	116,045	120,040
2001	129,544	137,463	183,454	251,759	522,124	510,798	370,629	201,133	67,053	65,456	198,197	301,696
2002	402,636	457,353	479,542	614,340	923,079	1,016,341	746,750	388,554	138,286	55,360	97,214	149,783
2003	250,195	399,295	578,382	713,957	782,165	742,727	505,496	252,228	85,617	111,616	185,197	245,308
2004	294,541	335,067	458,165	579,427	739,997	679,542	424,024	210,221	74,171	55,182	144,737	243,226
2005	332,140	364,934	493,651	624,859	759,455	626,612	432,405	222,305	72,927	47,178	148,901	245,623
2006	428,928	473,568	500,500	632,680	929,954	978,972	699,025	344,174	105,285	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D-2

Scenario IP0 (Baseline with IP Conservation) under Adverse Climate Change Conditions

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP0 CC Adverse (EPOR)

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
Avg. WY 1926 to 2009	2,515	523	1,446	1,209	67.3%	166	42	67.1%	127	31	1,144	12
Avg. WY 1982 to 2009	2,399	475	1,401	1,161	62.9%	148	36	63.0%	105	25	964	38
1941 (Dry Year)	1,353	190	704	753	1.3%	129	27	2.7%	130	28	0	0
1994 (Dry Year)	1,544	269	828	794	10.8%	110	23	12.4%	49	11	164	132
2001 (Dry Year)	1,685	291	923	822	17.9%	86	20	18.8%	44	10	184	184
2005 (Dry Year)	1,806	285	1,055	899	29.2%	90	17	30.3%	63	14	49	0

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
1926	1,603	200	936	874	20.8%	121	26	22.2%	106	24	17	0
1927	2,557	424	1,574	1,270	80.4%	154	22	79.2%	193	28	118	0
1928	2,807	666	1,596	1,255	80.4%	142	38	80.1%	161	39	0	0
1929	1,718	207	1,023	909	27.3%	111	22	28.4%	67	13	0	0
1930	1,473	218	780	779	7.4%	108	31	7.8%	59	16	0	0
1931	1,989	381	1,137	925	34.7%	85	10	35.7%	42	6	0	0
1932	3,175	839	1,761	1,431	100.0%	178	45	100.0%	105	16	289	0
1933	3,159	735	1,758	1,525	100.0%	251	78	100.0%	159	41	18,813	0
1934	2,534	590	1,505	1,159	68.1%	118	27	67.1%	63	15	4,030	0
1935	2,479	348	1,573	1,294	80.0%	179	55	79.2%	130	39	0	0
1936	2,158	344	1,326	1,071	53.6%	122	30	52.4%	79	23	158	0
1937	2,079	289	1,303	1,054	52.0%	109	14	49.9%	56	7	120	0
1938	3,024	780	1,683	1,351	94.7%	168	51	95.2%	156	48	0	0
1939	2,101	270	1,361	1,067	56.0%	98	14	54.4%	63	10	0	0
1940	2,085	318	1,292	1,015	45.5%	108	20	47.4%	77	13	0	0
1941	1,353	190	704	753	1.3%	129	27	2.7%	130	28	0	0
1942	1,890	222	1,198	979	39.8%	104	14	41.1%	54	7	0	0
1943	3,021	706	1,691	1,402	94.8%	217	59	94.4%	179	48	0	0
1944	1,613	206	923	872	19.9%	122	36	20.7%	100	33	0	0
1945	2,301	326	1,476	1,146	63.7%	114	14	63.6%	59	7	0	0
1946	2,951	637	1,754	1,413	100.0%	157	38	100.0%	84	14	275	0
1947	2,501	498	1,524	1,162	68.4%	114	28	66.5%	116	30	13,778	0
1948	3,071	783	1,652	1,428	91.8%	246	80	90.2%	256	79	0	0
1949	3,035	704	1,757	1,423	100.0%	166	42	100.0%	127	20	0	0
1950	3,932	1,335	1,758	1,827	100.0%	430	114	100.0%	408	96	10,182	0
1951	3,432	1,085	1,760	1,439	100.0%	184	55	100.0%	119	21	0	0
1952	2,251	380	1,369	1,061	52.8%	100	12	53.5%	48	6	8,011	0
1953	2,337	295	1,500	1,207	70.2%	147	14	68.3%	127	11	1,739	0
1954	2,996	691	1,686	1,429	94.7%	238	74	92.9%	204	63	0	0
1955	2,656	401	1,620	1,372	85.8%	220	67	83.7%	248	68	0	0
1956	4,110	1,644	1,758	1,567	100.0%	294	91	100.0%	206	52	0	0
1957	2,894	769	1,590	1,233	78.4%	132	27	76.5%	91	19	7,670	0
1958	2,016	325	1,241	1,006	44.1%	106	13	45.3%	106	17	55	0
1959	2,978	647	1,701	1,452	98.7%	249	69	98.0%	260	68	0	0
1960	2,626	415	1,647	1,342	93.4%	159	48	92.1%	126	40	0	0
1961	2,784	566	1,668	1,351	96.7%	161	49	97.0%	139	40	0	0
1962	2,168	288	1,400	1,097	59.2%	113	23	57.3%	104	18	181	0
1963	1,765	254	1,061	908	28.1%	105	13	28.4%	54	8	0	0
1964	3,104	657	1,758	1,550	100.0%	288	91	100.0%	257	71	0	0
1965	2,717	527	1,626	1,330	86.0%	184	58	85.3%	154	47	0	0
1966	2,284	424	1,382	1,076	54.0%	105	20	54.4%	57	11	0	0
1967	2,381	359	1,499	1,187	68.5%	145	37	67.9%	115	29	0	0
1968	2,422	410	1,517	1,190	72.6%	123	24	70.9%	107	20	0	0
1969	2,753	649	1,584	1,235	78.9%	130	27	77.3%	127	27	0	0
1970	2,402	395	1,502	1,166	69.9%	111	20	68.9%	63	10	0	0
1971	3,609	1,038	1,758	1,671	100.0%	405	121	100.0%	308	86	0	0
1972	3,747	1,231	1,758	1,653	100.0%	384	107	100.0%	291	75	1,584	0
1973	1,898	197	1,198	1,015	41.6%	128	28	42.6%	85	19	0	0
1974	3,502	960	1,758	1,662	100.0%	388	116	100.0%	299	82	0	0
1975	3,295	822	1,758	1,597	100.0%	323	95	100.0%	262	66	672	0
1976	3,806	1,298	1,758	1,642	100.0%	352	111	100.0%	260	76	0	0
1977	1,317	185	681	732	2.4%	114	48	0.0%	66	29	860	0
1978	2,347	272	1,537	1,223	75.1%	142	21	73.8%	97	11	0	0
1979	1,802	267	1,056	936	29.0%	132	31	30.0%	72	18	0	0
1980	2,445	469	1,476	1,132	61.7%	116	18	62.2%	73	9	25	0
1981	2,243	330	1,409	1,093	59.4%	103	13	57.3%	125	18	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP0 CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,076	695	1,756	1,515	100.0%	246	75	100.0%	181	39	89	89
1983	2,622	507	1,569	1,273	79.1%	165	45	78.0%	119	36	11,013	0
1984	2,583	415	1,601	1,310	84.1%	178	47	82.9%	135	34	0	0
1985	1,841	300	1,038	924	27.3%	130	28	28.3%	81	19	150	0
1986	1,941	290	1,220	984	41.9%	96	9	42.7%	46	5	0	0
1987	2,201	372	1,333	1,029	47.1%	109	19	48.0%	56	9	97	97
1988	1,977	301	1,233	1,000	41.7%	113	15	42.3%	56	8	781	0
1989	2,615	565	1,560	1,201	74.3%	126	24	72.9%	79	13	0	0
1990	2,694	508	1,640	1,299	87.4%	146	39	87.0%	139	36	0	0
1991	2,860	588	1,675	1,386	95.5%	194	62	94.9%	143	48	0	0
1992	1,617	184	949	883	21.9%	127	32	23.3%	71	20	0	0
1993	1,919	324	1,135	926	34.6%	84	11	35.8%	39	6	23	23
1994	1,544	269	828	794	10.8%	110	23	12.4%	49	11	164	132
1995	2,138	337	1,337	1,047	53.8%	95	10	52.2%	89	13	0	0
1996	3,050	802	1,640	1,362	89.1%	194	59	87.9%	145	40	0	0
1997	3,969	1,529	1,758	1,626	100.0%	351	96	100.0%	312	74	599	0
1998	2,380	364	1,492	1,190	69.3%	138	37	68.4%	108	32	0	0
1999	2,798	444	1,700	1,462	96.8%	268	85	96.5%	242	77	0	0
2000	2,617	490	1,578	1,254	78.7%	150	45	77.8%	115	37	0	0
2001	1,685	291	923	822	17.9%	86	20	18.8%	44	10	184	184
2002	3,120	811	1,752	1,437	100.0%	181	51	100.0%	104	18	2,800	436
2003	2,013	271	1,268	1,025	46.4%	105	17	47.6%	57	10	3,513	0
2004	2,072	336	1,272	1,005	45.7%	90	6	46.2%	47	4	545	0
2005	1,806	285	1,055	899	29.2%	90	17	30.3%	63	14	49	0
2006	2,844	601	1,723	1,373	99.9%	128	29	100.0%	NA	NA	4,088	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,515	523	1,446	1,209	67.3%	166	42	67.1%	127	31	1,144	12

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.
5) Climate Change inflow dataset provided only extended to the end of Water Year 2006.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP0 CC Adverse (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	33.7%	54.4%	23.4%	75.1%	16.9%
	0 -10% Above Target[1]	14.9%	9.0%	2.3%	1.0%	16.3%
	0-10% Below Target	3.4%	1.2%	2.2%	0.9%	4.3%
	> 10% Below Target	48.0%	35.4%	72.1%	22.9%	62.5%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	43.7%	60.8%	71.2%	22.2%
	0 -10% Above Target	3.9%	3.7%	3.2%	11.7%
	0-10% Below Target	4.7%	3.2%	3.2%	22.2%
	> 10% Below Target	47.7%	32.3%	22.4%	43.9%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			0.0%	
	0 -10% Above Target			6.5%	
	0-10% Below Target			7.9%	
	> 10% Below Target			85.6%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				14.5%	
	0 -10% Above Target				5.8%	
	0-10% Below Target				20.3%	
	> 10% Below Target				59.4%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				93.7%	
	0 -10% Above Target				4.3%	
	0-10% Below Target				2.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	16.9%	22.3%		10.4%
	0 -10% Above Target	1.6%	2.6%		2.0%
	0-10% Below Target	6.7%	2.8%		12.8%
	> 10% Below Target	74.8%	72.3%		74.8%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			13.2%	10.0%	9.3%
	0 -10% Above Target			7.7%	0.5%	0.4%
	0-10% Below Target			13.8%	0.8%	0.6%
	> 10% Below Target			65.3%	88.7%	89.7%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.1%	78.8%	60.4%
	0 -10% Above Target			1.3%	9.5%	14.5%
	0-10% Below Target			0.3%	6.2%	11.7%
	> 10% Below Target			0.3%	5.5%	13.4%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			18.3%	
	0 -10% Above Target			7.7%	
	0-10% Below Target			16.2%	
	> 10% Below Target			57.8%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.1%	91.1%	76.0%
	0 -10% Above Target			0.5%	4.8%	12.8%
	0-10% Below Target			0.2%	2.0%	6.5%
	> 10% Below Target			0.2%	2.1%	4.7%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP0 CC Adverse (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	2.9%	29.8%	97.6%		15.5%
	0 -10% Above Target	18.8%	12.6%	0.3%		16.7%
	0-10% Below Target	0.1%	0.6%	0.1%		1.0%
	> 10% Below Target	78.2%	57.0%	2.0%		66.8%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	8.8%			
	0 -10% Above Target	0.5%			
	0-10% Below Target	0.9%			
	> 10% Below Target	89.8%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	51.9%			
	0 -10% Above Target	2.9%			
	0-10% Below Target	3.4%			
	> 10% Below Target	41.8%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP0 (Adverse Climate Change)

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	14.3	2.1	1.3	1.4	0.8	1.0	4.5	13.0	12.0	17.3	42.6	43.7	154.1
1927	8.0	2.0	1.7	1.3	1.1	1.0	2.1	13.7	12.6	23.5	43.2	64.6	174.8
1928	3.5	1.0	1.3	1.5	1.2	1.0	2.3	8.3	12.9	40.5	54.1	66.7	194.2
1929	8.2	1.9	2.0	1.8	2.7	1.1	8.1	8.0	9.3	16.2	31.7	45.2	136.4
1930	11.4	2.2	1.7	2.1	0.9	1.4	3.1	7.1	7.2	9.8	24.9	40.1	111.8
1931	16.9	2.5	2.4	1.5	1.3	1.0	7.4	13.5	11.9	20.0	47.2	41.0	166.5
1932	7.5	1.3	1.5	1.2	1.7	0.9	0.9	8.3	11.0	28.1	44.1	90.8	197.3
1933	30.1	0.9	1.1	1.0	1.5	1.2	0.9	16.0	8.1	26.7	50.5	78.0	216.1
1934	41.7	1.1	1.0	51.4	1.4	35.6	19.7	17.2	40.7	60.7	62.9	50.1	383.6
1935	14.3	1.1	1.4	1.2	0.8	1.2	1.7	12.2	12.0	27.2	40.2	67.3	180.6
1936	17.2	2.1	2.1	1.2	2.7	1.1	4.5	14.7	16.5	24.3	46.6	49.6	182.4
1937	9.3	3.6	1.5	1.9	2.3	1.4	2.9	11.3	13.4	24.8	49.7	46.9	169.0
1938	9.0	1.4	1.1	1.0	1.1	0.9	1.0	7.6	11.2	21.0	56.9	69.6	181.9
1939	9.0	1.7	1.6	0.9	1.0	1.0	5.0	20.9	18.4	29.3	60.9	48.8	198.6
1940	6.9	2.0	2.0	1.2	0.9	0.9	2.1	9.6	13.2	23.7	57.3	49.1	168.8
1941	11.4	2.3	1.4	1.5	1.2	1.7	7.1	5.1	7.1	9.3	27.1	25.2	100.5
1942	5.0	1.5	1.7	1.8	1.1	1.6	5.5	21.3	10.8	20.7	50.0	46.0	167.1
1943	8.9	1.4	1.1	1.8	1.4	1.2	2.3	14.4	8.4	11.9	30.1	69.5	152.5
1944	14.4	2.4	2.1	2.0	1.6	1.7	5.5	9.4	11.5	16.1	39.9	36.7	143.3
1945	8.6	2.8	2.2	1.4	1.0	1.1	3.1	11.6	16.8	30.8	63.3	47.9	190.5
1946	8.7	1.0	1.5	1.1	1.3	0.9	1.2	4.0	7.3	27.8	49.2	90.5	194.4
1947	28.6	1.9	1.5	1.3	0.8	0.9	1.8	11.0	13.0	32.7	64.3	51.4	209.2
1948	5.3	1.0	1.0	1.2	1.6	1.4	1.8	5.2	2.4	32.5	62.6	66.2	182.2
1949	8.4	1.5	1.3	2.1	1.9	1.0	1.9	6.4	17.1	47.5	56.8	89.4	235.4
1950	29.4	1.8	1.2	2.0	1.9	1.5	1.7	1.6	1.2	22.6	30.6	84.3	179.8
1951	29.9	1.3	0.9	1.1	1.7	1.9	26.1	22.2	20.5	40.4	64.4	87.5	297.9
1952	37.8	1.7	1.7	2.0	2.0	1.6	1.6	15.5	15.1	23.2	49.9	46.3	198.4
1953	8.4	5.2	2.8	1.2	0.8	1.0	5.9	11.3	14.5	23.0	46.8	50.6	171.4
1954	6.9	1.2	0.9	1.2	1.3	0.9	2.9	11.2	7.7	26.4	49.1	69.2	179.0
1955	13.8	2.2	1.6	1.3	1.9	3.0	11.9	9.7	5.1	20.2	42.7	68.2	181.5
1956	9.1	1.0	0.9	1.0	2.1	1.2	22.3	25.1	21.9	35.9	35.7	86.1	242.4
1957	41.8	1.6	1.6	1.4	1.3	0.9	1.9	6.8	18.0	50.0	63.6	67.1	256.0
1958	11.1	1.6	1.2	1.1	0.8	1.0	2.9	15.3	9.8	30.9	58.3	47.1	181.2
1959	6.3	1.2	1.2	0.9	1.2	0.9	1.7	7.4	12.6	36.2	53.0	69.6	192.1
1960	8.9	1.7	1.0	1.3	1.0	1.2	2.4	5.8	20.5	54.0	59.5	68.9	226.3
1961	11.8	1.1	1.2	1.1	0.8	0.9	3.8	9.9	14.8	43.6	59.1	70.1	218.2
1962	14.0	2.1	1.4	1.2	0.9	1.4	3.5	21.7	15.3	22.0	46.0	51.5	180.8
1963	11.2	1.6	1.1	1.8	1.0	1.1	6.3	16.9	9.9	16.7	45.7	44.3	157.5
1964	7.9	1.0	1.3	1.0	1.1	1.0	1.7	8.1	2.4	13.5	37.9	78.3	155.3
1965	28.7	2.5	1.1	2.3	0.8	1.0	0.9	11.7	13.9	40.5	66.3	71.3	241.0
1966	13.9	1.8	1.8	2.0	1.3	1.2	3.9	11.5	16.2	28.7	57.9	51.4	191.6
1967	11.8	1.4	1.6	0.9	0.8	0.9	10.2	16.1	7.0	32.8	53.7	53.7	190.8
1968	10.3	2.1	1.7	1.2	1.0	1.0	3.3	14.7	13.4	47.0	55.6	63.6	214.8
1969	8.8	1.3	1.1	2.1	2.7	1.3	1.4	5.9	10.8	30.0	56.2	65.5	187.3
1970	6.0	2.1	1.4	1.5	0.8	1.0	7.2	14.0	10.1	30.3	55.9	51.3	181.7
1971	11.9	1.7	2.3	1.3	0.9	2.1	0.9	0.9	1.9	13.7	21.8	81.2	140.7
1972	39.0	1.7	1.1	1.1	2.0	0.9	19.8	28.3	29.9	29.8	33.5	82.7	269.9
1973	37.0	1.8	1.6	1.1	1.4	1.2	6.9	23.2	14.2	42.1	53.7	48.6	232.8
1974	11.7	1.1	0.9	1.4	0.8	0.9	1.0	9.4	13.1	20.3	39.0	78.4	178.1
1975	38.8	1.5	1.3	1.1	1.6	1.2	1.7	1.7	22.5	33.6	38.6	84.9	228.6
1976	34.3	1.2	1.0	11.6	2.2	22.9	27.6	25.0	19.1	23.6	36.9	77.4	282.8
1977	40.3	2.4	2.2	2.4	1.8	1.4	7.8	14.2	8.5	15.0	35.8	22.8	154.6
1978	22.7	1.3	1.1	1.2	0.9	1.0	2.5	15.3	13.8	40.0	61.2	62.7	223.8
1979	12.2	1.6	1.4	2.9	1.6	1.1	5.7	4.7	11.6	15.7	27.5	44.8	130.8
1980	14.3	2.7	1.5	1.9	1.9	0.9	1.1	11.3	14.1	23.6	50.1	50.9	174.2
1981	10.6	1.2	1.4	1.5	1.1	1.0	2.9	19.5	10.5	22.5	53.7	47.8	173.8
1982	5.0	1.5	0.9	1.4	1.1	0.9	1.4	6.4	3.8	36.2	43.3	84.7	186.7
1983	43.4	1.7	1.1	1.2	0.9	0.9	3.4	14.4	14.7	28.7	51.8	66.0	228.2
1984	10.8	0.9	1.8	1.3	0.9	0.9	7.5	18.4	9.2	21.3	38.6	67.2	178.8
1985	15.0	1.1	2.1	1.5	2.2	2.9	5.1	7.3	8.9	16.9	30.6	44.3	137.9
1986	10.4	1.6	2.6	2.9	1.8	0.9	5.1	12.7	14.0	23.1	52.5	42.0	169.5
1987	6.9	1.4	1.7	1.4	0.8	0.9	4.8	14.9	12.4	17.6	48.5	50.2	161.5
1988	11.8	2.4	1.6	1.8	1.0	0.9	6.1	14.2	13.6	18.2	34.9	48.0	154.5
1989	8.8	1.0	1.4	1.1	1.7	1.4	2.2	9.9	10.8	20.9	48.5	66.2	174.0
1990	12.8	1.2	1.8	1.1	1.0	0.9	1.3	10.6	10.3	23.3	49.0	68.5	181.7
1991	6.8	0.9	1.1	1.4	0.9	0.9	2.5	13.9	26.8	39.5	60.0	68.8	223.3
1992	15.3	1.2	1.5	1.0	0.9	1.4	8.4	14.8	13.9	24.0	46.7	43.4	172.7
1993	13.4	1.5	2.0	2.5	1.8	1.2	3.7	5.0	12.4	21.4	51.8	44.6	161.4
1994	7.1	2.9	1.7	1.4	1.4	0.9	1.5	3.8	8.1	10.8	27.9	40.9	108.4
1995	14.4	2.3	1.5	1.3	0.9	1.1	7.0	14.5	14.8	22.7	48.6	44.1	173.2
1996	4.5	1.3	1.1	1.1	1.2	1.0	1.7	11.2	12.7	33.3	52.3	69.3	190.8
1997	20.1	2.1	2.7	1.4	1.1	0.9	0.9	13.1	27.8	33.7	36.4	83.2	223.5
1998	31.2	1.4	1.2	1.1	0.8	1.0	4.7	11.4	16.6	45.6	64.2	54.1	233.3
1999	8.0	1.3	1.0	1.0	1.0	0.9	2.7	22.6	7.5	18.4	38.5	69.4	172.4
2000	12.8	1.2	1.0	1.1	1.2	0.9	4.1	12.9	18.5	47.5	67.7	68.2	237.3
2001	11.3	2.3	3.0	2.7	1.7	1.4	6.4	7.4	9.1	14.5	35.6	43.6	139.0
2002	12.3	1.4	1.2	1.1	1.1	1.0	1.8	6.1	3.6	26.5	46.5	87.7	190.4
2003	37.4	4.1	2.3	1.7	0.8	1.1	3.7	19.5	11.0	16.4	47.0	50.0	195.2
2004	9.4	1.6	1.1	1.9	1.3	0.9	7.2	16.7	14.1	27.3	54.3	28.3	164.0
2005	4.5	1.5	1.3	1.7	1.1	1.0	3.1	9.8	12.5	17.2	40.7	45.3	139.8
2006	6.9	1.6	2.3	1.0	1.7	0.9	1.3	4.7	7.9	20.6	54.5	89.5	192.8
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	14.9	1.7	1.5	2.1	1.3	1.8	4.7	11.7	12.4	26.1	46.0	58.0	182.1

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 CC Adverse (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 CC Adverse (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 CC Adverse (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 CC Adverse (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 CC Adverse (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26	-	-	-	-	-	4,551	18,893	19,323	21,698	22,694	8,398	95,584
1927	26	-	-	-	-	-	10,376	43,080	45,402	55,631	52,468	35,698	242,680
1928	26	-	-	-	-	-	10,381	44,086	45,087	55,749	52,721	36,098	244,147
1929	26	-	-	-	-	-	5,864	25,080	24,682	27,613	27,783	9,856	120,903
1930	26	-	-	-	-	-	2,720	9,338	8,941	9,645	10,566	4,948	46,185
1931	26	-	-	-	-	-	7,794	32,805	30,758	34,341	33,842	11,581	151,147
1932	26	-	-	-	-	-	10,375	44,288	45,403	59,587	62,114	45,029	266,822
1933	21,051	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	287,847
1934	18,446	-	-	-	-	-	10,375	44,044	45,416	59,149	58,311	17,653	253,395
1935	26	-	-	-	-	-	7,633	44,566	45,402	55,586	52,511	35,788	241,513
1936	26	-	-	-	-	-	10,377	43,976	42,920	49,260	46,088	14,047	206,694
1937	26	-	-	-	-	-	9,240	42,944	41,876	47,768	45,098	14,223	201,175
1938	26	-	-	-	-	-	10,375	44,324	44,455	60,040	61,449	41,990	262,659
1939	26	-	-	-	-	-	10,308	43,669	44,140	51,272	48,613	15,228	213,255
1940	26	-	-	-	-	-	10,378	39,712	38,537	43,688	42,349	13,152	187,842
1941	26	-	-	-	-	-	1,412	3,100	3,624	4,368	5,716	3,727	21,973
1942	26	-	-	-	-	-	9,853	34,211	34,362	38,892	37,948	12,620	167,913
1943	26	-	-	-	-	-	10,375	44,295	45,402	60,040	61,303	41,728	263,170
1944	26	-	-	-	-	-	4,791	18,279	18,884	20,789	21,431	7,738	91,939
1945	26	-	-	-	-	-	9,926	44,050	45,016	58,316	56,392	17,091	230,817
1946	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1947	21,147	-	-	-	-	-	10,377	44,288	45,189	59,160	58,340	17,620	256,122
1948	26	-	-	-	-	-	8,226	44,290	45,402	59,707	59,299	40,127	257,079
1949	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1950	21,210	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	288,005
1951	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1952	18,446	-	-	-	-	-	10,375	43,862	43,903	50,566	47,216	14,169	228,537
1953	26	-	-	-	-	-	7,427	43,878	45,555	59,068	57,852	17,840	231,645
1954	26	-	-	-	-	-	10,375	44,288	45,402	60,018	60,870	41,179	262,159
1955	26	-	-	-	-	-	8,199	44,304	45,402	57,739	55,437	37,580	248,687
1956	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1957	18,446	-	-	-	-	-	10,375	44,288	44,893	54,533	50,906	34,742	258,184
1958	26	-	-	-	-	-	8,728	39,589	37,557	43,029	41,357	13,437	183,722
1959	26	-	-	-	-	-	10,375	43,986	45,402	59,908	62,716	43,231	265,644
1960	26	-	-	-	-	-	10,252	44,350	43,492	59,930	60,196	40,925	259,170
1961	26	-	-	-	-	-	10,243	43,536	44,100	59,456	62,470	42,743	262,574
1962	26	-	-	-	-	-	10,382	44,297	45,547	53,780	51,078	15,806	220,915
1963	26	-	-	-	-	-	9,072	26,033	25,183	27,971	28,145	9,918	126,348
1964	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1965	18,446	-	-	-	-	-	10,376	44,026	45,402	58,072	56,188	38,187	270,697
1966	26	-	-	-	-	-	9,786	43,477	44,597	51,094	48,865	15,260	213,104
1967	26	-	-	-	-	-	7,395	44,376	45,492	59,293	59,023	17,846	233,450
1968	26	-	-	-	-	-	7,599	44,387	45,466	51,366	47,733	32,571	229,149
1969	26	-	-	-	-	-	10,375	44,338	44,188	54,796	51,434	35,121	240,279
1970	26	-	-	-	-	-	7,303	44,335	45,480	59,435	59,616	18,061	234,254
1971	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1972	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1973	18,446	-	-	-	-	-	7,662	35,498	35,772	40,848	39,225	12,912	190,362
1974	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1975	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1976	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1977	18,446	-	-	-	-	-	1,412	3,034	2,936	4,635	3,404	2,936	36,803
1978	26	-	-	-	-	-	10,490	44,417	45,408	52,842	49,300	33,724	236,207
1979	26	-	-	-	-	-	6,911	28,715	26,032	29,239	29,176	10,270	130,369
1980	26	-	-	-	-	-	10,375	44,295	44,615	57,315	54,218	15,849	226,693
1981	26	-	-	-	-	-	10,404	44,148	45,601	53,852	51,189	15,827	221,048
1982	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1983	18,446	-	-	-	-	-	7,720	44,461	45,402	55,055	51,820	35,352	258,256
1984	26	-	-	-	-	-	9,738	44,312	45,402	57,087	54,541	37,203	248,310
1985	26	-	-	-	-	-	6,598	28,472	24,653	27,582	27,788	9,861	124,979
1986	26	-	-	-	-	-	8,154	38,225	36,224	40,912	39,456	12,968	175,965
1987	26	-	-	-	-	-	10,313	43,020	39,797	44,832	43,640	13,997	195,625
1988	26	-	-	-	-	-	10,371	37,089	35,980	40,523	37,884	12,262	174,135
1989	26	-	-	-	-	-	10,375	44,365	44,826	52,461	48,710	33,310	234,074
1990	26	-	-	-	-	-	10,375	44,288	44,334	58,504	56,948	38,826	253,300
1991	26	-	-	-	-	-	10,375	43,735	44,809	60,027	61,504	41,891	262,367
1992	26	-	-	-	-	-	5,093	19,977	20,314	22,865	23,389	8,307	99,970
1993	26	-	-	-	-	-	8,029	34,689	30,467	34,402	33,792	11,587	152,992
1994	26	-	-	-	-	-	3,177	11,579	11,576	12,657	13,934	6,029	58,978
1995	26	-	-	-	-	-	10,074	44,676	43,147	49,404	46,764	14,778	208,869
1996	26	-	-	-	-	-	10,375	43,574	45,402	58,929	57,715	39,204	255,226
1997	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1998	18,446	-	-	-	-	-	7,481	42,929	45,575	59,353	59,284	17,937	251,006
1999	26	-	-	-	-	-	10,375	44,288	45,402	60,006	62,276	42,541	264,914
2000	26	-	-	-	-	-	10,390	44,319	45,402	54,932	51,611	35,197	241,878
2001	26	-	-	-	-	-	5,473	21,047	17,183	18,872	19,786	7,569	89,956
2002	26	-	-	-	-	-	10,375	43,473	45,402	59,587	62,114	45,029	266,006
2003	21,210	-	-	-	-	-	8,491	39,410	39,239	45,222	43,207	13,907	210,686
2004	26	-	-	-	-	-	9,843	40,156	38,884	44,357	41,625	12,546	187,437
2005	26	-	-	-	-	-	6,407	26,391	26,199	29,415	29,476	10,316	128,229
2006	26	-	-	-	-	-	10,375	44,373	43,792	59,531	62,114	45,029	265,240
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	3,798	-	-	-	-	-	8,973	39,132	39,416	49,035	48,687	26,920	215,961

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 CC Adverse (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	1,075	-	-	-	-	9,848	12,309	11,824	14,682	15,037	16,190	10,298	91,264
1927	1,075	-	-	-	-	9,848	33,743	44,949	53,120	57,001	55,280	35,620	290,636
1928	1,075	-	-	-	-	9,848	33,579	46,526	52,755	57,165	55,548	35,874	292,369
1929	1,075	-	-	-	-	9,848	15,128	16,430	19,484	19,808	20,383	13,064	115,220
1930	1,075	-	-	-	-	9,848	12,864	4,705	5,381	5,326	6,209	3,772	49,180
1931	1,075	-	-	-	-	9,848	26,345	22,396	24,936	25,243	25,437	16,420	151,698
1932	1,075	-	-	-	-	9,848	33,741	46,592	52,491	60,108	59,321	39,294	302,470
1933	24,560	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	325,955
1934	20,709	-	-	-	-	9,848	33,741	44,240	47,837	48,277	46,787	30,594	282,033
1935	1,075	-	-	-	-	9,848	31,849	46,388	53,247	56,901	55,306	35,612	290,225
1936	1,075	-	-	-	-	9,848	24,848	31,206	36,713	37,949	36,747	24,001	202,386
1937	1,075	-	-	-	-	9,848	23,332	30,415	35,487	36,658	35,256	22,858	194,929
1938	1,075	-	-	-	-	9,848	33,741	46,699	51,601	60,750	60,043	39,128	302,884
1939	1,075	-	-	-	-	9,848	33,886	32,376	38,107	39,700	38,325	24,918	218,235
1940	1,075	-	-	-	-	9,848	33,611	35,460	32,251	33,197	33,423	21,743	200,608
1941	1,075	-	-	-	-	9,848	13,318	47	616	1,074	2,234	1,458	29,670
1942	1,075	-	-	-	-	9,848	33,598	23,790	28,354	29,091	29,020	18,853	173,629
1943	1,075	-	-	-	-	9,846	33,741	46,764	52,490	60,786	60,075	39,074	303,853
1944	1,075	-	-	-	-	9,848	11,222	11,254	14,260	14,312	15,384	9,640	86,995
1945	1,075	-	-	-	-	9,848	31,829	46,497	47,180	46,759	45,108	29,234	257,529
1946	1,075	-	-	-	-	9,848	33,338	46,592	52,490	60,108	59,321	39,294	302,066
1947	24,560	-	-	-	-	9,848	33,811	46,592	48,768	48,362	46,811	30,483	289,234
1948	1,075	-	-	-	-	9,848	33,790	46,884	52,490	61,073	60,379	38,585	304,125
1949	1,075	-	-	-	-	9,848	33,754	46,592	52,490	60,108	59,321	39,294	302,483
1950	24,560	-	-	-	-	9,846	33,741	46,592	52,490	60,108	59,321	39,294	325,953
1951	20,709	-	-	-	-	9,848	33,754	46,592	52,490	60,108	59,321	39,294	322,116
1952	20,709	-	-	-	-	9,848	33,092	37,392	37,747	39,058	37,738	24,505	240,089
1953	1,075	-	-	-	-	9,848	31,046	43,906	50,950	49,713	48,093	31,242	265,873
1954	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,776	60,162	38,955	303,640
1955	1,075	-	-	-	-	9,848	33,917	47,007	52,544	60,254	58,590	37,050	300,286
1956	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1957	20,709	-	-	-	-	9,848	33,742	46,592	52,555	55,434	53,450	34,687	307,017
1958	1,075	-	-	-	-	9,845	24,419	27,756	31,390	32,611	31,993	20,752	179,839
1959	1,075	-	-	-	-	9,848	33,741	46,546	52,490	60,339	59,666	39,382	303,088
1960	1,075	-	-	-	-	9,848	33,679	46,671	50,847	60,905	60,288	38,880	302,193
1961	1,075	-	-	-	-	9,848	33,726	46,144	51,389	59,961	59,799	39,303	301,245
1962	1,075	-	-	-	-	9,848	33,541	35,087	41,037	41,993	40,472	26,260	229,313
1963	1,075	-	-	-	-	9,845	32,427	17,137	19,932	20,093	20,677	13,170	134,356
1964	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1965	20,709	-	-	-	-	9,848	33,690	46,705	52,574	60,652	59,285	37,456	320,919
1966	1,075	-	-	-	-	9,848	33,242	40,835	38,711	39,482	38,542	24,981	226,715
1967	1,075	-	-	-	-	9,848	31,086	44,620	51,097	48,712	47,495	31,028	264,961
1968	1,075	-	-	-	-	9,848	32,442	45,312	52,314	51,440	49,783	32,390	274,602
1969	1,075	-	-	-	-	9,848	33,741	46,710	51,929	55,821	54,061	35,050	288,236
1970	1,075	-	-	-	-	9,848	32,217	44,616	51,880	49,557	48,190	31,521	268,905
1971	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1972	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1973	20,709	-	-	-	-	9,848	18,498	24,476	29,695	30,753	30,133	19,527	183,639
1974	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1975	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1976	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1977	20,709	-	-	-	-	9,848	7,476	-	-	1,293	290	-	39,616
1978	1,075	-	-	-	-	9,848	33,565	44,930	53,368	53,213	51,594	33,676	281,268
1979	1,075	-	-	-	-	9,848	16,294	19,211	20,694	21,114	21,531	13,845	123,613
1980	1,075	-	-	-	-	9,848	33,694	46,658	45,162	45,344	43,956	28,579	254,315
1981	1,075	-	-	-	-	9,848	33,846	36,870	41,168	42,074	40,569	26,305	231,755
1982	1,075	-	-	-	-	9,848	33,499	46,592	52,490	60,108	59,321	39,294	302,227
1983	20,709	-	-	-	-	9,848	32,560	46,760	53,340	56,156	54,507	35,242	309,123
1984	1,075	-	-	-	-	9,848	32,428	47,059	52,549	59,234	57,653	36,763	296,609
1985	1,075	-	-	-	-	9,848	15,708	18,983	19,458	19,783	20,388	13,069	118,311
1986	1,075	-	-	-	-	9,848	26,880	26,623	30,123	30,799	30,336	19,650	175,333
1987	1,075	-	-	-	-	9,848	33,775	41,321	33,519	34,147	33,985	22,048	209,717
1988	1,075	-	-	-	-	9,846	33,755	26,602	29,829	30,493	30,150	19,477	181,228
1989	1,075	-	-	-	-	9,848	33,778	46,708	52,291	52,735	50,912	33,231	280,577
1990	1,075	-	-	-	-	9,848	33,741	46,592	51,608	61,020	59,946	37,828	301,659
1991	1,075	-	-	-	-	9,848	33,748	46,172	51,968	60,681	60,036	39,104	302,631
1992	1,075	-	-	-	-	9,848	11,061	12,511	15,538	15,986	17,027	10,794	93,839
1993	1,075	-	-	-	-	9,848	23,586	23,919	24,666	25,290	25,394	16,445	150,222
1994	1,075	-	-	-	-	9,848	19,913	6,374	7,742	7,752	8,989	5,824	67,516
1995	1,075	-	-	-	-	9,848	27,782	34,435	36,838	38,052	36,712	23,883	208,624
1996	1,075	-	-	-	-	9,848	33,786	46,404	52,497	61,290	60,385	38,059	303,344
1997	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1998	20,709	-	-	-	-	9,848	31,152	42,586	49,676	49,132	47,799	31,247	282,149
1999	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,539	59,845	39,264	303,394
2000	1,075	-	-	-	-	9,848	33,760	46,324	53,342	55,960	54,265	35,088	289,662
2001	1,075	-	-	-	-	9,848	16,758	13,466	12,765	12,759	13,789	8,734	89,195
2002	1,075	-	-	-	-	9,848	33,758	45,923	52,490	60,108	59,321	39,294	301,817
2003	24,560	-	-	-	-	9,848	23,451	27,573	32,988	34,486	33,610	21,844	208,360
2004	1,075	-	-	-	-	9,848	30,306	27,924	32,580	33,758	32,900	21,221	189,612
2005	1,075	-	-	-	-	9,848	24,190	17,423	20,842	21,259	21,774	13,936	130,347
2006	1,075	-	-	-	-	9,848	33,820	46,707	51,305	60,099	59,321	39,294	301,469
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,144	-	-	-	-	9,848	29,581	37,050	41,352	44,916	44,187	28,772	240,850

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 CC Adverse (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	23,894	-	-	-	-	6,904	41,031	56,424	54,389	58,103	57,482	44,881	343,108
1927	23,894	-	-	-	-	6,904	54,879	97,901	97,483	105,338	96,782	57,421	540,602
1928	23,894	-	-	-	-	6,904	54,984	107,786	100,912	105,522	97,048	57,589	554,639
1929	23,894	-	-	-	-	6,904	43,157	62,366	59,138	63,469	61,697	46,224	366,848
1930	23,894	-	-	-	-	6,904	38,500	47,261	45,190	47,187	47,442	41,709	298,088
1931	23,894	-	-	-	-	6,904	45,609	70,067	64,530	69,583	66,778	47,855	395,219
1932	23,894	-	-	-	-	6,904	56,318	110,491	119,647	123,857	118,505	81,083	640,699
1933	23,300	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,117
1934	27,579	-	-	-	-	6,904	56,318	102,655	87,182	95,491	88,241	54,740	519,110
1935	23,894	-	-	-	-	6,904	51,288	103,312	96,668	105,214	96,808	57,417	541,506
1936	23,894	-	-	-	-	6,904	48,564	81,410	76,187	83,876	78,145	51,538	450,518
1937	23,894	-	-	-	-	6,904	47,407	80,385	74,970	82,424	76,650	50,984	443,619
1938	23,894	-	-	-	-	6,904	56,318	108,805	111,048	116,866	107,304	60,893	592,032
1939	23,894	-	-	-	-	6,904	52,798	81,250	77,557	85,846	79,735	51,985	459,969
1940	23,894	-	-	-	-	6,904	54,763	84,107	71,765	78,528	74,806	50,441	445,209
1941	23,894	-	-	-	-	6,904	36,658	41,256	40,478	42,404	43,436	40,585	275,615
1942	23,894	-	-	-	-	6,904	48,411	71,352	67,911	73,911	70,380	49,035	411,799
1943	23,894	-	-	-	-	6,904	56,318	109,381	115,147	116,600	107,101	60,748	596,093
1944	23,894	-	-	-	-	6,904	40,838	55,687	53,972	57,289	56,674	44,562	339,821
1945	23,894	-	-	-	-	6,904	47,032	106,737	89,866	93,786	86,556	54,087	508,863
1946	23,894	-	-	-	-	6,904	53,461	110,491	119,660	123,857	118,505	81,083	637,855
1947	23,801	-	-	-	-	6,904	55,686	110,491	92,759	95,587	88,266	54,691	528,185
1948	23,894	-	-	-	-	6,904	52,725	108,508	106,456	114,451	104,702	59,852	577,493
1949	23,894	-	-	-	-	6,904	55,283	110,491	119,660	123,857	118,505	81,083	639,677
1950	24,298	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	641,116
1951	27,579	-	-	-	-	6,904	56,241	110,491	119,660	123,857	118,505	81,083	644,320
1952	27,402	-	-	-	-	6,904	53,601	89,871	77,201	85,126	79,145	51,784	471,033
1953	23,894	-	-	-	-	6,904	51,209	98,512	90,324	97,107	89,558	55,059	512,566
1954	23,894	-	-	-	-	6,904	56,318	110,491	113,580	116,672	106,546	60,443	594,848
1955	23,894	-	-	-	-	6,904	53,704	107,491	102,283	109,453	100,213	58,423	562,365
1956	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1957	27,579	-	-	-	-	6,904	56,313	110,491	104,535	103,541	94,943	56,831	561,138
1958	23,894	-	-	-	-	6,904	45,023	76,968	70,914	77,873	73,370	49,959	424,904
1959	23,894	-	-	-	-	6,904	56,318	108,012	116,748	120,152	109,901	61,592	603,520
1960	23,894	-	-	-	-	6,904	54,306	109,429	100,636	115,696	105,737	60,301	576,903
1961	23,894	-	-	-	-	6,904	53,201	104,204	110,486	117,467	108,917	61,316	586,388
1962	23,894	-	-	-	-	6,904	54,691	85,382	80,461	88,424	81,895	52,638	474,289
1963	23,894	-	-	-	-	6,904	49,161	63,281	59,582	63,789	61,995	46,277	374,883
1964	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1965	27,579	-	-	-	-	6,904	53,830	107,007	102,597	110,104	101,081	58,764	567,867
1966	23,894	-	-	-	-	6,904	51,728	93,824	78,154	85,600	79,954	52,018	472,075
1967	23,894	-	-	-	-	6,904	51,049	99,171	90,496	95,980	88,951	54,953	511,399
1968	23,894	-	-	-	-	6,904	50,270	101,373	91,805	99,048	91,256	55,614	520,164
1969	23,894	-	-	-	-	6,904	56,318	108,789	101,315	103,976	95,554	57,048	553,797
1970	23,894	-	-	-	-	6,904	47,427	99,379	91,515	96,931	89,649	55,194	510,893
1971	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1972	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1973	27,579	-	-	-	-	6,904	45,681	72,724	69,237	75,783	71,500	49,363	418,772
1974	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1975	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1976	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1977	27,579	-	-	-	-	6,904	36,302	41,010	39,868	42,653	41,485	39,219	275,021
1978	23,894	-	-	-	-	6,904	50,525	99,817	93,805	101,043	93,073	56,261	525,322
1979	23,894	-	-	-	-	6,904	44,571	65,971	60,335	64,939	62,852	46,604	376,069
1980	23,894	-	-	-	-	6,904	54,498	109,510	85,046	92,195	85,395	53,767	511,209
1981	23,894	-	-	-	-	6,904	55,178	89,244	80,593	88,515	81,992	52,661	478,982
1982	23,894	-	-	-	-	6,904	55,099	110,491	119,660	123,857	118,505	81,083	639,493
1983	27,468	-	-	-	-	6,904	50,997	104,604	96,080	104,352	96,003	57,174	543,582
1984	23,894	-	-	-	-	6,904	48,423	106,970	102,752	108,070	99,166	58,210	554,390
1985	23,894	-	-	-	-	6,904	44,359	65,688	59,112	63,441	61,702	46,227	371,327
1986	23,894	-	-	-	-	6,904	45,837	75,489	69,661	75,834	71,703	49,425	418,747
1987	23,894	-	-	-	-	6,904	52,438	99,911	73,019	79,597	75,372	50,590	461,726
1988	23,894	-	-	-	-	6,904	54,757	74,507	69,369	75,489	71,516	49,343	425,779
1989	23,894	-	-	-	-	6,904	55,882	109,030	101,632	100,506	92,390	56,028	546,265
1990	23,894	-	-	-	-	6,904	56,318	110,489	104,571	111,234	101,963	59,119	574,491
1991	23,894	-	-	-	-	6,904	56,276	107,108	106,687	117,399	107,354	60,837	586,460
1992	23,894	-	-	-	-	6,904	41,387	57,309	55,236	59,169	58,325	45,121	347,345
1993	23,894	-	-	-	-	6,904	43,759	72,055	64,264	69,636	66,735	47,865	395,112
1994	23,894	-	-	-	-	6,904	38,749	49,408	47,525	49,914	50,233	42,704	309,331
1995	23,894	-	-	-	-	6,904	47,100	85,593	76,310	83,992	78,113	51,480	453,386
1996	23,894	-	-	-	-	6,904	56,048	104,199	103,937	112,329	102,858	59,333	569,503
1997	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1998	27,579	-	-	-	-	6,904	50,674	96,798	88,998	96,453	89,257	55,058	511,721
1999	23,894	-	-	-	-	6,904	56,318	110,491	116,853	118,502	108,599	61,204	602,765
2000	23,894	-	-	-	-	6,904	56,069	103,949	96,064	104,132	95,762	57,083	543,857
2001	23,894	-	-	-	-	6,904	41,780	58,578	52,493	55,546	55,068	44,119	338,383
2002	23,894	-	-	-	-	6,904	56,220	105,843	119,660	123,857	118,505	81,083	635,966
2003	27,529	-	-	-	-	6,904	47,357	76,712	72,494	79,983	74,994	50,490	436,463
2004	23,894	-	-	-	-	6,904	50,193	77,178	72,090	79,163	74,283	50,188	433,894
2005	23,894	-	-	-	-	6,904	41,999	63,641	60,482	65,101	63,099	46,647	371,767
2006	23,894	-	-	-	-	6,904	55,757	108,949	103,385	123,205	118,505	80,155	620,755
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,478	-	-	-	-	6,904	51,269	92,851	90,157	95,782	90,001	58,754	510,195

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 CC Adverse (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26,528	-	-	-	-	11,217	42,680	52,357	51,468	53,268	53,412	47,846	338,776
1927	26,528	-	-	-	-	11,217	45,117	60,670	69,132	70,802	69,679	54,936	408,081
1928	26,528	-	-	-	-	11,217	45,062	63,661	68,980	70,871	69,790	55,031	411,139
1929	26,528	-	-	-	-	11,217	43,284	54,517	53,479	55,290	55,157	48,606	348,078
1930	26,528	-	-	-	-	11,217	42,305	49,022	47,574	49,044	49,416	46,053	321,160
1931	26,528	-	-	-	-	11,217	43,804	56,999	55,763	57,597	57,260	49,528	358,696
1932	26,239	-	-	-	-	11,217	45,989	64,825	71,948	76,952	77,292	64,789	439,252
1933	26,828	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	437,038
1934	35,036	-	-	-	-	11,217	45,989	62,888	65,519	67,098	66,144	53,420	407,311
1935	26,528	-	-	-	-	11,217	43,920	63,229	68,923	70,755	69,690	54,934	409,196
1936	26,528	-	-	-	-	11,217	44,014	60,333	60,875	62,728	61,965	51,610	379,270
1937	26,528	-	-	-	-	11,217	43,369	60,202	60,369	62,182	61,346	51,297	376,509
1938	26,528	-	-	-	-	11,217	45,989	64,146	69,472	74,862	74,022	56,899	423,135
1939	26,528	-	-	-	-	11,217	44,215	59,480	61,468	63,469	62,623	51,863	380,863
1940	26,528	-	-	-	-	11,217	44,996	56,212	58,829	60,928	60,583	50,990	370,283
1941	26,528	-	-	-	-	11,217	42,011	46,766	45,578	47,253	47,769	45,418	312,540
1942	26,528	-	-	-	-	11,217	41,966	57,212	57,195	59,213	58,751	50,196	362,278
1943	26,528	-	-	-	-	11,217	45,859	63,377	70,974	74,789	73,947	56,817	423,508
1944	26,528	-	-	-	-	11,217	42,542	52,090	51,291	52,963	53,077	47,666	337,375
1945	26,528	-	-	-	-	11,217	39,546	63,273	64,435	66,480	65,446	53,050	389,975
1946	26,528	-	-	-	-	11,217	43,771	64,825	71,459	76,952	77,292	64,515	436,559
1947	30,001	-	-	-	-	11,217	45,665	64,825	66,026	67,133	66,154	53,392	404,414
1948	26,528	-	-	-	-	11,217	44,358	63,472	70,476	74,197	72,956	56,310	419,514
1949	26,528	-	-	-	-	11,217	45,123	63,472	71,459	76,952	77,292	64,789	436,832
1950	31,211	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	441,421
1951	36,441	-	-	-	-	11,217	45,897	64,592	71,459	76,952	77,292	64,789	448,640
1952	30,078	-	-	-	-	11,217	43,679	61,366	61,249	63,247	62,379	51,749	384,964
1953	26,528	-	-	-	-	11,217	44,108	62,933	66,642	67,705	66,689	53,600	399,421
1954	26,528	-	-	-	-	11,217	45,029	63,472	70,785	74,797	73,720	56,644	422,192
1955	26,528	-	-	-	-	11,217	44,894	63,472	70,101	72,350	71,099	55,503	415,163
1956	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1957	32,045	-	-	-	-	11,217	45,983	64,825	68,934	70,125	68,918	54,603	416,649
1958	26,528	-	-	-	-	11,217	42,095	59,245	58,465	60,677	59,988	50,717	368,932
1959	26,528	-	-	-	-	11,217	45,989	63,157	71,171	75,430	74,816	57,294	425,602
1960	26,528	-	-	-	-	11,217	45,001	64,331	65,037	74,543	73,386	56,564	416,605
1961	26,528	-	-	-	-	11,217	44,575	62,042	68,559	74,443	74,584	57,139	419,087
1962	26,528	-	-	-	-	11,217	44,581	60,572	62,709	64,439	63,517	52,232	385,794
1963	26,528	-	-	-	-	11,217	42,824	54,849	53,669	55,421	55,280	48,636	348,424
1964	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1965	36,441	-	-	-	-	11,217	44,105	63,129	70,225	72,595	71,458	55,695	424,866
1966	26,528	-	-	-	-	11,217	43,771	59,792	61,534	63,583	62,714	51,881	381,018
1967	26,528	-	-	-	-	11,217	44,024	62,969	66,682	67,281	66,438	53,541	398,679
1968	26,528	-	-	-	-	11,217	44,055	63,078	67,218	68,436	67,392	53,914	401,837
1969	26,528	-	-	-	-	11,217	45,989	64,184	66,780	70,289	69,171	54,724	408,883
1970	26,528	-	-	-	-	11,217	42,285	62,955	67,063	67,639	66,727	53,676	398,090
1971	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1972	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1973	36,441	-	-	-	-	11,217	43,541	57,953	57,755	59,871	59,214	50,381	376,373
1974	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1975	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1976	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1977	36,441	-	-	-	-	11,217	41,698	46,475	45,167	47,220	46,783	44,333	319,335
1978	26,528	-	-	-	-	11,217	42,911	62,855	67,924	69,186	68,144	54,280	403,046
1979	26,528	-	-	-	-	11,217	43,432	55,723	53,986	55,837	55,635	48,821	351,177
1980	26,528	-	-	-	-	11,217	44,626	64,453	62,641	65,932	64,966	52,869	393,232
1981	26,528	-	-	-	-	11,217	45,469	61,020	62,745	64,473	63,557	52,244	387,254
1982	26,528	-	-	-	-	11,217	44,806	63,550	71,459	76,952	77,292	64,789	436,594
1983	28,328	-	-	-	-	11,217	44,239	63,362	68,772	70,431	69,357	54,796	410,501
1984	26,528	-	-	-	-	11,217	41,089	63,472	70,109	71,830	70,666	55,382	410,292
1985	26,528	-	-	-	-	11,217	43,478	55,680	53,468	55,278	55,159	48,607	349,416
1986	26,528	-	-	-	-	11,217	43,790	58,883	57,935	59,922	59,298	50,415	367,989
1987	26,528	-	-	-	-	11,217	43,747	62,146	59,360	61,307	60,817	51,074	376,197
1988	26,528	-	-	-	-	11,217	45,107	57,744	57,813	59,778	59,221	50,368	367,776
1989	26,528	-	-	-	-	11,217	45,640	64,282	67,361	68,984	67,861	54,148	406,021
1990	26,528	-	-	-	-	11,217	45,989	64,824	67,848	73,019	71,824	55,896	417,146
1991	26,528	-	-	-	-	11,217	45,939	62,807	69,168	74,982	74,046	56,868	421,556
1992	26,528	-	-	-	-	11,217	42,763	52,679	51,826	53,664	53,761	47,982	340,420
1993	26,528	-	-	-	-	11,217	42,225	57,640	55,650	57,590	57,242	49,534	357,626
1994	26,496	-	-	-	-	11,217	41,128	49,803	48,563	50,067	50,568	46,616	324,460
1995	26,528	-	-	-	-	11,217	42,919	61,116	60,932	62,772	61,952	51,577	379,013
1996	26,528	-	-	-	-	11,217	45,773	62,279	70,314	73,432	72,194	56,017	417,753
1997	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1998	36,441	-	-	-	-	11,217	43,663	62,825	66,076	67,459	66,565	53,600	407,846
1999	26,528	-	-	-	-	11,217	45,029	63,472	71,164	75,251	74,485	57,075	424,221
2000	26,528	-	-	-	-	11,217	45,914	62,880	68,756	70,348	69,257	54,746	409,646
2001	26,528	-	-	-	-	11,217	42,599	53,132	50,666	52,291	52,438	47,416	336,286
2002	24,164	-	-	-	-	11,217	45,879	62,672	72,211	76,952	77,292	64,789	435,177
2003	34,485	-	-	-	-	11,217	44,350	59,257	59,207	61,389	60,661	51,018	381,584
2004	26,528	-	-	-	-	11,217	44,947	59,311	58,964	61,162	60,366	50,847	373,341
2005	26,528	-	-	-	-	11,217	41,955	54,982	54,049	55,904	55,737	48,845	349,216
2006	26,528	-	-	-	-	11,217	45,546	64,166	65,641	76,705	77,292	62,104	429,198
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	27,916	-	-	-	-	11,217	44,209	60,679	63,989	67,052	66,583	54,916	396,560

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 CC Adverse (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	869	-	-	-	-	458	1,795	14,145	16,193	16,680	16,744	15,202	82,086
1927	869	-	-	-	-	458	5,058	13,491	17,395	18,447	18,447	16,567	90,731
1928	869	-	-	-	-	458	5,056	13,898	17,160	18,447	18,447	16,568	90,902
1929	869	-	-	-	-	458	2,197	14,222	16,571	17,081	17,099	15,421	83,918
1930	869	-	-	-	-	458	1,862	13,963	15,391	15,842	15,930	14,639	78,953
1931	869	-	-	-	-	458	3,698	14,249	16,954	17,539	17,527	15,683	86,976
1932	869	-	-	-	-	458	5,193	14,249	17,885	20,637	21,193	17,272	97,755
1933	2,806	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	99,694
1934	3,562	-	-	-	-	458	5,193	13,899	17,395	18,447	18,447	16,539	93,938
1935	869	-	-	-	-	458	4,267	14,249	17,395	18,447	18,447	16,567	90,697
1936	869	-	-	-	-	458	3,509	14,249	17,395	18,447	18,421	16,236	89,583
1937	869	-	-	-	-	458	3,274	14,249	17,395	18,439	18,359	16,162	89,205
1938	869	-	-	-	-	458	5,193	14,046	16,852	18,447	18,447	16,591	90,902
1939	869	-	-	-	-	458	4,917	13,998	17,395	18,447	18,437	16,296	90,817
1940	869	-	-	-	-	458	5,044	12,983	17,361	18,199	18,204	16,081	89,200
1941	869	-	-	-	-	458	1,730	13,832	14,964	15,487	15,595	14,419	77,354
1942	869	-	-	-	-	458	4,518	14,184	17,147	17,859	17,831	15,865	88,732
1943	869	-	-	-	-	458	5,193	14,178	17,570	18,447	18,447	16,590	91,751
1944	869	-	-	-	-	458	1,732	14,138	16,158	16,620	16,675	15,149	81,798
1945	869	-	-	-	-	458	4,418	13,777	16,841	18,447	18,447	16,527	89,783
1946	869	-	-	-	-	458	4,913	14,249	17,887	20,637	21,193	17,272	97,477
1947	3,548	-	-	-	-	458	5,138	14,249	17,176	18,447	18,447	16,537	93,999
1948	869	-	-	-	-	458	4,537	14,249	17,395	18,447	18,447	16,583	90,984
1949	869	-	-	-	-	458	5,126	14,249	17,887	20,637	21,193	17,272	97,690
1950	3,844	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,732
1951	3,968	-	-	-	-	458	5,189	14,249	17,887	20,637	21,193	17,272	100,852
1952	3,968	-	-	-	-	458	4,927	14,140	17,395	18,447	18,432	16,269	94,035
1953	869	-	-	-	-	458	4,176	14,249	17,395	18,447	18,447	16,542	90,582
1954	869	-	-	-	-	458	5,193	14,249	17,416	18,447	18,447	16,588	91,665
1955	869	-	-	-	-	458	4,659	14,249	17,395	18,447	18,447	16,574	91,097
1956	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1957	3,329	-	-	-	-	458	5,192	14,249	16,984	18,447	18,447	16,562	93,668
1958	869	-	-	-	-	458	3,309	14,249	17,309	18,149	18,083	16,007	88,432
1959	869	-	-	-	-	458	5,193	14,051	17,654	18,447	18,447	16,596	91,713
1960	869	-	-	-	-	458	5,047	14,122	15,403	18,447	18,447	16,586	89,378
1961	869	-	-	-	-	458	4,895	13,484	16,478	18,161	18,447	16,594	89,385
1962	869	-	-	-	-	458	5,089	14,030	17,395	18,447	18,447	16,382	91,117
1963	869	-	-	-	-	458	4,642	14,231	16,607	17,107	17,124	15,430	86,468
1964	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1965	3,968	-	-	-	-	458	4,988	14,054	17,395	18,447	18,447	16,576	94,332
1966	869	-	-	-	-	458	4,752	13,448	17,395	18,447	18,439	16,301	90,108
1967	869	-	-	-	-	458	4,192	14,249	17,395	18,447	18,447	16,541	90,597
1968	869	-	-	-	-	458	4,373	14,249	17,395	18,447	18,447	16,550	90,787
1969	869	-	-	-	-	458	5,193	14,027	16,281	18,447	18,447	16,564	90,285
1970	869	-	-	-	-	458	4,080	14,249	17,395	18,447	18,447	16,544	90,488
1971	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1972	3,843	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,731
1973	3,968	-	-	-	-	458	2,775	14,249	17,218	17,990	17,925	15,916	90,498
1974	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1975	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1976	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1977	3,968	-	-	-	-	458	992	13,818	14,876	15,481	15,392	14,069	79,054
1978	869	-	-	-	-	458	4,648	14,098	17,395	18,447	18,447	16,558	90,919
1979	869	-	-	-	-	458	2,485	14,236	16,665	17,190	17,196	15,482	84,580
1980	869	-	-	-	-	458	5,004	14,109	16,635	18,447	18,447	16,501	90,469
1981	869	-	-	-	-	458	5,114	14,010	17,395	18,447	18,447	16,385	91,124
1982	869	-	-	-	-	458	5,057	14,249	17,887	20,637	21,193	17,272	97,621
1983	3,239	-	-	-	-	458	4,384	14,249	17,395	18,447	18,447	16,565	93,182
1984	869	-	-	-	-	458	4,409	14,249	17,395	18,447	18,447	16,572	90,845
1985	869	-	-	-	-	458	2,476	14,231	16,569	17,079	17,099	15,421	84,202
1986	869	-	-	-	-	458	3,708	14,249	17,229	18,000	17,942	15,926	88,380
1987	869	-	-	-	-	458	4,846	14,072	17,389	18,274	18,251	16,105	90,265
1988	869	-	-	-	-	458	5,063	14,115	17,224	17,971	17,927	15,913	89,540
1989	869	-	-	-	-	458	5,151	14,042	16,598	18,447	18,447	16,555	90,566
1990	869	-	-	-	-	458	5,193	14,248	16,339	18,447	18,447	16,579	90,578
1991	869	-	-	-	-	458	5,190	13,844	16,930	18,447	18,447	16,591	90,774
1992	869	-	-	-	-	458	1,783	14,160	16,264	16,759	16,814	15,242	82,349
1993	869	-	-	-	-	458	3,153	14,249	16,939	17,537	17,523	15,684	86,412
1994	869	-	-	-	-	458	2,777	14,015	15,596	16,045	16,165	14,825	80,750
1995	869	-	-	-	-	458	3,677	14,249	17,395	18,447	18,418	16,228	89,741
1996	869	-	-	-	-	458	5,178	13,821	17,395	18,447	18,447	16,580	91,193
1997	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1998	3,968	-	-	-	-	458	4,167	14,249	17,395	18,447	18,447	16,543	93,672
1999	869	-	-	-	-	458	5,193	14,249	17,682	18,447	18,447	16,593	91,936
2000	869	-	-	-	-	458	5,172	14,191	17,395	18,447	18,447	16,564	91,542
2001	869	-	-	-	-	458	2,318	14,144	16,031	16,486	16,545	15,075	81,925
2002	869	-	-	-	-	458	5,187	13,680	17,887	20,637	21,193	17,272	97,183
2003	3,955	-	-	-	-	458	3,321	14,249	17,395	18,291	18,220	16,089	91,976
2004	869	-	-	-	-	458	4,334	14,249	17,374	18,246	18,159	16,043	89,731
2005	869	-	-	-	-	458	3,302	14,236	16,677	17,203	17,217	15,489	85,450
2006	869	-	-	-	-	458	5,161	14,064	15,488	20,538	21,193	17,062	94,833
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,436	-	-	-	-	458	4,343	14,113	17,127	18,536	18,656	16,357	91,027

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP0 CC Adverse (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	5,536	-	-	-	-	20	7,378	12,454	11,508	10,903	11,990	11,798	71,588
1927	5,536	-	-	-	-	20	11,517	13,833	14,527	14,065	14,735	13,329	87,563
1928	5,536	-	-	-	-	20	11,527	15,161	14,664	14,065	14,735	13,329	89,038
1929	5,536	-	-	-	-	20	8,515	12,833	12,155	11,120	12,579	12,125	74,883
1930	5,536	-	-	-	-	20	8,312	12,454	11,508	10,903	11,990	11,798	72,522
1931	5,536	-	-	-	-	20	10,589	13,395	12,800	11,195	13,468	12,611	79,613
1932	5,536	-	-	-	-	20	11,828	15,543	16,251	17,629	17,780	15,757	100,344
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	14,963	14,527	14,065	14,735	13,329	90,860
1935	5,536	-	-	-	-	20	10,612	13,791	14,527	14,065	14,735	13,329	86,615
1936	5,536	-	-	-	-	20	10,715	13,571	14,230	13,127	14,194	12,849	84,242
1937	5,536	-	-	-	-	20	10,409	13,571	14,230	13,127	14,194	12,849	83,935
1938	5,536	-	-	-	-	20	11,828	15,311	15,390	17,070	17,346	15,376	97,877
1939	5,536	-	-	-	-	20	11,141	13,491	14,230	13,127	14,194	12,849	84,587
1940	5,536	-	-	-	-	20	11,488	13,491	14,230	13,127	14,194	12,849	84,934
1941	5,536	-	-	-	-	20	8,525	12,454	11,508	10,903	11,990	11,798	72,735
1942	5,536	-	-	-	-	20	10,351	13,359	13,121	11,427	13,468	12,611	79,893
1943	5,536	-	-	-	-	20	11,828	15,317	16,021	17,070	17,346	15,376	98,513
1944	5,536	-	-	-	-	20	7,203	12,454	11,508	10,903	11,990	11,798	71,412
1945	5,536	-	-	-	-	20	9,807	15,020	14,129	14,041	14,361	12,849	85,763
1946	5,536	-	-	-	-	20	11,119	15,543	16,253	17,629	17,780	15,757	99,636
1947	7,393	-	-	-	-	20	11,697	15,543	14,633	14,065	14,735	13,329	91,415
1948	5,536	-	-	-	-	20	11,142	14,763	15,134	14,065	14,735	13,329	88,725
1949	5,536	-	-	-	-	20	11,536	15,543	16,253	17,629	17,780	15,757	100,054
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,808	15,543	16,253	17,629	17,780	15,757	102,182
1952	7,393	-	-	-	-	20	11,128	14,064	14,230	13,127	14,194	12,849	87,004
1953	5,536	-	-	-	-	20	10,719	13,791	14,527	14,065	14,735	13,329	86,723
1954	5,536	-	-	-	-	20	11,828	15,543	15,928	17,070	17,346	14,854	98,124
1955	5,536	-	-	-	-	20	11,421	14,674	14,527	14,065	14,735	13,329	88,307
1956	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1957	7,393	-	-	-	-	20	11,827	15,543	14,842	14,065	14,735	13,329	91,753
1958	5,536	-	-	-	-	20	9,989	13,565	13,121	12,450	14,194	12,849	81,724
1959	5,536	-	-	-	-	20	11,828	14,967	16,092	17,070	17,346	15,376	98,234
1960	5,536	-	-	-	-	20	11,476	15,394	14,071	15,045	14,735	13,329	89,605
1961	5,536	-	-	-	-	20	11,322	14,686	15,023	16,808	17,346	15,376	96,117
1962	5,536	-	-	-	-	20	11,390	13,641	14,230	13,127	14,194	12,849	84,986
1963	5,536	-	-	-	-	20	10,718	12,833	12,155	11,120	12,579	12,125	77,086
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,182	14,920	14,676	14,065	14,735	13,329	90,320
1966	5,536	-	-	-	-	20	11,094	14,135	14,230	13,127	14,194	12,849	85,184
1967	5,536	-	-	-	-	20	10,695	13,791	14,527	14,065	14,735	13,329	86,698
1968	5,536	-	-	-	-	20	10,840	13,791	14,527	14,065	14,735	13,329	86,843
1969	5,536	-	-	-	-	20	11,828	15,302	14,259	14,065	14,735	13,329	89,075
1970	5,536	-	-	-	-	20	10,115	13,791	14,527	14,065	14,735	13,329	86,118
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,370	13,395	13,121	11,427	13,468	12,611	81,804
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	7,673	12,454	11,508	10,903	11,990	11,798	73,740
1978	5,536	-	-	-	-	20	10,683	14,195	14,527	14,065	14,735	13,329	87,091
1979	5,536	-	-	-	-	20	9,894	13,055	12,155	11,120	12,579	12,125	76,484
1980	5,536	-	-	-	-	20	11,373	15,413	13,834	13,127	14,194	12,849	86,346
1981	5,536	-	-	-	-	20	11,624	14,070	14,230	13,127	14,194	12,849	85,650
1982	5,536	-	-	-	-	20	11,539	15,543	16,253	17,629	17,780	15,757	100,057
1983	7,393	-	-	-	-	20	10,635	13,791	14,527	14,065	14,735	13,329	88,495
1984	5,536	-	-	-	-	20	10,247	14,134	14,527	14,065	14,735	13,329	86,594
1985	5,536	-	-	-	-	20	9,849	12,992	12,155	11,120	12,579	12,125	76,376
1986	5,536	-	-	-	-	20	10,655	13,571	13,121	11,427	13,468	12,611	80,408
1987	5,536	-	-	-	-	20	11,049	15,042	14,230	13,127	14,194	12,849	86,046
1988	5,536	-	-	-	-	20	11,507	13,438	13,121	11,427	13,468	12,611	81,128
1989	5,536	-	-	-	-	20	11,713	15,347	14,522	14,065	14,735	13,329	89,267
1990	5,536	-	-	-	-	20	11,828	15,542	14,367	14,065	14,735	13,329	89,422
1991	5,536	-	-	-	-	20	11,817	15,066	15,370	17,070	17,346	15,376	97,600
1992	5,536	-	-	-	-	20	7,095	12,454	11,508	10,903	11,990	11,798	71,305
1993	5,536	-	-	-	-	20	10,048	13,458	12,177	11,209	13,468	12,611	78,526
1994	5,536	-	-	-	-	20	9,223	12,454	11,508	10,903	11,990	11,798	73,433
1995	5,536	-	-	-	-	20	10,181	13,583	14,230	13,127	14,194	12,849	83,719
1996	5,536	-	-	-	-	20	11,753	14,691	14,741	14,065	14,735	13,329	88,871
1997	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1998	7,393	-	-	-	-	20	10,529	13,791	14,527	14,065	14,735	13,329	88,389
1999	5,536	-	-	-	-	20	11,828	15,543	16,114	17,070	17,346	15,376	98,832
2000	5,536	-	-	-	-	20	11,791	13,764	14,527	14,065	14,735	13,329	87,767
2001	5,536	-	-	-	-	20	8,831	12,621	11,508	10,903	11,990	11,798	73,207
2002	5,536	-	-	-	-	20	11,805	14,917	16,253	17,629	17,780	15,757	99,697
2003	7,393	-	-	-	-	20	10,723	13,571	14,230	13,127	14,194	12,849	86,106
2004	5,536	-	-	-	-	20	11,248	13,571	14,230	13,127	14,194	12,849	84,774
2005	5,536	-	-	-	-	20	9,676	12,833	12,155	11,120	12,579	12,125	76,044
2006	5,536	-	-	-	-	20	11,675	15,337	14,092	17,540	17,780	15,757	97,737
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,903	-	-	-	-	20	10,855	14,307	14,333	14,215	15,004	13,641	88,278

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP0 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	20,585	24,414	64,019
1926	74,183	96,342	108,977	109,149	99,420	65,854	34,090	11,697	9,434	17,915	26,430	37,488
1927	56,221	72,358	79,010	94,845	106,726	91,021	40,972	9,925	8,511	16,923	46,375	62,202
1928	86,566	92,136	132,851	135,555	148,136	115,947	76,926	27,765	23,137	30,881	37,385	41,879
1929	42,030	35,744	49,569	54,395	84,698	76,085	37,121	10,131	6,441	6,380	6,915	17,282
1930	19,180	39,795	53,644	68,681	76,164	62,894	38,259	14,921	11,194	17,146	20,360	22,597
1931	43,038	52,273	83,814	92,777	89,132	63,768	19,513	8,531	7,040	16,008	32,568	40,700
1932	50,607	55,484	99,564	125,957	142,934	128,299	74,375	21,233	18,541	17,382	90,364	118,796
1933	117,138	112,563	118,363	132,196	134,839	128,731	86,279	40,347	38,980	43,156	77,476	129,663
1934	121,738	133,865	152,860	157,084	151,709	109,282	59,783	14,913	11,072	33,028	51,784	80,624
1935	114,439	130,984	133,981	147,814	139,059	117,111	59,779	20,898	17,519	16,685	20,382	30,648
1936	66,147	60,517	65,127	90,135	110,039	80,176	31,191	10,190	8,305	7,012	6,536	33,683
1937	31,996	30,679	42,711	84,820	98,495	78,526	23,654	10,124	7,526	9,363	52,865	81,012
1938	102,257	105,941	123,219	129,028	142,657	123,253	77,868	29,032	24,152	30,562	39,854	69,613
1939	97,898	95,288	103,389	121,570	112,428	73,530	30,426	9,505	6,440	11,760	18,694	80,666
1940	87,888	112,422	139,230	148,652	131,405	88,089	40,201	10,457	6,612	10,893	14,753	43,227
1941	52,820	58,052	63,371	58,850	60,698	42,623	19,194	9,810	10,581	15,034	31,884	88,336
1942	91,832	102,272	108,189	108,116	86,224	70,980	39,557	11,302	7,929	7,130	33,633	52,839
1943	53,667	59,657	73,393	114,874	120,115	104,562	63,031	24,385	19,188	26,411	30,809	46,800
1944	54,441	57,300	59,174	70,554	90,374	63,083	27,920	9,703	8,097	8,330	14,497	19,323
1945	43,137	53,438	58,202	76,279	111,465	82,934	24,639	8,614	10,027	24,007	40,623	59,493
1946	79,296	81,176	109,203	125,777	155,400	138,471	77,205	23,146	19,271	21,744	34,044	97,182
1947	107,127	120,320	139,873	155,339	137,576	103,284	45,917	11,018	9,253	32,198	63,912	89,697
1948	100,493	100,665	102,830	121,724	155,552	157,203	92,850	38,098	32,721	35,262	52,969	69,082
1949	66,866	61,412	75,049	100,767	154,244	139,130	81,073	30,067	25,486	24,258	38,310	62,762
1950	62,032	60,651	62,141	81,097	120,608	157,770	130,585	71,611	66,275	81,468	113,919	118,796
1951	116,696	129,767	120,542	126,944	156,823	148,903	89,200	36,220	30,648	26,165	35,031	47,011
1952	44,702	50,237	54,147	82,074	98,560	70,951	21,863	9,085	5,551	3,689	5,177	8,028
1953	42,026	68,128	79,071	86,219	103,138	79,188	29,864	10,718	7,465	9,994	31,345	99,965
1954	116,067	140,620	131,243	127,587	137,667	117,088	77,395	37,424	32,718	30,997	43,838	51,417
1955	66,103	63,770	56,906	59,605	91,533	111,456	72,658	33,407	28,721	47,983	89,063	118,796
1956	118,193	111,952	98,157	105,832	140,073	157,770	106,809	53,755	48,107	44,231	56,266	110,985
1957	108,841	107,259	122,139	134,682	147,307	112,345	56,053	14,361	10,906	14,269	24,325	55,256
1958	75,670	112,325	116,880	132,306	114,624	81,382	51,025	12,100	8,627	17,207	42,973	91,891
1959	118,796	120,316	130,825	143,264	149,496	132,323	72,703	24,664	29,853	52,613	87,827	118,472
1960	118,796	135,752	141,278	153,543	154,609	135,343	78,951	27,538	24,523	30,715	63,406	71,578
1961	101,879	143,456	133,994	137,663	142,714	128,788	82,299	29,332	24,877	31,331	36,866	57,651
1962	76,393	93,118	98,734	113,539	94,622	63,704	29,150	10,977	8,795	13,486	34,612	54,826
1963	63,713	90,145	96,554	103,926	87,159	60,519	31,668	11,260	8,341	16,888	41,048	57,273
1964	77,351	82,940	98,470	116,366	133,404	154,747	105,534	52,273	48,758	47,663	59,650	81,455
1965	97,631	126,510	132,958	153,385	147,324	127,119	74,275	30,382	27,229	32,474	40,755	48,276
1966	55,672	57,837	76,909	106,347	121,035	87,552	33,477	10,392	7,258	15,180	23,899	81,630
1967	112,436	127,764	133,421	117,418	120,560	99,577	63,446	24,971	21,103	27,371	34,477	65,427
1968	90,664	127,001	156,322	151,367	129,081	100,183	54,603	15,196	13,619	22,307	42,104	63,980
1969	63,482	57,813	67,343	103,095	140,898	117,821	49,605	10,954	11,364	12,915	20,892	48,539
1970	75,553	95,491	107,404	110,118	103,546	84,806	53,652	14,439	12,090	15,103	19,896	20,396
1971	45,243	66,912	62,750	85,847	146,318	157,581	125,454	70,115	66,354	58,535	74,239	87,174
1972	90,381	96,534	112,692	110,212	144,327	157,770	118,510	65,278	63,738	53,946	65,784	118,796
1973	118,336	122,835	128,856	123,497	104,038	80,279	46,296	11,517	8,247	9,536	25,244	70,376
1974	102,392	111,889	119,268	118,142	128,091	133,474	111,513	67,123	61,266	43,545	47,995	80,780
1975	103,571	102,807	105,825	114,016	151,582	155,007	107,362	55,148	50,520	66,279	107,840	118,796
1976	118,796	122,985	112,640	112,582	143,245	136,812	106,494	64,461	59,144	42,566	43,101	47,465
1977	53,382	58,006	73,254	68,786	63,457	45,145	20,277	13,313	13,253	12,910	37,712	105,129
1978	113,441	121,466	137,809	148,650	128,968	98,144	56,200	14,889	16,685	15,820	26,690	39,141
1979	35,310	35,714	54,692	70,434	106,945	80,265	38,689	10,316	6,825	9,039	7,992	44,937
1980	45,019	53,676	72,430	101,420	111,508	83,387	31,283	10,486	8,899	7,238	22,181	68,900
1981	76,964	108,154	112,146	125,862	100,277	76,853	40,207	11,002	9,563	18,520	33,497	58,862
1982	77,054	109,260	122,356	126,437	149,465	156,973	94,364	38,653	34,967	28,456	42,536	66,126
1983	92,370	113,330	142,414	148,234	133,772	106,078	65,358	24,017	21,563	20,916	60,570	63,586
1984	92,279	100,062	123,366	119,049	113,475	94,541	57,856	25,334	21,367	19,814	29,604	29,731
1985	28,596	22,816	23,285	44,799	71,205	63,299	25,442	9,640	6,188	15,534	30,018	27,584
1986	44,144	54,347	83,800	90,007	99,624	67,017	19,050	8,199	6,648	8,308	45,526	51,921
1987	60,816	81,297	112,533	122,232	110,383	78,247	38,760	10,377	6,528	4,007	8,761	23,595
1988	28,921	43,107	64,690	76,530	88,108	62,855	21,631	8,740	6,103	14,718	35,207	45,454
1989	63,115	58,990	74,625	113,778	132,774	109,801	56,298	15,753	12,121	13,687	27,599	44,193
1990	70,429	72,544	93,450	129,372	135,047	119,112	64,066	17,773	13,842	26,201	89,930	103,061
1991	117,507	145,959	135,064	149,855	157,007	134,654	80,907	33,250	28,377	26,628	38,225	64,016
1992	88,829	116,106	120,769	116,764	104,592	68,424	35,132	10,823	9,154	9,234	16,280	20,719
1993	20,922	22,818	43,228	70,485	101,543	74,832	28,463	10,315	6,978	8,896	12,815	26,941
1994	45,542	46,149	65,948	78,364	84,269	65,740	37,420	11,525	8,070	17,642	23,590	49,171
1995	54,981	87,642	106,397	103,449	100,620	66,718	17,278	10,381	6,949	16,489	53,359	98,969
1996	116,970	131,279	128,203	146,300	147,974	125,927	69,687	26,115	23,578	27,399	34,603	42,096
1997	59,871	72,338	98,625	101,779	136,022	157,770	112,755	55,248	51,768	57,584	79,334	98,545
1998	117,244	136,737	153,091	145,910	144,345	110,388	54,134	11,624	7,816	10,448	31,629	67,000
1999	91,465	97,802	104,067	108,209	112,840	120,174	83,203	42,958	37,652	41,847	82,549	117,598
2000	116,210	121,277	131,607	148,664	146,930	128,443	68,693	23,597	19,720	23,903	26,247	26,385
2001	27,788	28,551	35,550	42,597	73,814	65,029	31,890	11,313	8,154	12,323	34,975	56,394
2002	75,868	81,341	80,831	106,299	143,808	157,154	87,727	24,477	19,154	10,019	13,844	20,369
2003	40,856	59,055	88,026	107,302	91,654	72,461	36,468	10,598	8,475	24,745	34,718	45,644
2004	55,433	63,676	75,727	81,143	81,761	54,075	11,578	11,707	11,260	13,557	31,358	53,564
2005	74,138	77,200	97,041	112,635	112,877	76,734	36,142	10,352	7,258	9,145	25,097	47,034
2006	91,406	94,672	98,792	120,254	149,612	133,854	77,455	20,363	16,443	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP0 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	25,017	32,266	64,126
1926	80,272	112,650	125,627	133,702	134,490	126,822	110,700	68,849	25,890	29,286	37,435	48,932
1927	70,185	87,689	97,374	116,380	138,978	147,095	127,510	84,640	22,115	29,696	51,358	74,797
1928	100,309	109,206	150,584	173,143	202,896	196,466	158,035	104,619	38,270	40,818	49,137	55,489
1929	59,309	57,320	75,048	82,906	108,040	112,732	98,414	67,401	22,490	13,711	16,175	27,458
1930	34,837	57,132	72,981	89,795	102,932	102,383	94,450	70,303	30,586	22,790	28,958	33,923
1931	48,133	60,803	88,864	109,861	116,867	114,647	95,845	49,051	9,868	13,664	27,587	38,552
1932	57,305	68,585	114,206	150,265	186,214	197,861	177,553	134,043	44,513	20,343	80,610	121,337
1933	152,033	155,000	162,439	188,800	202,320	221,209	201,460	152,340	77,517	55,966	91,802	201,026
1934	203,025	221,860	236,137	238,287	233,032	197,547	138,333	76,202	26,787	35,692	53,612	89,120
1935	125,750	142,520	149,860	170,202	180,697	183,316	161,535	121,739	54,865	41,833	48,315	55,837
1936	91,574	91,146	104,191	131,966	150,191	147,019	124,212	78,271	30,176	22,467	22,406	45,132
1937	48,351	51,236	68,057	102,693	125,952	131,304	108,818	60,202	14,464	9,759	40,771	70,524
1938	96,792	103,824	123,930	157,512	188,296	193,265	176,349	120,048	50,786	51,007	66,540	88,467
1939	119,026	126,786	141,088	156,191	154,991	149,173	122,382	62,272	14,059	13,827	22,003	59,570
1940	69,420	96,372	135,171	151,854	158,849	147,703	125,481	68,815	20,052	15,381	23,858	48,236
1941	61,403	70,848	79,894	82,164	87,134	82,235	73,900	47,626	26,513	28,055	44,239	81,542
1942	90,491	106,309	115,490	127,166	123,831	127,638	108,608	59,223	13,847	5,977	34,236	51,324
1943	57,998	66,838	81,478	119,095	142,895	159,775	157,003	127,964	58,930	54,646	63,360	76,714
1944	85,856	94,939	101,576	114,751	130,863	125,419	110,403	71,358	36,342	31,737	38,746	45,029
1945	67,325	85,820	94,953	114,082	148,512	148,081	120,787	58,248	14,193	17,427	31,576	50,537
1946	71,981	77,986	100,240	120,095	174,840	198,062	177,377	128,699	38,308	20,736	29,314	79,660
1947	99,774	116,035	137,248	166,592	174,400	172,900	141,828	78,097	28,340	47,352	74,206	100,654
1948	117,514	125,309	131,704	151,370	197,405	230,286	203,948	143,470	79,508	77,457	95,887	119,774
1949	122,702	123,205	142,391	172,360	226,489	228,177	187,356	130,894	41,920	21,843	35,575	62,562
1950	67,776	70,838	77,573	102,621	166,486	218,195	224,990	198,052	114,072	105,543	133,090	169,183
1951	183,204	198,341	198,953	210,546	238,127	238,667	206,265	142,535	55,424	29,084	39,999	51,204
1952	53,960	61,260	69,052	98,900	125,767	125,450	107,140	57,504	11,592	3,790	3,510	7,307
1953	34,470	65,681	79,234	92,661	120,855	125,154	109,237	64,074	13,640	12,713	29,756	92,228
1954	118,657	142,499	151,415	170,661	195,776	208,250	189,673	141,912	73,787	63,324	77,326	84,905
1955	104,664	110,391	111,247	120,736	146,573	188,321	177,003	135,262	67,237	76,534	109,890	154,078
1956	169,760	170,897	178,404	191,086	231,506	238,980	211,438	176,154	90,560	61,471	75,339	122,152
1957	125,736	130,110	149,356	180,722	212,126	205,160	156,669	94,152	27,498	22,439	35,271	60,712
1958	85,349	119,116	128,467	149,878	151,270	147,382	117,786	60,139	13,488	19,689	48,639	85,470
1959	121,360	127,994	149,146	184,026	210,085	215,644	183,637	131,283	68,778	79,878	115,675	147,503
1960	156,059	177,862	189,206	210,842	232,452	225,674	174,008	116,742	48,035	45,319	67,778	78,652
1961	105,558	143,432	169,687	189,903	216,732	218,322	177,264	118,881	49,239	44,757	53,169	71,351
1962	89,843	106,058	115,883	141,709	137,999	136,791	117,154	73,471	22,891	18,654	37,891	57,844
1963	71,324	98,580	109,383	124,595	122,226	116,368	101,801	57,177	13,498	16,680	36,168	53,456
1964	75,089	84,980	100,292	122,196	153,030	200,953	201,341	167,046	91,050	69,730	80,914	103,931
1965	123,544	156,367	167,588	200,955	220,233	227,499	193,649	128,710	57,934	50,155	60,429	67,234
1966	74,600	79,104	94,673	125,861	154,903	153,767	128,551	71,148	20,365	19,857	31,974	68,169
1967	104,815	130,418	141,793	141,085	160,011	172,441	143,502	90,435	37,040	36,428	46,970	72,182
1968	98,841	132,743	165,717	180,759	183,246	182,660	136,996	85,487	23,834	25,651	42,464	68,614
1969	72,739	70,949	87,497	124,870	167,100	172,922	144,483	88,869	26,957	25,234	32,694	51,076
1970	75,862	94,245	108,073	118,570	139,892	149,946	124,918	69,464	19,970	13,630	20,045	23,674
1971	47,618	69,495	70,199	99,451	167,149	210,222	219,296	199,953	121,108	93,403	106,924	125,098
1972	143,597	151,697	188,097	195,102	230,227	238,980	218,558	186,019	106,874	72,235	84,384	132,485
1973	156,927	165,833	176,780	181,548	175,789	170,282	129,395	76,461	28,356	20,546	36,173	84,810
1974	118,163	136,657	156,210	177,967	200,925	233,722	227,063	193,530	115,586	78,266	86,818	112,339
1975	138,440	143,743	152,185	167,335	219,513	237,543	213,492	178,738	94,881	82,976	114,121	185,589
1976	203,025	211,395	197,343	197,289	230,104	234,123	220,120	187,111	110,914	73,492	76,769	83,538
1977	90,337	99,243	114,351	117,662	116,739	112,760	99,033	67,265	48,185	29,002	50,442	116,566
1978	126,975	138,459	159,491	179,029	181,763	176,487	137,918	78,528	20,942	11,062	21,787	34,200
1979	33,855	38,214	60,029	77,551	113,824	116,390	102,632	75,815	31,365	21,276	22,147	48,763
1980	52,331	60,571	81,908	114,088	138,115	138,119	116,964	67,454	18,389	8,927	25,143	53,256
1981	68,717	101,599	111,099	132,795	129,364	133,121	112,243	58,922	13,362	19,198	35,110	62,272
1982	89,006	122,908	142,154	157,110	191,096	229,453	201,306	158,384	75,410	40,755	56,744	85,979
1983	117,155	143,906	172,191	186,394	191,080	185,660	160,157	109,419	45,160	37,092	68,902	78,306
1984	110,116	121,749	148,742	154,948	160,077	168,169	151,248	113,182	46,558	35,702	48,993	53,394
1985	57,100	57,144	62,368	81,967	111,294	117,615	102,237	72,035	28,162	29,845	43,404	45,151
1986	53,048	64,451	97,224	112,127	130,096	121,893	100,588	48,878	9,341	6,788	36,469	45,134
1987	56,540	74,917	105,107	126,550	136,743	133,054	117,026	69,200	19,264	7,994	14,890	29,597
1988	38,892	56,907	82,732	104,168	117,003	113,093	96,949	62,637	15,335	18,249	35,818	48,159
1989	69,677	72,851	91,705	128,115	154,055	156,819	137,693	89,449	23,665	15,361	32,342	49,920
1990	79,995	87,904	113,790	152,003	168,322	175,607	154,381	106,603	38,627	46,124	111,103	129,347
1991	147,405	182,610	191,464	222,572	238,279	225,464	189,821	130,306	61,969	49,166	66,125	86,843
1992	111,995	139,456	151,044	156,701	153,420	141,729	119,481	73,563	31,811	20,730	29,131	33,485
1993	36,955	40,247	58,877	84,588	128,042	126,127	106,360	55,525	11,498	8,989	13,289	26,457
1994	40,215	44,497	68,415	88,387	101,808	100,023	90,469	63,361	22,899	15,393	23,610	46,055
1995	55,197	85,956	103,254	112,631	128,600	122,304	101,217	53,796	10,116	16,803	50,587	99,089
1996	125,372	141,027	150,486	189,780	207,396	208,635	178,992	127,425	58,636	48,284	54,453	61,258
1997	77,651	93,559	133,279	166,958	222,973	238,980	212,932	177,080	95,819	74,125	94,063	113,005
1998	131,550	153,931	178,067	185,396	207,299	199,201	154,539	91,112	37,272	33,557	54,238	87,586
1999	116,332	128,218	139,467	149,213	162,110	198,856	190,703	153,293	84,515	78,138	108,796	145,755
2000	155,291	165,004	182,959	211,779	229,759	225,636	179,939	112,642	45,018	39,779	43,258	45,600
2001	48,809	52,692	60,845	70,480	104,260	109,702	97,096	63,043	20,059	14,069	31,618	53,748
2002	74,696	84,653	91,160	121,269	161,060	203,423	184,283	138,527	51,161	14,668	20,044	27,229
2003	41,258	66,739	98,712	119,600	124,264	127,709	113,036	66,625	17,133	21,310	34,684	44,707
2004	57,171	67,423	88,268	104,599	111,210	108,030	81,721	31,685	6,343	6,479	23,821	43,592
2005	60,105	67,801	91,177	114,299	124,628	117,754	102,356	62,097	17,358	14,695	31,578	51,885
2006	88,142	97,954	102,319	126,508	173,857	188,591	172,035	118,286	29,245	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP0 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	28,431	38,121	106,434
1926	131,460	193,273	237,817	282,933	314,587	233,085	119,964	26,287	10,263	31,948	49,859	75,499
1927	105,628	133,453	144,889	196,115	281,646	393,691	263,056	85,109	63,703	88,913	142,883	180,882
1928	228,289	238,929	331,714	381,150	436,572	382,351	214,744	59,696	34,198	56,640	73,897	86,809
1929	90,252	84,532	104,747	124,084	227,390	241,680	143,812	32,221	12,942	11,468	12,739	34,475
1930	44,190	81,734	113,338	175,409	227,758	190,970	118,087	32,882	15,230	21,830	29,527	35,983
1931	59,779	75,774	121,873	177,145	302,357	290,299	149,578	29,566	14,269	25,670	52,268	62,721
1932	85,717	93,191	184,684	280,843	433,615	436,950	283,497	105,804	78,200	59,105	233,571	313,523
1933	334,329	333,207	339,138	355,529	419,289	376,178	272,297	104,938	80,341	99,838	199,745	396,021
1934	373,632	396,467	431,184	436,768	434,037	321,354	170,943	38,419	16,927	58,907	102,166	184,560
1935	262,096	297,195	307,833	355,221	436,950	391,872	240,691	79,832	54,531	49,078	59,134	78,072
1936	153,333	148,477	159,291	241,878	379,108	333,763	179,742	40,083	21,986	15,714	13,513	65,285
1937	63,933	63,988	74,992	145,528	270,169	313,870	189,454	47,756	29,756	28,630	102,017	151,576
1938	197,446	203,777	236,673	317,718	434,972	426,887	251,035	79,613	52,497	60,004	99,753	154,231
1939	226,601	234,488	272,979	351,124	394,745	288,359	156,662	37,275	16,812	22,961	40,634	159,551
1940	181,625	235,916	327,656	390,307	431,434	314,420	159,417	34,258	14,007	22,952	38,066	92,359
1941	121,320	134,205	172,518	189,297	222,869	171,887	87,652	17,395	10,131	19,268	60,505	151,691
1942	164,111	195,601	208,973	255,381	277,127	248,451	130,852	30,157	11,531	9,776	72,434	100,411
1943	106,252	113,750	139,021	228,933	326,885	383,519	284,225	108,415	80,323	86,046	101,934	138,396
1944	161,454	170,625	176,235	209,502	281,548	226,413	126,408	29,016	14,889	13,844	31,100	49,853
1945	100,888	152,316	165,474	200,015	352,773	321,963	181,692	43,126	25,426	51,005	79,091	117,336
1946	148,818	153,649	198,228	254,937	433,588	418,082	272,614	96,272	65,680	56,870	66,272	176,581
1947	207,878	239,701	304,263	385,703	436,950	351,561	178,831	44,775	24,913	91,565	161,661	219,152
1948	243,563	248,982	253,716	285,428	405,629	365,144	230,076	89,536	66,132	72,097	105,300	140,225
1949	136,474	134,031	156,904	233,444	428,282	402,153	265,223	93,279	62,883	65,316	112,443	191,947
1950	201,969	203,413	209,639	241,668	316,851	436,950	387,006	214,049	192,406	237,856	291,647	313,588
1951	312,135	348,623	336,647	337,323	433,856	409,420	261,335	92,907	60,652	62,039	87,388	111,737
1952	107,802	110,753	117,025	194,826	318,487	304,990	183,006	47,724	25,362	14,064	14,434	23,344
1953	79,913	140,282	168,074	197,909	315,953	337,033	231,311	81,700	58,704	65,590	120,334	255,607
1954	308,801	353,453	359,970	368,213	411,352	361,480	253,339	91,826	69,791	66,594	103,308	111,793
1955	140,262	145,816	138,145	133,868	226,983	335,745	235,930	83,293	59,037	115,544	206,466	257,501
1956	282,957	279,489	278,126	274,893	410,683	436,950	332,760	142,594	109,491	110,824	135,459	233,777
1957	229,842	229,731	251,067	332,328	436,340	368,150	203,329	61,766	37,084	39,789	67,459	118,493
1958	166,454	246,261	265,164	311,576	399,695	303,716	140,907	30,325	11,620	25,262	110,829	204,967
1959	277,399	283,730	320,008	395,448	436,425	426,745	274,149	96,393	77,538	121,994	197,623	266,182
1960	273,622	309,586	344,327	402,517	436,914	395,583	233,799	68,741	44,212	51,219	107,570	126,262
1961	175,083	254,779	304,031	357,260	436,638	422,201	243,523	75,478	49,580	57,082	73,803	108,359
1962	143,591	182,245	196,118	284,632	328,830	303,721	167,705	38,864	17,573	24,767	80,105	118,474
1963	150,816	208,686	243,918	268,510	304,126	234,449	117,243	26,397	10,112	28,139	72,351	99,836
1964	131,810	141,782	166,683	222,121	324,615	375,725	278,158	115,911	95,465	99,537	115,187	150,911
1965	181,409	239,723	274,586	364,497	420,064	358,394	216,089	70,720	47,546	52,174	80,915	96,348
1966	105,325	107,935	126,874	208,851	340,240	302,636	172,417	39,785	17,904	31,431	53,745	146,530
1967	227,140	288,009	314,817	293,538	388,421	358,391	200,685	50,449	26,903	41,844	72,370	142,404
1968	197,067	277,072	379,203	400,594	419,164	325,651	154,586	34,583	16,856	28,662	63,769	108,717
1969	111,422	105,313	119,578	200,147	373,136	378,419	202,492	49,303	27,170	31,904	47,316	83,040
1970	114,092	148,136	172,669	187,912	280,180	336,894	174,079	37,798	20,121	23,195	37,891	40,596
1971	72,078	102,734	96,524	145,377	394,156	436,950	368,842	177,716	156,666	157,606	180,634	206,213
1972	231,177	237,572	299,038	298,763	409,990	436,950	358,302	164,819	135,357	119,657	146,374	269,718
1973	310,710	325,705	350,582	366,685	378,100	270,379	139,856	30,771	11,911	14,442	45,087	122,623
1974	206,123	250,941	292,322	310,481	377,138	398,288	338,048	168,538	154,711	128,927	150,765	205,858
1975	253,572	253,850	259,937	286,576	423,494	431,064	321,565	145,785	119,048	175,007	258,729	343,481
1976	335,580	347,079	333,344	327,344	426,198	414,579	332,949	146,482	123,689	101,123	106,597	115,452
1977	124,490	136,098	159,902	174,325	184,271	145,720	62,363	15,024	9,909	13,077	71,451	217,484
1978	231,134	258,736	333,382	382,560	407,995	328,229	167,102	35,180	23,308	18,512	48,740	68,662
1979	66,572	68,960	98,474	139,645	286,419	259,680	146,686	32,022	13,188	16,001	12,847	87,862
1980	91,305	98,446	126,115	212,039	347,076	325,237	188,619	45,949	27,271	21,123	64,204	115,300
1981	147,396	213,041	248,950	313,954	353,816	321,137	163,672	33,237	17,266	31,101	71,385	120,883
1982	170,258	253,952	291,521	335,972	432,805	436,950	309,517	127,306	96,771	90,567	116,154	213,304
1983	265,815	322,018	402,683	434,035	436,937	374,081	212,380	59,939	39,180	36,475	108,951	122,171
1984	187,839	215,751	281,296	291,418	326,815	352,137	252,478	79,185	53,828	51,395	72,519	73,872
1985	72,581	67,416	69,940	115,656	231,841	255,812	152,534	36,084	16,331	36,376	78,505	75,492
1986	86,437	106,986	202,107	243,888	315,753	294,638	153,235	31,317	15,244	16,122	91,870	109,087
1987	127,226	161,104	224,436	284,312	381,791	316,278	159,861	34,939	14,386	8,270	25,511	64,432
1988	74,639	116,490	165,250	230,540	311,700	295,827	171,034	41,355	19,969	43,088	92,476	120,576
1989	153,718	154,940	179,842	293,953	436,497	383,286	210,379	53,340	29,323	31,536	76,165	123,633
1990	199,939	208,936	257,019	400,543	436,685	415,750	237,500	65,976	40,889	69,419	262,510	300,140
1991	309,941	380,695	378,717	427,650	436,772	385,559	247,244	82,486	56,159	49,395	87,893	134,254
1992	181,477	237,157	273,181	299,889	320,759	240,409	124,506	28,628	13,750	11,024	32,416	35,798
1993	37,028	37,361	60,911	117,200	302,548	272,429	144,260	27,407	10,328	13,939	22,790	61,097
1994	90,303	94,135	138,898	195,947	255,751	204,351	106,994	22,382	8,968	19,744	36,048	80,688
1995	102,147	158,906	196,712	221,295	350,788	326,355	185,181	42,087	20,457	43,864	141,748	262,448
1996	309,555	317,973	336,542	391,914	436,141	409,097	259,327	88,027	63,802	71,107	86,399	93,409
1997	120,709	144,424	194,413	256,020	403,103	436,950	355,074	167,331	138,493	145,490	186,488	210,714
1998	234,264	282,026	327,588	354,841	436,950	364,259	200,162	53,324	29,388	29,757	78,550	139,853
1999	194,823	215,872	240,959	277,700	351,378	381,116	276,243	109,173	86,874	90,318	182,252	287,764
2000	300,123	304,408	336,504	407,745	407,588	340,687	190,669	47,073	23,578	30,280	38,075	37,153
2001	39,858	40,303	52,723	84,489	219,287	198,569	111,465	21,904	9,068	20,369	73,804	110,328
2002	140,211	158,205	163,247	241,296	411,795	436,950	291,276	107,462	74,541	42,180	58,110	74,404
2003	103,980	152,963	205,166	266,931	339,651	322,103	165,242	35,537	15,011	41,151	69,653	88,899
2004	100,028	107,446	154,423	214,577	320,907	295,660	143,789	32,968	17,127	18,596	52,750	88,228
2005	116,943	125,662	175,430	234,558	334,436	259,243	145,313	32,609	13,312	12,574	51,787	90,402
2006	147,032	158,806	164,278	233,073	388,882	436,710	259,509	79,085	48,722	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP0 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,387	3,283	12,875
1926	15,000	32,359	33,970	33,970	33,970	29,828	22,819	16,547	10,120	9,458	10,100	15,000
1927	15,000	16,990	14,103	20,272	33,657	33,970	30,234	20,366	15,007	11,797	15,000	15,000
1928	15,000	14,535	16,797	21,369	45,148	33,970	29,848	20,335	14,014	13,171	12,939	13,258
1929	11,070	5,705	2,593	4,446	29,963	33,970	30,094	20,409	14,357	8,753	3,019	2,358
1930	1,783	7,816	9,968	18,359	33,970	32,989	28,770	19,843	13,680	6,603	2,858	1,942
1931	3,617	3,182	4,316	12,706	33,970	33,290	27,703	19,124	12,876	6,700	10,173	12,612
1932	15,000	15,598	16,447	15,525	32,936	33,970	30,039	20,382	14,572	7,620	16,801	17,943
1933	15,166	14,828	11,200	15,000	32,163	33,970	29,848	20,335	15,253	14,006	14,985	58,367
1934	18,428	22,518	31,574	33,912	33,970	32,190	24,968	19,065	12,757	12,942	15,206	19,406
1935	16,468	20,828	26,829	33,789	33,970	33,970	29,848	20,335	14,012	8,104	6,228	5,230
1936	15,000	12,184	10,647	25,226	33,970	33,810	28,567	20,335	14,069	7,520	1,954	15,000
1937	10,444	5,553	2,245	10,394	33,929	33,970	28,648	20,346	13,894	7,614	15,665	24,135
1938	15,250	14,262	14,913	15,000	38,791	33,970	29,848	20,335	13,956	9,524	14,239	15,000
1939	15,328	16,749	19,147	33,964	33,970	33,970	29,848	20,335	14,191	8,456	4,584	15,711
1940	15,043	26,901	33,543	33,955	33,970	32,982	25,850	19,762	13,336	8,789	10,331	15,000
1941	15,000	17,760	22,495	28,683	33,970	31,976	25,212	16,073	10,598	5,697	8,015	15,518
1942	15,000	16,848	18,016	25,454	33,970	33,970	29,134	20,335	13,955	7,872	15,007	15,000
1943	13,254	11,851	15,000	15,630	36,289	33,970	29,848	20,386	14,977	13,167	12,239	14,996
1944	15,000	17,318	20,639	24,209	33,970	32,771	26,073	20,247	14,608	8,454	11,544	11,637
1945	15,000	25,039	16,077	23,991	33,956	33,970	29,540	20,335	14,499	9,242	12,298	16,436
1946	15,214	16,219	15,071	15,000	33,294	33,970	29,848	20,340	13,898	10,626	10,519	15,710
1947	15,029	18,664	19,952	33,556	34,290	33,829	28,653	20,341	14,074	15,373	15,116	15,000
1948	15,109	15,970	12,403	15,000	33,929	33,970	29,848	20,361	14,767	12,377	15,000	14,803
1949	12,491	5,622	5,007	15,000	34,628	33,970	29,848	20,342	14,018	12,485	15,465	17,380
1950	15,139	15,000	14,638	15,000	20,896	37,065	33,079	20,853	14,931	13,210	15,026	21,268
1951	15,218	18,602	14,958	15,000	33,010	33,970	29,650	20,348	13,962	15,235	15,000	15,000
1952	14,347	13,757	10,990	26,223	33,906	33,970	29,466	20,335	14,015	6,556	2,298	2,143
1953	15,000	20,419	15,201	21,576	33,920	33,970	29,848	20,381	14,746	10,339	14,350	16,930
1954	15,074	16,184	13,344	18,216	34,911	33,970	29,848	20,426	15,203	10,904	15,000	15,000
1955	15,154	18,898	13,431	15,000	32,014	36,085	29,848	20,402	14,975	15,033	17,005	18,073
1956	15,118	13,865	10,606	15,091	28,874	33,970	30,431	20,420	14,069	12,251	14,578	15,790
1957	15,000	14,182	15,000	18,617	33,779	33,735	28,530	20,335	14,073	9,244	12,618	15,000
1958	15,000	31,011	31,520	33,965	33,970	32,677	25,667	19,641	13,215	11,787	15,986	16,453
1959	16,566	16,315	15,000	22,996	33,806	33,970	29,848	20,335	15,970	14,851	22,641	15,874
1960	15,020	23,681	19,096	33,306	33,957	33,970	29,331	20,335	14,014	10,687	15,000	14,905
1961	15,000	24,580	15,633	23,464	33,872	33,970	29,819	20,335	13,952	11,591	10,590	15,000
1962	15,000	21,668	23,021	33,947	33,970	33,970	29,848	20,337	14,426	10,646	15,705	15,000
1963	15,000	32,734	33,896	33,968	33,970	33,531	26,982	20,335	13,837	11,852	15,000	15,000
1964	15,000	16,029	15,000	15,000	28,558	33,970	29,848	20,448	15,977	11,796	13,571	15,100
1965	17,485	23,167	15,098	29,609	33,899	33,970	29,848	20,335	14,190	9,613	14,386	12,076
1966	8,239	4,487	7,254	23,499	33,937	33,970	28,212	20,335	14,133	11,966	14,974	15,842
1967	15,427	21,271	23,977	23,560	34,115	33,970	29,554	20,335	13,958	15,529	14,054	15,136
1968	15,079	26,343	32,868	33,930	33,970	33,843	28,355	20,547	14,834	13,530	15,052	15,000
1969	14,955	11,049	8,098	15,277	34,836	33,529	28,006	20,335	14,553	9,846	13,237	14,998
1970	15,000	20,761	15,460	18,733	33,929	33,970	29,811	20,335	14,371	9,949	10,716	7,918
1971	15,000	15,263	12,080	14,222	28,007	36,479	30,431	20,439	15,275	10,988	12,738	13,039
1972	12,978	10,721	15,000	15,000	27,511	46,779	31,041	20,502	16,823	10,428	13,060	18,477
1973	15,093	17,224	21,713	26,711	33,970	33,654	26,828	20,335	13,731	9,354	15,000	17,377
1974	16,327	15,684	15,000	15,000	26,573	39,485	29,848	20,355	14,610	8,420	12,525	15,939
1975	15,335	14,800	11,849	10,956	29,796	33,970	29,848	20,573	15,053	15,000	15,000	16,280
1976	15,566	15,193	13,247	15,000	30,640	33,970	29,848	20,435	15,533	10,685	8,059	6,035
1977	5,654	6,519	10,516	22,953	33,970	32,692	26,113	14,628	9,791	4,888	15,000	15,401
1978	15,000	18,101	31,075	33,925	33,970	33,970	29,724	20,335	15,057	8,631	8,954	8,783
1979	3,750	1,905	5,073	11,559	33,970	33,800	28,745	20,337	14,135	10,565	5,268	16,337
1980	14,982	13,174	12,805	26,288	33,844	33,970	29,848	20,335	14,425	7,347	14,988	27,174
1981	15,305	27,499	33,251	33,954	33,970	33,970	29,158	20,335	14,312	11,624	14,327	15,000
1982	15,000	17,756	15,000	15,000	32,685	38,694	30,431	20,422	14,718	11,369	12,125	14,775
1983	15,000	21,209	22,924	33,534	39,859	33,970	29,848	20,406	15,024	9,565	15,364	14,965
1984	15,091	20,110	15,971	20,589	35,039	33,970	29,848	20,361	14,617	11,373	13,759	7,951
1985	3,293	1,879	1,908	7,406	33,970	33,970	29,328	20,338	14,313	12,970	13,240	7,458
1986	4,163	3,704	26,578	33,914	34,956	33,717	29,380	20,050	14,278	9,189	15,190	13,420
1987	11,164	14,663	22,260	33,739	33,970	33,811	28,493	20,335	13,957	6,763	4,458	14,341
1988	11,068	14,698	25,458	33,896	33,970	33,970	29,848	20,335	14,132	10,065	15,416	14,437
1989	15,000	11,152	8,754	23,782	33,828	33,970	29,848	20,335	14,131	8,687	15,000	15,000
1990	15,422	14,869	15,000	30,971	33,886	33,970	29,697	20,337	14,244	15,519	28,706	15,067
1991	15,000	23,707	15,006	25,586	33,913	33,970	29,848	20,335	14,010	7,153	10,910	15,000
1992	15,450	29,274	33,970	33,970	33,970	29,804	22,856	16,584	10,039	3,933	5,927	2,023
1993	1,836	1,689	4,238	11,557	33,967	33,560	28,368	20,234	14,173	4,599	1,970	2,543
1994	2,321	1,967	5,665	16,971	33,970	33,691	28,657	19,991	13,856	10,172	11,604	15,000
1995	15,000	23,227	30,266	33,770	33,970	33,970	29,207	20,336	14,015	12,086	21,379	15,450
1996	15,401	19,686	15,275	22,043	33,718	33,970	29,848	20,335	14,132	12,303	9,505	4,146
1997	4,155	4,517	15,000	15,000	35,628	50,770	32,293	20,697	15,926	13,717	15,000	15,000
1998	15,000	19,659	28,409	32,277	33,970	33,521	26,576	20,335	14,017	9,347	16,229	18,066
1999	15,435	17,556	15,000	15,005	33,149	33,970	29,848	20,365	14,619	9,285	16,688	15,587
2000	15,000	14,700	15,315	31,738	33,957	33,970	28,819	20,335	14,016	9,599	6,667	2,704
2001	2,212	1,978	6,767	11,289	33,970	33,919	29,343	18,304	12,413	4,974	14,655	14,966
2002	15,287	17,254	13,946	15,000	32,981	33,970	30,209	20,418	14,128	7,734	7,919	9,571
2003	15,000	24,923	31,796	33,900	33,970	33,564	26,423	20,335	13,844	12,981	15,000	15,000
2004	15,000	14,651	25,965	33,812	33,970	33,643	26,900	19,050	13,456	6,310	10,164	12,898
2005	15,000	15,600	28,942	33,965	33,970	28,373	21,671	15,891	9,524	4,416	10,565	11,639
2006	15,276	14,849	11,898	15,000	33,239	33,970	29,780	20,337	14,075	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP0 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	18,819	27,909	55,635
1926	71,032	103,214	125,114	159,157	184,975	177,962	156,665	134,764	65,775	52,235	65,696	91,184
1927	118,853	137,680	153,360	164,492	195,317	198,000	179,885	137,958	44,753	55,074	90,581	112,094
1928	129,025	142,384	154,809	170,067	197,792	198,000	178,500	139,523	32,818	25,668	43,819	57,074
1929	66,968	73,092	84,348	97,212	127,488	148,387	144,052	124,384	54,436	29,868	31,671	40,762
1930	43,829	56,324	67,884	85,659	108,654	114,541	106,034	95,731	37,724	15,380	23,391	27,126
1931	34,314	44,320	54,823	87,696	150,346	164,762	152,420	121,965	40,683	21,297	39,452	54,087
1932	69,821	83,172	131,513	141,694	196,173	198,000	180,820	145,014	22,149	27,760	84,989	129,807
1933	132,558	149,711	147,209	153,099	182,364	198,000	180,208	147,671	38,446	32,073	68,252	174,602
1934	145,915	171,945	194,841	197,899	198,000	193,139	174,400	136,632	50,121	28,059	63,437	110,413
1935	130,687	157,241	180,914	197,683	198,000	198,000	178,505	143,243	38,394	24,710	34,841	44,081
1936	76,609	85,108	100,111	139,013	185,751	196,704	176,840	136,345	47,018	19,021	22,036	47,752
1937	54,331	59,150	66,594	92,044	146,564	176,305	168,028	130,360	43,628	14,510	64,008	97,887
1938	129,025	142,625	144,298	148,416	196,916	198,000	178,496	138,943	26,451	15,738	35,000	58,550
1939	91,928	106,146	134,799	165,945	198,000	198,000	175,793	131,652	46,879	20,453	28,658	82,214
1940	105,937	153,054	197,246	197,975	198,000	188,710	167,003	136,334	54,195	35,012	48,512	72,984
1941	88,725	100,166	116,842	133,139	155,059	154,442	138,567	118,571	71,167	58,158	74,150	120,103
1942	129,025	146,733	162,041	179,893	198,000	198,000	175,378	136,883	56,892	22,472	62,891	77,753
1943	89,774	102,436	121,620	150,159	191,876	198,000	180,202	150,245	43,754	32,610	42,404	60,025
1944	76,319	94,891	110,939	123,964	147,968	145,572	129,505	108,538	48,249	29,967	44,832	57,864
1945	91,539	118,031	143,610	170,262	197,977	198,000	175,032	124,089	50,023	17,617	34,088	51,802
1946	79,287	93,782	126,616	141,376	196,158	198,000	178,967	140,000	20,000	19,705	32,170	116,399
1947	129,025	147,722	174,043	197,270	197,998	193,780	176,885	131,927	37,401	54,248	80,658	106,292
1948	129,025	143,458	144,542	139,333	186,397	198,000	180,216	150,842	52,464	50,684	70,682	98,535
1949	109,852	117,590	135,852	139,529	196,212	197,990	180,200	143,692	21,555	17,396	36,101	65,530
1950	81,475	93,408	101,486	93,859	132,230	198,000	194,885	168,899	41,854	28,465	61,655	99,767
1951	129,025	158,754	136,415	143,441	196,304	198,000	180,065	145,943	22,838	38,264	53,442	77,299
1952	86,468	98,208	109,768	146,865	197,095	198,000	176,180	130,967	43,683	11,478	17,428	28,018
1953	61,947	101,268	119,222	141,503	186,424	198,000	178,509	146,036	52,709	37,241	53,219	111,254
1954	129,025	146,679	152,947	163,405	197,499	198,000	180,209	150,751	46,541	32,385	51,743	67,483
1955	97,305	113,799	124,733	140,989	172,628	198,000	180,236	150,703	50,303	58,249	102,627	130,255
1956	130,255	143,418	102,403	106,143	183,614	198,000	185,298	158,882	32,242	31,248	48,520	100,640
1957	111,914	123,132	139,242	160,734	197,665	195,407	178,517	142,521	42,662	21,078	38,151	66,348
1958	92,542	146,691	169,441	197,993	198,000	187,651	167,454	138,633	58,972	42,151	90,845	129,025
1959	129,025	146,375	153,061	172,203	197,711	198,000	178,953	145,160	56,463	62,412	102,376	129,025
1960	129,025	149,825	169,572	196,827	197,979	198,000	178,511	139,238	28,229	19,002	53,547	66,270
1961	93,509	146,048	158,679	176,486	197,828	198,000	178,511	136,910	22,979	20,745	33,907	52,845
1962	74,243	92,959	109,991	142,764	171,629	198,000	176,832	133,519	48,910	36,582	77,746	98,152
1963	124,592	168,896	193,822	197,999	198,000	192,652	174,656	135,328	59,110	30,153	51,457	64,572
1964	87,113	101,519	117,813	135,882	165,717	198,000	182,264	158,813	37,183	21,367	31,865	60,385
1965	88,608	134,760	160,165	181,223	197,748	197,999	178,493	145,907	37,202	24,933	40,332	49,233
1966	59,034	63,558	79,668	120,267	182,137	192,543	176,840	131,988	45,418	23,420	39,682	71,040
1967	105,008	150,271	174,743	192,917	198,000	198,000	178,505	140,526	46,371	41,046	57,717	81,134
1968	106,341	161,622	196,052	197,932	198,000	195,184	176,827	145,328	54,258	45,487	68,123	93,008
1969	107,581	115,967	130,478	152,476	197,374	195,592	176,842	133,783	50,281	40,071	57,382	79,694
1970	114,619	142,665	164,579	180,235	197,930	197,975	176,752	130,541	44,352	19,220	28,702	39,625
1971	94,519	133,672	114,240	103,929	166,332	198,000	188,738	166,899	45,691	27,279	42,348	60,493
1972	86,687	101,037	123,631	118,336	170,371	198,000	190,075	166,222	61,533	22,597	36,272	90,396
1973	120,761	137,200	160,615	180,113	197,904	193,713	174,567	142,352	65,556	42,066	64,875	93,713
1974	129,025	163,563	136,292	129,862	162,646	198,000	187,532	167,381	41,626	23,197	39,673	74,001
1975	115,874	131,036	138,446	129,069	170,687	198,000	185,557	168,409	43,952	36,954	56,530	132,169
1976	132,104	157,259	125,168	120,879	180,426	198,000	187,452	167,703	42,419	24,816	33,604	42,969
1977	53,826	65,176	82,751	105,181	112,711	118,552	103,635	80,647	33,182	14,786	42,990	117,944
1978	129,025	145,224	174,307	197,923	198,000	198,000	176,702	137,305	66,156	41,941	51,743	64,047
1979	68,995	71,750	89,272	113,775	172,455	181,014	170,129	141,410	66,270	37,799	41,886	99,607
1980	110,547	121,549	137,167	179,813	197,778	197,959	176,820	129,895	46,812	22,959	43,555	98,023
1981	125,016	174,888	196,731	197,973	198,000	197,959	175,116	130,474	48,865	47,256	66,003	92,687
1982	110,163	133,656	146,145	142,701	195,729	198,000	182,120	147,080	24,388	26,920	40,489	60,903
1983	86,666	106,937	154,283	186,527	197,992	198,000	178,527	141,217	44,051	19,419	84,993	96,184
1984	127,050	146,399	163,001	183,001	197,897	198,000	178,499	141,999	41,922	29,144	49,500	59,640
1985	65,107	66,616	72,976	101,466	147,084	169,373	159,914	133,123	64,609	43,355	61,396	67,363
1986	74,678	83,705	130,989	156,498	185,583	194,297	173,470	129,837	50,608	16,634	49,829	60,162
1987	69,913	86,074	112,514	140,665	198,000	194,393	176,616	137,432	54,691	20,198	27,880	60,981
1988	72,122	86,861	113,112	145,276	198,000	198,000	176,303	136,036	57,063	24,324	63,301	75,248
1989	90,098	98,776	111,135	154,767	197,751	198,000	178,514	146,437	46,778	22,132	41,953	64,555
1990	98,619	111,226	137,113	184,376	197,854	198,000	178,519	141,926	38,333	45,981	93,991	116,495
1991	129,025	177,022	159,465	185,742	197,901	198,000	179,040	146,219	33,634	14,560	35,189	53,574
1992	79,522	110,033	135,851	164,227	187,649	176,440	155,631	131,356	62,376	29,441	42,934	48,024
1993	48,134	48,194	61,534	83,762	150,912	167,065	156,230	125,884	40,843	14,804	22,810	37,342
1994	49,378	51,997	71,320	94,363	139,178	145,854	131,887	118,909	56,046	21,982	35,167	60,746
1995	72,244	108,787	136,177	159,745	198,000	196,858	175,459	131,479	43,011	24,253	67,394	129,025
1996	129,025	170,694	149,584	165,334	197,556	198,000	178,972	145,064	34,165	31,127	41,542	49,937
1997	65,435	79,156	94,980	98,918	171,757	198,000	192,586	168,228	49,430	24,229	55,283	68,454
1998	82,495	99,933	126,189	143,873	198,000	195,552	178,502	142,556	49,675	31,870	69,465	101,674
1999	129,025	149,445	155,442	152,664	181,912	198,000	180,209	150,325	44,512	28,264	68,250	101,515
2000	122,052	136,513	152,808	188,627	197,978	198,000	178,522	145,968	47,277	30,013	39,071	45,472
2001	48,150	51,212	64,842	80,389	125,593	133,050	123,734	104,935	36,059	17,501	46,925	68,261
2002	98,575	117,902	132,198	133,442	181,762	198,000	183,613	145,262	22,337	10,894	22,162	38,982
2003	64,675	106,058	161,336	191,283	198,000	194,856	176,330	135,497	50,585	25,669	42,078	60,340
2004	76,192	91,153	123,065	156,053	198,000	196,888	171,560	129,471	42,141	16,778	33,185	51,486
2005	69,643	82,195	104,680	133,475	159,319	152,500	138,317	115,922	42,940	23,246	46,398	61,188
2006	102,904	123,120	139,045	144,717	196,708	198,000	178,500	136,647	20,000	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP0 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP0 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	100,240	125,993	303,089
1926	371,946	537,837	631,505	718,911	767,442	633,551	444,238	258,143	121,482	140,842	189,520	268,102
1927	365,887	448,171	488,737	592,103	756,325	863,777	641,655	337,998	154,088	202,403	346,196	444,976
1928	559,189	597,190	786,755	881,284	1,030,545	926,734	658,053	351,938	142,436	167,179	217,176	254,509
1929	269,629	256,393	316,306	363,042	577,579	612,854	453,493	254,546	110,666	70,180	70,518	122,334
1930	143,818	242,801	317,816	437,902	549,479	503,777	385,599	233,681	108,414	83,748	105,094	121,571
1931	188,881	236,352	353,689	480,186	692,673	666,766	445,059	228,236	84,736	83,338	162,048	208,672
1932	278,450	316,029	546,413	714,283	991,872	995,080	746,284	426,476	177,975	132,211	506,335	701,406
1933	751,225	765,309	778,350	844,624	970,975	958,089	770,092	465,631	250,536	245,039	452,259	959,679
1934	862,738	946,655	1,046,596	1,063,951	1,050,748	853,512	568,427	285,231	117,665	168,628	286,205	484,123
1935	649,440	748,768	799,416	904,709	988,676	924,269	670,359	386,046	179,322	140,410	168,899	213,868
1936	402,663	397,432	439,367	628,218	859,060	791,471	540,552	285,224	121,555	71,735	66,445	206,853
1937	209,055	210,606	254,598	435,480	675,109	733,975	518,601	268,788	109,269	69,877	275,326	425,135
1938	540,769	570,430	643,033	767,673	1,001,632	975,375	713,597	387,970	167,842	166,834	255,386	385,860
1939	550,781	579,457	671,402	828,794	894,135	743,033	515,111	261,038	98,382	77,457	114,572	397,711
1940	459,912	624,665	832,846	922,743	953,658	771,904	517,953	269,626	108,202	93,026	135,519	271,807
1941	339,267	381,030	455,120	492,132	559,729	483,163	344,526	209,475	128,990	126,212	218,792	457,189
1942	490,459	567,763	612,709	696,010	719,151	679,039	483,529	257,900	104,154	53,228	218,202	297,327
1943	320,946	354,532	430,512	628,690	818,061	879,826	714,310	431,395	217,171	212,881	250,746	336,932
1944	393,070	435,074	468,563	542,979	684,723	593,257	420,309	238,862	122,185	92,331	140,718	183,706
1945	317,890	434,643	478,316	584,629	844,683	784,948	531,691	254,412	114,169	119,298	197,675	295,604
1946	394,595	422,813	549,358	657,184	993,281	986,585	736,012	408,458	157,157	129,680	172,319	485,532
1947	558,832	642,442	775,379	938,460	981,214	855,354	572,114	286,158	113,981	240,736	395,554	530,795
1948	605,704	634,383	645,194	712,855	978,912	984,604	736,939	442,307	245,592	247,876	339,838	442,420
1949	448,386	441,860	515,204	661,100	1,039,856	1,001,420	743,700	418,273	165,862	141,297	237,894	400,182
1950	428,391	443,310	465,477	534,245	757,071	1,047,980	970,545	673,463	429,538	466,541	615,337	722,602
1951	756,278	854,087	807,515	833,255	1,058,121	1,028,960	766,514	437,954	183,524	170,787	230,859	302,251
1952	307,279	334,215	360,982	548,887	773,816	733,361	517,655	265,616	100,203	39,577	42,847	68,840
1953	233,355	395,778	460,802	539,868	760,290	773,345	578,770	322,909	147,264	135,877	249,005	575,984
1954	687,624	799,434	808,919	848,082	977,205	918,789	730,464	442,339	238,039	204,204	291,215	330,599
1955	423,488	452,673	444,462	470,198	669,731	869,607	695,675	423,067	220,273	313,343	525,050	678,703
1956	716,282	719,622	667,696	693,046	994,750	1,065,670	866,737	551,804	294,469	260,025	330,162	583,344
1957	591,333	604,414	676,803	827,083	1,027,216	914,797	623,098	333,136	132,223	106,819	177,825	315,810
1958	435,016	655,403	711,471	825,718	897,559	752,808	502,839	260,839	105,922	116,097	309,272	527,806
1959	663,146	694,729	768,040	917,937	1,027,523	1,006,681	739,290	417,835	248,602	331,746	526,143	677,056
1960	692,522	796,707	863,479	997,035	1,055,911	988,571	694,600	372,594	159,013	156,943	307,301	357,667
1961	491,030	712,294	782,023	884,776	1,027,784	1,001,282	711,416	380,936	160,627	165,507	208,334	305,206
1962	399,069	496,048	543,748	716,592	767,049	736,186	520,690	277,167	112,595	104,135	246,059	344,296
1963	425,445	599,041	677,572	728,999	745,480	637,519	452,349	250,496	104,898	103,712	216,023	290,136
1964	386,362	427,250	498,259	611,565	805,324	963,395	797,147	514,491	288,433	250,094	301,187	411,783
1965	508,677	680,526	750,395	929,668	1,019,268	944,980	692,354	396,054	184,100	169,348	236,817	273,167
1966	302,869	312,922	385,378	584,825	832,252	770,468	539,498	273,647	105,077	101,853	164,274	383,211
1967	564,826	717,733	788,751	768,518	901,106	862,378	615,692	326,716	145,376	162,218	225,587	376,283
1968	507,991	724,781	930,162	964,581	963,462	837,521	551,368	301,141	123,402	135,637	231,512	349,319
1969	370,179	361,092	412,994	595,864	913,343	898,283	601,429	303,244	130,326	119,970	171,521	277,348
1970	395,126	501,298	568,185	615,568	755,478	803,591	559,211	272,577	110,904	81,097	117,250	132,209
1971	274,457	388,076	355,792	448,825	901,962	1,039,231	932,762	635,122	405,093	347,812	416,884	492,018
1972	564,820	597,560	738,458	737,413	982,426	1,078,479	916,485	602,839	384,326	278,863	345,874	629,872
1973	721,827	768,797	838,546	878,555	889,801	748,306	516,943	281,436	127,801	95,943	186,379	388,899
1974	572,029	678,734	719,092	751,451	895,373	1,002,970	894,005	616,927	387,800	282,354	337,776	488,918
1975	626,793	646,236	668,241	707,953	995,072	1,055,584	857,824	568,654	323,454	376,215	552,220	796,316
1976	805,071	853,911	781,742	773,094	1,010,612	1,017,484	876,864	586,193	351,698	252,682	268,131	295,459
1977	327,689	365,042	440,774	488,908	511,148	454,869	311,421	190,876	114,320	74,664	217,595	572,524
1978	615,575	681,986	836,064	942,087	950,697	834,830	567,647	286,238	142,149	95,967	157,915	214,834
1979	208,482	216,542	307,541	412,965	713,614	671,150	486,882	279,901	131,784	94,680	90,140	297,506
1980	314,184	347,416	430,424	633,648	828,321	778,673	543,534	274,120	115,796	67,593	170,070	362,652
1981	433,399	625,181	702,177	804,537	815,427	763,039	520,397	253,970	103,369	127,699	220,322	349,704
1982	461,481	637,531	717,176	777,220	1,001,781	1,060,070	817,738	491,846	246,255	198,068	268,048	441,087
1983	577,006	707,401	894,494	988,723	999,640	897,789	646,270	354,998	164,977	123,468	338,780	375,212
1984	532,376	604,071	732,376	769,005	833,303	846,817	669,929	380,061	178,292	147,429	214,375	224,588
1985	226,678	215,872	230,477	351,294	595,394	640,068	469,454	271,220	129,603	138,080	226,563	223,048
1986	262,470	313,193	540,697	636,435	766,011	711,562	475,724	238,282	96,119	57,040	238,885	279,724
1987	325,658	418,054	576,850	707,497	860,888	755,783	520,756	272,282	108,827	47,233	81,499	192,947
1988	225,642	318,063	451,242	590,411	748,781	703,744	495,765	269,103	112,602	110,444	242,219	303,874
1989	391,609	396,708	466,061	714,395	954,905	881,875	612,732	325,314	126,019	91,403	193,059	297,301
1990	464,404	495,480	616,373	897,265	971,794	942,439	664,163	352,615	145,935	203,245	586,240	664,111
1991	718,878	909,993	879,716	1,011,404	1,063,872	977,646	726,861	412,596	194,149	146,902	238,341	353,688
1992	477,273	632,026	714,816	771,551	800,390	656,807	457,606	260,954	127,130	74,363	126,688	140,049
1993	144,874	150,310	228,788	367,591	717,012	674,014	463,680	239,364	83,821	51,227	73,673	154,380
1994	227,759	238,744	350,247	474,031	614,975	549,660	395,427	236,168	109,839	84,933	130,019	251,660
1995	299,569	464,519	572,806	630,888	811,978	746,205	508,342	258,079	94,549	113,496	334,466	604,982
1996	696,323	780,658	780,090	915,372	1,022,784	975,629	716,827	406,966	194,313	190,220	226,503	250,846
1997	327,821	393,994	536,297	638,675	969,483	1,082,470	905,639	588,584	351,435	315,144	430,168	505,718
1998	580,552	692,287	813,344	862,297	1,020,564	902,921	613,913	318,951	138,168	114,980	250,110	414,180
1999	547,080	608,893	654,935	702,791	841,390	932,116	760,207	476,115	268,172	247,851	458,534	668,219
2000	708,677	741,903	819,193	988,553	1,016,212	926,736	646,643	349,615	149,609	133,575	153,319	157,313
2001	166,817	174,735	220,726	289,245	556,924	540,269	393,528	219,500	85,754	69,237	201,977	303,697
2002	404,637	459,354	481,381	617,306	931,405	1,029,498	777,108	436,147	181,321	85,494	122,079	170,555
2003	265,768	409,738	585,036	719,017	787,540	750,692	517,500	268,592	105,048	125,857	196,133	254,591
2004	303,824	344,350	467,448	590,184	745,849	688,297	435,548	224,881	90,328	61,719	151,278	249,767
2005	335,829	368,457	497,270	628,932	765,230	634,605	443,799	236,871	90,392	64,076	165,426	262,148
2006	444,760	489,400	516,332	639,553	942,297	991,124	717,279	374,718	128,484	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D-3
Scenario IP1A (KKC Only) under Adverse Climate Change Conditions

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP1A CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	2,521	521	1,450	1,217	67.9%	169	30	67.7%	132	21	2,830	20
Avg. WY 1982 to 2009	2,405	474	1,406	1,167	63.5%	151	24	63.5%	109	16	2,502	66
1941 (Dry Year)	1,354	191	704	754	1.3%	129	12	2.7%	129	15	0	0
1994 (Dry Year)	1,546	270	830	795	10.9%	109	10	12.6%	49	5	120	120
2001 (Dry Year)	1,685	293	923	823	18.0%	84	8	18.6%	52	5	87	87
2005 (Dry Year)	1,809	286	1,058	900	29.5%	89	10	30.4%	62	9	49	0

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,603	201	936	874	20.8%	121	18	22.1%	105	17	17	0
1927	2,556	418	1,571	1,269	80.3%	163	11	79.7%	202	18	3,435	0
1928	2,819	659	1,610	1,277	83.0%	147	34	82.6%	165	36	0	0
1929	1,722	208	1,028	911	27.8%	109	8	28.7%	66	5	0	0
1930	1,474	218	780	779	7.4%	108	15	7.9%	62	8	0	0
1931	1,992	380	1,141	927	35.0%	86	6	36.0%	43	4	1,005	0
1932	3,178	822	1,760	1,452	100.0%	200	23	100.0%	136	9	1,515	0
1933	3,181	738	1,758	1,546	100.0%	269	70	100.0%	181	32	24,366	0
1934	2,534	588	1,506	1,159	68.1%	119	23	67.2%	64	11	6,152	0
1935	2,485	350	1,577	1,299	80.5%	180	34	79.5%	130	20	0	0
1936	2,158	344	1,327	1,071	53.7%	122	15	52.4%	79	10	158	0
1937	2,078	288	1,301	1,054	51.9%	111	6	49.9%	58	3	857	0
1938	3,028	759	1,695	1,380	98.6%	180	43	98.6%	169	29	9	0
1939	2,115	278	1,366	1,069	56.4%	99	10	54.9%	64	8	584	0
1940	2,088	316	1,295	1,018	45.8%	109	13	47.9%	77	10	0	0
1941	1,354	191	704	754	1.3%	129	12	2.7%	129	15	0	0
1942	1,891	222	1,199	979	39.8%	104	12	41.2%	55	6	0	0
1943	3,021	703	1,692	1,404	95.0%	219	50	94.6%	181	38	292	0
1944	1,615	207	925	873	20.1%	121	18	20.7%	99	15	0	0
1945	2,300	332	1,468	1,139	62.7%	114	9	62.7%	60	4	0	0
1946	2,952	625	1,751	1,425	100.0%	173	24	100.0%	104	10	2,689	0
1947	2,524	497	1,536	1,179	70.9%	123	23	69.0%	125	24	16,255	0
1948	3,081	780	1,656	1,438	92.7%	254	62	91.3%	264	62	0	0
1949	3,044	699	1,752	1,434	100.0%	186	22	100.0%	161	13	4,400	0
1950	3,961	1,358	1,758	1,848	100.0%	435	94	100.0%	416	78	22,068	0
1951	3,438	1,087	1,758	1,439	100.0%	190	35	100.0%	134	13	2,795	0
1952	2,272	377	1,390	1,078	57.4%	103	8	55.7%	51	4	15,183	0
1953	2,341	292	1,503	1,210	70.5%	152	7	68.9%	132	7	130	0
1954	3,030	675	1,706	1,476	99.1%	269	72	97.4%	236	60	0	0
1955	2,688	404	1,636	1,398	88.1%	234	62	86.1%	261	64	0	0
1956	4,107	1,643	1,758	1,566	100.0%	292	66	100.0%	207	27	0	0
1957	2,888	753	1,598	1,243	79.6%	134	18	77.7%	93	10	9,863	0
1958	2,020	317	1,253	1,015	45.1%	108	12	46.3%	108	16	55	0
1959	3,002	628	1,759	1,487	100.0%	230	32	100.0%	221	20	0	0
1960	2,610	406	1,643	1,338	92.9%	157	24	91.5%	128	16	8,505	0
1961	2,818	555	1,716	1,381	100.0%	152	20	100.0%	110	11	17,685	0
1962	2,140	289	1,376	1,078	56.7%	110	13	54.8%	101	13	20,155	0
1963	1,762	253	1,060	908	28.0%	104	11	28.3%	54	6	0	0
1964	3,104	650	1,758	1,560	100.0%	295	81	100.0%	264	60	0	0
1965	2,724	522	1,632	1,345	87.5%	191	44	86.7%	164	28	0	0
1966	2,294	421	1,392	1,084	55.1%	108	12	55.7%	60	7	623	0
1967	2,384	357	1,503	1,192	69.1%	146	27	68.3%	115	19	0	0
1968	2,427	403	1,526	1,201	73.7%	126	18	71.9%	109	16	0	0
1969	2,756	645	1,589	1,243	79.9%	132	14	78.2%	128	14	665	0
1970	2,410	391	1,503	1,175	70.8%	118	15	69.7%	71	8	0	0
1971	3,618	1,029	1,758	1,694	100.0%	424	118	100.0%	328	81	533	0
1972	3,757	1,243	1,758	1,653	100.0%	383	85	100.0%	289	51	2,146	0
1973	1,901	197	1,202	1,017	41.9%	128	24	42.8%	85	15	0	0
1974	3,511	954	1,758	1,679	100.0%	402	111	100.0%	316	75	0	0
1975	3,312	841	1,758	1,597	100.0%	321	63	100.0%	261	32	2,044	0
1976	3,806	1,297	1,758	1,642	100.0%	353	104	100.0%	262	66	0	0
1977	1,320	184	683	732	0.0%	116	29	0.0%	67	16	1,989	0
1978	2,348	274	1,537	1,224	75.2%	142	14	73.8%	96	7	551	0
1979	1,801	270	1,055	936	28.9%	130	17	29.8%	70	8	0	0
1980	2,442	464	1,478	1,134	61.9%	116	10	62.5%	73	6	0	0
1981	2,244	325	1,415	1,098	60.0%	104	11	58.0%	126	17	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP1A CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,080	690	1,756	1,526	100.0%	255	43	100.0%	196	16	89	89
1983	2,641	509	1,581	1,291	80.8%	170	35	79.5%	123	26	16,276	0
1984	2,590	415	1,605	1,316	84.6%	181	44	83.4%	138	30	0	0
1985	1,844	302	1,042	926	27.6%	127	7	28.4%	79	4	221	0
1986	1,939	285	1,222	988	42.2%	97	7	43.0%	47	4	0	0
1987	2,205	371	1,338	1,033	47.5%	110	14	48.6%	56	7	97	97
1988	1,980	303	1,236	1,002	41.9%	110	7	42.4%	54	3	22	0
1989	2,615	558	1,565	1,208	75.2%	128	16	74.0%	82	8	145	0
1990	2,699	501	1,647	1,311	88.9%	150	24	88.5%	142	21	0	0
1991	2,887	606	1,681	1,386	95.5%	196	50	95.1%	145	33	0	0
1992	1,618	186	951	884	22.0%	125	21	23.3%	69	10	0	0
1993	1,917	323	1,132	925	34.4%	85	6	35.6%	40	4	150	68
1994	1,546	270	830	795	10.9%	109	10	12.6%	49	5	120	120
1995	2,141	333	1,343	1,053	54.4%	96	7	52.9%	91	11	260	0
1996	3,066	782	1,656	1,397	92.5%	215	39	91.6%	166	23	0	0
1997	3,969	1,532	1,758	1,626	100.0%	348	64	100.0%	308	44	395	0
1998	2,381	364	1,492	1,190	69.3%	139	25	68.5%	109	20	0	0
1999	2,801	442	1,702	1,469	97.4%	272	77	97.0%	247	70	0	0
2000	2,624	492	1,582	1,261	79.4%	150	24	78.2%	116	16	0	0
2001	1,685	293	923	823	18.0%	84	8	18.6%	52	5	87	87
2002	3,131	808	1,748	1,448	100.0%	199	21	100.0%	143	9	12,481	1,161
2003	2,051	275	1,301	1,043	49.3%	105	13	50.5%	58	8	21,023	31
2004	2,073	331	1,276	1,009	46.2%	92	5	46.7%	50	3	1,905	0
2005	1,809	286	1,058	900	29.5%	89	10	30.4%	62	9	49	0
2006	2,843	595	1,719	1,376	100.0%	138	20	100.0%	NA	NA	9,223	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,521	521	1,450	1,217	67.9%	169	30	67.7%	132	21	2,830	20

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.
5) Climate Change inflow dataset provided only extended to the end of Water Year 2006.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP1A CC Adverse (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	2.7%	44.8%	2.4%	0.0%	1.4%
	0 -10% Above Target[1]	23.0%	12.6%	0.6%	0.0%	26.2%
	0-10% Below Target	0.1%	0.5%	5.8%	96.1%	4.4%
	> 10% Below Target	74.2%	42.1%	91.2%	3.9%	68.0%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	43.7%	60.6%	75.0%	21.0%
	0 -10% Above Target	3.8%	3.8%	2.5%	15.6%
	0-10% Below Target	4.8%	3.2%	2.7%	21.0%
	> 10% Below Target	47.7%	32.4%	19.8%	42.4%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			0.0%	
	0 -10% Above Target			7.4%	
	0-10% Below Target			8.7%	
	> 10% Below Target			83.9%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				16.2%	
	0 -10% Above Target				5.9%	
	0-10% Below Target				16.6%	
	> 10% Below Target				61.3%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				91.2%	
	0 -10% Above Target				5.5%	
	0-10% Below Target				2.2%	
	> 10% Below Target				1.1%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	16.9%	22.1%		10.4%
	0 -10% Above Target	1.5%	2.4%		1.8%
	0-10% Below Target	6.9%	2.6%		13.3%
	> 10% Below Target	74.7%	72.9%		74.5%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			13.1%	9.8%	9.2%
	0 -10% Above Target			7.8%	0.6%	0.4%
	0-10% Below Target			14.5%	0.9%	0.6%
	> 10% Below Target			64.6%	88.7%	89.8%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			97.7%	78.5%	60.6%
	0 -10% Above Target			1.4%	9.6%	14.1%
	0-10% Below Target			0.4%	6.0%	11.6%
	> 10% Below Target			0.5%	5.9%	13.7%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			18.1%	
	0 -10% Above Target			8.3%	
	0-10% Below Target			14.5%	
	> 10% Below Target			59.1%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.6%	90.9%	75.7%
	0 -10% Above Target			0.6%	4.5%	12.7%
	0-10% Below Target			0.4%	2.0%	6.6%
	> 10% Below Target			0.4%	2.6%	5.0%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP1A CC Adverse (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	3.0%	29.7%	97.6%		16.5%
	0 -10% Above Target	22.0%	14.3%	0.3%		19.6%
	0-10% Below Target	0.0%	0.6%	0.1%		1.0%
	> 10% Below Target	75.0%	55.4%	2.0%		62.9%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	8.2%			
	0 -10% Above Target	0.5%			
	0-10% Below Target	0.8%			
	> 10% Below Target	90.5%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	51.2%			
	0 -10% Above Target	3.0%			
	0-10% Below Target	3.3%			
	> 10% Below Target	42.5%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP1A (Adverse Climate Change)

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	14.7	4.1	1.6	2.5	0.8	1.3	6.0	17.5	32.4	35.6	54.0	43.6	213.9
1927	8.2	3.7	3.0	1.8	1.5	1.0	2.2	17.4	33.1	54.1	59.9	52.1	238.2
1928	3.1	1.2	1.9	2.6	1.7	1.1	3.6	15.1	34.0	65.4	85.0	68.8	283.5
1929	8.9	3.6	3.6	3.3	5.4	1.5	7.9	8.0	22.3	38.6	50.2	37.2	190.4
1930	5.2	3.7	2.1	3.9	0.9	2.2	2.9	6.9	16.6	21.6	38.1	39.6	143.9
1931	17.6	5.0	4.4	2.5	2.1	1.0	8.2	15.3	29.2	43.1	51.6	27.4	207.4
1932	9.1	2.0	2.1	1.8	3.0	0.9	1.7	11.4	28.6	67.9	87.1	84.5	300.2
1933	21.7	1.0	6.3	8.4	3.1	1.8	4.5	22.9	26.6	53.3	80.5	79.8	309.7
1934	49.4	1.4	34.7	78.0	3.8	44.8	19.7	17.2	45.2	83.7	87.0	51.0	515.9
1935	13.9	1.3	2.2	1.9	0.8	2.0	2.6	22.6	34.3	62.3	68.1	67.8	279.9
1936	17.3	3.8	3.5	1.6	5.3	1.3	4.3	16.6	43.3	51.5	56.7	49.2	254.4
1937	8.2	4.1	1.5	3.6	4.4	2.2	2.9	12.4	32.8	55.1	57.3	29.1	213.6
1938	8.6	1.7	1.5	1.1	1.9	0.9	1.9	15.1	33.5	61.5	87.4	72.7	287.9
1939	21.3	2.8	2.5	0.9	1.3	1.1	6.7	27.6	46.8	50.9	65.4	44.5	271.9
1940	5.2	3.5	3.5	2.0	0.9	0.9	3.6	19.4	41.2	51.4	71.4	47.8	250.9
1941	7.7	4.4	2.3	2.6	1.8	2.9	6.9	5.0	15.7	19.8	31.3	22.7	123.2
1942	4.6	2.5	2.9	4.0	1.5	2.9	7.4	27.7	30.3	37.2	61.5	44.9	227.4
1943	7.9	2.3	1.3	3.4	2.4	1.8	2.8	20.3	30.2	40.7	52.4	69.9	235.3
1944	15.4	4.5	3.7	3.6	2.7	2.8	5.2	9.4	27.4	32.8	50.0	37.4	195.0
1945	8.6	4.3	4.0	2.1	1.2	1.3	2.9	12.4	42.4	61.9	64.7	36.3	242.1
1946	8.8	1.2	2.4	1.4	2.2	0.9	2.1	10.9	33.3	75.0	87.5	86.1	311.9
1947	26.1	3.5	2.9	2.3	0.9	0.9	4.6	24.8	41.2	68.6	86.3	52.1	314.2
1948	5.4	1.2	1.0	2.0	3.1	2.2	3.3	10.4	24.3	78.0	89.6	67.7	288.1
1949	9.5	2.4	1.9	3.7	3.4	1.1	2.2	15.6	33.8	87.9	87.3	83.7	332.6
1950	21.9	3.3	1.8	4.0	3.8	2.3	1.9	3.7	18.7	70.5	86.9	86.0	304.8
1951	33.6	2.2	4.9	15.3	3.3	19.7	31.8	22.2	26.6	79.1	86.6	90.6	415.9
1952	32.7	3.0	3.0	3.8	3.7	2.7	1.7	17.4	42.7	58.4	60.8	40.8	270.6
1953	8.1	5.6	4.3	1.7	0.8	1.0	6.0	12.8	38.0	52.2	54.5	39.2	224.2
1954	4.7	1.6	0.9	2.5	2.5	1.0	9.0	18.9	30.5	57.1	82.2	70.6	281.6
1955	15.6	4.0	2.7	1.8	3.4	5.8	12.4	10.4	18.5	50.6	70.7	69.9	265.8
1956	9.0	1.4	1.1	4.4	5.3	40.0	27.9	25.1	22.1	68.7	75.1	87.8	367.9
1957	46.4	2.8	8.0	3.2	2.4	0.9	3.2	15.7	44.2	82.4	83.8	64.0	357.0
1958	11.3	2.8	1.6	1.5	0.8	1.3	5.0	25.4	36.0	54.9	78.7	46.4	265.7
1959	5.9	1.6	1.3	1.0	2.1	0.9	4.2	23.9	27.6	85.7	92.4	80.6	327.3
1960	22.6	3.1	3.8	3.5	1.2	2.0	6.0	14.4	32.6	86.7	91.1	68.6	335.4
1961	12.7	1.4	1.8	1.5	0.8	4.2	6.6	21.0	28.5	80.5	96.3	83.4	338.8
1962	20.8	4.2	2.0	1.9	1.0	2.1	4.5	28.5	39.1	39.2	52.9	49.5	245.7
1963	8.1	2.7	1.5	3.4	1.2	1.5	8.2	21.7	27.6	34.6	53.2	42.2	205.9
1964	6.9	1.3	2.0	1.1	1.4	1.1	3.1	15.1	17.7	53.8	76.2	80.7	260.5
1965	34.0	5.1	1.6	5.1	0.8	1.1	1.5	23.6	33.7	76.9	89.3	69.8	342.7
1966	21.2	3.2	3.1	3.9	2.1	1.5	4.6	15.9	45.2	63.8	70.9	48.3	283.8
1967	7.5	2.3	2.6	0.9	0.8	0.9	16.5	23.9	33.8	59.3	75.2	53.8	277.7
1968	10.4	4.0	2.5	1.7	1.4	1.1	7.1	22.8	31.2	74.3	83.8	60.8	301.2
1969	7.8	1.9	1.4	4.5	5.7	2.0	1.5	8.0	33.4	74.4	82.7	57.2	280.5
1970	6.3	4.0	1.9	2.4	0.8	1.1	10.8	19.8	35.7	42.6	76.6	58.5	260.5
1971	12.0	3.1	4.3	1.8	1.0	4.3	0.9	0.9	8.4	50.3	69.1	83.8	240.0
1972	46.9	3.1	1.5	1.5	3.8	23.7	29.3	28.3	29.9	59.1	76.2	84.3	387.7
1973	42.4	3.4	6.2	9.3	2.6	1.6	8.5	27.3	30.6	61.8	68.9	49.0	311.7
1974	11.6	1.3	0.9	2.3	0.8	0.9	8.9	20.7	28.7	40.9	73.1	80.7	270.9
1975	46.8	2.4	1.8	1.4	3.2	1.6	3.0	18.6	39.5	66.6	84.1	87.1	356.1
1976	39.1	1.8	26.6	19.8	3.2	34.5	27.6	25.0	28.2	41.0	66.0	78.5	391.2
1977	48.9	4.8	3.7	4.7	3.1	2.0	8.2	14.4	18.3	26.9	41.8	22.9	199.7
1978	17.6	1.9	1.9	1.9	1.1	1.1	4.7	29.0	39.0	64.5	83.5	57.6	303.7
1979	8.8	2.7	2.1	6.4	2.9	1.3	5.5	5.1	31.8	40.1	50.8	45.0	202.4
1980	10.8	4.3	1.8	3.6	3.4	0.9	1.2	14.7	38.5	53.1	61.6	44.1	238.0
1981	5.9	1.6	2.2	2.8	1.5	1.0	4.4	29.7	32.8	44.2	71.1	44.7	241.9
1982	4.9	2.4	1.0	2.4	1.5	0.9	3.2	12.8	20.4	82.9	86.5	86.1	305.0
1983	38.0	3.0	1.5	1.8	0.9	0.9	7.1	24.3	37.0	53.4	83.3	67.5	318.7
1984	10.9	1.0	3.3	2.2	0.9	0.9	11.5	25.9	30.1	39.1	51.9	68.1	245.7
1985	17.6	1.4	3.9	2.4	4.0	5.5	5.0	7.1	20.2	37.0	45.9	33.1	183.2
1986	4.3	2.6	4.8	5.9	3.2	0.9	5.5	14.6	36.0	50.1	52.6	32.2	212.6
1987	7.9	1.9	3.2	2.3	0.9	0.9	7.3	23.3	36.1	41.2	61.4	49.1	235.5
1988	9.1	3.7	2.4	3.3	1.3	0.9	6.1	14.7	32.9	38.6	41.3	33.1	187.4
1989	7.7	1.2	2.3	1.5	3.1	2.1	2.5	13.8	31.8	55.0	70.7	61.6	253.3
1990	11.7	1.6	3.0	1.4	1.4	0.9	1.5	17.0	30.4	59.4	81.5	68.3	278.1
1991	6.8	0.9	1.5	2.9	1.1	6.3	17.3	25.6	33.1	69.3	84.2	70.5	319.4
1992	19.3	1.7	2.4	1.3	0.9	2.5	11.5	19.6	35.7	41.7	60.5	43.1	240.0
1993	12.2	2.5	3.7	4.9	3.1	1.7	3.5	5.2	31.5	46.3	60.0	33.1	207.8
1994	9.3	4.1	3.0	2.3	2.4	0.9	1.4	4.0	19.5	24.4	39.8	36.5	147.7
1995	10.4	4.5	2.4	2.0	1.0	1.6	9.5	19.0	39.0	50.8	49.7	36.2	226.0
1996	3.4	2.0	1.7	1.9	2.3	1.4	6.6	21.6	32.0	80.1	83.2	70.8	307.0
1997	19.8	4.5	6.0	2.4	1.6	0.9	8.0	33.5	27.8	67.4	82.2	84.4	338.5
1998	34.6	2.2	1.7	1.8	0.8	1.1	10.1	23.2	41.2	72.6	81.5	54.0	324.9
1999	8.4	1.8	1.2	1.0	1.3	0.9	3.8	30.2	28.8	45.9	65.1	70.6	258.9
2000	13.5	1.8	1.7	2.0	2.0	0.9	9.8	26.1	35.6	83.2	91.7	67.6	335.8
2001	11.8	4.4	5.8	5.4	3.0	2.0	5.7	6.7	21.0	31.9	49.4	35.4	182.6
2002	10.5	2.3	1.8	1.5	1.6	1.1	2.4	10.2	26.5	78.8	93.6	82.4	312.8
2003	24.1	4.6	3.8	3.0	0.9	1.4	4.9	27.9	31.8	42.1	69.4	48.6	262.4
2004	7.3	2.7	1.4	3.5	2.0	0.9	7.7	17.8	33.8	48.5	50.0	16.1	191.8
2005	8.2	2.6	2.0	3.3	1.5	1.2	3.7	14.0	35.7	41.7	54.9	40.4	209.1
2006	5.3	2.6	4.2	1.2	3.4	0.9	1.6	8.6	30.9	61.2	89.6	83.5	293.2
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	15.0	2.7	3.3	3.9	2.1	3.4	6.5	17.1	30.3	54.0	67.3	55.9	261.5

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A CC Adverse (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A CC Adverse (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	6	34	5	104	315	279	72	14	-	-	204	13	62
1927	8	30	22	10	8	87	236	330	50	3	191	13	60
1928	6	3	39	312	240	187	-	-	-	400	381	13	96
1929	13	29	27	26	51	5	-	194	151	4	207	13	44
1930	6	31	10	31	1	12	93	115	5	-	193	10	31
1931	123	43	34	16	14	130	296	8	-	-	188	13	52
1932	64	12	10	9	23	129	339	-	-	400	400	13	85
1933	108	200	400	211	23	8	-	-	-	400	400	13	108
1934	93	347	400	400	42	149	-	-	-	379	394	13	135
1935	5	5	92	395	229	9	-	-	-	332	294	13	83
1936	31	31	25	94	50	4	203	390	209	-	233	13	78
1937	13	34	4	27	39	13	147	284	13	20	235	10	51
1938	73	8	39	400	139	263	18	-	-	400	400	13	107
1939	20	22	68	400	159	102	61	-	146	4	278	13	77
1940	0	27	143	144	328	259	-	-	90	1	310	13	79
1941	4	37	14	18	11	20	-	-	-	-	131	13	15
1942	12	18	158	252	283	106	91	-	-	-	284	13	73
1943	1	15	3	27	18	9	373	335	-	184	268	13	76
1944	7	38	28	28	20	19	32	248	67	-	192	13	42
1945	12	35	30	12	5	4	67	399	213	35	243	13	65
1946	46	4	16	92	30	400	362	26	-	400	396	13	109
1947	138	29	244	400	394	-	-	-	-	282	383	13	113
1948	1	5	332	286	21	37	72	-	-	372	400	13	94
1949	19	123	366	42	26	68	80	-	-	400	400	13	94
1950	89	28	157	198	35	16	292	178	-	327	400	337	125
1951	281	379	374	1	18	71	1	-	-	400	400	13	118
1952	123	25	77	33	138	19	339	306	148	24	230	13	89
1953	34	30	26	8	-	38	113	306	14	29	210	12	50
1954	5	8	266	400	271	0	-	-	-	400	400	13	107
1955	15	34	19	240	43	46	-	219	11	400	286	13	81
1956	8	251	400	32	36	202	-	-	-	386	400	13	106
1957	77	121	281	400	178	117	-	-	-	379	354	13	117
1958	19	21	8	200	400	336	-	-	92	61	390	13	92
1959	7	7	160	400	266	-	-	-	-	400	400	13	100
1960	107	234	400	400	31	9	-	-	-	400	400	13	122
1961	22	111	197	316	357	76	27	-	-	400	400	13	116
1962	100	37	39	307	338	98	267	8	-	-	215	13	85
1963	12	18	6	27	277	123	268	-	-	-	196	13	56
1964	0	4	11	20	111	245	320	77	-	400	400	13	97
1965	51	48	378	69	251	1	-	-	-	400	400	13	98
1966	26	27	49	151	15	282	400	103	140	104	303	13	98
1967	2	15	136	400	300	-	-	-	-	269	276	13	85
1968	1	33	15	229	400	103	-	-	-	321	391	13	91
1969	4	11	5	40	56	11	377	170	-	364	363	13	86
1970	13	33	8	107	400	340	169	-	26	20	328	13	87
1971	35	24	33	9	2	38	264	258	13	400	400	190	102
1972	75	254	270	54	25	95	4	-	-	374	400	72	99
1973	48	65	325	400	116	6	-	-	124	160	332	13	97
1974	1	5	-	182	400	67	-	-	-	400	400	89	92
1975	74	17	203	400	128	5	-	-	-	400	400	13	100
1976	104	400	400	264	16	189	-	-	-	400	400	13	134
1977	79	43	28	40	26	175	61	-	-	-	84	-	32
1978	34	11	310	400	162	2	-	-	-	233	359	13	93
1979	1	20	13	59	24	3	73	400	224	-	225	13	64
1980	2	36	7	29	28	51	339	369	2	13	248	13	69
1981	4	8	14	125	220	381	183	-	-	-	293	13	75
1982	9	16	0	39	264	320	-	-	13	383	400	13	88
1983	98	54	390	331	272	-	-	-	-	354	361	13	114
1984	2	1	32	275	308	183	-	-	1	211	204	13	74
1985	24	6	31	15	34	43	-	-	71	-	200	13	26
1986	0	19	40	54	27	290	194	195	9	-	185	13	62
1987	33	10	24	15	131	359	344	-	-	-	245	13	71
1988	6	17	14	24	5	-	84	137	4	-	181	12	29
1989	56	3	15	6	26	51	400	129	139	220	272	13	81
1990	29	8	22	103	73	304	231	-	-	355	325	13	89
1991	-	101	400	239	3	58	-	-	-	400	399	13	99
1992	22	8	72	185	400	117	-	-	48	-	281	12	69
1993	5	17	29	40	25	7	-	374	101	-	246	13	52
1994	80	33	21	15	18	-	36	102	-	-	200	13	32
1995	52	39	16	12	157	400	197	-	-	-	154	12	62
1996	1	12	359	400	32	4	-	-	-	400	400	13	100
1997	33	41	56	105	195	268	213	-	-	372	400	27	103
1998	67	345	344	343	100	1	-	-	-	291	326	13	111
1999	8	10	16	400	224	109	1	9	-	400	317	13	91
2000	11	63	400	86	10	-	-	-	-	400	400	13	85
2001	10	40	52	50	24	11	-	286	136	-	239	13	52
2002	90	15	10	177	80	35	333	163	-	400	400	13	104
2003	142	42	30	23	264	303	400	36	-	0	301	13	93
2004	5	19	5	28	13	45	200	-	-	2	177	10	30
2005	74	18	11	26	8	186	385	144	-	-	183	13	64
2006	10	18	33	232	216	19	337	26	-	400	330	13	99
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	39	55	118	159	129	106	116	78	28	203	306	21	82

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A CC Adverse (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	86	315	276	72	14	-	-	-	-	45
1927	-	-	-	-	-	86	236	330	50	-	-	-	43
1928	-	-	27	293	231	185	-	-	-	307	8	-	64
1929	-	-	-	-	-	-	-	194	151	4	-	-	21
1930	-	-	-	-	-	-	93	115	5	-	-	-	13
1931	-	-	-	-	-	129	296	8	-	-	-	-	26
1932	-	-	-	-	-	129	339	-	-	282	10	-	46
1933	-	199	316	93	-	-	-	-	-	391	117	-	68
1934	-	341	142	-	-	-	-	-	-	148	-	-	38
1935	-	-	77	385	228	-	-	-	-	314	-	-	60
1936	-	-	-	87	-	-	203	390	209	-	-	-	54
1937	-	-	-	-	-	-	147	284	13	-	-	-	27
1938	-	-	33	398	127	263	18	-	-	296	0	-	69
1939	-	-	52	400	153	100	61	-	146	-	-	-	55
1940	-	-	117	132	327	259	-	-	90	-	-	-	55
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	138	217	276	89	91	-	-	-	-	-	48
1943	-	-	-	-	-	-	373	335	-	184	-	-	54
1944	-	-	-	-	-	-	32	248	67	-	-	-	21
1945	-	-	-	-	-	-	67	399	213	-	-	-	41
1946	-	-	-	87	14	400	362	26	-	335	36	-	77
1947	-	-	221	383	394	-	-	-	-	244	-	-	74
1948	-	2	331	275	-	26	72	-	-	274	29	-	62
1949	-	106	356	14	-	67	80	-	-	56	-	-	41
1950	-	-	146	163	-	-	292	178	-	143	4	324	76
1951	243	364	374	-	-	-	1	-	-	241	2	-	75
1952	-	-	52	-	106	-	339	306	148	-	-	-	57
1953	-	-	-	-	-	37	113	306	14	-	-	-	29
1954	-	-	266	381	253	-	-	-	-	380	75	-	82
1955	-	-	-	230	15	-	-	219	11	400	35	-	56
1956	-	245	398	5	-	-	-	-	-	332	52	-	63
1957	-	98	175	375	162	117	-	-	-	234	-	-	70
1958	-	-	-	194	400	333	-	-	92	-	-	-	60
1959	-	-	158	399	254	-	-	-	-	166	-	-	59
1960	65	207	355	372	28	-	-	-	-	-	-	-	63
1961	-	105	187	309	357	23	27	-	-	56	-	-	63
1962	-	-	28	297	336	86	267	8	-	-	-	-	60
1963	-	-	-	-	272	117	268	-	-	-	-	-	38
1964	-	-	-	17	105	243	320	77	-	391	146	-	79
1965	-	-	371	26	251	-	-	-	-	301	38	-	59
1966	-	-	24	116	-	276	400	103	140	77	-	-	69
1967	-	-	118	400	300	-	-	-	-	269	-	-	65
1968	-	-	-	220	395	101	-	-	-	245	-	-	58
1969	-	-	-	-	-	-	377	170	-	241	-	-	48
1970	-	-	-	90	400	338	169	-	26	19	-	-	61
1971	-	-	-	-	-	-	264	258	13	390	55	177	70
1972	6	229	264	49	-	-	4	-	-	338	56	59	61
1973	-	35	249	267	96	-	-	-	124	33	-	-	49
1974	-	-	-	168	400	67	-	-	-	400	141	75	74
1975	-	-	194	395	107	-	-	-	-	245	4	-	57
1976	64	388	73	21	-	-	-	-	-	396	206	-	70
1977	-	-	-	-	-	164	61	-	-	-	-	-	14
1978	-	-	298	389	160	-	-	-	-	221	-	-	65
1979	-	-	-	-	-	-	73	400	224	-	-	-	42
1980	-	-	-	-	-	51	339	369	2	-	-	-	46
1981	-	-	-	104	212	380	183	-	-	-	-	-	52
1982	-	-	-	24	256	320	-	-	13	222	4	-	50
1983	-	30	383	322	272	-	-	-	-	345	-	-	81
1984	-	-	5	261	308	183	-	-	1	182	-	-	57
1985	-	-	-	-	-	-	-	-	71	-	-	-	4
1986	-	-	-	-	-	290	194	195	9	-	-	-	42
1987	-	-	-	-	130	359	344	-	-	-	-	-	50
1988	-	-	-	-	-	-	84	137	4	-	-	-	14
1989	-	-	-	-	-	39	400	129	139	219	-	-	56
1990	-	-	-	97	67	304	231	-	-	340	-	-	63
1991	-	101	394	220	-	15	-	-	-	336	41	-	68
1992	-	-	55	181	400	104	-	-	48	-	-	-	47
1993	-	-	-	-	-	-	-	374	101	-	-	-	29
1994	-	-	-	-	-	-	36	102	-	-	-	-	8
1995	-	-	-	-	155	393	197	-	-	-	-	-	44
1996	-	-	351	391	20	-	-	-	-	129	-	-	55
1997	-	-	-	89	185	268	213	-	-	333	50	14	69
1998	36	329	335	335	100	-	-	-	-	281	-	-	86
1999	-	-	13	399	220	109	1	9	-	400	77	-	74
2000	-	53	391	76	-	-	-	-	-	307	60	-	55
2001	-	-	-	-	-	-	-	286	136	-	-	-	26
2002	-	-	-	170	71	33	333	163	-	232	2	-	61
2003	-	-	-	-	264	298	400	36	-	-	-	-	59
2004	-	-	-	-	-	45	200	-	-	-	-	-	15
2005	-	-	-	-	-	182	385	144	-	-	-	-	43
2006	-	-	-	229	189	19	337	26	-	390	-	-	71
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5	35	92	131	115	90	116	78	28	149	15	8	52

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A CC Adverse (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	6	34	5	18	-	3	-	-	-	-	204	13	17
1927	8	30	22	10	8	1	-	-	-	3	191	13	17
1928	6	3	12	19	9	2	-	-	-	93	373	13	33
1929	13	29	27	26	51	5	-	-	-	-	207	13	22
1930	6	31	10	31	1	12	-	-	-	-	193	10	18
1931	123	43	34	16	14	1	-	-	-	-	188	13	26
1932	64	12	10	9	23	0	-	-	-	118	390	13	39
1933	108	1	84	118	23	8	-	-	-	9	283	13	40
1934	93	6	258	400	42	149	-	-	-	230	394	13	97
1935	5	5	14	10	0	9	-	-	-	18	294	13	23
1936	31	31	25	7	50	4	-	-	-	-	233	13	24
1937	13	34	4	27	39	13	-	-	-	20	235	10	24
1938	73	8	6	2	12	-	-	-	-	104	400	13	38
1939	20	22	16	-	5	2	-	-	-	4	278	13	22
1940	0	27	26	12	0	-	-	-	-	1	310	13	24
1941	4	37	14	18	11	20	-	-	-	-	131	13	15
1942	12	18	20	35	7	17	-	-	-	-	284	13	25
1943	1	15	3	27	18	9	-	-	-	0	268	13	22
1944	7	38	28	28	20	19	-	-	-	-	192	13	21
1945	12	35	30	12	5	4	-	-	-	35	243	13	24
1946	46	4	16	5	16	0	-	-	-	65	360	13	32
1947	138	29	23	17	0	-	-	-	-	38	383	13	39
1948	1	3	1	11	21	11	-	-	-	98	371	13	32
1949	19	17	10	27	26	1	-	-	-	344	400	13	53
1950	89	28	10	35	35	16	-	-	-	184	396	13	49
1951	37	15	-	1	18	71	-	-	-	159	398	13	44
1952	123	25	25	33	32	19	-	-	-	24	230	13	32
1953	34	30	26	8	-	1	-	-	-	29	210	12	21
1954	5	8	-	19	18	0	-	-	-	20	325	13	25
1955	15	34	19	10	28	46	-	-	-	-	251	13	25
1956	8	6	2	28	36	202	-	-	-	54	348	13	43
1957	77	22	106	25	16	-	-	-	-	145	354	13	47
1958	19	21	8	7	-	3	-	-	-	61	390	13	32
1959	7	7	2	1	11	-	-	-	-	234	400	13	41
1960	42	27	45	28	3	9	-	-	-	400	400	13	59
1961	22	6	10	7	0	53	-	-	-	344	400	13	53
1962	100	37	11	11	2	12	-	-	-	-	215	13	25
1963	12	18	6	27	4	5	-	-	-	-	196	13	17
1964	0	4	11	3	6	2	-	-	-	9	254	13	19
1965	51	48	7	43	-	1	-	-	-	99	362	13	38
1966	26	27	24	35	15	6	-	-	-	26	303	13	29
1967	2	15	18	-	-	-	-	-	-	-	276	13	20
1968	1	33	15	9	5	2	-	-	-	76	391	13	33
1969	4	11	5	40	56	11	-	-	-	123	363	13	38
1970	13	33	8	17	-	2	-	-	-	2	328	13	26
1971	35	24	33	9	2	38	-	-	-	10	345	13	31
1972	69	24	6	5	25	95	-	-	-	36	344	13	38
1973	48	30	76	133	20	6	-	-	-	127	332	13	48
1974	1	5	-	15	-	-	-	-	-	-	259	13	18
1975	74	17	9	5	22	5	-	-	-	155	396	13	43
1976	40	12	327	242	16	189	-	-	-	4	194	13	64
1977	79	43	28	40	26	11	-	-	-	-	84	-	19
1978	34	11	11	11	3	2	-	-	-	12	359	13	28
1979	1	20	13	59	24	3	-	-	-	-	225	13	22
1980	2	36	7	29	28	-	-	-	-	13	248	13	23
1981	4	8	14	21	7	1	-	-	-	-	293	13	22
1982	9	16	0	15	8	-	-	-	-	161	396	13	38
1983	98	25	7	10	1	-	-	-	-	9	361	13	32
1984	2	1	27	14	-	-	-	-	-	29	204	13	18
1985	24	6	31	15	34	43	-	-	-	-	200	13	22
1986	0	19	40	54	27	-	-	-	-	-	185	13	21
1987	33	10	24	15	0	-	-	-	-	-	245	13	21
1988	6	17	14	24	5	-	-	-	-	-	181	12	16
1989	56	3	15	6	26	12	-	-	-	0	272	13	25
1990	29	8	22	6	6	-	-	-	-	16	325	13	26
1991	-	-	6	19	3	43	-	-	-	64	358	13	31
1992	22	8	16	4	-	13	-	-	-	-	281	12	22
1993	5	17	29	40	25	7	-	-	-	-	246	13	23
1994	80	33	21	15	18	-	-	-	-	-	200	13	23
1995	52	39	16	12	2	7	-	-	-	-	154	12	18
1996	1	12	8	9	12	4	-	-	-	271	400	13	45
1997	33	41	56	17	10	0	-	-	-	39	350	13	34
1998	31	16	9	8	-	1	-	-	-	10	326	13	25
1999	8	10	3	1	4	0	-	-	-	-	240	13	17
2000	11	10	9	10	10	-	-	-	-	93	339	13	30
2001	10	40	52	50	24	11	-	-	-	-	239	13	27
2002	90	15	10	7	9	2	-	-	-	168	398	13	44
2003	142	42	30	23	0	5	-	-	-	0	301	13	34
2004	5	19	5	28	13	-	-	-	-	2	177	10	16
2005	74	18	11	26	8	3	-	-	-	-	183	13	21
2006	10	18	33	3	27	-	-	-	-	10	330	13	27
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	33	20	26	28	14	15	-	-	-	54	291	13	30

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A CC Adverse (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26	-	-	-	-	-	4,551	18,890	19,321	21,696	22,687	8,379	95,549
1927	26	-	-	-	-	-	10,376	43,081	45,402	55,614	52,471	33,094	240,063
1928	26	-	-	-	-	-	10,381	44,086	45,087	56,903	54,311	37,079	247,873
1929	26	-	-	-	-	-	5,922	25,396	25,026	27,996	28,133	9,933	122,432
1930	26	-	-	-	-	-	2,723	9,355	8,958	9,664	10,584	4,954	46,264
1931	26	-	-	-	-	-	7,830	33,020	31,004	34,696	34,125	11,353	152,053
1932	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1933	16,689	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	283,484
1934	18,446	-	-	-	-	-	10,375	44,044	45,416	59,149	58,381	17,690	253,501
1935	26	-	-	-	-	-	7,657	44,544	45,402	55,809	52,782	35,910	242,130
1936	26	-	-	-	-	-	10,378	43,987	42,934	49,281	46,104	14,051	206,761
1937	26	-	-	-	-	-	9,232	42,897	41,752	47,708	45,057	13,477	200,148
1938	26	-	-	-	-	-	10,375	44,324	44,455	59,923	62,728	43,319	265,150
1939	26	-	-	-	-	-	10,308	43,985	44,331	51,596	48,967	15,329	214,542
1940	26	-	-	-	-	-	10,378	39,805	38,798	44,047	42,633	13,233	188,918
1941	26	-	-	-	-	-	1,412	3,125	3,684	4,435	5,768	3,736	22,185
1942	26	-	-	-	-	-	9,853	34,241	34,394	39,001	37,985	12,632	168,132
1943	26	-	-	-	-	-	10,375	44,288	45,402	60,043	61,303	41,697	263,135
1944	26	-	-	-	-	-	4,815	18,389	19,001	20,920	21,549	7,748	92,448
1945	26	-	-	-	-	-	9,926	44,050	45,054	57,777	55,659	16,915	229,406
1946	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1947	18,993	-	-	-	-	-	10,377	44,288	45,286	52,590	59,817	18,103	249,454
1948	26	-	-	-	-	-	8,238	44,290	45,402	59,861	59,871	40,560	258,248
1949	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1950	16,369	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	283,164
1951	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1952	18,446	-	-	-	-	-	10,375	43,448	44,867	52,343	48,878	14,644	233,002
1953	26	-	-	-	-	-	7,445	43,942	45,536	56,831	59,695	17,903	231,377
1954	26	-	-	-	-	-	10,375	44,288	45,402	59,909	62,692	42,951	265,643
1955	26	-	-	-	-	-	8,847	44,294	45,402	58,525	56,868	38,525	252,488
1956	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1957	18,446	-	-	-	-	-	10,375	44,288	44,893	55,115	51,623	35,184	259,925
1958	26	-	-	-	-	-	8,768	39,891	38,305	44,007	42,175	13,644	186,815
1959	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1960	18,446	-	-	-	-	-	10,165	44,355	43,487	59,854	59,849	40,662	276,819
1961	26	-	-	-	-	-	10,244	43,538	44,373	59,587	62,114	44,904	264,785
1962	17,171	-	-	-	-	-	10,382	44,479	44,679	51,876	49,099	15,327	233,014
1963	26	-	-	-	-	-	9,071	25,981	25,128	27,909	28,080	9,887	126,081
1964	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1965	18,446	-	-	-	-	-	10,377	44,020	45,402	58,554	57,065	38,754	272,619
1966	26	-	-	-	-	-	9,787	43,447	45,072	52,057	49,768	15,521	215,677
1967	26	-	-	-	-	-	7,423	44,443	45,470	59,370	59,303	17,926	233,961
1968	26	-	-	-	-	-	7,521	44,448	45,433	52,030	48,384	32,962	230,803
1969	26	-	-	-	-	-	10,375	44,338	44,188	55,267	52,029	34,842	241,064
1970	26	-	-	-	-	-	7,346	44,461	45,448	50,275	55,093	26,893	229,542
1971	26	-	-	-	-	-	10,375	44,288	44,870	59,587	62,114	45,029	266,289
1972	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1973	18,446	-	-	-	-	-	7,697	35,699	35,985	41,081	39,446	12,962	191,317
1974	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1975	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1976	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1977	18,446	-	-	-	-	-	1,412	3,034	2,936	4,480	3,619	2,936	36,864
1978	26	-	-	-	-	-	10,490	44,423	45,408	52,901	49,299	33,151	235,698
1979	26	-	-	-	-	-	6,904	28,670	25,981	29,182	29,112	10,209	130,083
1980	26	-	-	-	-	-	10,375	44,295	44,604	57,451	54,402	15,920	227,074
1981	26	-	-	-	-	-	10,404	44,109	45,689	54,306	51,704	15,952	222,189
1982	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1983	18,446	-	-	-	-	-	7,804	44,394	45,402	55,828	52,769	35,913	260,557
1984	26	-	-	-	-	-	9,747	44,306	45,402	57,294	54,869	37,421	249,064
1985	26	-	-	-	-	-	6,630	28,672	24,880	27,907	28,019	9,874	126,008
1986	26	-	-	-	-	-	8,128	38,071	36,363	41,217	39,690	13,018	176,512
1987	26	-	-	-	-	-	10,314	43,100	40,151	45,222	44,022	14,105	196,940
1988	26	-	-	-	-	-	10,371	37,215	36,158	40,718	38,839	12,251	175,579
1989	26	-	-	-	-	-	10,375	44,411	44,828	52,975	49,271	33,551	235,436
1990	26	-	-	-	-	-	10,375	44,288	44,334	58,984	57,879	39,413	255,300
1991	26	-	-	-	-	-	10,375	44,304	44,813	60,027	61,536	41,945	263,027
1992	26	-	-	-	-	-	5,118	20,095	20,437	23,002	23,510	8,308	100,495
1993	26	-	-	-	-	-	8,005	34,542	30,290	34,210	33,630	11,473	152,175
1994	26	-	-	-	-	-	3,202	11,719	11,728	12,827	14,093	6,068	59,662
1995	26	-	-	-	-	-	10,080	44,641	43,539	49,957	47,330	14,656	210,229
1996	26	-	-	-	-	-	10,375	43,565	45,402	59,855	59,844	40,621	259,690
1997	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1998	18,446	-	-	-	-	-	7,481	42,929	45,575	59,353	59,318	17,957	251,060
1999	26	-	-	-	-	-	10,375	44,288	45,402	59,981	62,473	42,735	265,281
2000	26	-	-	-	-	-	10,390	44,315	45,402	55,252	51,929	35,365	242,679
2001	26	-	-	-	-	-	5,482	21,100	17,242	18,937	19,833	7,545	90,164
2002	26	-	-	-	-	-	10,375	43,473	45,402	59,587	62,114	45,011	265,989
2003	16,832	-	-	-	-	-	8,898	41,406	41,387	47,811	45,450	14,467	216,251
2004	26	-	-	-	-	-	9,847	40,271	39,241	44,810	42,223	11,139	187,556
2005	26	-	-	-	-	-	6,441	26,588	26,409	29,649	29,695	10,353	129,161
2006	26	-	-	-	-	-	10,375	44,373	43,793	59,587	62,114	44,851	265,120
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	4,043	-	-	-	-	-	8,990	39,193	39,497	49,012	48,957	27,152	216,845

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A CC Adverse (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	1,075	-	-	-	-	9,848	12,308	11,822	14,680	15,035	16,183	10,260	91,212
1927	1,075	-	-	-	-	9,848	33,743	44,942	53,124	56,976	55,260	35,594	290,562
1928	1,075	-	-	-	-	9,848	33,241	46,526	52,548	58,933	57,386	36,670	296,226
1929	1,075	-	-	-	-	9,848	15,250	16,665	19,792	20,117	20,670	13,209	116,626
1930	1,075	-	-	-	-	9,848	12,869	4,717	5,397	5,342	6,224	3,782	49,253
1931	1,075	-	-	-	-	9,848	26,385	22,566	25,167	25,532	25,685	16,604	152,862
1932	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1933	20,707	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,101
1934	20,709	-	-	-	-	9,848	33,741	44,240	47,837	48,277	46,851	30,679	282,182
1935	1,075	-	-	-	-	9,848	31,951	46,464	53,193	57,232	55,619	35,717	291,100
1936	1,075	-	-	-	-	9,848	24,855	31,220	36,732	37,966	36,761	24,010	202,468
1937	1,075	-	-	-	-	9,848	23,313	30,377	35,377	36,606	35,221	22,839	194,656
1938	1,075	-	-	-	-	9,848	33,741	46,699	51,601	60,362	59,684	39,387	302,397
1939	1,075	-	-	-	-	9,848	33,886	32,790	38,470	39,991	38,635	25,156	219,851
1940	1,075	-	-	-	-	9,848	33,611	35,530	32,498	33,498	33,677	21,947	201,684
1941	1,075	-	-	-	-	9,848	13,318	65	669	1,127	2,276	1,474	29,853
1942	1,075	-	-	-	-	9,848	33,598	23,814	28,385	29,179	29,052	18,881	173,832
1943	1,075	-	-	-	-	9,846	33,741	46,592	52,490	60,757	60,043	39,099	303,644
1944	1,075	-	-	-	-	9,848	11,266	11,335	14,365	14,417	15,482	9,659	87,448
1945	1,075	-	-	-	-	9,848	31,829	46,498	46,666	45,991	44,469	28,822	255,198
1946	1,075	-	-	-	-	9,848	33,330	46,592	52,490	60,108	59,321	39,294	302,058
1947	24,508	-	-	-	-	9,848	33,811	46,592	51,213	50,108	48,483	31,609	296,172
1948	1,075	-	-	-	-	9,848	33,799	46,860	52,490	60,977	60,332	38,752	304,133
1949	1,075	-	-	-	-	9,848	33,484	46,592	52,490	60,108	59,321	39,294	302,212
1950	20,707	-	-	-	-	9,845	33,740	46,592	52,490	60,108	59,321	39,294	322,098
1951	20,709	-	-	-	-	9,848	33,743	46,592	52,490	60,108	59,321	39,294	322,105
1952	20,709	-	-	-	-	9,848	33,091	38,501	39,339	40,644	39,215	25,499	246,847
1953	1,075	-	-	-	-	9,848	31,127	44,012	51,149	49,923	48,339	31,458	266,930
1954	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,334	59,694	39,341	303,116
1955	1,075	-	-	-	-	9,848	33,821	46,930	52,495	61,031	59,914	37,662	302,776
1956	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1957	20,709	-	-	-	-	9,848	33,742	46,592	52,489	56,271	54,280	35,089	309,019
1958	1,075	-	-	-	-	9,845	24,487	27,995	32,100	33,449	32,707	21,233	182,891
1959	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1960	20,709	-	-	-	-	9,848	33,544	46,679	50,843	60,965	60,349	38,794	321,730
1961	1,075	-	-	-	-	9,848	33,728	46,145	51,558	60,108	59,321	39,294	301,077
1962	24,519	-	-	-	-	9,848	33,543	33,885	38,917	40,244	38,746	25,143	244,846
1963	1,075	-	-	-	-	9,845	32,425	17,098	19,882	20,043	20,622	13,114	134,105
1964	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1965	20,709	-	-	-	-	9,848	33,580	46,650	52,525	61,076	60,076	37,803	322,267
1966	1,075	-	-	-	-	9,848	33,243	41,015	39,478	40,335	39,336	25,590	229,919
1967	1,075	-	-	-	-	9,848	31,200	44,771	51,383	49,096	47,824	31,214	266,412
1968	1,075	-	-	-	-	9,848	32,573	45,524	52,874	52,227	50,536	32,840	277,497
1969	1,075	-	-	-	-	9,848	33,741	46,710	51,886	56,502	54,749	35,398	289,909
1970	1,075	-	-	-	-	9,848	32,319	44,870	52,287	50,183	48,694	31,863	271,138
1971	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1972	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1973	20,709	-	-	-	-	9,848	18,590	24,636	29,898	30,951	30,326	19,644	184,602
1974	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1975	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1976	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1977	20,709	-	-	-	-	9,848	7,476	-	-	1,164	466	0	39,662
1978	1,075	-	-	-	-	9,848	33,565	44,960	53,380	53,286	51,593	33,651	281,357
1979	1,075	-	-	-	-	9,848	16,275	19,176	20,648	21,069	21,476	13,728	123,296
1980	1,075	-	-	-	-	9,848	33,694	46,658	45,294	45,499	44,120	28,696	254,884
1981	1,075	-	-	-	-	9,848	33,855	37,104	41,673	42,507	41,018	26,597	233,676
1982	1,075	-	-	-	-	9,848	33,499	46,592	52,490	60,108	59,321	39,294	302,227
1983	20,709	-	-	-	-	9,848	32,791	46,955	53,155	57,301	55,604	35,728	312,091
1984	1,075	-	-	-	-	9,848	32,426	47,036	52,532	59,568	58,002	36,921	297,408
1985	1,075	-	-	-	-	9,848	15,795	19,134	19,661	20,044	20,577	13,100	119,233
1986	1,075	-	-	-	-	9,848	26,850	26,501	30,255	31,060	30,539	19,765	175,893
1987	1,075	-	-	-	-	9,848	33,776	41,381	33,855	34,479	34,319	22,301	211,034
1988	1,075	-	-	-	-	9,846	33,755	26,700	29,998	30,659	30,301	19,504	181,838
1989	1,075	-	-	-	-	9,848	33,778	46,765	52,436	53,369	51,560	33,641	282,472
1990	1,075	-	-	-	-	9,848	33,741	46,592	51,599	61,314	60,417	38,172	302,758
1991	1,075	-	-	-	-	9,848	33,742	46,613	51,973	60,681	60,027	39,115	303,074
1992	1,075	-	-	-	-	9,848	11,110	12,598	15,648	16,096	17,126	10,795	94,296
1993	1,075	-	-	-	-	9,848	23,547	23,802	24,508	25,133	25,253	16,368	149,533
1994	1,075	-	-	-	-	9,848	19,939	6,477	7,878	7,889	9,119	5,897	68,123
1995	1,075	-	-	-	-	9,848	27,847	34,665	37,404	38,540	37,205	24,205	210,788
1996	1,075	-	-	-	-	9,848	33,841	46,254	52,490	60,984	60,340	38,762	303,593
1997	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1998	20,709	-	-	-	-	9,848	31,152	42,593	49,678	49,134	47,831	31,293	282,237
1999	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,480	59,790	39,300	303,317
2000	1,075	-	-	-	-	9,848	33,760	46,425	53,270	56,428	54,633	35,239	290,678
2001	1,075	-	-	-	-	9,848	16,774	13,505	12,818	12,811	13,826	8,686	89,344
2002	1,075	-	-	-	-	9,848	33,758	45,924	52,490	60,108	59,321	39,294	301,818
2003	20,707	-	-	-	-	9,848	24,240	29,160	35,028	36,693	35,567	23,150	214,394
2004	1,075	-	-	-	-	9,848	30,309	28,011	32,918	34,147	33,306	21,457	191,071
2005	1,075	-	-	-	-	9,848	24,225	17,570	21,031	21,447	21,955	14,006	131,156
2006	1,075	-	-	-	-	9,848	33,822	46,707	51,313	60,108	59,321	39,294	301,488
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,532	-	-	-	-	9,848	29,596	37,114	41,476	45,130	44,401	28,920	242,017

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A CC Adverse (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	23,894	-	-	-	-	6,904	41,030	56,422	54,387	58,101	57,475	44,863	343,076
1927	23,894	-	-	-	-	6,904	54,879	97,886	97,458	105,308	96,761	57,436	540,526
1928	23,894	-	-	-	-	6,904	54,254	107,785	102,278	107,652	98,897	58,140	559,804
1929	23,894	-	-	-	-	6,904	43,233	62,668	59,443	63,816	61,988	46,294	368,241
1930	23,894	-	-	-	-	6,904	38,504	47,277	45,206	47,205	47,457	41,714	298,160
1931	23,894	-	-	-	-	6,904	45,646	70,285	64,759	69,908	67,027	47,945	396,368
1932	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1933	19,004	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	635,822
1934	27,579	-	-	-	-	6,904	56,318	102,655	87,182	95,491	88,304	54,781	519,215
1935	23,894	-	-	-	-	6,904	51,340	103,600	97,005	105,602	97,125	57,485	542,955
1936	23,894	-	-	-	-	6,904	48,567	81,428	76,205	83,896	78,160	51,542	450,596
1937	23,894	-	-	-	-	6,904	47,398	80,336	74,856	82,366	76,615	50,974	443,344
1938	23,894	-	-	-	-	6,904	56,318	108,806	112,815	119,960	109,775	61,638	600,109
1939	23,894	-	-	-	-	6,904	52,799	81,787	77,921	86,173	80,045	52,100	461,624
1940	23,894	-	-	-	-	6,904	54,763	84,196	72,010	78,867	75,060	50,539	446,234
1941	23,894	-	-	-	-	6,904	36,658	41,279	40,531	42,465	43,478	40,593	275,801
1942	23,894	-	-	-	-	6,904	48,411	71,382	67,942	74,011	70,412	49,049	412,006
1943	23,894	-	-	-	-	6,904	56,318	110,491	115,217	116,823	107,305	60,808	597,759
1944	23,894	-	-	-	-	6,904	40,865	55,792	54,076	57,408	56,773	44,572	340,284
1945	23,894	-	-	-	-	6,904	47,032	106,735	89,356	92,922	85,913	53,887	506,644
1946	23,894	-	-	-	-	6,904	53,391	110,491	119,660	123,857	118,505	80,780	637,481
1947	24,142	-	-	-	-	6,904	55,685	110,491	95,195	97,551	89,946	55,239	535,152
1948	23,894	-	-	-	-	6,904	52,745	108,730	107,126	115,160	105,364	60,095	580,018
1949	23,894	-	-	-	-	6,904	54,849	110,491	119,660	123,857	118,505	80,069	638,229
1950	20,004	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	636,821
1951	27,579	-	-	-	-	6,904	56,308	110,491	119,660	123,857	118,505	80,862	644,166
1952	24,213	-	-	-	-	6,904	53,599	91,300	78,780	86,908	80,630	52,267	474,601
1953	23,894	-	-	-	-	6,904	51,244	98,703	90,547	97,342	89,803	55,163	513,601
1954	23,894	-	-	-	-	6,904	56,318	110,491	119,034	120,258	109,688	61,437	608,023
1955	23,894	-	-	-	-	6,904	54,597	108,087	104,069	111,340	101,877	58,954	569,722
1956	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1957	27,579	-	-	-	-	6,904	56,313	110,491	104,952	104,493	95,778	57,079	563,589
1958	23,894	-	-	-	-	6,904	45,074	77,273	71,616	78,815	74,088	50,193	427,857
1959	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1960	25,167	-	-	-	-	6,904	53,779	109,332	100,488	115,258	105,334	60,154	576,415
1961	23,894	-	-	-	-	6,904	53,207	104,209	113,071	123,857	118,505	77,263	620,911
1962	23,596	-	-	-	-	6,904	54,693	83,835	78,362	86,458	80,160	52,095	466,102
1963	23,894	-	-	-	-	6,904	49,159	63,231	59,533	63,733	61,941	46,249	374,645
1964	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1965	27,579	-	-	-	-	6,904	52,563	107,458	103,598	111,286	102,102	59,082	570,571
1966	23,894	-	-	-	-	6,904	51,730	94,051	78,912	86,560	80,749	52,314	475,114
1967	23,894	-	-	-	-	6,904	51,107	99,477	90,835	96,413	89,283	55,044	512,957
1968	23,894	-	-	-	-	6,904	50,428	102,042	92,566	99,934	92,014	55,833	523,616
1969	23,894	-	-	-	-	6,904	56,318	108,790	101,592	104,763	96,245	57,264	555,771
1970	23,894	-	-	-	-	6,904	47,230	99,932	92,138	97,635	90,156	55,358	513,247
1971	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1972	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1973	27,579	-	-	-	-	6,904	45,732	72,930	69,438	76,006	71,694	49,421	419,704
1974	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1975	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1976	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1977	27,579	-	-	-	-	6,904	36,821	41,197	39,868	42,508	41,675	39,376	275,929
1978	23,894	-	-	-	-	6,904	50,525	99,869	93,875	101,125	93,074	56,249	525,514
1979	23,894	-	-	-	-	6,904	44,560	65,926	60,289	64,888	62,798	46,547	375,807
1980	23,894	-	-	-	-	6,904	54,498	109,511	85,177	92,369	85,560	53,825	511,736
1981	23,894	-	-	-	-	6,904	55,124	89,543	81,092	89,002	82,444	52,803	480,806
1982	23,894	-	-	-	-	6,904	55,078	110,491	119,660	123,857	118,505	81,083	639,472
1983	25,579	-	-	-	-	6,904	51,182	105,373	97,245	105,688	97,108	57,489	546,568
1984	23,894	-	-	-	-	6,904	48,436	107,250	103,169	108,493	99,547	58,332	556,025
1985	23,894	-	-	-	-	6,904	44,408	65,881	59,313	63,735	61,894	46,242	372,272
1986	23,894	-	-	-	-	6,904	45,809	75,333	69,792	76,128	71,908	49,481	419,249
1987	23,894	-	-	-	-	6,904	52,443	99,986	73,352	79,970	75,708	50,713	462,969
1988	23,894	-	-	-	-	6,904	54,757	74,633	69,536	75,676	71,670	49,356	426,426
1989	23,894	-	-	-	-	6,904	55,882	108,303	101,925	101,219	93,040	56,243	547,411
1990	23,894	-	-	-	-	6,904	56,318	110,489	104,967	112,458	103,046	59,449	577,525
1991	23,894	-	-	-	-	6,904	56,309	110,213	106,699	117,400	107,412	60,868	589,698
1992	23,894	-	-	-	-	6,904	41,416	57,421	55,345	59,293	58,426	45,122	347,820
1993	23,894	-	-	-	-	6,904	43,725	71,905	64,107	69,459	66,593	47,828	394,414
1994	23,894	-	-	-	-	6,904	38,773	49,541	47,659	50,068	50,364	42,740	309,943
1995	23,894	-	-	-	-	6,904	47,141	85,887	76,870	84,541	78,609	51,636	455,483
1996	23,894	-	-	-	-	6,904	55,707	105,469	106,334	115,108	105,331	60,128	578,875
1997	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1998	27,579	-	-	-	-	6,904	50,674	96,820	88,999	96,455	89,289	55,081	511,801
1999	23,894	-	-	-	-	6,904	56,318	110,491	117,282	118,970	108,988	61,313	604,160
2000	23,894	-	-	-	-	6,904	56,069	104,230	96,519	104,663	96,135	57,177	545,592
2001	23,894	-	-	-	-	6,904	41,792	58,628	52,545	55,605	55,106	44,097	338,572
2002	23,883	-	-	-	-	6,904	56,219	105,844	119,660	123,857	118,505	80,003	634,874
2003	20,944	-	-	-	-	6,904	47,929	78,755	74,513	82,466	76,961	51,125	439,596
2004	23,894	-	-	-	-	6,904	50,196	77,288	72,425	79,600	74,691	50,304	435,301
2005	23,894	-	-	-	-	6,904	42,031	63,830	60,668	65,312	63,281	46,681	372,601
2006	23,894	-	-	-	-	6,904	55,733	108,949	103,364	123,857	118,505	79,156	620,363
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,244	-	-	-	-	6,904	51,260	93,063	90,588	96,338	90,589	59,260	512,245

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A CC Adverse (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26,528	-	-	-	-	11,217	42,680	52,356	51,467	53,267	53,409	47,836	338,760
1927	26,528	-	-	-	-	11,217	45,117	60,667	69,125	70,790	69,670	54,945	408,060
1928	26,528	-	-	-	-	11,217	44,497	63,661	69,504	71,672	70,555	55,343	412,977
1929	26,528	-	-	-	-	11,217	43,297	54,627	53,608	55,420	55,277	48,646	348,619
1930	26,528	-	-	-	-	11,217	42,306	49,027	47,581	49,051	49,422	46,056	321,188
1931	25,831	-	-	-	-	11,217	43,812	57,069	55,860	57,693	57,363	49,579	358,424
1932	26,096	-	-	-	-	11,217	45,989	64,825	71,459	76,952	77,292	63,706	437,536
1933	25,337	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	435,547
1934	33,505	-	-	-	-	11,217	45,989	62,888	65,519	67,098	66,170	53,444	405,830
1935	26,528	-	-	-	-	11,217	43,923	63,261	69,021	70,901	69,821	54,973	409,644
1936	26,528	-	-	-	-	11,217	44,014	60,337	60,908	62,735	61,972	51,613	379,323
1937	26,528	-	-	-	-	11,217	43,368	60,190	60,347	62,160	61,332	51,291	376,432
1938	26,528	-	-	-	-	11,217	45,989	64,146	69,663	75,425	74,786	57,321	425,075
1939	26,528	-	-	-	-	11,217	44,215	59,574	61,619	63,592	62,752	51,928	381,425
1940	26,528	-	-	-	-	11,217	44,996	56,245	58,932	61,054	60,688	51,046	370,707
1941	26,528	-	-	-	-	11,217	42,011	46,778	45,601	47,275	47,786	45,423	312,618
1942	26,528	-	-	-	-	11,217	41,966	57,222	57,208	59,227	58,764	50,203	362,335
1943	26,528	-	-	-	-	11,217	45,561	63,550	70,993	74,847	74,025	56,851	423,572
1944	26,528	-	-	-	-	11,217	42,547	52,128	51,336	53,007	53,118	47,671	337,553
1945	26,528	-	-	-	-	11,217	39,546	63,273	64,173	66,205	65,180	52,937	389,058
1946	26,528	-	-	-	-	11,217	43,739	64,825	71,459	76,952	77,292	62,403	434,416
1947	28,088	-	-	-	-	11,217	45,665	64,825	66,843	67,872	66,850	53,701	405,062
1948	26,528	-	-	-	-	11,217	44,360	63,472	70,507	74,416	73,231	56,448	420,177
1949	26,528	-	-	-	-	11,217	44,699	63,472	71,459	76,952	77,292	61,403	433,023
1950	24,805	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	435,015
1951	36,173	-	-	-	-	11,217	45,977	64,592	71,459	76,952	77,292	62,853	446,514
1952	25,389	-	-	-	-	11,217	43,678	61,665	61,983	63,868	62,993	52,022	382,816
1953	26,528	-	-	-	-	11,217	44,109	62,940	66,737	67,794	66,790	53,659	399,775
1954	26,528	-	-	-	-	11,217	45,029	63,472	71,301	75,425	74,772	57,206	424,950
1955	26,528	-	-	-	-	11,217	44,928	63,472	70,258	73,060	71,787	55,802	417,052
1956	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1957	30,523	-	-	-	-	11,217	45,983	64,825	69,110	70,484	69,263	54,743	416,148
1958	26,528	-	-	-	-	11,217	42,101	59,338	58,787	61,003	60,286	50,850	370,109
1959	26,528	-	-	-	-	11,217	45,873	63,472	71,459	76,952	77,292	64,789	437,582
1960	31,626	-	-	-	-	11,217	44,688	64,288	65,001	74,424	73,219	56,481	420,944
1961	24,683	-	-	-	-	11,217	44,577	62,045	69,562	76,952	77,292	54,329	420,658
1962	26,895	-	-	-	-	11,217	44,583	60,189	61,831	63,699	62,799	51,925	383,137
1963	26,528	-	-	-	-	11,217	42,824	54,831	53,648	55,400	55,257	48,620	348,325
1964	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1965	36,441	-	-	-	-	11,217	43,250	63,115	70,310	73,039	71,881	55,875	425,128
1966	26,528	-	-	-	-	11,217	43,773	59,876	61,879	63,915	63,043	52,048	382,279
1967	26,528	-	-	-	-	11,217	44,026	62,982	66,812	67,444	66,575	53,592	399,176
1968	26,528	-	-	-	-	11,217	44,215	63,083	67,493	68,769	67,705	54,038	403,047
1969	26,528	-	-	-	-	11,217	45,989	64,185	66,898	70,585	69,457	54,847	409,705
1970	26,528	-	-	-	-	11,217	42,039	62,979	67,282	67,904	66,937	53,770	398,656
1971	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1972	36,359	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,569
1973	36,441	-	-	-	-	11,217	43,550	58,019	57,840	59,978	59,295	50,413	376,753
1974	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1975	35,625	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	445,835
1976	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1977	35,602	-	-	-	-	11,217	42,204	46,673	45,167	47,165	46,869	44,498	319,395
1978	26,528	-	-	-	-	11,217	42,911	62,858	67,949	69,217	68,144	54,273	403,097
1979	26,528	-	-	-	-	11,217	43,430	55,709	53,966	55,817	55,612	48,789	351,068
1980	26,528	-	-	-	-	11,217	44,625	64,453	62,721	65,997	65,034	52,902	393,478
1981	26,528	-	-	-	-	11,217	45,431	61,086	62,979	64,656	63,744	52,324	387,966
1982	26,528	-	-	-	-	11,217	44,730	63,511	71,459	76,952	77,292	64,789	436,479
1983	25,595	-	-	-	-	11,217	44,248	63,450	69,124	70,933	69,814	54,974	409,356
1984	26,528	-	-	-	-	11,217	41,089	63,472	70,158	71,989	70,823	55,451	410,726
1985	26,528	-	-	-	-	11,217	43,487	55,744	53,553	55,388	55,238	48,616	349,770
1986	26,528	-	-	-	-	11,217	43,786	58,832	57,991	60,007	59,383	50,447	368,190
1987	26,528	-	-	-	-	11,217	43,750	62,174	59,501	61,470	60,956	51,144	376,739
1988	26,528	-	-	-	-	11,217	45,107	57,788	57,884	59,848	59,284	50,376	368,032
1989	26,528	-	-	-	-	11,217	45,640	63,971	67,490	69,252	68,131	54,270	406,498
1990	26,528	-	-	-	-	11,217	45,989	64,824	67,883	73,480	72,272	56,083	418,276
1991	26,528	-	-	-	-	11,217	45,979	63,972	69,175	74,982	74,066	56,885	422,804
1992	26,528	-	-	-	-	11,217	42,769	52,720	51,873	53,710	53,802	47,983	340,601
1993	26,528	-	-	-	-	11,217	42,221	57,590	55,584	57,524	57,183	49,513	357,360
1994	26,528	-	-	-	-	11,217	41,134	49,852	48,620	50,125	50,622	46,637	324,735
1995	26,528	-	-	-	-	11,217	42,923	61,180	61,192	62,978	62,157	51,666	379,841
1996	26,528	-	-	-	-	11,217	45,533	62,280	70,430	74,404	73,217	56,466	420,076
1997	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1998	36,441	-	-	-	-	11,217	43,663	62,825	66,077	67,460	66,578	53,613	407,874
1999	26,528	-	-	-	-	11,217	45,029	63,472	71,195	75,345	74,590	57,136	424,513
2000	26,528	-	-	-	-	11,217	45,914	62,915	68,890	70,548	69,411	54,799	410,221
2001	26,528	-	-	-	-	11,217	42,601	53,150	50,688	52,313	52,454	47,403	336,353
2002	19,253	-	-	-	-	11,217	45,878	62,673	72,058	76,952	77,292	61,854	427,177
2003	24,743	-	-	-	-	11,217	44,422	59,856	60,155	62,221	61,475	51,376	375,466
2004	26,528	-	-	-	-	11,217	44,947	59,350	59,106	61,325	60,535	50,912	373,919
2005	26,528	-	-	-	-	11,217	41,962	55,050	54,128	55,983	55,812	48,864	349,544
2006	26,528	-	-	-	-	11,217	45,542	64,166	65,636	76,952	77,292	58,113	425,447
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	27,494	-	-	-	-	11,217	44,182	60,717	64,087	67,244	66,790	54,848	396,579

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A CC Adverse (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	869	-	-	-	-	458	1,795	14,145	16,193	16,680	16,743	15,199	82,082
1927	869	-	-	-	-	458	5,058	13,491	17,395	18,447	18,447	16,567	90,732
1928	869	-	-	-	-	458	4,985	13,898	17,160	18,447	18,447	16,572	90,836
1929	869	-	-	-	-	458	2,213	14,226	16,595	17,107	17,123	15,432	84,023
1930	869	-	-	-	-	458	1,863	13,963	15,392	15,844	15,931	14,640	78,959
1931	869	-	-	-	-	458	3,703	14,249	16,968	17,558	17,548	15,697	87,050
1932	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1933	2,748	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	99,636
1934	3,397	-	-	-	-	458	5,193	13,899	17,395	18,447	18,447	16,539	93,774
1935	869	-	-	-	-	458	4,280	14,249	17,395	18,447	18,447	16,567	90,710
1936	869	-	-	-	-	458	3,510	14,249	17,395	18,447	18,421	16,237	89,585
1937	869	-	-	-	-	458	3,272	14,249	17,395	18,436	18,356	16,161	89,196
1938	869	-	-	-	-	458	5,193	14,047	16,961	18,447	18,447	16,596	91,016
1939	869	-	-	-	-	458	4,917	13,998	17,395	18,447	18,440	16,311	90,835
1940	869	-	-	-	-	458	5,044	12,983	17,374	18,224	18,225	16,096	89,275
1941	869	-	-	-	-	458	1,730	13,833	14,969	15,492	15,598	14,421	77,370
1942	869	-	-	-	-	458	4,518	14,184	17,149	17,862	17,833	15,867	88,741
1943	869	-	-	-	-	458	5,193	14,249	17,570	18,447	18,447	16,590	91,822
1944	869	-	-	-	-	458	1,738	14,139	16,166	16,628	16,684	15,151	81,833
1945	869	-	-	-	-	458	4,418	13,777	16,840	18,447	18,447	16,511	89,766
1946	869	-	-	-	-	458	4,907	14,249	17,887	20,637	21,193	17,272	97,471
1947	3,548	-	-	-	-	458	5,138	14,249	17,177	18,447	18,447	16,544	94,006
1948	869	-	-	-	-	458	4,540	14,249	17,395	18,447	18,447	16,585	90,989
1949	869	-	-	-	-	458	5,095	14,249	17,887	20,637	21,193	17,272	97,659
1950	2,868	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	99,756
1951	3,968	-	-	-	-	458	5,192	14,249	17,887	20,637	21,193	17,146	100,730
1952	3,872	-	-	-	-	458	4,927	14,140	17,395	18,447	18,443	16,333	94,015
1953	869	-	-	-	-	458	4,186	14,249	17,395	18,447	18,447	16,544	90,594
1954	869	-	-	-	-	458	5,193	14,249	17,826	18,447	18,447	16,594	92,081
1955	869	-	-	-	-	458	4,725	14,249	17,395	18,447	18,447	16,577	91,166
1956	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1957	3,126	-	-	-	-	458	5,192	14,249	16,985	18,447	18,447	16,564	93,467
1958	869	-	-	-	-	458	3,317	14,249	17,353	18,214	18,143	16,043	88,647
1959	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1960	3,854	-	-	-	-	458	5,004	14,107	15,394	18,447	18,447	16,585	92,296
1961	869	-	-	-	-	458	4,895	13,485	16,869	20,637	21,193	16,359	94,765
1962	3,423	-	-	-	-	458	5,089	14,030	17,395	18,447	18,440	16,311	93,593
1963	869	-	-	-	-	458	4,642	14,231	16,604	17,103	17,119	15,425	86,451
1964	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1965	3,968	-	-	-	-	458	4,868	14,051	17,395	18,447	18,447	16,578	94,211
1966	869	-	-	-	-	458	4,752	13,448	17,395	18,447	18,444	16,340	90,153
1967	869	-	-	-	-	458	4,209	14,249	17,395	18,447	18,447	16,542	90,615
1968	869	-	-	-	-	458	4,379	14,249	17,395	18,447	18,447	16,552	90,795
1969	869	-	-	-	-	458	5,193	14,027	16,282	18,447	18,447	16,565	90,286
1970	869	-	-	-	-	458	4,072	14,249	17,395	18,447	18,447	16,546	90,482
1971	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1972	3,751	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,639
1973	3,968	-	-	-	-	458	2,786	14,249	17,229	18,011	17,941	15,925	90,566
1974	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1975	3,940	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,828
1976	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1977	3,937	-	-	-	-	458	997	13,818	14,876	15,470	15,411	14,121	79,089
1978	869	-	-	-	-	458	4,648	14,098	17,395	18,447	18,447	16,557	90,919
1979	869	-	-	-	-	458	2,482	14,235	16,661	17,186	17,192	15,473	84,556
1980	869	-	-	-	-	458	5,004	14,109	16,635	18,447	18,447	16,506	90,474
1981	869	-	-	-	-	458	5,111	14,010	17,395	18,447	18,447	16,403	91,139
1982	869	-	-	-	-	458	5,055	14,249	17,887	20,637	21,193	17,272	97,619
1983	2,994	-	-	-	-	458	4,411	14,249	17,395	18,447	18,447	16,567	92,967
1984	869	-	-	-	-	458	4,409	14,249	17,395	18,447	18,447	16,573	90,846
1985	869	-	-	-	-	458	2,487	14,232	16,585	17,101	17,115	15,424	84,270
1986	869	-	-	-	-	458	3,704	14,249	17,240	18,017	17,959	15,934	88,430
1987	869	-	-	-	-	458	4,847	14,072	17,391	18,307	18,280	16,123	90,346
1988	869	-	-	-	-	458	5,063	14,115	17,233	17,985	17,939	15,915	89,578
1989	869	-	-	-	-	458	5,151	13,942	16,601	18,447	18,447	16,558	90,472
1990	869	-	-	-	-	458	5,193	14,248	16,339	18,447	18,447	16,581	90,581
1991	869	-	-	-	-	458	5,192	14,219	16,932	18,447	18,447	16,591	91,154
1992	869	-	-	-	-	458	1,790	14,162	16,273	16,768	16,823	15,243	82,384
1993	869	-	-	-	-	458	3,148	14,249	16,929	17,524	17,512	15,678	86,366
1994	869	-	-	-	-	458	2,780	14,018	15,608	16,057	16,176	14,831	80,797
1995	869	-	-	-	-	458	3,685	14,249	17,395	18,447	18,425	16,249	89,776
1996	869	-	-	-	-	458	5,156	13,821	17,395	18,447	18,447	16,586	91,178
1997	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1998	3,968	-	-	-	-	458	4,167	14,249	17,395	18,447	18,447	16,543	93,673
1999	869	-	-	-	-	458	5,193	14,249	17,709	18,447	18,447	16,594	91,964
2000	869	-	-	-	-	458	5,172	14,191	17,395	18,447	18,447	16,565	91,543
2001	869	-	-	-	-	458	2,320	14,145	16,035	16,491	16,548	15,071	81,936
2002	869	-	-	-	-	458	5,187	13,680	17,887	20,637	21,193	17,272	97,183
2003	3,256	-	-	-	-	458	3,419	14,249	17,395	18,445	18,386	16,182	91,789
2004	869	-	-	-	-	458	4,334	14,249	17,385	18,278	18,194	16,061	89,827
2005	869	-	-	-	-	458	3,307	14,238	16,691	17,219	17,232	15,494	85,507
2006	869	-	-	-	-	458	5,160	14,064	15,485	20,637	21,193	16,841	94,706
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,473	-	-	-	-	458	4,343	14,120	17,144	18,600	18,730	16,363	91,231

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP1A CC Adverse (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	5,536	-	-	-	-	20	7,378	12,454	11,508	10,903	11,990	11,798	71,588
1927	5,536	-	-	-	-	20	11,517	13,833	14,527	14,065	14,735	13,329	87,563
1928	5,536	-	-	-	-	20	11,368	15,161	14,664	14,065	14,735	13,329	88,878
1929	5,536	-	-	-	-	20	8,515	12,833	12,155	11,120	12,579	12,125	74,883
1930	5,536	-	-	-	-	20	8,312	12,454	11,508	10,903	11,990	11,798	72,522
1931	5,536	-	-	-	-	20	10,589	13,395	13,121	11,237	13,468	12,611	79,976
1932	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	14,963	14,527	14,065	14,735	13,329	90,860
1935	5,536	-	-	-	-	20	10,612	13,791	14,527	14,065	14,735	13,329	86,615
1936	5,536	-	-	-	-	20	10,715	13,571	14,230	13,127	14,194	12,849	84,242
1937	5,536	-	-	-	-	20	10,409	13,571	14,230	13,127	14,194	12,849	83,935
1938	5,536	-	-	-	-	20	11,828	15,311	15,446	17,070	17,346	15,376	97,933
1939	5,536	-	-	-	-	20	11,141	13,491	14,230	13,127	14,194	12,849	84,587
1940	5,536	-	-	-	-	20	11,488	13,491	14,230	13,127	14,194	12,849	84,934
1941	5,536	-	-	-	-	20	8,525	12,454	11,508	10,903	11,990	11,798	72,735
1942	5,536	-	-	-	-	20	10,351	13,359	13,121	11,427	13,468	12,611	79,893
1943	5,536	-	-	-	-	20	11,828	15,543	16,021	17,070	17,346	15,376	98,739
1944	5,536	-	-	-	-	20	7,203	12,454	11,508	10,903	11,990	11,798	71,412
1945	5,536	-	-	-	-	20	9,807	15,020	14,129	13,224	14,194	12,849	84,779
1946	5,536	-	-	-	-	20	11,105	15,543	16,253	17,629	17,780	15,757	99,622
1947	7,393	-	-	-	-	20	11,697	15,543	14,634	14,065	14,735	13,329	91,415
1948	5,536	-	-	-	-	20	11,142	14,763	15,251	14,065	14,735	13,329	88,842
1949	5,536	-	-	-	-	20	11,415	15,543	16,253	17,629	17,780	15,757	99,932
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,826	15,543	16,253	17,629	17,780	15,757	102,200
1952	7,393	-	-	-	-	20	11,128	14,100	14,230	13,127	14,194	12,849	87,040
1953	5,536	-	-	-	-	20	10,719	13,791	14,527	14,065	14,735	13,329	86,723
1954	5,536	-	-	-	-	20	11,828	15,543	16,215	17,070	17,346	15,376	98,933
1955	5,536	-	-	-	-	20	11,649	14,763	14,618	14,065	14,735	13,329	88,716
1956	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1957	7,393	-	-	-	-	20	11,827	15,543	14,842	14,065	14,735	13,329	91,753
1958	5,536	-	-	-	-	20	9,989	13,571	14,230	13,127	14,194	12,849	83,515
1959	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1960	7,393	-	-	-	-	20	11,386	15,381	13,992	14,065	14,735	13,329	90,300
1961	5,536	-	-	-	-	20	11,323	14,687	15,374	17,629	17,780	15,757	98,106
1962	7,393	-	-	-	-	20	11,391	13,641	14,230	13,127	14,194	12,849	86,843
1963	5,536	-	-	-	-	20	10,718	12,833	12,155	11,120	12,579	12,125	77,086
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	10,900	14,917	14,710	14,065	14,735	13,329	90,068
1966	5,536	-	-	-	-	20	11,095	14,135	14,230	13,127	14,194	12,849	85,185
1967	5,536	-	-	-	-	20	10,694	13,791	14,527	14,065	14,735	13,329	86,698
1968	5,536	-	-	-	-	20	10,835	13,791	14,527	14,065	14,735	13,329	86,839
1969	5,536	-	-	-	-	20	11,828	15,303	14,259	14,065	14,735	13,329	89,075
1970	5,536	-	-	-	-	20	10,033	13,791	14,527	14,065	14,735	13,329	86,037
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,426	13,395	13,121	11,427	13,468	12,611	81,860
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	7,673	12,454	11,508	10,903	11,990	11,798	73,740
1978	5,536	-	-	-	-	20	10,683	14,195	14,527	14,065	14,735	13,329	87,091
1979	5,536	-	-	-	-	20	9,894	13,055	12,155	11,120	12,579	12,125	76,484
1980	5,536	-	-	-	-	20	11,373	15,413	13,834	13,127	14,194	12,849	86,346
1981	5,536	-	-	-	-	20	11,609	14,070	14,230	13,127	14,194	12,849	85,635
1982	5,536	-	-	-	-	20	11,535	15,543	16,253	17,629	17,780	15,757	100,053
1983	7,393	-	-	-	-	20	10,635	13,791	14,527	14,065	14,735	13,329	88,495
1984	5,536	-	-	-	-	20	10,247	14,630	14,527	14,065	14,735	13,329	87,090
1985	5,536	-	-	-	-	20	9,849	13,038	12,155	11,120	12,579	12,125	76,421
1986	5,536	-	-	-	-	20	10,655	13,571	13,121	11,427	13,468	12,611	80,408
1987	5,536	-	-	-	-	20	11,050	15,042	14,230	13,127	14,194	12,849	86,047
1988	5,536	-	-	-	-	20	11,507	13,458	13,121	11,427	13,468	12,611	81,148
1989	5,536	-	-	-	-	20	11,713	15,249	14,525	14,065	14,735	13,329	89,172
1990	5,536	-	-	-	-	20	11,828	15,542	14,367	14,065	14,735	13,329	89,422
1991	5,536	-	-	-	-	20	11,826	15,503	15,371	17,070	17,346	15,376	98,047
1992	5,536	-	-	-	-	20	7,095	12,454	11,508	10,917	12,002	11,798	71,331
1993	5,536	-	-	-	-	20	10,048	13,442	12,155	11,209	13,468	12,611	78,488
1994	5,536	-	-	-	-	20	9,223	12,454	11,508	10,903	11,990	11,798	73,433
1995	5,536	-	-	-	-	20	10,181	13,591	14,230	13,127	14,194	12,849	83,727
1996	5,536	-	-	-	-	20	11,656	14,699	15,090	14,065	14,735	13,329	89,131
1997	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1998	7,393	-	-	-	-	20	10,529	13,791	14,527	14,065	14,735	13,329	88,389
1999	5,536	-	-	-	-	20	11,828	15,543	16,134	17,070	17,346	15,376	98,852
2000	5,536	-	-	-	-	20	11,791	13,764	14,527	14,065	14,735	13,329	87,767
2001	5,536	-	-	-	-	20	8,831	12,629	11,508	10,903	11,990	11,798	73,215
2002	5,536	-	-	-	-	20	11,805	14,917	16,253	17,629	17,780	15,757	99,697
2003	7,393	-	-	-	-	20	10,723	13,571	14,230	13,127	14,194	12,849	86,106
2004	5,536	-	-	-	-	20	11,248	13,571	14,230	13,127	14,194	12,849	84,774
2005	5,536	-	-	-	-	20	9,676	12,833	12,155	11,120	12,579	12,125	76,044
2006	5,536	-	-	-	-	20	11,668	15,337	14,090	17,629	17,780	15,757	97,816
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,949	-	-	-	-	20	10,848	14,330	14,368	14,220	15,012	13,657	88,403

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP1A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	31,897	35,613	75,189
1926	79,989	84,652	80,343	77,673	71,532	58,329	44,785	19,142	16,007	24,481	32,949	43,968
1927	62,681	78,807	80,147	82,075	77,403	79,226	59,671	30,647	28,202	36,597	66,036	80,126
1928	86,461	78,792	109,221	125,061	144,240	131,300	81,844	41,023	36,639	44,363	50,789	55,197
1929	55,271	48,876	62,687	66,935	84,690	79,438	61,284	31,692	27,130	26,613	25,316	34,757
1930	36,549	57,162	70,974	80,257	80,285	75,728	61,892	34,450	30,105	28,492	31,529	33,669
1931	54,070	63,274	86,890	78,997	76,428	68,105	46,506	18,088	15,764	20,225	36,777	44,896
1932	54,794	59,652	95,798	118,733	141,135	144,168	100,123	60,410	56,010	52,063	111,983	116,433
1933	115,851	110,130	114,672	132,196	137,559	148,137	103,916	64,203	62,566	75,445	89,448	131,152
1934	123,228	133,760	152,860	157,084	151,709	113,859	63,704	23,746	19,898	41,700	60,447	84,496
1935	94,692	98,547	101,792	116,515	118,156	118,252	73,870	40,397	36,252	35,429	38,988	49,115
1936	79,255	73,444	78,037	90,753	88,519	73,120	51,301	20,956	18,239	16,088	13,615	40,239
1937	38,492	37,109	49,118	82,465	79,871	78,838	53,664	23,800	20,437	17,360	60,590	86,727
1938	83,529	80,246	81,335	109,440	130,560	133,446	90,082	48,894	44,066	50,273	59,456	85,917
1939	89,606	78,521	80,497	96,807	94,035	74,884	52,825	18,462	14,554	19,871	26,544	81,281
1940	80,424	86,135	97,039	107,944	100,225	77,978	55,689	20,109	15,426	19,595	23,399	51,849
1941	61,407	66,623	71,904	67,032	68,649	58,839	45,325	24,488	24,385	28,816	45,609	93,503
1942	83,665	78,809	79,488	75,895	60,328	64,505	49,339	15,724	11,517	10,511	37,006	56,209
1943	57,016	62,994	76,723	96,472	86,770	92,962	68,920	37,162	31,747	38,861	43,138	59,019
1944	66,555	69,352	71,165	80,264	84,606	68,880	49,774	21,745	19,265	18,799	23,448	28,178
1945	51,950	62,237	66,989	80,962	92,406	77,707	51,013	18,642	19,185	30,139	46,751	65,599
1946	80,060	81,193	84,636	83,733	124,015	132,823	90,153	49,294	44,939	44,539	56,729	106,168
1947	92,579	83,902	103,455	123,470	119,493	109,962	67,291	28,043	25,445	48,388	79,996	85,412
1948	79,448	79,898	80,638	96,564	139,202	157,770	113,909	74,688	71,237	73,686	84,957	79,185
1949	76,070	70,614	80,143	101,393	156,771	150,654	103,801	62,921	58,329	59,242	73,130	88,520
1950	77,666	76,218	77,879	79,616	120,608	158,154	141,697	104,321	80,087	85,427	96,267	110,951
1951	114,121	127,767	120,542	126,944	156,823	155,054	109,454	67,405	61,312	61,874	70,583	79,159
1952	76,627	75,928	79,759	87,454	86,509	73,887	50,710	20,119	15,760	10,634	10,316	11,627
1953	45,341	71,444	80,106	80,518	80,006	78,710	58,798	31,013	26,882	29,209	50,537	102,772
1954	100,128	110,879	115,536	129,020	144,789	147,051	105,257	65,483	61,258	59,205	71,860	79,308
1955	79,799	76,583	69,628	71,050	88,853	121,223	82,618	50,303	44,888	62,849	88,075	109,350
1956	118,255	111,446	98,157	105,812	139,704	157,685	115,996	74,132	68,342	73,409	79,432	114,794
1957	89,830	79,444	87,153	114,431	135,988	125,583	75,640	38,140	33,775	35,879	45,843	76,741
1958	85,219	99,659	83,809	100,303	91,306	78,027	58,760	18,230	14,024	22,601	48,360	87,588
1959	100,070	88,036	106,666	139,396	156,621	153,277	102,981	62,653	67,122	83,146	105,806	112,341
1960	92,234	108,732	116,264	134,464	149,171	143,045	92,503	54,266	50,835	56,701	83,122	79,769
1961	91,100	114,140	133,994	138,963	152,871	151,759	100,976	60,157	55,668	57,180	62,379	81,354
1962	81,819	79,894	80,288	80,214	67,703	60,361	44,859	18,922	15,907	20,587	41,686	61,888
1963	70,715	82,013	81,243	74,574	62,542	53,075	41,555	16,455	12,663	21,072	45,230	61,445
1964	80,468	80,028	80,613	80,164	99,171	143,320	107,679	69,501	66,086	68,844	80,574	79,588
1965	94,271	109,191	115,680	143,559	147,789	147,238	101,477	62,133	58,107	64,360	72,449	78,260
1966	78,258	80,349	82,419	88,570	101,012	85,734	56,211	21,749	17,782	25,513	34,205	84,615
1967	90,826	89,493	95,150	84,862	95,359	101,196	73,063	39,692	34,952	41,217	48,218	79,097
1968	90,760	104,414	127,552	134,332	119,943	107,987	64,505	27,648	25,271	33,954	53,728	75,588
1969	74,962	69,164	78,664	92,066	121,488	120,485	71,849	33,576	33,120	34,637	42,476	70,064
1970	91,436	89,159	80,294	76,033	74,679	79,938	65,270	29,671	27,370	28,106	32,821	33,235
1971	58,061	79,725	75,439	82,801	138,553	157,414	130,490	91,392	77,646	80,424	82,413	79,183
1972	79,454	85,953	112,692	110,212	144,327	157,770	124,822	84,517	79,741	74,728	84,293	118,796
1973	111,694	111,035	117,118	113,122	97,174	82,180	53,624	15,877	11,790	12,868	28,487	73,619
1974	95,302	82,584	96,043	118,628	130,280	151,210	123,373	86,273	76,065	68,332	72,680	93,499
1975	92,024	85,675	88,856	98,296	146,550	156,393	117,988	80,059	75,048	91,577	109,963	118,796
1976	118,796	122,985	112,640	112,582	143,245	145,871	108,362	72,346	67,688	61,652	61,978	66,171
1977	71,872	76,384	81,512	72,831	67,026	57,815	43,631	28,030	27,970	26,048	50,817	99,904
1978	84,348	83,561	99,947	112,957	106,835	101,163	68,885	32,208	34,167	33,299	44,111	56,518
1979	52,492	52,837	71,806	82,722	95,023	74,455	55,770	24,839	20,515	22,546	19,758	56,306
1980	56,300	64,888	80,496	89,331	80,120	76,147	52,447	21,766	19,328	17,287	32,055	78,747
1981	80,405	99,805	80,429	84,658	68,927	67,614	52,267	17,180	14,878	23,829	38,791	64,155
1982	80,855	98,862	92,266	103,460	133,537	157,770	114,544	73,417	69,337	68,178	80,292	80,294
1983	86,727	92,595	121,679	130,859	126,294	120,113	76,063	38,478	35,820	35,170	74,820	77,410
1984	90,018	80,083	92,162	91,725	93,454	95,430	63,402	33,773	29,628	28,127	37,907	37,979
1985	36,817	30,990	31,382	52,678	78,679	77,467	58,648	30,841	26,559	35,811	50,209	47,565
1986	63,872	73,975	85,597	80,640	80,266	68,355	46,138	17,611	15,170	14,380	51,304	57,671
1987	66,547	79,784	88,954	80,631	76,785	67,728	50,078	17,837	13,155	10,123	13,961	28,664
1988	33,966	48,148	69,730	76,584	80,064	73,542	52,090	24,137	20,710	25,825	46,282	56,493
1989	74,136	69,955	83,181	98,770	113,726	103,199	67,468	34,784	30,225	29,811	43,685	60,192
1990	80,435	78,816	81,031	103,446	115,574	119,707	75,223	39,957	35,693	48,052	105,750	94,683
1991	97,744	131,790	135,064	150,925	157,007	141,357	92,569	52,744	48,479	46,242	57,829	80,123
1992	93,788	98,057	96,543	95,185	86,952	68,682	52,171	19,309	16,830	16,731	23,718	28,102
1993	28,226	30,084	50,481	77,634	86,049	72,746	51,828	21,549	17,313	13,928	16,611	30,721
1994	49,310	49,905	69,704	79,982	79,607	72,183	56,965	28,819	24,492	30,495	36,352	61,894
1995	67,668	91,740	86,329	73,881	75,596	65,013	41,969	18,332	14,105	23,609	60,465	84,549
1996	80,983	94,550	100,456	144,000	153,687	147,751	97,516	57,558	53,333	57,699	63,106	68,588
1997	79,445	80,415	89,151	101,779	135,636	157,770	122,699	82,003	77,565	83,266	85,333	83,920
1998	82,193	96,132	117,589	115,894	126,098	116,749	70,520	33,201	28,520	30,881	51,847	86,407
1999	86,346	80,518	80,092	85,170	95,542	124,073	88,542	54,297	49,001	53,176	90,673	101,986
2000	98,548	103,782	114,112	136,535	148,150	146,604	95,885	53,983	49,957	54,102	56,192	55,947
2001	57,021	57,662	64,600	70,801	83,603	78,247	61,764	32,796	28,766	26,994	49,609	70,993
2002	79,964	81,467	78,960	85,081	116,511	153,742	108,641	66,592	60,670	48,515	50,367	56,254
2003	76,591	80,130	90,741	86,559	73,816	72,556	54,036	19,260	16,303	32,481	42,429	53,347
2004	63,091	71,318	80,598	74,533	76,161	67,403	41,740	18,490	17,433	15,070	32,920	55,121
2005	75,686	78,746	87,374	80,656	75,993	62,931	46,548	19,072	15,107	16,469	32,393	54,273
2006	84,571	77,508	80,443	82,211	113,949	121,169	79,684	41,978	37,517	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP1A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	15,191	22,476	54,365
1926	75,874	125,749	155,670	166,569	163,743	135,657	101,175	60,518	18,455	22,111	30,307	41,843
1927	63,116	80,633	95,629	128,544	167,721	158,315	108,385	60,578	11,341	19,659	41,334	66,511
1928	110,031	132,167	184,926	206,239	229,192	201,722	162,985	102,137	34,473	37,042	45,438	51,877
1929	55,774	53,894	71,633	79,767	116,853	117,481	81,110	44,380	8,293	6,033	8,774	20,273
1930	27,758	50,055	65,943	88,419	108,799	99,044	79,246	53,792	15,161	14,266	20,439	25,501
1931	39,751	52,452	88,438	126,212	131,910	112,395	70,504	30,826	6,008	12,151	26,083	37,061
1932	55,822	67,121	120,676	176,074	208,923	202,903	167,404	105,462	23,021	13,833	85,952	146,131
1933	182,459	185,118	192,399	215,173	221,833	222,252	200,521	146,049	70,251	46,720	102,871	203,025
1934	203,025	221,860	236,137	238,287	233,032	192,968	134,124	72,110	22,591	32,189	50,118	90,417
1935	150,666	180,125	187,217	206,649	206,732	186,999	150,535	100,902	34,379	23,049	29,669	37,331
1936	78,428	78,179	91,242	131,310	171,662	154,055	104,117	62,369	15,443	9,594	11,026	33,983
1937	37,261	40,211	57,063	100,487	140,065	126,774	75,145	33,322	6,027	6,170	37,416	69,179
1938	119,889	133,889	170,184	203,986	227,276	209,936	177,072	114,865	43,276	32,378	48,022	73,246
1939	128,400	144,637	165,063	182,063	174,169	148,636	100,491	52,992	9,919	11,365	19,680	64,483
1940	82,383	128,128	182,794	197,921	195,098	161,325	111,448	59,694	13,043	12,323	20,856	45,259
1941	58,459	67,921	76,999	79,482	84,575	71,088	52,288	29,874	11,975	14,725	30,964	76,826
1942	99,109	130,224	144,611	159,799	150,061	134,383	98,817	55,378	11,875	5,115	33,382	50,472
1943	57,168	66,020	80,666	139,989	178,522	173,646	153,382	118,560	49,905	45,082	53,917	67,382
1944	76,627	85,773	92,464	107,817	139,173	121,714	89,978	52,623	17,717	13,813	21,453	27,833
1945	50,171	68,681	77,825	101,108	159,302	146,004	89,725	40,650	8,963	14,892	29,046	48,030
1946	74,812	81,563	128,400	168,948	218,321	215,545	172,233	109,591	24,428	17,787	26,471	90,515
1947	134,163	172,295	193,508	220,041	214,062	184,370	134,739	72,606	22,929	41,943	68,903	115,720
1948	149,340	156,856	164,677	187,158	227,985	238,980	190,016	127,094	62,462	60,502	85,369	131,141
1949	134,968	135,474	158,768	193,198	238,079	223,061	166,454	104,012	21,585	14,431	28,326	64,349
1950	79,687	82,816	89,711	132,030	204,697	238,980	217,940	159,260	93,657	98,747	147,905	203,025
1951	202,943	217,504	204,637	210,546	238,127	232,516	186,040	124,709	35,253	21,556	32,629	47,238
1952	50,218	63,751	71,622	121,615	165,395	146,263	94,250	47,852	8,259	2,781	3,897	7,810
1953	34,998	66,210	82,044	102,056	147,523	129,046	85,775	45,752	7,382	8,982	26,049	104,905
1954	154,577	192,221	201,122	214,329	231,727	221,360	196,764	140,526	71,744	60,384	74,573	82,283
1955	116,237	122,846	123,717	132,707	171,325	200,329	183,222	131,066	62,166	72,003	119,922	188,539
1956	202,821	202,860	183,974	191,067	231,506	238,807	202,247	152,134	65,552	36,624	56,502	114,209
1957	140,613	153,791	180,208	210,264	232,734	199,563	141,918	80,907	18,181	14,144	27,038	52,513
1958	89,086	145,067	174,821	194,083	185,401	160,788	111,057	56,944	11,776	18,763	47,719	94,241
1959	154,673	175,202	196,354	228,675	238,189	228,713	171,711	104,481	31,832	35,889	84,240	137,891
1960	168,919	192,227	203,343	221,428	234,410	215,592	155,845	91,562	23,945	21,603	50,332	72,662
1961	118,530	176,234	203,884	222,881	238,659	226,490	173,096	102,105	19,960	14,804	23,296	43,288
1962	80,057	114,923	129,949	170,633	160,530	135,434	98,674	61,320	13,492	13,097	32,361	52,326
1963	65,865	108,256	126,220	155,400	148,220	124,679	92,181	52,105	11,318	15,487	34,978	52,276
1964	74,964	90,860	121,088	160,673	189,368	221,967	206,623	158,628	80,994	57,503	68,945	114,752
1965	135,858	182,640	193,820	226,590	233,974	221,362	175,650	112,262	43,755	30,278	40,745	49,242
1966	64,006	68,584	101,155	155,452	186,466	164,584	110,615	58,799	11,879	15,694	27,839	71,354
1967	132,596	174,860	186,235	179,149	190,204	175,836	136,934	79,282	26,598	25,989	36,636	61,918
1968	102,151	158,736	197,894	209,074	203,380	184,966	131,740	76,020	17,946	21,089	37,924	64,091
1969	68,344	66,684	83,260	142,984	193,571	176,846	126,392	66,593	13,808	12,542	20,140	38,581
1970	69,009	109,607	144,214	161,235	176,729	162,759	126,730	70,707	14,856	10,605	17,047	20,762
1971	44,728	66,609	67,438	112,425	195,984	233,346	230,412	188,326	118,202	87,236	114,462	148,772
1972	170,207	177,961	197,390	195,102	230,227	238,980	212,245	161,518	85,050	47,893	62,315	125,846
1973	166,661	180,709	191,587	194,742	184,952	170,457	119,634	71,935	24,294	16,613	32,267	80,904
1974	124,590	165,298	188,977	202,869	214,545	231,743	229,101	186,080	111,171	70,395	79,048	116,536
1975	166,903	177,769	186,048	199,842	235,167	236,157	203,729	148,142	62,944	52,733	107,052	177,525
1976	203,025	211,395	197,343	197,289	230,104	225,065	218,256	180,750	104,191	62,992	66,478	73,417
1977	80,433	89,451	114,653	121,243	120,081	106,293	80,623	47,968	28,847	16,927	38,400	122,854
1978	157,131	177,427	198,416	215,767	204,874	174,399	125,680	66,073	14,342	7,903	18,687	31,143
1979	30,993	35,411	57,236	79,378	139,887	135,583	97,369	61,091	17,278	10,737	12,133	38,878
1980	42,534	50,843	75,325	127,661	170,981	146,736	96,777	51,023	9,555	5,029	21,251	49,390
1981	71,258	115,928	148,797	179,951	166,378	147,902	105,266	52,576	10,895	17,436	33,364	60,526
1982	88,753	136,833	175,772	188,922	216,478	238,980	187,659	126,083	42,543	19,267	37,220	90,044
1983	141,031	182,875	211,159	221,640	216,490	188,807	160,343	100,365	35,398	27,335	59,144	68,956
1984	116,850	146,184	184,401	186,614	184,311	171,492	149,703	110,915	44,235	32,243	45,543	49,999
1985	53,734	53,825	59,096	78,786	108,225	107,431	71,978	38,770	6,895	14,722	28,368	30,324
1986	38,474	49,977	100,581	126,587	154,672	125,064	76,762	36,384	7,431	5,897	35,693	44,386
1987	55,810	81,405	133,661	173,038	174,799	147,387	107,727	62,024	13,972	5,798	12,359	27,105
1988	36,424	54,443	80,268	106,627	127,371	104,386	67,835	38,252	6,581	14,054	31,598	43,975
1989	65,511	68,741	90,005	149,968	179,903	169,952	130,247	76,605	16,193	10,794	27,782	45,446
1990	81,515	93,109	137,686	189,405	199,269	186,421	150,884	90,618	23,651	31,149	102,157	144,600
1991	175,848	210,980	218,041	234,261	238,279	219,204	178,304	119,101	49,858	34,363	51,350	75,566
1992	111,808	162,278	179,985	182,555	174,563	143,931	104,059	61,609	20,927	11,325	19,764	24,173
1993	27,721	31,053	49,695	75,569	141,790	126,798	82,106	38,218	6,497	6,687	11,766	24,950
1994	38,719	43,013	66,932	89,029	108,442	95,217	72,085	45,359	10,034	9,725	18,033	40,517
1995	49,695	89,043	130,506	149,184	160,646	130,160	80,966	42,016	6,916	14,791	48,588	118,616
1996	168,652	185,007	194,264	228,668	235,936	217,885	166,027	108,175	38,678	30,709	36,915	43,887
1997	65,749	91,906	148,076	187,317	222,882	238,980	202,094	145,069	64,283	43,330	82,950	122,516
1998	161,487	189,422	213,514	215,428	225,564	192,855	139,123	78,388	25,437	21,839	42,624	76,783
1999	130,055	154,107	171,969	180,587	186,441	201,899	190,891	146,403	77,284	70,913	104,776	165,664
2000	179,598	189,144	207,098	230,284	235,152	213,927	157,196	90,399	24,086	18,886	22,612	25,337
2001	28,875	32,880	41,094	51,449	103,583	105,236	75,216	42,052	8,028	9,318	26,903	49,069
2002	80,521	94,446	102,950	152,336	198,003	217,527	170,624	102,295	21,021	6,585	13,993	21,516
2003	35,694	75,834	126,168	169,729	168,217	150,845	110,524	60,226	12,919	19,486	32,884	42,917
2004	55,425	65,694	89,309	117,008	122,468	99,581	52,120	17,332	4,758	5,770	23,126	42,901
2005	59,423	67,121	101,710	147,120	162,077	131,935	92,106	48,967	9,928	9,445	26,356	46,719
2006	97,051	117,191	122,742	166,617	211,579	203,316	170,730	102,206	19,948	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP1A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	29,124	38,735	107,047
1926	132,073	193,886	238,430	283,565	315,251	233,812	120,840	26,917	10,657	32,207	50,117	75,758
1927	105,886	133,711	145,147	196,369	281,886	393,929	263,229	85,203	63,612	88,822	142,792	180,792
1928	228,199	238,838	331,623	381,509	436,572	382,442	219,657	59,687	34,603	57,046	74,303	87,215
1929	90,658	84,938	105,155	124,587	227,843	241,792	144,055	32,830	13,390	11,524	12,749	34,483
1930	44,198	81,741	113,346	175,488	228,013	191,662	119,790	39,961	22,098	24,550	32,084	38,540
1931	62,336	78,331	124,430	179,697	304,859	292,368	151,050	29,920	14,493	25,570	52,169	62,622
1932	85,618	93,092	184,585	280,744	433,615	436,950	288,786	115,153	86,222	61,547	233,633	312,843
1933	332,940	329,757	334,553	355,529	420,233	376,329	276,204	110,262	87,058	98,764	198,671	395,811
1934	373,623	396,467	431,184	436,768	434,037	321,355	171,616	38,704	17,131	59,065	102,325	184,718
1935	262,254	297,353	307,991	355,384	436,950	391,923	241,373	81,566	56,974	49,373	59,429	78,367
1936	153,628	148,773	159,586	242,169	379,392	333,937	179,817	40,113	22,011	15,739	13,537	65,310
1937	63,957	64,013	75,009	145,537	270,177	313,917	189,126	50,345	32,472	27,393	100,775	150,334
1938	196,204	202,535	235,431	316,476	434,972	426,896	261,562	84,765	58,038	62,617	102,366	156,844
1939	229,214	237,101	275,592	353,716	396,826	289,353	156,954	33,771	14,012	20,161	37,819	156,736
1940	178,811	233,102	324,842	387,567	429,260	312,948	158,893	31,888	12,388	22,025	37,139	91,432
1941	120,393	133,278	171,598	188,513	222,145	171,301	87,420	17,518	10,158	19,289	60,525	151,711
1942	164,132	195,621	208,995	255,411	277,153	248,435	130,817	28,206	10,568	9,442	72,099	100,076
1943	105,918	113,415	138,687	228,614	326,589	383,469	284,050	108,217	80,120	84,702	100,590	137,052
1944	160,110	169,281	174,897	208,198	280,224	225,177	125,456	29,203	15,544	14,499	31,755	50,509
1945	101,543	152,971	166,129	200,621	353,356	322,844	182,632	44,294	26,467	49,310	77,396	115,641
1946	147,123	151,955	196,533	253,249	433,588	418,339	275,666	100,067	69,645	58,320	67,714	178,022
1947	209,319	241,142	305,704	387,176	436,950	349,195	180,742	44,268	24,102	90,755	160,851	218,342
1948	242,752	248,171	252,906	284,764	405,744	365,589	231,653	83,937	60,081	66,045	99,248	134,173
1949	130,423	127,979	150,852	227,398	422,352	406,033	277,504	101,891	71,934	64,148	111,275	190,779
1950	200,801	202,245	209,372	241,668	316,851	436,950	390,773	227,684	206,673	247,921	301,713	313,588
1951	312,135	348,623	336,647	337,323	433,856	409,420	261,335	90,842	59,948	53,035	78,384	102,733
1952	98,798	101,749	108,021	185,912	309,999	295,988	175,583	45,346	22,928	11,422	11,914	21,269
1953	77,838	138,207	165,999	195,916	313,991	336,404	230,258	82,361	59,200	66,087	120,831	256,103
1954	308,801	353,453	359,970	368,932	412,187	363,493	259,472	102,941	81,328	76,640	113,354	121,839
1955	150,308	155,862	148,269	144,308	236,745	339,093	240,864	89,268	63,080	117,128	205,670	254,245
1956	277,241	271,474	269,034	269,123	410,683	436,950	332,506	148,069	115,668	107,622	132,256	230,575
1957	226,640	226,529	247,865	329,168	436,340	369,269	204,491	58,049	33,556	34,116	61,745	112,780
1958	160,740	240,547	259,451	304,927	396,291	301,593	144,808	30,948	11,988	25,433	111,000	205,138
1959	277,570	283,901	320,179	395,641	436,425	426,394	281,902	107,395	85,667	117,208	192,838	261,397
1960	268,837	304,801	339,542	397,040	436,914	394,603	236,139	70,215	46,649	50,283	106,633	125,326
1961	174,147	253,843	303,094	358,109	436,638	419,142	247,336	75,711	46,762	39,200	55,539	90,095
1962	125,328	163,982	177,859	266,391	312,254	290,698	159,282	35,686	15,340	22,534	77,872	116,241
1963	148,583	206,453	241,685	266,355	302,175	233,185	116,773	24,905	9,691	27,886	72,097	99,582
1964	131,556	141,529	166,431	221,155	323,820	376,150	278,145	118,261	99,161	97,662	113,312	149,036
1965	179,534	237,848	272,712	362,623	420,116	358,732	218,643	71,039	46,820	49,469	78,209	93,643
1966	102,620	105,230	124,168	206,322	338,017	300,578	171,445	38,586	16,889	30,366	52,680	145,465
1967	226,075	286,944	313,753	292,931	388,016	358,478	201,667	51,498	28,273	43,215	73,741	143,775
1968	198,437	278,443	380,574	401,515	419,186	325,552	156,810	35,207	17,207	29,013	64,120	109,068
1969	111,773	105,664	119,929	200,498	373,510	378,914	203,161	49,729	27,490	32,224	47,636	83,360
1970	114,411	148,456	172,989	188,433	280,889	337,462	176,382	39,410	21,222	22,933	37,592	40,297
1971	71,779	102,435	96,225	145,078	393,857	436,950	374,978	191,362	171,476	161,462	184,490	210,069
1972	235,033	241,428	299,978	299,703	409,990	436,950	358,302	172,845	144,427	121,530	148,247	271,591
1973	310,710	325,705	350,589	366,808	378,178	269,994	143,485	31,503	12,371	14,496	45,141	122,677
1974	206,177	250,996	292,377	310,481	378,948	399,277	340,895	175,549	162,900	129,083	150,921	206,014
1975	253,729	254,006	260,094	286,841	423,494	431,064	321,734	156,458	130,216	178,991	262,714	344,321
1976	335,890	347,382	333,422	327,390	426,198	414,579	332,949	148,783	125,988	95,335	100,809	109,663
1977	118,702	130,309	154,133	168,307	178,486	140,667	59,042	14,334	9,816	13,032	71,406	217,439
1978	231,089	258,691	333,337	382,533	407,970	328,198	167,268	35,730	23,705	18,909	49,137	69,059
1979	66,969	69,357	98,871	140,275	287,072	261,250	149,986	33,488	14,311	16,387	13,233	88,248
1980	91,691	98,832	126,501	212,425	347,469	325,375	188,614	45,927	27,214	21,065	64,085	115,181
1981	147,277	212,922	248,831	313,865	353,716	320,149	161,412	33,987	17,843	31,677	71,962	121,459
1982	170,834	254,528	292,097	335,972	432,805	436,950	314,271	137,056	107,189	87,732	113,319	210,469
1983	262,980	319,183	402,683	433,974	436,937	373,650	214,443	61,710	41,837	39,132	111,605	124,824
1984	190,493	218,405	283,950	294,165	329,569	353,280	252,748	79,184	54,226	49,351	70,475	71,827
1985	70,536	65,371	67,924	113,665	229,831	253,576	150,377	37,007	17,135	37,160	79,289	76,276
1986	87,221	107,770	202,891	244,767	316,835	293,423	152,324	32,907	16,244	16,445	92,134	109,350
1987	127,489	161,367	224,699	284,667	381,407	315,234	159,297	32,735	12,839	7,703	25,235	64,157
1988	74,364	116,215	164,975	230,300	311,457	295,337	170,534	43,092	21,579	43,003	92,293	120,393
1989	153,535	154,756	179,659	293,779	436,497	383,004	210,744	53,734	29,630	29,213	73,808	121,277
1990	197,583	206,580	254,663	398,187	436,685	415,390	238,400	66,636	41,846	70,377	263,468	301,098
1991	309,941	380,695	378,717	427,619	436,772	385,221	247,249	82,922	57,608	46,339	84,818	131,180
1992	178,403	234,083	270,130	297,183	318,517	238,833	123,377	30,369	14,850	11,211	32,588	35,970
1993	37,200	37,533	61,083	117,390	302,755	272,790	144,659	27,517	10,368	13,953	22,699	61,006
1994	90,213	94,045	138,808	195,856	255,613	204,078	106,702	22,975	9,112	19,825	36,129	80,769
1995	102,228	158,987	196,793	221,503	350,996	325,843	184,366	43,567	21,758	45,149	143,033	263,733
1996	309,555	317,973	336,542	392,934	436,141	411,386	275,529	100,589	74,872	77,363	90,275	94,825
1997	119,666	141,159	188,689	256,020	403,103	436,950	354,386	171,414	143,275	147,001	187,999	212,226
1998	235,775	283,537	329,100	356,280	436,950	364,259	199,201	47,636	23,989	24,358	73,152	134,455
1999	189,425	210,473	235,560	272,461	347,442	381,128	276,886	111,604	90,142	93,570	185,503	291,016
2000	303,375	307,659	339,756	411,265	407,736	340,842	191,291	48,742	25,464	32,166	39,955	39,032
2001	41,738	42,182	54,603	86,469	221,269	200,728	114,194	24,201	9,703	20,636	74,071	110,595
2002	140,478	158,472	163,514	241,635	412,335	436,950	294,732	115,367	82,966	38,826	54,952	71,246
2003	100,822	149,806	202,009	263,829	336,517	315,478	158,643	33,119	13,300	40,235	68,738	87,983
2004	99,112	106,531	153,507	213,767	320,100	294,506	144,353	37,472	20,480	20,275	54,405	89,884
2005	118,598	127,318	177,085	236,190	335,893	260,240	145,855	32,396	13,224	12,467	51,680	90,294
2006	146,924	158,698	164,170	232,974	388,789	436,710	259,685	79,274	48,876	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP1A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,387	3,255	12,847
1926	15,000	32,359	33,970	33,970	33,970	29,828	22,819	16,547	10,120	9,458	10,100	15,000
1927	15,000	16,990	14,103	20,272	33,657	33,970	30,234	20,366	15,007	11,796	15,000	15,000
1928	15,000	14,535	16,797	21,369	45,148	33,970	29,848	20,335	14,014	13,171	12,938	13,257
1929	11,068	5,704	2,593	4,446	29,963	33,970	30,094	20,409	14,357	8,753	2,832	2,357
1930	1,783	7,816	9,968	18,359	33,970	32,989	28,770	19,843	13,680	3,423	1,873	1,939
1931	3,617	3,182	4,316	12,706	33,970	33,291	27,705	19,215	12,967	5,967	9,586	12,131
1932	15,000	15,598	16,447	15,525	32,936	33,970	30,039	20,382	14,572	6,301	16,760	17,943
1933	15,166	14,828	11,200	15,000	32,163	33,970	29,848	20,335	15,253	14,006	14,985	58,367
1934	18,428	22,518	31,574	33,912	33,970	32,190	24,968	19,065	12,757	12,942	15,206	19,406
1935	16,468	20,828	26,829	33,789	33,970	33,970	29,848	20,335	14,012	8,104	6,227	5,230
1936	15,000	12,184	10,647	25,226	33,970	33,810	28,567	20,335	14,069	7,520	1,954	15,000
1937	10,444	5,553	2,245	10,394	33,929	33,970	28,648	20,346	13,894	6,961	15,665	24,135
1938	15,250	14,262	14,913	15,000	38,791	33,970	29,848	20,335	13,956	9,524	14,239	15,000
1939	15,328	16,749	19,147	33,964	33,970	33,970	29,848	20,335	14,191	8,456	4,535	15,707
1940	15,043	26,901	33,543	33,955	33,970	32,982	25,850	19,762	13,336	8,789	10,331	15,000
1941	15,000	17,760	22,495	28,683	33,970	31,976	25,212	15,987	10,513	5,617	7,952	15,518
1942	15,000	16,848	18,016	25,454	33,970	33,970	29,134	20,335	13,955	7,872	15,007	15,000
1943	13,254	11,851	15,000	15,630	36,289	33,970	29,848	20,386	14,977	13,168	12,239	14,996
1944	15,000	17,318	20,639	24,209	33,970	32,771	26,073	20,227	14,593	8,438	11,529	11,622
1945	15,000	25,039	16,077	23,991	33,956	33,970	29,540	20,335	14,499	9,242	12,220	16,367
1946	15,213	16,219	15,071	15,000	33,294	33,970	29,848	20,340	13,898	9,491	9,445	15,710
1947	15,029	18,664	19,952	33,556	34,290	33,829	28,654	20,341	14,074	15,373	15,116	15,000
1948	15,109	15,970	12,403	15,000	33,929	33,970	29,848	20,361	14,767	12,377	15,000	14,803
1949	12,491	5,622	5,007	15,000	34,628	33,970	29,848	20,342	14,018	7,488	15,000	17,380
1950	15,139	15,000	14,638	15,000	20,896	37,065	33,079	20,853	14,931	13,210	15,026	21,268
1951	15,218	18,602	14,958	15,000	33,010	33,970	29,650	20,348	13,962	14,938	15,000	15,000
1952	14,347	13,757	10,990	26,223	33,906	33,970	29,459	20,335	14,015	5,692	1,812	2,130
1953	15,000	20,419	15,201	21,576	33,920	33,970	29,848	20,381	14,746	10,339	14,350	16,930
1954	15,074	16,184	13,344	18,216	34,911	33,970	29,848	20,417	15,203	10,904	15,000	15,000
1955	15,154	18,898	13,431	15,000	32,014	36,085	29,848	20,402	14,975	15,033	17,005	18,073
1956	15,118	13,865	10,606	15,091	28,874	33,970	30,431	20,420	14,069	12,254	14,578	15,790
1957	15,000	14,182	15,000	18,617	33,779	33,735	28,530	20,335	14,073	9,244	12,372	15,000
1958	15,000	31,011	31,520	33,965	33,970	32,677	25,668	19,642	13,215	11,787	15,986	16,453
1959	16,566	16,315	15,000	22,996	33,806	33,970	29,848	20,335	15,970	14,851	22,657	15,874
1960	15,020	23,681	19,096	33,306	33,957	33,970	28,941	20,335	14,014	10,687	15,000	14,905
1961	15,000	24,580	15,633	23,464	33,872	33,970	29,151	20,335	9,252	4,095	3,727	9,740
1962	15,000	21,668	23,021	33,947	33,970	33,970	29,848	20,337	14,426	10,646	15,705	15,000
1963	15,000	32,734	33,896	33,968	33,970	33,531	26,982	20,335	13,837	11,852	15,000	15,000
1964	15,000	16,029	15,000	15,000	28,558	33,970	29,848	20,448	15,977	11,796	13,571	15,100
1965	17,485	23,167	15,098	29,609	33,899	33,970	29,848	20,335	14,190	9,613	14,386	12,076
1966	8,238	4,487	7,254	23,499	33,937	33,970	28,217	20,335	14,133	11,966	14,974	15,842
1967	15,427	21,271	23,977	23,560	34,115	33,970	29,554	20,335	13,958	15,529	14,054	15,136
1968	15,079	26,343	32,868	33,930	33,970	33,843	28,355	20,547	14,834	13,530	15,052	15,000
1969	14,955	11,049	8,098	15,277	34,836	33,529	28,006	20,335	14,553	9,845	13,237	14,998
1970	15,000	20,761	15,460	18,733	33,929	33,970	29,811	20,335	14,371	9,949	10,454	7,675
1971	15,000	15,263	12,080	14,222	28,007	36,479	30,632	20,463	15,275	10,988	12,737	13,039
1972	12,977	10,720	15,000	15,000	27,511	46,779	31,041	20,502	16,823	10,428	13,060	18,477
1973	15,093	17,224	21,713	26,711	33,970	33,654	26,829	20,335	13,731	9,354	15,000	17,377
1974	16,327	15,684	15,000	15,000	26,573	39,485	29,848	20,355	14,610	8,420	12,525	15,939
1975	15,335	14,800	11,849	10,956	29,796	33,970	29,848	20,526	15,053	15,000	15,000	16,280
1976	15,566	15,193	13,247	15,000	30,640	33,970	29,848	20,435	15,533	10,685	8,059	6,035
1977	5,653	6,519	10,516	22,952	33,970	32,692	26,113	14,677	9,846	4,823	14,986	15,401
1978	15,000	18,101	31,075	33,925	33,970	33,970	29,724	20,335	15,057	8,631	8,954	8,783
1979	3,750	1,905	5,073	11,559	33,970	33,800	28,745	20,337	14,135	10,565	5,268	16,337
1980	14,982	13,174	12,805	26,288	33,844	33,970	29,848	20,335	14,425	7,347	14,907	27,174
1981	15,305	27,499	33,251	33,954	33,970	33,970	29,155	20,335	14,312	11,624	14,327	15,000
1982	15,000	17,756	15,000	15,000	32,685	38,694	30,234	20,399	14,703	11,353	12,109	14,775
1983	15,000	21,209	22,924	33,534	39,859	33,970	29,848	20,406	15,024	9,565	15,364	14,965
1984	15,091	20,110	15,971	20,589	35,039	33,970	29,848	20,361	14,617	11,373	13,759	7,951
1985	3,293	1,879	1,908	7,406	33,970	33,970	29,328	20,338	14,313	12,970	13,240	7,458
1986	4,163	3,704	26,578	33,914	34,956	33,717	29,381	20,187	14,415	6,360	15,000	13,418
1987	11,162	14,660	22,260	33,739	33,970	33,812	28,494	20,335	13,957	6,763	4,239	14,341
1988	11,068	14,698	25,458	33,896	33,970	33,970	29,848	20,335	14,132	8,336	15,280	14,437
1989	15,000	11,152	8,754	23,782	33,828	33,970	29,848	20,335	14,131	8,687	15,000	15,000
1990	15,422	14,869	15,000	30,971	33,886	33,970	29,697	20,337	14,244	15,519	28,706	15,067
1991	15,000	23,707	15,006	25,586	33,913	33,970	29,848	20,335	14,010	7,153	10,910	15,000
1992	15,450	29,274	33,970	33,970	33,970	29,804	22,856	16,584	10,039	3,933	5,927	2,023
1993	1,836	1,689	4,238	11,557	33,967	33,560	28,367	20,243	14,173	2,999	1,917	2,519
1994	2,319	1,967	5,665	16,971	33,970	33,692	28,658	19,981	13,844	7,578	9,040	15,000
1995	15,000	23,227	30,266	33,770	33,970	33,970	29,207	20,336	14,015	12,086	21,379	15,450
1996	15,401	19,686	15,275	22,043	33,718	33,970	29,848	20,335	14,132	12,303	9,505	4,145
1997	4,154	4,517	15,000	15,000	35,628	50,770	32,497	20,728	15,933	13,724	15,000	15,000
1998	15,000	19,659	28,409	32,277	33,970	33,521	26,576	20,335	14,017	9,347	16,229	18,066
1999	15,435	17,556	15,000	15,005	33,149	33,970	29,848	20,365	14,619	9,285	16,688	15,587
2000	15,000	14,700	15,315	31,738	33,957	33,970	28,820	20,335	14,016	9,599	6,558	2,612
2001	2,212	1,978	6,767	11,289	33,970	33,919	29,344	18,177	12,286	3,411	13,250	14,966
2002	15,287	17,254	13,946	15,000	32,981	33,970	30,209	20,418	14,128	6,165	6,563	8,428
2003	15,000	24,923	31,796	33,900	33,970	33,571	26,435	20,335	13,844	12,981	15,000	15,000
2004	15,000	14,651	25,965	33,812	33,970	33,644	26,901	19,292	13,697	6,692	10,469	13,195
2005	15,000	15,600	28,942	33,965	33,970	28,374	21,672	15,892	9,525	4,417	10,566	11,640
2006	15,276	14,849	11,898	15,000	33,239	33,970	29,780	20,337	11,570	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP1A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	16,205	25,854	53,580
1926	68,978	101,159	123,059	157,102	182,921	175,908	154,611	134,259	65,343	51,683	65,145	90,632
1927	118,302	137,129	152,808	164,492	195,317	198,000	179,885	141,360	44,442	54,147	89,653	111,166
1928	129,025	142,384	154,808	170,068	197,792	198,000	178,500	135,753	26,966	19,989	38,140	51,395
1929	61,288	67,412	78,669	91,514	121,787	142,662	138,300	124,434	46,283	16,021	20,900	30,687
1930	33,753	46,249	57,808	75,583	98,578	104,463	95,955	85,636	27,352	15,244	22,018	24,930
1931	32,116	42,122	52,624	85,493	148,143	162,544	150,181	131,259	36,305	21,404	39,414	53,942
1932	69,675	83,026	131,513	141,694	196,173	198,000	180,820	142,807	20,180	27,637	84,866	129,703
1933	132,552	149,706	147,209	153,099	182,364	198,000	180,208	143,138	33,618	32,073	68,252	174,672
1934	145,916	171,945	194,841	197,899	198,000	193,140	174,089	133,141	46,613	24,022	59,400	106,376
1935	130,688	157,242	180,915	197,683	198,000	198,000	178,505	143,340	37,915	24,710	34,842	44,081
1936	76,610	85,108	100,111	139,013	185,751	196,704	176,840	141,435	51,755	22,769	25,624	51,632
1937	58,211	63,029	70,473	95,926	150,446	180,187	171,912	141,227	38,268	14,609	64,107	97,986
1938	129,025	142,625	144,298	148,416	196,916	198,000	176,539	134,248	20,982	25,563	44,468	68,018
1939	101,396	115,614	144,267	175,414	198,000	198,000	175,775	136,152	46,144	18,096	27,172	80,728
1940	104,451	151,569	197,246	197,975	198,000	188,697	166,963	138,944	54,732	31,103	44,603	69,075
1941	84,816	96,257	112,934	129,230	151,148	150,527	134,647	121,329	71,681	57,503	73,477	119,430
1942	129,025	146,733	162,041	179,893	198,000	198,000	175,362	138,066	56,290	20,469	60,889	75,750
1943	87,771	100,434	119,618	150,159	191,796	198,000	180,202	148,850	41,970	32,610	42,404	60,025
1944	76,319	94,891	110,939	123,958	147,961	145,556	129,479	114,236	53,869	35,599	51,350	64,382
1945	98,057	124,548	150,127	176,779	197,977	198,000	174,857	129,317	44,739	15,861	32,706	50,420
1946	77,905	92,400	125,234	141,376	196,158	198,000	180,201	139,209	20,000	19,687	32,105	116,334
1947	129,025	147,722	174,043	197,270	197,998	193,782	178,306	132,821	36,254	53,280	79,690	105,325
1948	129,025	143,458	144,542	139,333	186,397	198,000	180,216	145,776	45,750	44,000	63,998	91,851
1949	103,168	110,906	129,168	139,529	196,212	197,990	176,106	138,989	20,000	27,302	45,266	74,696
1950	90,641	102,573	102,972	94,007	132,230	198,000	194,885	167,047	39,941	28,465	61,655	99,767
1951	129,025	158,754	136,415	143,441	196,304	198,000	180,036	138,463	20,000	38,263	53,441	77,298
1952	86,467	98,207	109,767	146,864	197,095	198,000	176,588	136,374	41,985	12,031	17,981	29,563
1953	63,750	103,071	121,025	143,295	188,217	198,000	178,509	146,853	43,719	26,086	42,065	100,099
1954	129,025	147,015	152,954	163,405	197,499	198,000	180,209	147,885	39,764	28,699	48,057	63,797
1955	93,618	110,113	121,046	137,221	168,860	198,000	180,236	148,010	48,869	57,417	101,795	130,255
1956	130,255	143,418	102,403	106,143	183,614	198,000	185,298	154,862	28,677	31,242	48,515	100,634
1957	111,908	123,127	139,237	160,734	197,665	195,408	178,517	138,454	34,379	15,629	33,862	62,058
1958	88,252	142,401	165,151	196,176	198,000	187,604	167,334	137,767	56,656	39,314	88,007	129,025
1959	129,025	146,375	153,061	172,206	197,711	198,000	178,680	135,133	29,860	37,662	77,627	110,139
1960	125,382	146,841	169,699	196,827	197,979	198,000	177,626	133,238	21,179	19,002	53,547	66,270
1961	93,509	146,048	158,679	176,485	197,828	198,000	174,818	122,666	20,000	18,282	31,487	50,128
1962	71,526	90,242	107,274	140,047	168,911	198,000	176,704	136,081	51,157	34,823	75,987	96,393
1963	122,833	167,137	192,062	197,999	198,000	192,654	174,647	135,892	56,963	27,185	48,489	61,604
1964	84,145	98,551	114,845	135,882	165,717	198,000	183,789	154,491	33,099	21,367	31,865	60,385
1965	88,608	134,760	160,165	181,239	197,748	197,999	178,493	138,187	27,856	24,933	40,332	49,233
1966	59,033	63,557	79,667	120,266	182,136	192,542	176,840	137,861	47,075	21,316	37,578	68,937
1967	102,905	148,168	172,640	190,797	198,000	198,000	178,505	137,246	42,456	37,177	53,848	77,264
1968	102,471	157,753	196,052	197,932	198,000	195,184	177,527	144,897	50,339	40,304	62,940	87,825
1969	102,398	110,784	125,295	152,476	197,374	195,593	176,842	135,294	42,673	32,090	49,400	71,713
1970	106,638	134,684	162,107	178,426	197,930	197,975	176,845	130,570	40,525	17,149	27,283	38,186
1971	93,077	132,231	114,223	103,928	166,332	198,000	189,169	161,698	40,916	27,279	42,348	60,493
1972	86,687	101,037	123,631	118,336	170,371	198,000	190,075	161,231	56,512	22,595	36,270	90,394
1973	120,759	137,198	160,613	180,100	197,904	193,702	174,303	141,850	65,353	42,287	65,158	93,997
1974	129,025	163,563	136,292	129,862	162,646	198,000	187,532	163,290	37,724	23,197	39,673	74,001
1975	115,874	131,036	138,446	129,069	170,687	198,000	184,507	161,296	38,033	36,951	56,527	132,169
1976	132,104	157,259	125,168	120,879	180,426	198,000	187,452	164,609	39,103	24,816	33,604	42,969
1977	53,825	65,175	82,751	105,175	112,704	118,545	103,640	87,296	39,167	14,807	43,011	117,964
1978	129,025	145,224	174,307	197,923	198,000	198,000	176,744	130,789	54,236	26,597	36,399	48,703
1979	53,651	56,405	73,928	98,432	157,112	165,675	154,794	138,040	63,375	32,099	37,403	95,392
1980	106,332	117,334	132,952	175,598	197,778	197,959	176,820	135,843	45,827	17,506	38,673	93,141
1981	120,134	170,006	192,072	197,973	198,000	197,959	175,268	131,448	46,426	44,162	62,910	89,594
1982	107,070	130,562	146,074	142,701	195,729	198,000	181,330	143,935	21,472	26,920	40,489	60,903
1983	86,666	106,937	154,283	186,500	197,992	198,000	178,527	140,176	41,611	17,201	83,063	94,254
1984	125,121	144,470	163,001	183,001	197,897	198,000	178,499	138,946	38,185	29,144	49,500	59,640
1985	65,107	66,616	72,975	101,457	147,074	169,347	159,865	142,121	62,215	35,173	53,214	59,181
1986	66,496	75,523	122,807	148,320	177,405	194,290	173,417	132,516	44,018	15,029	48,460	58,794
1987	68,544	84,705	111,145	139,296	197,879	194,391	176,660	140,299	55,668	17,881	27,392	60,584
1988	71,724	86,464	112,715	144,879	198,000	198,000	176,337	141,071	47,267	17,213	56,482	68,428
1989	83,278	91,956	104,315	147,948	197,751	198,000	178,514	142,535	37,944	15,622	36,323	58,925
1990	92,989	105,596	131,482	180,906	197,854	198,000	178,519	140,368	34,109	41,924	89,933	112,438
1991	129,025	177,022	159,465	185,742	197,901	198,000	179,071	138,629	25,873	14,560	35,189	53,574
1992	79,522	110,033	135,851	164,223	187,643	176,425	155,606	131,595	62,768	29,108	42,620	47,711
1993	47,821	47,881	61,220	83,453	150,604	166,766	155,946	132,212	36,291	14,888	22,450	36,965
1994	48,993	51,610	70,934	93,973	138,785	145,450	131,470	118,822	51,865	18,088	31,332	56,911
1995	68,409	104,953	132,343	155,902	198,000	196,858	175,680	136,008	39,683	20,189	63,329	129,025
1996	129,025	170,694	149,584	165,334	197,556	198,000	176,816	144,287	33,910	31,271	41,686	50,080
1997	65,578	79,299	95,143	98,918	171,757	198,000	192,949	165,546	46,709	24,229	55,283	68,454
1998	82,495	99,933	126,189	143,873	198,000	195,552	178,502	140,468	47,179	29,534	67,238	99,448
1999	129,025	149,445	155,442	152,664	181,912	198,000	180,209	148,053	41,341	25,226	65,213	98,478
2000	119,015	133,476	149,771	185,590	197,978	198,000	178,522	137,175	36,703	19,494	28,699	35,081
2001	37,667	40,729	54,359	69,905	115,108	122,561	113,238	100,793	24,937	17,414	46,681	68,017
2002	98,330	117,657	131,954	133,442	181,762	198,000	183,552	139,215	20,000	21,141	30,273	47,191
2003	72,884	114,267	169,545	197,879	198,000	194,853	176,541	137,675	48,724	21,050	37,459	55,720
2004	71,572	86,533	118,445	151,433	198,000	196,884	173,037	134,382	36,104	16,807	33,252	51,561
2005	69,718	82,269	104,755	133,550	159,391	152,556	138,356	119,612	41,348	20,251	43,404	58,194
2006	99,910	120,125	136,051	144,717	196,708	198,000	178,500	131,173	20,000	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP1A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP1A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	99,804	125,932	303,029
1926	371,914	537,805	631,472	718,879	767,417	633,534	444,228	257,383	120,582	139,940	188,618	267,201
1927	364,985	447,269	487,835	591,752	755,986	863,440	641,404	338,154	162,604	211,021	354,815	453,595
1928	568,715	606,716	797,376	904,246	1,052,944	947,435	672,834	358,935	146,696	171,611	221,608	258,941
1929	274,060	260,824	320,737	367,250	581,135	615,343	454,843	253,746	109,454	68,944	70,571	122,556
1930	144,041	243,023	318,039	438,106	549,644	503,887	385,652	233,681	108,396	85,974	107,944	124,579
1931	191,889	239,360	356,697	483,105	695,311	668,704	445,946	229,309	85,537	85,317	164,028	210,651
1932	280,909	318,489	549,018	732,769	1,012,783	1,015,991	767,173	444,214	200,005	161,380	533,193	723,053
1933	778,968	789,540	800,034	870,997	994,153	978,688	790,696	483,987	268,747	267,007	474,227	963,027
1934	864,220	946,550	1,046,596	1,063,951	1,050,748	853,512	568,501	286,766	118,990	169,917	287,494	485,412
1935	654,767	754,096	804,743	910,020	993,808	929,144	674,132	386,541	179,532	140,666	169,156	214,125
1936	402,920	397,688	439,624	628,469	859,294	791,626	540,642	285,209	121,517	71,711	65,755	206,163
1937	208,364	209,916	253,908	434,810	674,487	733,686	518,495	269,040	111,099	72,493	278,553	428,362
1938	543,897	573,558	646,161	793,317	1,028,515	1,002,248	735,103	403,107	180,318	180,355	268,550	399,025
1939	563,945	592,621	684,566	841,964	897,001	744,844	515,893	261,713	98,819	77,948	115,750	398,936
1940	461,112	625,834	835,464	925,361	956,554	773,930	518,843	270,397	108,925	93,835	136,328	272,615
1941	340,076	381,839	455,929	492,941	560,487	483,730	344,893	209,197	128,712	125,948	218,528	456,988
1942	490,931	568,235	613,151	696,452	719,513	679,293	483,470	257,709	104,204	53,410	218,383	297,508
1943	321,127	354,714	430,693	630,864	819,966	882,046	716,402	433,176	218,719	214,422	252,287	338,474
1944	394,611	436,615	470,104	544,446	685,934	594,098	420,760	238,033	120,988	91,149	139,536	182,523
1945	316,722	433,476	477,148	583,461	836,997	778,524	527,767	253,238	113,853	119,445	198,119	296,056
1946	395,113	423,329	549,875	662,306	1,005,377	998,678	748,102	418,500	172,911	149,825	192,464	506,750
1947	580,116	663,725	796,663	961,512	1,002,794	871,139	589,731	298,080	122,804	249,739	404,556	539,798
1948	615,674	644,354	655,165	722,819	993,258	994,309	745,643	451,856	254,296	256,611	348,573	451,155
1949	457,121	450,594	523,938	676,518	1,048,043	1,011,708	753,713	428,154	185,866	172,611	272,998	435,725
1950	463,934	478,853	494,572	562,321	795,283	1,069,148	978,374	679,166	435,288	473,770	622,566	748,599
1951	773,442	871,251	813,200	833,255	1,058,121	1,028,960	766,515	441,766	190,475	189,667	250,037	321,428
1952	326,456	353,392	380,159	568,068	792,906	748,107	526,590	270,025	102,947	42,560	45,921	72,399
1953	236,927	399,350	464,374	543,362	763,657	776,130	583,189	326,360	151,930	140,704	253,832	580,811
1954	707,605	819,752	842,926	893,902	1,021,113	963,874	771,550	477,252	269,297	235,832	322,843	362,226
1955	455,116	484,301	476,090	500,285	697,798	894,729	716,788	439,050	233,979	324,430	532,467	700,463
1956	743,690	743,063	664,175	687,236	994,382	1,065,411	866,479	549,616	292,308	261,150	331,284	576,003
1957	583,991	597,072	669,462	833,213	1,036,507	923,557	629,096	335,886	133,964	109,011	180,860	319,091
1958	438,297	658,685	714,753	829,454	904,968	760,690	507,627	263,531	107,660	117,898	311,073	532,445
1959	677,904	709,828	791,260	958,915	1,062,752	1,040,354	765,123	429,998	230,450	288,755	483,168	637,641
1960	670,391	776,282	847,944	983,065	1,052,432	985,210	691,054	369,616	156,621	158,277	308,635	358,931
1961	492,286	714,843	815,284	919,902	1,059,869	1,029,361	725,376	380,974	151,642	133,560	176,428	274,606
1962	373,730	470,709	518,391	691,231	743,369	718,462	509,367	272,346	110,321	101,687	243,611	341,848
1963	422,996	596,592	675,106	728,296	744,908	637,123	452,139	249,692	104,472	103,482	215,794	289,907
1964	386,133	426,996	497,977	612,875	806,633	973,406	806,084	521,329	295,316	257,172	308,266	418,862
1965	515,756	687,605	757,474	943,620	1,033,526	959,300	704,111	403,956	190,727	178,652	246,120	282,453
1966	312,155	322,207	394,663	594,108	841,568	777,408	543,328	277,331	107,758	104,855	167,276	386,213
1967	567,828	720,736	791,754	771,299	905,694	867,480	619,723	328,054	146,238	163,127	226,496	377,191
1968	508,899	725,689	934,940	976,782	974,479	847,532	558,937	304,319	125,597	137,890	233,765	351,572
1969	372,431	363,344	415,247	603,300	920,780	905,367	606,250	305,528	131,644	121,338	172,889	278,717
1970	396,494	502,666	575,064	622,860	764,156	812,104	575,037	290,693	118,344	88,742	125,197	140,156
1971	282,645	396,263	365,405	458,454	922,733	1,062,188	955,682	653,241	423,515	367,390	436,451	511,556
1972	584,358	617,099	748,691	738,353	982,426	1,078,479	916,485	600,613	382,554	277,174	344,186	625,105
1973	724,917	771,871	841,620	881,483	892,179	749,987	517,874	281,500	127,539	95,618	186,054	388,574
1974	571,420	678,125	728,689	776,840	912,991	1,019,715	910,751	631,546	402,471	299,426	354,847	505,990
1975	643,864	663,287	685,293	725,004	1,005,694	1,055,584	857,807	566,481	321,295	375,252	551,257	789,092
1976	805,381	854,214	781,819	773,140	1,010,612	1,017,484	876,867	586,923	352,502	255,479	270,927	298,255
1977	330,486	367,838	443,565	490,509	512,267	456,012	313,049	192,305	115,645	75,637	218,619	573,562
1978	616,593	683,004	837,082	943,105	951,648	835,731	568,301	285,134	141,507	95,340	157,288	214,207
1979	207,855	215,915	306,913	412,367	713,065	670,763	486,664	277,796	129,614	92,334	87,795	295,161
1980	311,838	345,070	428,079	631,303	830,192	780,186	544,505	274,894	116,349	68,233	170,970	363,633
1981	434,379	626,161	703,381	810,401	820,991	767,595	523,370	255,526	104,353	128,730	221,353	350,735
1982	462,512	638,541	721,209	786,055	1,011,234	1,070,394	828,037	500,889	255,243	213,450	283,430	456,485
1983	592,404	722,799	912,727	1,006,507	1,017,572	914,541	659,225	361,135	169,690	128,402	343,996	380,409
1984	537,574	609,251	739,485	776,094	840,269	852,172	674,200	383,178	180,890	150,238	217,184	227,397
1985	229,487	218,680	233,285	353,992	597,778	641,791	470,197	269,078	127,117	135,837	224,320	220,805
1986	260,226	310,950	538,454	634,228	764,133	714,848	478,023	239,605	97,277	58,111	242,591	283,618
1987	329,552	421,922	580,719	711,371	864,839	758,551	522,256	273,230	109,591	48,269	83,186	194,850
1988	227,545	319,967	453,145	592,285	750,862	705,235	496,645	266,887	110,267	108,431	241,934	303,726
1989	391,460	396,559	465,913	714,247	961,705	888,125	616,822	327,993	128,123	94,127	196,598	300,840
1990	467,943	498,969	619,862	902,915	983,268	953,488	672,723	357,916	149,544	207,020	590,014	667,886
1991	727,558	924,194	906,293	1,024,132	1,063,872	977,752	727,041	413,731	195,828	148,657	240,097	355,443
1992	478,971	633,724	716,478	773,116	801,645	657,675	458,068	259,466	125,414	72,307	124,618	137,978
1993	142,804	148,239	226,718	365,603	715,165	672,661	462,905	239,740	84,642	52,454	75,443	156,162
1994	229,554	240,539	352,042	475,810	616,417	550,620	395,880	235,956	109,347	85,711	130,886	255,091
1995	303,001	467,950	576,238	634,241	819,208	751,845	512,189	260,258	96,478	115,824	336,794	611,373
1996	703,615	787,910	796,121	952,979	1,057,037	1,008,991	745,736	430,944	214,925	209,345	241,487	261,525
1997	334,593	397,295	536,059	659,034	969,007	1,082,470	904,626	584,761	347,766	311,550	426,565	502,115
1998	576,949	688,685	814,800	863,752	1,020,581	902,935	613,922	320,028	139,143	115,959	251,090	415,159
1999	550,286	612,099	658,063	705,888	844,487	939,070	766,377	480,722	272,387	252,169	462,853	672,731
2000	715,536	748,762	826,052	995,413	1,022,974	933,343	651,714	350,636	150,226	134,247	154,015	158,010
2001	167,513	175,432	221,423	289,914	557,533	540,691	393,756	218,018	83,720	77,773	210,514	313,639
2002	414,579	469,296	491,323	627,494	941,592	1,040,189	787,757	443,887	198,785	121,232	156,148	204,635
2003	300,991	444,960	620,259	751,896	810,519	767,303	526,179	270,616	105,090	126,234	196,509	254,967
2004	304,201	344,726	467,825	590,553	750,698	692,017	438,151	226,967	92,472	64,614	154,172	252,661
2005	338,426	371,054	499,867	631,480	767,324	636,036	444,536	235,939	89,131	63,049	164,399	261,121
2006	443,732	488,372	515,304	641,519	944,264	993,165	718,379	374,968	137,911	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D-4
Scenario IP2A (KDRPP Only) under Adverse Climate Change Conditions

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP2A CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	2,434	522	1,437	1,209	65.9%	60	-91	65.5%	28	-101	4,447	26
Avg. WY 1982 to 2009	2,300	480	1,376	1,136	58.7%	9	-143	58.3%	-32	-152	2,289	85
1941 (Dry Year)	1,272	193	703	748	2.0%	-78	-200	2.5%	-69	-198	3,391	0
1994 (Dry Year)	1,491	274	846	803	13.5%	-96	-200	14.5%	-152	-200	10,806	0
2001 (Dry Year)	1,637	274	1,088	903	33.6%	-117	-171	34.7%	-154	-185	1,003	1,003
2005 (Dry Year)	1,716	295	1,056	902	31.4%	-113	-200	31.4%	-125	-200	9,448	0

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,603	178	1,180	991	42.6%	-77	-123	44.9%	-85	-132	18	0
1927	2,418	423	1,465	1,312	65.8%	76	-130	63.9%	114	-128	1,407	0
1928	2,636	657	1,528	1,303	70.0%	55	-97	70.0%	71	-98	0	0
1929	1,664	201	1,135	959	38.0%	-95	-194	39.1%	-129	-200	0	0
1930	1,412	220	786	782	8.9%	-93	-200	9.2%	-130	-200	4,689	0
1931	1,920	374	1,153	932	37.2%	-113	-200	38.6%	-152	-200	7,322	0
1932	3,055	847	1,628	1,232	80.1%	97	-141	78.7%	48	-153	4,095	0
1933	2,987	681	1,636	1,420	95.2%	249	3	91.8%	212	2	38,839	0
1934	2,534	577	1,522	1,359	70.0%	114	6	70.0%	62	-11	7,921	0
1935	2,429	340	1,548	1,258	76.7%	165	-3	75.9%	116	-19	0	0
1936	2,119	329	1,466	1,197	70.0%	-33	-78	70.0%	-61	-94	0	0
1937	1,999	263	1,390	1,112	61.5%	-74	-139	60.8%	-123	-156	3,239	0
1938	2,881	781	1,536	1,176	71.7%	128	-96	69.1%	113	-106	56	0
1939	2,022	291	1,447	1,129	67.4%	-86	-138	67.1%	-112	-152	23	0
1940	1,934	321	1,332	1,041	52.9%	-98	-200	54.3%	-127	-198	2,650	0
1941	1,272	193	703	748	2.0%	-78	-200	2.5%	-69	-198	3,391	0
1942	1,789	219	1,197	976	41.1%	-95	-200	42.7%	-139	-200	3,485	0
1943	2,946	747	1,588	1,260	82.3%	76	-156	80.1%	37	-166	2,334	0
1944	1,579	206	994	906	26.9%	-83	-200	27.2%	-100	-200	2,346	0
1945	2,239	337	1,471	1,142	67.7%	-89	-200	65.0%	-141	-200	2,688	0
1946	2,851	653	1,593	1,226	78.9%	97	-151	75.5%	52	-160	26	0
1947	2,424	560	1,520	1,191	70.0%	-47	-136	70.0%	-43	-138	0	0
1948	2,926	790	1,572	1,261	79.8%	144	-61	77.7%	153	-62	325	0
1949	2,917	720	1,619	1,295	87.2%	174	3	85.1%	181	7	29,396	0
1950	3,984	1,398	1,758	1,816	100.0%	417	70	100.0%	396	53	15,125	0
1951	3,389	1,042	1,760	1,439	100.0%	184	40	100.0%	121	15	0	0
1952	2,253	376	1,372	1,262	53.0%	104	-28	54.0%	50	-45	9,367	0
1953	2,322	338	1,462	1,361	65.6%	127	-56	63.7%	107	-65	1	0
1954	2,904	680	1,636	1,357	87.6%	199	-4	85.7%	165	-15	0	0
1955	2,616	413	1,583	1,322	81.5%	203	9	79.5%	231	15	5,086	0
1956	4,062	1,598	1,758	1,567	100.0%	293	62	100.0%	204	25	0	0
1957	2,884	783	1,569	1,208	75.2%	129	14	73.3%	87	-2	6,818	0
1958	2,012	279	1,428	1,156	68.4%	-23	-50	69.5%	3	-51	28,356	0
1959	2,902	654	1,655	1,383	91.2%	208	-3	90.5%	219	-3	17,589	0
1960	2,524	381	1,597	1,266	83.4%	143	10	82.3%	108	-2	4,027	0
1961	2,743	563	1,642	1,308	90.7%	144	17	91.0%	121	9	393	0
1962	2,148	278	1,489	1,260	70.0%	21	-42	70.0%	11	-50	0	0
1963	1,667	221	1,201	986	43.7%	-76	-106	45.5%	-99	-124	8,875	0
1964	2,991	638	1,696	1,420	95.8%	228	-52	94.5%	237	-50	14,609	0
1965	2,626	559	1,537	1,211	74.1%	152	7	73.5%	123	-7	7,827	0
1966	2,251	407	1,486	1,231	70.0%	-9	-64	70.0%	-45	-79	0	0
1967	2,279	361	1,424	1,318	61.0%	120	-41	59.6%	85	-56	2,155	0
1968	2,322	406	1,451	1,316	64.3%	100	-27	63.1%	82	-34	0	0
1969	2,692	664	1,541	1,353	70.0%	102	-37	70.0%	97	-45	0	0
1970	2,305	401	1,423	1,289	61.3%	90	-43	60.2%	41	-59	159	0
1971	3,523	1,018	1,758	1,598	100.0%	340	20	100.0%	252	9	536	0
1972	3,672	1,171	1,758	1,640	100.0%	370	70	100.0%	276	38	4,301	0
1973	1,859	171	1,361	1,117	61.6%	-27	-53	62.0%	-43	-69	23,045	0
1974	3,412	948	1,758	1,583	100.0%	311	9	100.0%	225	-18	15,169	0
1975	3,219	858	1,677	1,508	96.7%	296	18	95.4%	279	16	1,444	0
1976	3,791	1,282	1,758	1,642	100.0%	352	94	100.0%	260	60	0	0
1977	1,318	171	873	853	18.6%	-53	-86	20.0%	-72	-102	7,207	0
1978	2,203	281	1,491	1,302	70.0%	48	-79	70.0%	2	-95	16,363	0
1979	1,748	242	1,192	1,005	42.0%	-62	-129	43.8%	-117	-147	0	0
1980	2,337	446	1,503	1,166	70.0%	-71	-168	70.0%	-112	-183	255	0
1981	2,112	323	1,414	1,098	62.0%	-93	-181	60.4%	-70	-178	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP2A CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	2,920	686	1,673	1,311	91.2%	135	-108	90.8%	100	-116	235	174
1983	2,471	543	1,451	1,335	64.6%	106	-93	62.7%	57	-109	0	0
1984	2,442	435	1,506	1,177	71.4%	120	-82	69.0%	75	-97	0	0
1985	1,828	279	1,185	999	40.9%	-65	-143	42.6%	-106	-159	0	0
1986	1,827	277	1,249	997	45.7%	-100	-178	47.0%	-147	-194	1,059	0
1987	2,095	371	1,344	1,035	50.5%	-91	-191	51.7%	-136	-200	770	97
1988	1,907	312	1,237	996	43.0%	-89	-200	43.9%	-143	-200	4,403	0
1989	2,524	569	1,528	1,205	70.0%	-42	-192	70.0%	-88	-200	611	0
1990	2,615	538	1,543	1,302	70.0%	42	-172	70.0%	32	-183	0	0
1991	2,656	588	1,527	1,175	70.3%	113	-103	68.3%	58	-121	0	0
1992	1,520	190	1,052	928	32.3%	-78	-179	33.8%	-130	-196	0	0
1993	1,870	334	1,123	925	35.3%	-115	-200	35.4%	-145	-200	13,672	0
1994	1,491	274	846	803	13.5%	-96	-200	14.5%	-152	-200	10,806	0
1995	2,036	328	1,344	1,050	55.7%	-103	-200	54.5%	-105	-196	2,518	0
1996	2,881	816	1,502	1,354	68.9%	99	-121	66.8%	48	-137	765	0
1997	3,856	1,504	1,759	1,473	100.0%	221	-49	100.0%	186	-68	1,932	317
1998	2,229	395	1,353	1,267	55.3%	101	-68	53.7%	68	-82	0	0
1999	2,691	454	1,636	1,372	88.2%	207	-42	87.0%	181	-49	0	0
2000	2,498	510	1,493	1,342	67.1%	104	-33	65.9%	68	-49	0	0
2001	1,637	274	1,088	903	33.6%	-117	-171	34.7%	-154	-185	1,003	1,003
2002	3,020	814	1,612	1,229	79.6%	115	-128	77.4%	75	-135	4,165	502
2003	2,040	269	1,442	1,132	65.9%	-82	-161	65.7%	-126	-176	0	0
2004	1,979	328	1,298	1,015	49.3%	-108	-197	50.4%	-147	-200	0	0
2005	1,716	295	1,056	902	31.4%	-113	-200	31.4%	-125	-200	9,448	0
2006	2,759	627	1,557	1,183	73.1%	74	-160	71.0%	NA	NA	5,841	18
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,434	522	1,437	1,209	65.9%	60	-91	65.5%	28	-101	4,447	26

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.
5) Climate Change inflow dataset provided only extended to the end of Water Year 2006.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP2A CC Adverse (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	41.1%	58.7%	20.2%	88.5%	22.4%
	0 -10% Above Target[1]	24.2%	16.5%	3.3%	1.2%	33.5%
	0-10% Below Target	2.0%	0.8%	4.0%	0.8%	5.2%
	> 10% Below Target	32.7%	24.0%	72.5%	9.6%	38.9%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	44.8%	61.2%	62.9%	14.1%
	0 -10% Above Target	3.8%	3.6%	5.0%	37.4%
	0-10% Below Target	4.8%	3.1%	7.4%	16.1%
	> 10% Below Target	46.6%	32.1%	24.7%	32.4%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			1.2%	
	0 -10% Above Target			3.8%	
	0-10% Below Target			16.0%	
	> 10% Below Target			79.0%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				31.6%	
	0 -10% Above Target				13.2%	
	0-10% Below Target				12.7%	
	> 10% Below Target				42.5%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				87.5%	
	0 -10% Above Target				8.3%	
	0-10% Below Target				3.3%	
	> 10% Below Target				0.9%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	17.6%	23.0%		10.6%
	0 -10% Above Target	1.5%	2.4%		1.7%
	0-10% Below Target	6.8%	2.5%		13.4%
	> 10% Below Target	74.1%	72.1%		74.3%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			14.0%	10.3%	9.6%
	0 -10% Above Target			6.8%	0.6%	0.5%
	0-10% Below Target			15.6%	1.0%	0.6%
	> 10% Below Target			63.6%	88.1%	89.3%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			96.3%	75.8%	59.2%
	0 -10% Above Target			1.5%	9.6%	13.4%
	0-10% Below Target			0.9%	6.5%	11.2%
	> 10% Below Target			1.3%	8.1%	16.2%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			16.5%	
	0 -10% Above Target			6.1%	
	0-10% Below Target			16.9%	
	> 10% Below Target			60.5%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.1%	88.1%	74.1%
	0 -10% Above Target			0.7%	5.6%	11.3%
	0-10% Below Target			0.4%	3.0%	7.4%
	> 10% Below Target			0.8%	3.3%	7.2%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP2A CC Adverse (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	3.7%	30.4%	97.4%		14.5%
	0 -10% Above Target	41.9%	29.5%	1.2%		36.1%
	0-10% Below Target	0.0%	0.4%	0.1%		0.5%
	> 10% Below Target	54.4%	39.7%	1.3%		48.9%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	13.1%			
	0 -10% Above Target	0.5%			
	0-10% Below Target	0.8%			
	> 10% Below Target	85.6%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	48.8%			
	0 -10% Above Target	2.6%			
	0-10% Below Target	3.6%			
	> 10% Below Target	45.0%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP2A (Adverse Climate Change)

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	24.7	2.0	1.3	1.4	0.8	1.1	7.7	26.7	64.3	61.9	59.5	47.4	298.7
1927	14.6	1.8	1.5	1.2	1.0	0.9	1.7	8.7	25.5	38.3	34.6	48.5	178.3
1928	7.5	1.0	1.2	1.3	1.1	1.0	1.8	6.2	25.5	36.5	45.1	49.0	177.1
1929	10.9	1.8	1.9	1.8	2.5	1.1	8.2	11.0	31.6	50.6	49.4	46.8	217.6
1930	7.3	2.0	1.6	1.8	0.9	1.3	2.8	6.3	23.2	27.9	22.5	28.2	125.7
1931	2.2	2.0	2.0	1.4	1.2	0.9	4.7	10.0	22.7	28.9	27.7	42.0	145.8
1932	2.4	1.2	1.3	1.1	1.4	0.9	0.9	5.9	23.4	31.3	44.6	58.1	172.6
1933	13.8	0.9	1.1	1.1	1.3	1.1	0.9	8.1	24.3	33.5	15.5	4.0	105.5
1934	2.6	1.0	1.0	16.1	1.4	35.6	19.7	17.2	47.2	59.8	64.2	64.1	330.0
1935	20.6	1.1	1.4	1.2	0.8	1.3	1.7	12.4	27.5	45.1	42.5	62.3	218.0
1936	17.5	2.0	2.0	1.1	2.4	1.0	3.6	11.5	37.0	51.2	53.5	49.8	232.7
1937	17.6	6.9	2.6	1.7	2.0	1.3	2.8	9.5	29.9	45.4	44.9	49.4	213.9
1938	18.8	1.5	1.1	1.0	1.1	0.9	1.0	5.5	23.1	30.9	40.4	50.2	175.6
1939	15.6	1.5	1.4	0.9	1.0	1.0	3.0	12.0	30.2	40.6	45.9	50.4	203.6
1940	17.4	1.7	1.7	1.1	0.9	0.9	1.9	8.7	51.6	57.0	55.9	37.9	236.7
1941	2.1	2.0	1.3	1.4	1.1	1.5	6.1	4.6	23.1	26.1	23.2	14.4	107.0
1942	5.1	1.4	1.5	1.6	1.0	1.3	3.3	12.0	19.6	28.6	33.9	45.2	154.4
1943	0.5	1.3	1.0	1.5	1.3	1.1	1.7	7.6	21.0	27.8	30.2	58.3	153.3
1944	14.0	1.7	1.5	1.5	1.3	1.4	4.3	7.8	35.3	39.4	33.0	23.7	164.9
1945	3.9	2.1	1.8	1.2	0.9	1.0	2.1	7.7	27.2	36.5	45.8	38.2	168.4
1946	0.9	1.0	1.3	1.0	1.2	0.9	0.9	3.5	20.9	41.6	38.4	58.2	169.9
1947	10.9	1.6	1.3	1.2	0.9	0.9	1.7	8.7	27.3	37.5	43.9	48.5	184.4
1948	8.7	1.0	1.0	1.1	1.3	1.2	1.3	3.4	3.0	33.9	46.5	55.9	158.2
1949	8.3	1.2	1.1	1.4	1.4	1.0	0.9	1.8	18.3	47.4	39.0	11.6	133.4
1950	2.9	1.6	1.1	1.6	1.6	1.2	1.4	1.0	2.3	32.5	53.4	84.2	185.0
1951	29.8	1.2	0.9	1.1	1.4	1.6	1.1	4.2	26.6	61.2	53.8	86.3	269.3
1952	28.2	1.7	1.7	1.9	1.9	1.6	1.6	14.5	34.8	46.0	40.7	47.9	222.3
1953	20.1	2.5	2.4	1.3	0.8	1.0	4.7	9.4	31.6	42.9	36.6	48.6	201.9
1954	13.5	1.2	0.9	1.2	1.3	0.9	2.4	8.5	22.9	30.4	41.7	62.2	187.1
1955	13.7	1.9	1.5	1.2	1.6	2.3	6.3	6.6	15.5	29.8	34.8	46.7	161.8
1956	4.5	1.0	0.9	1.0	1.8	1.1	0.9	1.3	14.2	54.5	46.7	85.3	213.2
1957	38.7	1.5	1.5	1.3	1.2	0.9	1.7	5.8	31.7	49.9	48.0	58.0	240.2
1958	18.8	1.6	1.2	1.1	0.8	1.0	2.9	14.8	27.9	47.5	63.3	50.3	231.2
1959	10.9	1.1	1.1	0.9	1.1	0.9	1.5	5.8	23.8	44.8	47.8	60.6	200.4
1960	9.2	1.6	1.0	1.4	1.0	1.2	2.1	4.8	22.2	50.4	47.1	50.5	192.5
1961	16.1	1.1	1.2	1.0	0.8	0.9	2.9	7.2	25.2	43.2	50.2	62.5	212.4
1962	13.2	1.9	1.3	1.2	0.9	1.3	3.0	19.0	33.0	38.9	50.2	50.3	214.1
1963	13.6	1.5	1.1	1.6	0.9	1.1	5.3	19.1	31.0	36.7	52.6	47.6	212.3
1964	20.1	1.0	1.3	1.0	1.0	1.0	1.7	5.5	7.4	32.8	47.2	58.6	178.5
1965	4.2	1.8	1.0	1.6	0.8	0.9	0.9	6.7	23.6	30.4	38.5	38.0	148.5
1966	18.2	1.5	1.5	1.6	1.2	1.1	2.6	6.3	34.8	54.5	51.5	50.1	224.9
1967	18.8	1.4	1.4	0.9	0.8	0.9	6.4	10.4	21.3	31.3	42.1	49.0	184.7
1968	18.1	2.0	1.6	1.2	1.0	1.0	2.5	10.6	25.3	34.9	41.9	47.1	187.2
1969	12.2	1.3	1.1	2.1	2.6	1.4	1.4	5.3	27.1	50.6	47.7	48.3	201.2
1970	13.9	2.1	1.4	1.4	0.8	1.0	5.0	9.6	24.1	33.6	39.3	48.5	180.7
1971	19.3	1.8	2.3	1.3	0.9	2.0	0.9	0.9	4.0	33.2	38.7	73.2	178.5
1972	13.8	1.4	1.0	1.0	1.5	0.9	0.9	2.6	11.6	41.7	46.3	82.6	205.4
1973	36.1	1.7	1.5	1.1	1.3	1.1	6.8	25.8	37.0	52.9	62.3	49.8	277.3
1974	18.6	1.5	0.9	1.3	0.8	0.9	1.0	5.8	25.0	27.5	50.6	69.6	203.6
1975	30.2	1.4	1.2	1.0	1.4	1.1	1.0	1.3	12.3	43.3	41.4	63.3	198.9
1976	6.0	1.0	0.9	0.9	1.2	1.1	12.6	25.0	28.2	28.9	39.9	76.5	222.4
1977	39.9	2.2	2.1	2.2	1.7	1.4	11.6	27.5	44.1	50.7	51.3	37.9	272.5
1978	19.1	1.2	1.1	1.1	0.9	1.0	1.9	10.3	24.3	35.5	44.2	48.2	188.9
1979	18.4	1.5	1.3	2.6	1.5	1.0	5.3	6.6	31.1	36.9	38.2	47.5	191.9
1980	19.8	2.3	1.4	1.6	1.6	0.9	1.1	8.0	27.1	37.4	50.1	48.8	200.0
1981	16.4	1.1	1.3	1.3	1.0	0.9	2.2	12.7	22.8	31.6	42.1	48.2	181.7
1982	7.1	1.3	0.9	1.3	1.0	0.9	1.3	4.6	9.0	39.2	50.3	58.3	175.3
1983	12.8	1.4	1.0	1.1	0.8	0.9	2.4	8.9	27.4	34.2	44.2	48.0	183.1
1984	18.5	0.9	1.6	1.3	0.9	0.9	4.2	11.0	22.8	27.9	30.9	48.4	169.3
1985	17.2	1.1	1.9	1.5	2.0	2.3	4.4	8.6	23.9	34.9	35.7	46.9	180.4
1986	19.1	1.4	2.1	2.3	1.5	0.9	3.5	9.3	27.8	36.4	35.2	45.8	185.4
1987	19.9	1.2	1.5	1.2	0.8	0.9	3.1	9.8	26.6	30.9	41.1	48.0	185.0
1988	9.2	1.7	1.4	1.6	1.0	0.9	4.0	10.1	26.0	27.8	30.1	45.6	159.2
1989	1.0	1.0	1.3	1.0	1.4	1.2	1.7	6.7	23.3	43.4	42.9	49.8	174.9
1990	9.3	1.1	1.5	1.0	1.0	0.9	1.1	6.3	21.4	42.7	40.3	49.6	176.2
1991	14.5	0.9	1.0	1.2	0.9	0.9	1.7	5.7	23.0	34.2	43.4	50.5	177.8
1992	19.7	1.1	1.3	1.0	0.9	1.2	5.5	11.4	43.4	45.5	42.9	44.3	218.4
1993	18.4	1.4	1.7	2.1	1.5	1.2	3.2	3.9	35.4	52.6	39.9	0.6	161.9
1994	1.7	2.5	1.5	1.3	1.3	0.9	1.4	3.6	27.2	31.4	25.1	21.9	119.8
1995	1.3	1.9	1.3	1.2	0.9	1.1	4.5	10.2	28.2	33.3	34.0	42.5	160.4
1996	3.5	1.2	1.1	1.1	1.1	1.0	1.4	6.4	17.0	34.7	43.2	48.3	160.0
1997	18.5	1.8	2.2	1.3	1.0	0.9	0.9	1.7	14.6	33.5	53.4	58.8	188.7
1998	27.2	1.2	1.1	1.0	0.8	0.9	2.5	7.6	25.2	32.7	45.3	48.4	194.0
1999	16.5	1.2	1.0	0.9	1.0	0.9	1.4	12.4	23.2	31.2	45.5	58.5	193.9
2000	12.8	1.1	1.0	1.1	1.1	0.9	2.3	6.9	23.0	39.8	49.8	48.8	188.7
2001	20.1	2.2	2.8	2.6	1.7	1.4	7.8	11.3	41.2	56.7	57.7	46.6	251.9
2002	16.3	1.3	1.2	1.1	1.0	1.0	1.5	4.2	8.7	36.2	48.2	58.2	178.8
2003	9.2	1.8	1.7	1.4	0.8	1.0	2.3	11.2	23.0	39.2	52.1	49.8	193.7
2004	17.0	1.4	1.1	1.6	1.2	0.9	4.9	12.8	28.2	37.1	37.2	46.1	189.4
2005	4.6	1.3	1.2	1.5	1.0	1.0	2.7	8.2	41.5	44.5	38.3	7.8	153.7
2006	3.3	1.4	1.9	1.0	1.4	0.9	1.1	3.6	20.1	36.4	35.3	58.3	164.6
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	13.6	1.5	1.4	1.5	1.2	1.5	3.1	8.5	24.9	38.0	41.7	47.6	184.3

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A CC Adverse (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	290	967	796	125
1927	237	30	25	19	19	15	29	141	428	622	563	814	178
1928	121	14	16	21	19	16	3	-	-	59	733	823	110
1929	177	30	31	29	45	18	139	178	531	823	803	787	218
1930	118	34	26	29	15	21	47	103	390	454	365	474	126
1931	35	34	33	22	22	15	79	163	382	470	451	706	146
1932	38	20	20	19	25	15	15	95	394	509	726	976	173
1933	224	8	12	17	24	18	4	-	-	-	-	-	19
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	215	-	-	-	-	-	-	-	-	-	-	33	15
1936	285	33	32	1	-	-	-	-	-	-	480	838	101
1937	285	116	40	28	36	21	47	71	75	738	730	830	183
1938	306	23	16	16	19	15	16	7	-	90	658	844	122
1939	254	25	23	15	18	16	17	-	121	661	746	847	167
1940	283	29	28	19	15	15	32	126	867	927	909	636	236
1941	35	34	20	22	20	25	103	75	388	425	377	242	107
1942	83	22	24	25	18	21	55	195	330	465	551	760	154
1943	8	19	16	25	23	18	28	124	352	453	491	979	153
1944	227	28	23	24	22	23	71	127	592	641	537	399	165
1945	63	35	30	20	17	17	35	124	457	593	745	642	168
1946	14	17	19	17	21	15	16	57	352	677	624	978	170
1947	176	26	18	19	15	15	29	37	271	609	714	815	166
1948	138	16	12	18	23	19	22	38	-	-	123	939	81
1949	135	20	15	23	26	13	-	-	-	-	-	-	14
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	454	27
1953	327	43	38	21	3	-	-	-	-	-	117	817	82
1954	220	19	4	-	-	-	-	-	-	-	-	67	19
1955	223	31	0	-	-	-	-	-	-	-	-	-	16
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	39	-	-	-	-	-	-	-	-	-	-	812	51
1959	176	14	7	-	-	-	-	-	-	-	-	92	18
1960	146	-	-	-	-	-	-	-	-	-	-	-	9
1961	64	-	-	-	-	-	-	-	-	-	-	-	4
1962	-	-	-	-	-	-	-	-	-	-	-	715	43
1963	222	23	18	2	-	-	-	-	-	121	856	801	124
1964	326	17	20	16	18	16	29	45	-	-	-	900	83
1965	67	30	15	26	-	-	-	-	-	-	-	-	8
1966	162	14	-	-	-	-	-	-	-	-	218	842	74
1967	304	22	23	8	-	-	-	-	-	-	-	679	62
1968	295	33	24	15	-	-	-	-	-	-	-	459	50
1969	199	22	2	-	-	-	-	-	-	-	-	660	53
1970	226	35	23	22	-	-	-	-	-	-	-	733	62
1971	314	30	38	21	16	33	2	-	-	-	-	-	28
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	32	837	52
1974	302	25	9	14	-	-	-	-	-	-	-	-	22
1975	329	23	15	-	-	-	-	-	-	-	-	-	22
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	78	834	636	94
1978	311	20	10	18	5	-	-	-	-	-	604	810	108
1979	299	25	21	42	27	17	89	59	194	601	622	798	169
1980	322	38	21	27	28	15	18	130	456	608	815	820	200
1981	267	17	18	22	18	15	37	207	384	514	684	811	182
1982	116	22	12	21	18	15	21	75	27	20	818	980	130
1983	209	23	13	17	15	5	-	-	-	54	718	807	113
1984	301	14	26	21	15	14	-	-	-	56	503	813	107
1985	280	19	31	24	36	37	74	140	402	568	581	789	180
1986	311	23	35	38	28	15	60	151	467	592	573	770	185
1987	323	17	24	20	15	15	52	159	447	503	668	807	185
1988	149	29	21	26	17	15	67	164	437	452	489	766	159
1989	15	16	21	17	26	20	29	109	392	706	698	837	175
1990	151	18	23	17	17	15	19	103	359	695	655	833	176
1991	235	12	12	20	16	15	14	-	-	150	706	849	123
1992	321	19	22	17	15	20	92	185	729	741	698	745	218
1993	300	23	28	34	27	19	55	63	595	855	650	10	162
1994	28	41	24	21	23	15	24	59	457	510	409	368	120
1995	21	32	20	20	16	18	75	166	474	542	553	715	160
1996	56	17	12	17	19	16	23	95	-	548	702	812	141
1997	302	31	36	20	19	15	15	2	-	-	-	833	76
1998	442	20	15	17	7	-	-	-	-	-	322	813	99
1999	268	19	13	13	-	-	-	-	-	-	-	700	61
2000	207	17	7	-	-	-	-	-	-	-	-	542	46
2001	327	37	46	42	31	23	130	102	265	921	938	782	221
2002	264	21	16	17	18	16	25	69	139	370	784	979	165
2003	150	31	28	23	15	17	39	183	387	638	847	837	194
2004	277	23	17	26	21	15	82	208	473	604	606	774	189
2005	75	22	18	25	18	17	45	134	698	723	624	131	154
2006	53	23	27	16	26	15	18	58	337	592	575	979	164
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	170	21	16	15	13	10	24	53	173	275	385	570	104

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A CC Adverse (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A CC Adverse (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A CC Adverse (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A CC Adverse (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26	-	-	-	-	-	7,481	35,043	36,293	41,849	40,657	13,359	174,708
1927	26	-	-	-	-	-	10,369	41,187	45,523	58,209	56,451	17,106	228,870
1928	26	-	-	-	-	-	10,375	44,168	45,117	59,463	59,048	17,132	235,330
1929	26	-	-	-	-	-	7,246	32,862	33,016	37,515	36,370	12,222	159,257
1930	26	-	-	-	-	-	2,935	10,471	10,127	10,963	11,876	3,981	50,380
1931	-	-	-	-	-	-	8,098	34,588	32,654	36,662	35,867	11,727	159,596
1932	-	-	-	-	-	-	10,375	44,288	45,403	55,486	52,622	35,640	243,815
1933	26	-	-	-	-	-	10,375	43,870	45,402	60,029	61,226	3,332	224,261
1934	26	-	-	-	-	-	10,375	44,027	45,402	59,531	59,978	18,172	237,512
1935	26	-	-	-	-	-	7,500	44,659	45,404	53,917	50,499	34,466	236,471
1936	26	-	-	-	-	-	10,384	44,292	45,402	59,430	59,042	17,132	235,708
1937	26	-	-	-	-	-	10,069	44,449	45,689	55,347	53,182	16,437	225,199
1938	26	-	-	-	-	-	10,375	44,346	44,473	50,738	46,924	18,117	214,999
1939	26	-	-	-	-	-	10,355	41,730	45,449	58,980	58,149	17,688	232,376
1940	26	-	-	-	-	-	10,378	41,919	43,694	50,516	47,998	12,403	206,934
1941	-	-	-	-	-	-	1,412	3,450	4,269	4,930	6,075	2,608	22,743
1942	13	-	-	-	-	-	9,854	35,154	35,360	40,125	38,977	12,761	172,243
1943	-	-	-	-	-	-	10,375	42,905	45,402	56,132	53,240	36,123	244,178
1944	26	-	-	-	-	-	5,897	23,533	24,418	27,268	27,083	7,156	115,382
1945	-	-	-	-	-	-	9,926	44,050	44,962	58,999	57,604	16,148	231,688
1946	-	-	-	-	-	-	10,375	44,288	44,825	54,738	50,982	34,433	239,641
1947	26	-	-	-	-	-	10,376	44,288	45,188	59,531	59,978	18,172	237,560
1948	26	-	-	-	-	-	7,604	44,530	45,402	55,314	51,957	35,235	240,067
1949	26	-	-	-	-	-	10,375	44,288	45,137	58,243	56,333	8,957	223,359
1950	-	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,796
1951	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1952	18,446	-	-	-	-	-	10,375	43,651	43,994	50,711	47,385	14,341	228,903
1953	26	-	-	-	-	-	7,169	43,027	45,417	58,032	56,177	17,056	226,904
1954	26	-	-	-	-	-	10,375	44,020	45,402	58,367	56,628	38,376	253,195
1955	26	-	-	-	-	-	8,052	44,363	45,402	55,994	52,818	30,746	237,402
1956	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1957	18,446	-	-	-	-	-	10,375	44,288	44,898	52,765	48,928	33,113	252,814
1958	26	-	-	-	-	-	10,122	44,301	45,402	59,324	59,390	17,994	236,559
1959	26	-	-	-	-	-	10,375	43,997	45,402	59,622	59,274	40,300	258,997
1960	26	-	-	-	-	-	10,277	44,330	43,618	56,865	54,042	32,832	241,991
1961	26	-	-	-	-	-	10,241	43,605	44,100	59,185	59,207	39,888	256,252
1962	26	-	-	-	-	-	10,382	43,943	45,402	59,531	59,978	18,172	237,434
1963	26	-	-	-	-	-	8,922	37,205	37,231	42,320	41,044	13,409	180,156
1964	26	-	-	-	-	-	10,375	44,288	45,402	60,038	61,832	41,829	263,792
1965	26	-	-	-	-	-	10,376	44,253	45,413	52,464	48,901	25,604	227,035
1966	26	-	-	-	-	-	9,784	43,300	45,402	59,531	59,978	18,172	236,194
1967	26	-	-	-	-	-	6,979	42,092	45,497	55,132	52,804	16,233	218,763
1968	26	-	-	-	-	-	7,423	43,091	45,482	57,354	54,702	16,010	224,088
1969	26	-	-	-	-	-	10,375	44,353	44,415	59,531	59,978	18,172	236,851
1970	26	-	-	-	-	-	6,891	42,685	45,499	55,234	52,964	16,371	219,670
1971	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	44,954	266,747
1972	15,833	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	282,629
1973	18,446	-	-	-	-	-	9,865	44,556	45,687	55,572	53,797	16,549	244,472
1974	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1975	18,446	-	-	-	-	-	8,248	44,288	45,402	60,007	62,104	41,608	280,104
1976	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1977	18,446	-	-	-	-	-	4,029	17,040	17,672	19,674	20,852	7,676	105,389
1978	26	-	-	-	-	-	10,491	44,141	45,402	59,531	59,978	18,172	237,741
1979	26	-	-	-	-	-	8,386	37,687	36,018	41,108	39,690	13,125	176,039
1980	26	-	-	-	-	-	10,375	44,296	44,424	59,463	59,048	17,132	234,764
1981	26	-	-	-	-	-	10,404	43,991	45,753	55,776	53,357	16,401	225,709
1982	26	-	-	-	-	-	10,380	44,130	45,402	59,501	59,832	40,419	259,690
1983	26	-	-	-	-	-	6,986	42,984	45,481	57,481	55,519	16,866	225,342
1984	26	-	-	-	-	-	9,549	44,603	45,425	52,635	58,807	17,038	228,082
1985	26	-	-	-	-	-	8,205	37,871	35,154	40,210	38,849	12,905	173,220
1986	26	-	-	-	-	-	8,562	40,552	39,001	44,340	42,535	13,792	188,807
1987	26	-	-	-	-	-	10,315	43,505	42,375	47,941	46,305	14,697	205,163
1988	26	-	-	-	-	-	10,371	38,751	37,015	41,720	39,728	12,532	180,144
1989	-	-	-	-	-	-	10,375	44,364	44,540	59,531	59,978	18,172	236,961
1990	26	-	-	-	-	-	10,375	44,289	44,331	59,531	59,978	18,172	236,703
1991	26	-	-	-	-	-	10,375	43,663	44,857	58,308	59,534	17,929	234,693
1992	26	-	-	-	-	-	6,904	28,074	28,581	32,562	31,829	10,647	138,624
1993	26	-	-	-	-	-	8,123	35,237	31,049	35,111	33,639	-	143,186
1994	-	-	-	-	-	-	3,551	13,626	13,762	15,090	16,352	4,057	66,439
1995	-	-	-	-	-	-	10,122	44,511	44,165	50,977	48,390	14,057	212,222
1996	-	-	-	-	-	-	10,375	43,130	45,512	59,182	57,856	16,651	232,707
1997	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1998	18,446	-	-	-	-	-	6,798	44,361	44,060	50,660	48,093	15,061	227,479
1999	26	-	-	-	-	-	8,232	44,290	45,402	58,651	57,352	38,848	252,801
2000	26	-	-	-	-	-	10,391	43,702	45,438	58,884	56,742	16,454	231,636
2001	26	-	-	-	-	-	7,437	32,359	29,625	33,457	32,841	11,366	147,111
2002	26	-	-	-	-	-	10,375	43,497	45,402	54,734	51,783	35,113	240,931
2003	26	-	-	-	-	-	10,122	44,301	45,434	58,429	57,065	17,399	232,776
2004	26	-	-	-	-	-	10,158	42,735	41,591	47,667	44,688	13,688	200,553
2005	26	-	-	-	-	-	6,684	28,015	27,894	31,430	31,222	2,617	127,889
2006	-	-	-	-	-	-	10,375	44,360	43,640	51,496	48,204	32,600	230,675
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,809	-	-	-	-	-	9,157	40,573	41,310	51,398	50,630	21,865	216,741

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A CC Adverse (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	1,075	-	-	-	-	9,848	18,720	24,105	30,189	31,608	31,394	20,583	167,523
1927	1,075	-	-	-	-	9,848	33,028	40,958	48,427	46,664	45,161	29,288	254,449
1928	1,075	-	-	-	-	9,848	33,701	46,607	50,452	49,896	48,680	31,821	272,080
1929	1,075	-	-	-	-	9,848	18,562	22,376	27,076	27,911	27,642	17,934	152,424
1930	1,075	-	-	-	-	9,848	13,221	5,549	6,444	6,388	7,284	4,430	54,238
1931	1,075	-	-	-	-	9,848	26,691	23,809	26,735	27,194	27,208	17,718	160,277
1932	1,075	-	-	-	-	9,848	33,741	46,592	52,492	57,136	55,434	35,501	291,819
1933	1,075	-	-	-	-	9,848	33,741	46,527	52,490	60,716	60,094	38,373	302,864
1934	1,075	-	-	-	-	9,848	33,741	44,629	49,757	49,896	48,680	31,821	269,448
1935	1,075	-	-	-	-	9,848	31,362	45,829	53,490	54,542	52,980	34,415	283,542
1936	1,075	-	-	-	-	9,848	26,966	39,771	49,757	49,842	48,661	31,821	257,741
1937	1,075	-	-	-	-	9,848	26,200	35,792	43,762	43,530	42,319	27,760	230,286
1938	1,075	-	-	-	-	9,848	33,741	46,697	51,519	50,716	48,921	31,648	274,164
1939	1,075	-	-	-	-	9,848	33,935	42,223	47,288	47,818	46,656	30,675	259,518
1940	1,075	-	-	-	-	9,848	33,610	37,122	37,559	39,002	38,433	24,887	221,535
1941	1,075	-	-	-	-	9,848	13,321	298	1,194	1,527	2,516	1,364	31,142
1942	1,070	-	-	-	-	9,848	33,599	24,535	29,302	30,133	29,918	19,523	177,928
1943	1,075	-	-	-	-	9,846	33,741	45,884	52,638	57,791	56,148	35,902	293,026
1944	1,075	-	-	-	-	9,848	13,339	15,130	19,208	19,541	20,117	12,690	110,948
1945	1,075	-	-	-	-	9,848	31,829	46,497	48,287	47,927	46,162	29,921	261,545
1946	1,075	-	-	-	-	9,848	33,939	46,592	52,304	55,744	53,538	34,399	287,438
1947	1,075	-	-	-	-	9,848	33,790	46,592	50,429	49,896	48,680	31,821	272,132
1948	1,075	-	-	-	-	9,848	31,734	46,491	52,924	56,531	54,665	35,138	288,407
1949	1,075	-	-	-	-	9,848	33,834	46,592	52,292	60,800	59,424	37,318	301,183
1950	1,075	-	-	-	-	9,845	33,741	46,592	52,490	60,108	59,321	39,294	302,466
1951	20,709	-	-	-	-	9,848	33,754	46,592	52,490	60,108	59,321	39,294	322,116
1952	20,709	-	-	-	-	9,848	33,092	37,567	37,881	39,182	37,892	24,747	240,918
1953	1,075	-	-	-	-	9,848	30,130	42,513	47,903	46,474	44,919	29,178	252,039
1954	1,075	-	-	-	-	9,848	33,781	46,720	52,496	60,902	59,687	37,574	302,084
1955	1,075	-	-	-	-	9,848	33,626	46,982	52,824	57,569	55,661	35,644	293,228
1956	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1957	20,709	-	-	-	-	9,848	33,742	46,592	52,465	53,133	51,164	33,353	301,006
1958	1,075	-	-	-	-	9,845	27,896	39,769	48,966	48,691	47,894	31,425	255,560
1959	1,075	-	-	-	-	9,848	33,741	46,813	52,490	61,120	60,409	38,663	304,159
1960	1,075	-	-	-	-	9,848	33,707	46,646	51,039	58,907	57,076	36,476	294,774
1961	1,075	-	-	-	-	9,848	33,724	46,196	51,386	60,608	60,409	38,646	301,892
1962	1,075	-	-	-	-	9,848	33,541	40,123	49,757	49,896	48,680	31,821	264,742
1963	1,075	-	-	-	-	9,845	31,690	25,818	31,080	31,999	31,728	20,701	183,937
1964	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,642	59,960	39,108	303,457
1965	1,075	-	-	-	-	9,848	33,957	46,085	53,061	52,725	51,133	33,352	281,236
1966	1,075	-	-	-	-	9,848	33,240	43,110	49,757	49,896	48,680	31,821	267,427
1967	1,075	-	-	-	-	9,848	29,090	41,072	45,810	43,285	41,977	27,268	239,424
1968	1,075	-	-	-	-	9,848	31,747	42,380	46,690	45,574	44,391	28,949	250,654
1969	1,075	-	-	-	-	9,848	33,741	46,699	50,720	49,896	48,680	31,821	272,480
1970	1,075	-	-	-	-	9,848	31,415	40,668	46,023	43,409	42,130	27,581	242,149
1971	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1972	20,707	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,101
1973	20,709	-	-	-	-	9,848	24,366	34,671	43,780	43,731	42,852	28,048	248,004
1974	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1975	20,709	-	-	-	-	9,848	33,685	46,839	52,490	60,544	59,891	39,172	323,178
1976	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1977	20,709	-	-	-	-	9,848	12,250	10,427	13,204	13,404	14,671	9,091	103,603
1978	1,075	-	-	-	-	9,848	33,573	40,642	49,757	49,896	48,680	31,821	265,292
1979	1,075	-	-	-	-	9,848	20,162	26,256	29,929	30,974	30,551	20,044	168,839
1980	1,075	-	-	-	-	9,848	33,698	46,659	49,686	49,896	48,680	31,821	271,364
1981	1,075	-	-	-	-	9,848	33,841	37,842	43,386	43,955	42,462	27,661	240,070
1982	1,075	-	-	-	-	9,848	33,509	46,713	52,490	60,617	60,330	38,724	303,305
1983	1,075	-	-	-	-	9,848	30,442	42,172	46,609	45,813	44,345	28,729	249,034
1984	1,075	-	-	-	-	9,848	32,552	45,241	53,096	50,160	48,399	31,545	271,915
1985	1,075	-	-	-	-	9,848	20,080	26,374	29,107	30,207	29,815	19,531	166,038
1986	1,075	-	-	-	-	9,848	27,345	28,469	32,761	33,729	33,029	21,587	187,843
1987	1,075	-	-	-	-	9,848	33,776	42,274	35,971	36,778	36,311	23,699	219,732
1988	1,075	-	-	-	-	9,846	33,755	27,893	30,811	31,509	31,093	20,179	186,161
1989	1,075	-	-	-	-	9,848	33,779	46,708	50,686	49,896	48,680	31,821	272,494
1990	1,075	-	-	-	-	9,848	33,741	46,592	50,670	49,896	48,680	31,821	272,324
1991	1,075	-	-	-	-	9,848	33,747	46,112	50,582	49,800	48,148	31,220	270,531
1992	1,075	-	-	-	-	9,848	14,711	18,494	22,930	23,798	24,097	15,524	130,476
1993	1,075	-	-	-	-	9,848	23,741	24,354	25,207	25,879	25,898	16,359	152,360
1994	1,075	-	-	-	-	9,848	20,314	7,896	9,701	9,712	10,969	6,881	76,396
1995	1,073	-	-	-	-	9,848	28,561	35,515	38,521	39,441	38,132	24,924	216,015
1996	1,075	-	-	-	-	9,848	33,780	42,928	50,611	48,848	47,227	30,562	264,879
1997	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,293	302,469
1998	20,709	-	-	-	-	9,848	28,017	35,105	38,327	39,162	37,869	24,541	233,578
1999	1,075	-	-	-	-	9,848	33,560	46,892	52,494	61,144	60,281	37,849	303,143
2000	1,075	-	-	-	-	9,848	33,761	43,680	48,695	47,723	46,184	30,084	261,049
2001	1,075	-	-	-	-	9,848	20,500	22,016	23,913	24,514	24,565	15,945	142,377
2002	1,075	-	-	-	-	9,848	33,757	45,948	52,490	56,486	54,465	35,024	289,093
2003	1,075	-	-	-	-	9,848	27,923	38,595	47,336	46,887	45,707	30,004	247,375
2004	1,075	-	-	-	-	9,848	30,590	29,949	35,146	36,590	35,500	23,096	201,794
2005	1,075	-	-	-	-	9,848	24,491	18,633	22,361	22,879	23,213	14,647	137,147
2006	1,075	-	-	-	-	9,848	33,817	46,684	50,953	53,182	50,327	32,423	278,308
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	3,014	-	-	-	-	9,848	30,092	38,406	43,364	45,489	44,553	28,933	243,698

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A CC Adverse (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	23,894	-	-	-	-	6,904	45,100	72,237	69,726	76,744	72,762	49,875	417,243
1927	23,894	-	-	-	-	6,904	53,299	92,385	87,758	93,678	86,608	54,110	498,636
1928	23,894	-	-	-	-	6,904	55,372	108,249	95,340	97,312	90,146	55,333	532,550
1929	23,894	-	-	-	-	6,904	44,795	70,021	66,647	72,586	68,996	48,587	402,430
1930	23,894	-	-	-	-	6,904	38,814	48,347	46,241	48,381	48,524	42,030	303,136
1931	23,894	-	-	-	-	6,904	45,926	71,886	66,309	71,778	68,556	48,483	403,736
1932	23,894	-	-	-	-	6,904	56,318	110,491	119,646	106,406	96,946	57,337	577,941
1933	23,894	-	-	-	-	6,904	56,318	106,658	106,863	117,130	106,988	60,369	585,124
1934	23,360	-	-	-	-	6,904	56,318	102,989	89,080	97,312	90,146	55,333	521,442
1935	23,894	-	-	-	-	6,904	51,115	101,526	94,360	102,538	94,469	56,675	531,482
1936	23,894	-	-	-	-	6,904	49,888	92,416	89,080	97,251	90,126	55,333	504,891
1937	23,894	-	-	-	-	6,904	48,605	87,305	83,149	90,153	83,746	53,362	477,118
1938	23,894	-	-	-	-	6,904	56,318	109,057	106,742	98,235	90,394	55,256	546,800
1939	23,894	-	-	-	-	6,904	53,331	92,229	86,640	94,976	88,104	54,778	500,856
1940	23,894	-	-	-	-	6,904	54,765	86,221	77,015	85,060	79,844	51,970	465,673
1941	23,894	-	-	-	-	6,904	36,660	41,576	41,050	42,914	43,727	40,539	277,263
1942	23,894	-	-	-	-	6,904	48,415	72,312	68,849	75,084	71,282	49,359	416,100
1943	23,894	-	-	-	-	6,904	56,318	98,455	101,228	106,313	97,660	57,605	548,377
1944	23,894	-	-	-	-	6,904	42,131	60,677	58,866	63,168	61,433	46,046	363,120
1945	23,894	-	-	-	-	6,904	47,032	106,738	90,974	95,098	87,617	54,420	512,678
1946	23,894	-	-	-	-	6,904	54,908	110,491	109,936	103,890	95,040	56,662	561,726
1947	23,894	-	-	-	-	6,904	55,866	110,491	94,451	97,312	90,146	55,333	534,397
1948	23,894	-	-	-	-	6,904	51,440	103,790	98,952	104,792	96,170	57,109	543,051
1949	23,894	-	-	-	-	6,904	55,733	110,491	112,242	110,688	101,251	58,649	579,853
1950	20,617	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	637,435
1951	27,579	-	-	-	-	6,904	56,241	110,491	119,660	123,857	118,505	81,083	644,320
1952	27,027	-	-	-	-	6,904	53,601	90,098	77,333	85,264	79,298	51,899	471,425
1953	23,894	-	-	-	-	6,904	50,571	95,971	87,241	93,463	86,366	54,056	498,466
1954	23,894	-	-	-	-	6,904	56,071	106,534	104,759	110,979	101,596	58,870	569,608
1955	23,894	-	-	-	-	6,904	52,674	105,947	99,578	106,017	97,171	57,441	549,626
1956	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1957	27,579	-	-	-	-	6,904	56,313	110,491	103,403	100,953	92,645	56,092	554,380
1958	23,894	-	-	-	-	6,904	47,304	92,408	88,296	95,956	89,353	51,137	495,253
1959	23,562	-	-	-	-	6,904	56,318	105,669	105,118	114,109	104,666	59,949	576,295
1960	23,894	-	-	-	-	6,904	54,447	109,769	99,336	107,655	98,586	58,015	558,607
1961	23,894	-	-	-	-	6,904	53,191	104,560	110,488	112,829	104,590	59,935	576,390
1962	23,894	-	-	-	-	6,904	54,692	91,855	89,080	97,312	90,146	55,333	509,216
1963	23,894	-	-	-	-	6,904	47,451	74,458	70,607	77,183	73,100	49,931	423,528
1964	23,153	-	-	-	-	6,904	56,318	110,491	115,840	117,695	107,846	60,808	599,053
1965	23,894	-	-	-	-	6,904	54,834	102,281	94,606	100,494	92,611	56,093	531,717
1966	23,894	-	-	-	-	6,904	51,723	96,670	89,080	97,312	90,146	55,333	511,061
1967	23,894	-	-	-	-	6,904	50,212	94,113	85,168	89,878	83,409	53,126	486,702
1968	23,894	-	-	-	-	6,904	49,458	95,816	86,044	92,451	85,831	53,943	494,341
1969	23,894	-	-	-	-	6,904	56,318	109,042	99,351	97,312	90,146	55,333	538,300
1970	23,894	-	-	-	-	6,904	47,048	93,584	85,378	90,016	83,555	53,279	483,658
1971	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1972	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1973	27,579	-	-	-	-	6,904	48,651	85,850	83,166	90,378	84,285	51,912	478,725
1974	23,818	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,636
1975	27,579	-	-	-	-	6,904	52,138	108,938	108,835	118,465	108,293	60,968	592,120
1976	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1977	27,579	-	-	-	-	6,904	40,764	54,624	52,927	56,271	55,955	44,293	339,317
1978	23,894	-	-	-	-	6,904	50,516	94,010	89,080	97,312	90,146	55,333	507,194
1979	23,894	-	-	-	-	6,904	46,766	75,038	69,468	76,032	71,914	49,612	419,628
1980	23,894	-	-	-	-	6,904	54,506	109,520	89,529	97,312	90,146	55,333	527,145
1981	23,894	-	-	-	-	6,904	55,202	90,492	82,784	90,631	83,895	53,317	487,118
1982	23,894	-	-	-	-	6,904	55,027	106,414	119,660	114,666	105,322	60,019	591,906
1983	23,894	-	-	-	-	6,904	49,476	95,522	85,967	92,720	85,790	53,838	494,112
1984	23,894	-	-	-	-	6,904	48,752	100,533	94,063	97,609	89,864	55,204	516,823
1985	23,894	-	-	-	-	6,904	46,752	75,201	68,656	75,169	71,175	49,363	417,114
1986	23,894	-	-	-	-	6,904	46,258	77,866	72,271	79,131	74,407	50,364	431,094
1987	23,894	-	-	-	-	6,904	52,446	100,855	75,444	82,557	77,710	51,389	471,199
1988	23,894	-	-	-	-	6,904	54,757	76,181	70,340	76,632	72,465	49,680	430,853
1989	23,894	-	-	-	-	6,904	55,884	109,024	98,256	97,312	90,146	55,333	536,754
1990	23,894	-	-	-	-	6,904	56,318	110,486	99,968	97,312	90,146	55,333	540,361
1991	23,894	-	-	-	-	6,904	56,282	106,903	92,703	97,204	89,616	55,046	528,552
1992	23,894	-	-	-	-	6,904	43,534	65,013	62,547	67,958	65,432	47,418	382,700
1993	23,894	-	-	-	-	6,904	43,898	72,615	64,799	70,298	67,245	47,833	397,486
1994	23,894	-	-	-	-	6,904	39,111	51,368	49,462	52,119	52,228	43,222	318,308
1995	23,894	-	-	-	-	6,904	47,592	86,981	77,974	85,554	79,540	51,983	460,423
1996	23,894	-	-	-	-	6,904	56,086	96,057	90,028	96,133	88,691	54,728	512,522
1997	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1998	27,579	-	-	-	-	6,904	49,328	86,453	77,782	85,241	79,278	51,800	464,365
1999	23,894	-	-	-	-	6,904	52,212	108,433	105,519	111,576	102,439	59,133	570,111
2000	23,894	-	-	-	-	6,904	56,063	97,420	88,026	94,868	87,640	54,492	509,307
2001	23,894	-	-	-	-	6,904	44,720	69,583	63,519	68,764	65,901	47,621	390,906
2002	23,894	-	-	-	-	6,904	56,223	106,011	119,660	106,408	95,970	57,039	572,109
2003	23,894	-	-	-	-	6,904	50,119	90,891	86,683	93,928	87,152	54,452	494,025
2004	23,894	-	-	-	-	6,904	50,469	79,787	74,629	82,349	76,894	51,098	446,023
2005	23,894	-	-	-	-	6,904	42,272	65,199	61,984	66,924	64,546	47,001	378,724
2006	23,894	-	-	-	-	6,904	55,781	109,259	107,737	99,986	91,815	55,630	551,006
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,190	-	-	-	-	6,904	51,502	93,867	90,032	94,387	88,097	56,217	505,196

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A CC Adverse (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26,528	-	-	-	-	11,217	42,744	53,003	52,252	54,475	54,215	48,288	342,722
1927	25,121	-	-	-	-	11,217	43,902	60,239	65,551	66,415	65,468	53,063	390,977
1928	26,528	-	-	-	-	11,217	45,371	63,885	64,947	65,259	64,407	52,674	394,288
1929	26,528	-	-	-	-	11,217	42,863	53,748	52,685	54,678	54,334	48,284	344,338
1930	23,156	-	-	-	-	11,217	42,109	47,692	46,091	47,548	47,996	45,430	311,239
1931	19,641	-	-	-	-	11,217	43,610	55,424	53,744	55,594	55,314	48,726	343,270
1932	22,490	-	-	-	-	11,217	45,989	64,825	72,974	70,912	69,745	54,888	413,041
1933	26,528	-	-	-	-	11,217	45,989	62,906	70,399	74,917	73,903	56,598	422,457
1934	20,083	-	-	-	-	11,217	45,989	62,958	65,793	67,220	66,356	53,597	393,213
1935	26,528	-	-	-	-	11,217	44,010	63,087	68,164	69,748	68,722	54,514	405,990
1936	26,528	-	-	-	-	11,217	44,045	60,450	60,659	62,047	61,497	51,484	377,926
1937	23,289	-	-	-	-	11,217	43,251	59,312	59,358	60,621	59,996	50,791	367,835
1938	26,472	-	-	-	-	11,217	45,989	64,270	68,414	68,129	67,034	53,712	405,237
1939	26,505	-	-	-	-	11,217	44,553	56,547	58,042	59,596	59,075	50,416	365,952
1940	25,875	-	-	-	-	11,217	44,997	54,559	54,129	56,378	55,972	48,965	352,092
1941	25,801	-	-	-	-	11,217	42,050	46,838	45,221	46,673	46,673	43,648	308,121
1942	23,206	-	-	-	-	11,217	41,968	55,007	54,419	56,426	56,054	49,054	347,352
1943	24,220	-	-	-	-	11,217	45,989	60,360	69,941	71,169	70,042	55,040	407,977
1944	26,528	-	-	-	-	11,217	42,462	51,557	50,738	52,531	52,507	47,409	334,950
1945	25,104	-	-	-	-	11,217	39,546	63,273	61,236	61,889	61,029	51,143	374,437
1946	26,528	-	-	-	-	11,217	45,129	64,825	68,904	70,257	68,957	54,506	410,322
1947	26,528	-	-	-	-	11,217	45,742	64,825	61,658	61,033	60,405	50,978	382,387
1948	26,203	-	-	-	-	11,217	44,276	63,274	69,408	70,596	69,425	54,759	409,159
1949	26,528	-	-	-	-	11,217	45,584	64,825	70,911	72,814	71,529	55,572	418,979
1950	15,814	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	426,024
1951	36,441	-	-	-	-	11,217	45,897	64,592	71,459	76,952	77,292	64,789	448,640
1952	28,718	-	-	-	-	11,217	43,679	61,432	61,330	63,299	62,443	51,815	383,932
1953	26,528	-	-	-	-	11,217	44,037	62,840	65,330	66,335	65,368	53,033	394,687
1954	26,528	-	-	-	-	11,217	45,786	62,899	70,360	72,924	71,671	55,755	417,139
1955	26,528	-	-	-	-	11,217	44,294	63,456	69,657	71,057	69,839	54,947	410,995
1956	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1957	33,209	-	-	-	-	11,217	45,983	64,825	68,454	69,152	67,966	54,185	414,991
1958	26,528	-	-	-	-	11,217	42,140	60,036	59,964	61,413	60,981	31,663	353,940
1959	14,332	-	-	-	-	11,217	45,989	63,155	70,306	74,089	72,943	56,365	408,396
1960	26,528	-	-	-	-	11,217	45,068	64,444	65,123	71,673	70,426	55,272	409,751
1961	26,528	-	-	-	-	11,217	44,570	62,201	68,557	73,250	72,911	56,357	415,590
1962	26,528	-	-	-	-	11,217	44,581	60,754	62,742	64,090	63,316	52,205	385,431
1963	26,528	-	-	-	-	11,217	41,392	53,489	52,269	54,313	54,008	40,524	333,740
1964	13,458	-	-	-	-	11,217	45,939	63,472	71,049	75,058	74,234	56,850	411,277
1965	26,528	-	-	-	-	11,217	44,962	62,883	67,961	68,979	67,953	54,185	404,669
1966	26,528	-	-	-	-	11,217	43,768	59,835	61,651	62,857	62,219	51,772	379,848
1967	24,373	-	-	-	-	11,217	43,967	62,686	64,450	64,986	64,143	52,508	388,329
1968	26,528	-	-	-	-	11,217	43,719	62,814	64,820	65,954	65,147	52,970	393,168
1969	26,528	-	-	-	-	11,217	45,989	64,319	65,877	67,023	66,145	53,487	400,585
1970	26,369	-	-	-	-	11,217	42,628	62,585	64,539	65,038	64,205	52,594	389,175
1971	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,328	436,277
1972	36,336	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,546
1973	36,441	-	-	-	-	11,217	43,503	57,767	58,094	59,449	59,012	32,408	357,890
1974	14,812	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	425,022
1975	36,441	-	-	-	-	11,217	43,669	63,472	70,692	75,232	74,392	56,941	432,056
1976	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1977	36,441	-	-	-	-	11,217	42,183	46,673	45,167	46,829	47,243	39,864	315,617
1978	13,129	-	-	-	-	11,217	42,913	62,194	64,251	65,244	64,430	52,674	376,052
1979	26,528	-	-	-	-	11,217	43,324	55,155	53,440	55,540	55,118	48,680	349,003
1980	26,273	-	-	-	-	11,217	44,634	64,459	59,335	61,025	60,313	50,910	378,165
1981	26,528	-	-	-	-	11,217	45,480	58,840	58,969	60,513	59,781	50,646	371,974
1982	26,468	-	-	-	-	11,217	45,025	63,218	72,982	73,946	73,213	56,404	422,473
1983	26,528	-	-	-	-	11,217	44,148	62,839	64,786	66,055	65,129	52,910	393,612
1984	26,528	-	-	-	-	11,217	41,575	63,024	68,017	67,894	66,815	53,683	398,753
1985	26,528	-	-	-	-	11,217	43,493	55,736	53,699	55,826	55,395	48,791	350,685
1986	25,486	-	-	-	-	11,217	43,531	56,682	55,262	57,340	56,764	49,370	355,652
1987	25,855	-	-	-	-	11,217	43,751	61,256	55,140	57,120	56,710	49,337	360,387
1988	22,125	-	-	-	-	11,217	45,107	55,929	55,088	57,066	56,580	49,251	352,364
1989	25,943	-	-	-	-	11,217	45,641	64,279	63,984	63,227	62,414	51,793	388,499
1990	26,528	-	-	-	-	11,217	45,989	64,823	65,771	66,681	65,681	53,121	399,810
1991	26,528	-	-	-	-	11,217	45,947	63,170	65,600	67,742	66,712	53,593	400,509
1992	26,528	-	-	-	-	11,217	42,546	50,831	49,723	51,720	51,674	47,111	331,350
1993	25,167	-	-	-	-	11,217	42,084	56,515	54,237	56,184	55,867	48,829	350,101
1994	18,288	-	-	-	-	11,217	40,943	48,524	47,157	48,697	49,187	45,979	309,991
1995	25,199	-	-	-	-	11,217	42,810	59,819	58,663	60,369	59,672	50,624	368,372
1996	25,789	-	-	-	-	11,217	45,781	61,753	66,517	67,339	66,329	53,413	398,138
1997	26,528	-	-	-	-	11,217	45,989	64,825	71,459	76,952	77,292	63,175	437,437
1998	36,555	-	-	-	-	11,217	43,602	61,083	61,571	63,241	62,434	51,758	391,462
1999	26,528	-	-	-	-	11,217	43,953	63,472	70,355	73,149	72,020	55,904	416,597
2000	26,528	-	-	-	-	11,217	45,915	62,698	65,664	66,863	65,894	53,280	398,059
2001	26,528	-	-	-	-	11,217	42,628	52,559	50,217	52,105	51,947	47,260	334,460
2002	22,865	-	-	-	-	11,217	45,882	62,752	72,982	70,797	69,342	54,720	410,556
2003	26,528	-	-	-	-	11,217	44,460	60,333	60,545	61,927	61,296	51,361	377,667
2004	26,528	-	-	-	-	11,217	44,802	57,363	56,615	58,655	58,018	49,882	363,081
2005	25,229	-	-	-	-	11,217	41,709	52,895	51,719	53,569	53,466	47,806	337,609
2006	20,731	-	-	-	-	11,217	45,557	64,320	67,143	68,087	67,621	53,923	398,598
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	25,803	-	-	-	-	11,217	44,213	60,253	62,656	64,611	64,017	52,451	385,221

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A CC Adverse (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	869	-	-	-	-	458	1,866	14,174	16,346	16,920	16,908	15,330	82,870
1927	869	-	-	-	-	458	4,907	13,488	17,395	18,447	18,447	16,529	90,540
1928	869	-	-	-	-	458	5,095	13,957	17,169	18,447	18,447	16,469	90,911
1929	869	-	-	-	-	458	2,082	14,197	16,424	16,960	16,931	15,329	83,251
1930	869	-	-	-	-	458	1,700	13,876	15,074	15,546	15,640	14,424	77,586
1931	869	-	-	-	-	458	3,574	14,234	16,620	17,141	17,131	15,455	85,482
1932	869	-	-	-	-	458	5,193	14,249	17,885	18,263	18,447	16,566	91,929
1933	869	-	-	-	-	458	5,193	13,993	17,395	18,447	18,447	16,586	91,386
1934	869	-	-	-	-	458	5,193	13,877	17,395	18,447	18,447	16,543	91,228
1935	869	-	-	-	-	458	4,200	14,249	17,395	18,447	18,447	16,561	90,625
1936	869	-	-	-	-	458	3,506	14,249	17,395	18,419	18,391	16,205	89,491
1937	869	-	-	-	-	458	3,095	14,249	17,386	18,138	18,085	16,027	88,307
1938	869	-	-	-	-	458	5,193	14,077	16,851	18,447	18,447	16,545	90,885
1939	869	-	-	-	-	458	4,960	12,657	17,276	17,935	17,897	15,925	87,977
1940	869	-	-	-	-	458	5,045	12,972	16,693	17,297	17,265	15,522	86,121
1941	869	-	-	-	-	458	1,758	13,829	14,888	15,372	15,372	14,280	76,827
1942	869	-	-	-	-	458	4,519	14,177	16,743	17,306	17,282	15,547	86,901
1943	869	-	-	-	-	458	5,193	13,325	17,395	18,447	18,447	16,568	90,701
1944	869	-	-	-	-	458	1,638	14,115	16,045	16,534	16,559	15,073	81,292
1945	869	-	-	-	-	458	4,418	13,777	16,841	18,389	18,294	16,123	89,170
1946	869	-	-	-	-	458	5,059	14,249	16,575	18,447	18,447	16,561	90,663
1947	869	-	-	-	-	458	5,154	14,249	17,183	18,220	18,168	16,079	90,380
1948	869	-	-	-	-	458	4,292	14,249	17,395	18,447	18,447	16,564	90,720
1949	869	-	-	-	-	458	5,156	14,249	17,289	18,447	18,447	16,576	91,489
1950	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1951	3,968	-	-	-	-	458	5,189	14,249	17,887	20,637	21,193	17,272	100,852
1952	3,968	-	-	-	-	458	4,927	14,140	17,395	18,447	18,434	16,284	94,053
1953	869	-	-	-	-	458	4,054	14,249	17,395	18,447	18,447	16,525	90,443
1954	869	-	-	-	-	458	5,178	14,087	17,395	18,447	18,447	16,577	91,457
1955	869	-	-	-	-	458	4,549	14,249	17,395	18,447	18,447	16,567	90,980
1956	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1957	3,329	-	-	-	-	458	5,192	14,249	16,984	18,447	18,447	16,556	93,661
1958	869	-	-	-	-	458	3,392	14,249	17,395	18,295	18,285	13,798	86,741
1959	710	-	-	-	-	458	5,193	14,051	17,395	18,447	18,447	16,584	91,284
1960	869	-	-	-	-	458	5,057	14,163	15,488	18,447	18,447	16,571	89,500
1961	869	-	-	-	-	458	4,894	13,528	16,478	18,163	18,447	16,585	89,420
1962	869	-	-	-	-	458	5,089	14,031	17,395	18,447	18,446	16,375	91,110
1963	869	-	-	-	-	458	4,490	14,188	16,348	16,887	16,866	14,092	84,198
1964	772	-	-	-	-	458	5,193	14,249	17,630	18,447	18,447	16,590	91,784
1965	869	-	-	-	-	458	5,071	14,053	17,395	18,447	18,447	16,556	91,296
1966	869	-	-	-	-	458	4,751	13,450	17,395	18,447	18,431	16,274	90,074
1967	869	-	-	-	-	458	3,949	14,249	17,395	18,447	18,447	16,440	90,253
1968	869	-	-	-	-	458	4,316	14,249	17,395	18,447	18,447	16,517	90,696
1969	869	-	-	-	-	458	5,193	14,059	16,376	18,447	18,447	16,539	90,388
1970	869	-	-	-	-	458	4,023	14,249	17,395	18,447	18,447	16,456	90,343
1971	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1972	3,843	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,731
1973	3,968	-	-	-	-	458	2,717	14,249	17,256	17,906	17,884	14,101	88,539
1974	758	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,646
1975	3,963	-	-	-	-	458	4,525	14,249	17,395	18,447	18,447	16,591	94,075
1976	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1977	3,968	-	-	-	-	458	996	13,818	14,876	15,403	15,488	13,579	78,585
1978	765	-	-	-	-	458	4,647	14,097	17,395	18,447	18,447	16,470	90,726
1979	869	-	-	-	-	458	2,342	14,224	16,564	17,131	17,092	15,441	84,121
1980	869	-	-	-	-	458	5,005	14,110	16,635	18,219	18,149	16,060	89,505
1981	869	-	-	-	-	458	5,115	14,010	17,384	18,117	18,041	15,988	89,981
1982	869	-	-	-	-	458	5,051	13,756	17,887	18,374	18,447	16,584	91,426
1983	869	-	-	-	-	458	4,137	14,249	17,395	18,447	18,447	16,507	90,507
1984	869	-	-	-	-	458	4,476	14,249	17,395	18,447	18,447	16,544	90,884
1985	869	-	-	-	-	458	2,471	14,233	16,612	17,187	17,148	15,473	84,452
1986	869	-	-	-	-	458	3,537	14,249	16,874	17,488	17,427	15,638	86,538
1987	869	-	-	-	-	458	4,847	13,946	16,863	17,444	17,415	15,628	87,470
1988	869	-	-	-	-	458	5,063	14,114	16,853	17,433	17,389	15,604	87,783
1989	869	-	-	-	-	458	5,152	14,041	16,331	18,447	18,434	16,280	90,011
1990	869	-	-	-	-	458	5,193	14,248	16,336	18,447	18,447	16,532	90,529
1991	869	-	-	-	-	458	5,191	13,818	16,864	18,447	18,447	16,542	90,635
1992	869	-	-	-	-	458	1,491	14,075	15,836	16,373	16,390	14,981	80,472
1993	869	-	-	-	-	458	3,025	14,241	16,711	17,258	17,243	15,486	85,291
1994	869	-	-	-	-	458	2,679	13,936	15,302	15,773	15,883	14,613	79,513
1995	869	-	-	-	-	458	3,531	14,249	17,356	18,088	18,019	15,981	88,551
1996	869	-	-	-	-	458	5,180	13,835	17,395	18,447	18,447	16,538	91,168
1997	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1998	3,968	-	-	-	-	458	3,767	14,249	17,395	18,447	18,432	16,271	92,986
1999	869	-	-	-	-	458	4,476	14,249	17,395	18,447	18,447	16,579	90,918
2000	869	-	-	-	-	458	5,172	14,190	17,395	18,447	18,447	16,536	91,513
2001	869	-	-	-	-	458	2,234	14,124	15,938	16,449	16,446	15,026	81,543
2002	869	-	-	-	-	458	5,187	13,700	17,887	18,355	18,447	16,564	91,467
2003	869	-	-	-	-	458	3,485	14,249	17,395	18,397	18,350	16,177	89,379
2004	869	-	-	-	-	458	4,266	14,249	17,083	17,749	17,682	15,781	88,136
2005	869	-	-	-	-	458	3,160	14,159	16,243	16,740	16,754	15,192	83,575
2006	869	-	-	-	-	458	5,163	14,101	16,118	17,901	18,447	16,550	89,606
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,160	-	-	-	-	458	4,288	14,070	17,019	18,182	18,243	16,115	89,535

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2A CC Adverse (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	5,536	-	-	-	-	20	9,967	13,395	13,121	11,875	14,194	12,837	80,945
1927	5,536	-	-	-	-	20	11,174	13,830	14,527	14,065	14,378	12,849	86,379
1928	5,536	-	-	-	-	20	11,609	15,226	14,673	14,065	14,735	13,329	89,194
1929	5,536	-	-	-	-	20	10,034	13,395	13,121	11,427	13,468	12,611	79,611
1930	5,536	-	-	-	-	20	8,312	12,454	11,508	10,903	11,990	11,798	72,522
1931	5,536	-	-	-	-	20	10,698	13,403	13,121	11,427	13,468	12,611	80,284
1932	5,536	-	-	-	-	20	11,828	15,543	16,251	14,236	14,735	13,329	91,478
1933	5,536	-	-	-	-	20	11,828	14,903	15,644	17,070	17,346	13,890	96,236
1934	5,536	-	-	-	-	20	11,828	14,942	14,527	14,065	14,735	13,329	88,982
1935	5,536	-	-	-	-	20	10,642	13,791	14,527	14,065	14,735	13,329	86,646
1936	5,536	-	-	-	-	20	10,781	13,791	14,527	14,065	14,735	13,329	86,784
1937	5,536	-	-	-	-	20	10,583	13,583	14,230	13,127	14,194	12,849	84,121
1938	5,536	-	-	-	-	20	11,828	15,346	14,955	14,065	14,735	13,329	89,814
1939	5,536	-	-	-	-	20	11,243	13,517	14,527	14,065	14,735	13,329	86,972
1940	5,536	-	-	-	-	20	11,488	13,493	14,230	13,127	14,194	12,849	84,936
1941	5,536	-	-	-	-	20	8,526	12,454	11,508	10,903	11,990	11,798	72,735
1942	5,536	-	-	-	-	20	10,351	13,359	13,121	11,427	13,468	12,611	79,893
1943	5,536	-	-	-	-	20	11,828	13,565	14,527	14,065	14,735	13,329	87,605
1944	5,536	-	-	-	-	20	8,279	12,833	12,155	11,120	12,579	12,125	74,647
1945	5,536	-	-	-	-	20	9,807	15,021	14,362	14,065	14,735	13,323	86,869
1946	5,536	-	-	-	-	20	11,468	15,543	14,976	14,065	14,735	13,329	89,671
1947	5,536	-	-	-	-	20	11,735	15,543	14,642	14,065	14,735	13,329	89,605
1948	5,536	-	-	-	-	20	10,659	13,791	14,527	14,065	14,735	13,329	86,663
1949	5,536	-	-	-	-	20	11,661	15,543	15,327	14,065	14,735	13,329	90,216
1950	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1951	7,393	-	-	-	-	20	11,808	15,543	16,253	17,629	17,780	15,757	102,182
1952	7,393	-	-	-	-	20	11,128	14,082	14,230	13,127	14,194	12,849	87,022
1953	5,536	-	-	-	-	20	10,684	13,791	14,527	13,756	14,194	12,849	85,357
1954	5,536	-	-	-	-	20	11,758	14,716	14,908	14,065	14,735	13,329	89,067
1955	5,536	-	-	-	-	20	11,028	13,817	14,527	14,065	14,735	13,329	87,058
1956	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1957	7,393	-	-	-	-	20	11,827	15,543	14,842	14,065	14,735	13,329	91,753
1958	5,536	-	-	-	-	20	10,051	13,791	14,527	14,065	14,735	13,329	86,055
1959	5,536	-	-	-	-	20	11,828	14,693	14,966	14,065	14,735	13,329	89,171
1960	5,536	-	-	-	-	20	11,500	15,441	13,715	14,065	14,735	13,329	88,342
1961	5,536	-	-	-	-	20	11,321	14,734	15,024	13,957	14,735	13,329	88,656
1962	5,536	-	-	-	-	20	11,390	13,851	14,527	14,065	14,735	13,329	87,454
1963	5,536	-	-	-	-	20	10,370	13,543	13,121	12,242	14,194	12,849	81,876
1964	5,536	-	-	-	-	20	11,828	15,543	16,070	17,070	17,346	15,376	98,788
1965	5,536	-	-	-	-	20	11,445	14,213	14,527	14,065	14,735	13,329	87,871
1966	5,536	-	-	-	-	20	11,093	14,184	14,527	14,065	14,735	13,329	87,490
1967	5,536	-	-	-	-	20	10,695	13,791	14,305	13,127	14,194	12,849	84,517
1968	5,536	-	-	-	-	20	10,801	13,791	14,315	13,127	14,194	12,849	84,633
1969	5,536	-	-	-	-	20	11,828	15,338	14,347	14,065	14,735	13,329	89,198
1970	5,536	-	-	-	-	20	10,228	13,791	14,303	13,127	14,194	12,849	84,048
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,535	13,571	14,230	13,127	14,194	12,849	85,918
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	10,907	14,763	15,644	17,070	17,346	15,376	98,518
1976	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1977	7,393	-	-	-	-	20	7,668	12,454	11,508	10,903	11,990	11,798	73,735
1978	5,536	-	-	-	-	20	10,682	14,195	14,527	14,065	14,735	13,329	87,089
1979	5,536	-	-	-	-	20	10,560	13,535	13,121	11,427	13,468	12,611	80,278
1980	5,536	-	-	-	-	20	11,375	15,414	14,082	14,065	14,735	13,329	88,557
1981	5,536	-	-	-	-	20	11,630	14,071	14,230	13,127	14,194	12,849	85,656
1982	5,536	-	-	-	-	20	11,529	14,993	16,253	14,352	14,735	13,329	90,746
1983	5,536	-	-	-	-	20	10,635	13,791	14,392	13,127	14,194	12,849	84,544
1984	5,536	-	-	-	-	20	10,307	13,791	14,527	14,065	14,735	13,329	86,311
1985	5,536	-	-	-	-	20	10,577	13,543	13,121	11,427	13,468	12,611	80,303
1986	5,536	-	-	-	-	20	10,654	13,571	14,230	13,127	14,194	12,849	84,181
1987	5,536	-	-	-	-	20	11,050	14,988	14,230	13,127	14,194	12,849	85,993
1988	5,536	-	-	-	-	20	11,507	13,558	13,121	12,206	13,498	12,611	82,057
1989	5,536	-	-	-	-	20	11,714	15,346	14,267	14,065	14,735	13,329	89,012
1990	5,536	-	-	-	-	20	11,828	15,542	14,365	14,065	14,735	13,329	89,420
1991	5,536	-	-	-	-	20	11,819	15,037	14,340	14,065	14,735	13,329	88,881
1992	5,536	-	-	-	-	20	8,210	12,833	12,155	11,193	12,579	12,125	74,651
1993	5,536	-	-	-	-	20	10,048	13,462	13,121	11,427	13,468	12,611	79,692
1994	5,536	-	-	-	-	20	9,223	12,454	11,508	10,903	11,990	11,798	73,433
1995	5,536	-	-	-	-	20	10,181	13,629	14,230	13,127	14,194	12,849	83,765
1996	5,536	-	-	-	-	20	11,764	14,046	14,527	14,065	14,735	13,329	88,023
1997	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1998	7,393	-	-	-	-	20	10,537	13,621	14,230	13,127	14,194	12,849	85,970
1999	5,536	-	-	-	-	20	11,029	14,763	15,134	14,065	14,735	13,329	88,611
2000	5,536	-	-	-	-	20	11,790	13,763	14,527	14,065	14,735	13,329	87,766
2001	5,536	-	-	-	-	20	10,122	13,345	12,155	11,209	13,468	12,476	78,331
2002	5,536	-	-	-	-	20	11,806	14,940	16,253	14,357	14,735	13,329	90,976
2003	5,536	-	-	-	-	20	10,810	13,791	14,527	14,065	14,735	13,329	86,814
2004	5,536	-	-	-	-	20	11,248	13,571	14,230	13,127	14,194	12,849	84,775
2005	5,536	-	-	-	-	20	10,081	12,833	12,155	11,120	12,579	12,125	76,449
2006	5,536	-	-	-	-	20	11,682	15,378	14,666	13,958	14,735	13,329	89,305
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,719	-	-	-	-	20	10,951	14,270	14,365	13,801	14,675	13,327	87,128

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	22,582	26,376	65,965
1926	76,101	98,260	110,847	104,353	72,743	37,674	11,096	9,414	7,072	15,294	23,562	34,438
1927	53,091	69,167	75,812	91,530	104,105	101,872	76,582	40,861	37,164	41,784	69,927	84,269
1928	106,975	111,054	132,851	135,076	144,105	123,876	87,285	35,783	30,048	34,320	39,105	41,812
1929	40,186	32,036	44,557	43,822	62,984	55,971	20,875	8,656	4,945	4,884	5,419	15,782
1930	17,364	37,971	51,689	65,357	68,751	56,837	35,211	12,384	8,515	14,509	17,395	19,237
1931	39,515	48,623	80,156	89,451	81,165	69,451	47,001	17,263	14,317	20,097	36,545	44,531
1932	54,347	58,994	103,073	125,957	140,493	138,341	115,186	68,306	64,046	65,657	118,796	118,796
1933	116,405	110,238	114,578	132,196	133,643	141,863	115,132	59,779	57,993	67,975	103,513	132,114
1934	124,190	135,488	153,376	157,185	152,260	117,239	71,430	20,396	14,707	34,736	52,148	79,593
1935	112,042	127,462	129,030	141,733	131,547	125,249	92,524	51,695	45,827	44,332	46,260	54,760
1936	88,866	81,296	84,668	107,774	121,737	106,141	64,902	12,438	10,224	8,267	7,614	34,756
1937	32,855	31,266	43,302	84,263	94,351	88,061	55,530	12,872	9,902	11,492	54,865	82,966
1938	104,199	107,806	125,084	129,018	140,527	133,053	105,017	60,490	53,669	56,785	64,357	92,400
1939	118,796	114,841	121,588	137,761	122,292	102,163	62,266	12,400	9,118	14,066	20,527	82,254
1940	89,406	113,938	140,746	149,497	125,700	82,247	36,366	10,025	6,179	10,480	14,391	42,721
1941	52,142	57,270	62,275	54,185	53,471	36,323	15,581	9,293	9,881	13,191	29,859	86,076
1942	89,328	99,698	105,782	106,672	85,182	83,001	55,847	19,874	15,362	11,983	38,336	57,506
1943	58,065	63,878	77,521	119,287	127,892	125,307	102,937	69,990	63,998	70,832	74,570	90,006
1944	97,129	99,643	101,036	107,783	116,859	88,579	51,881	17,592	14,748	10,403	15,992	20,432
1945	44,099	54,347	59,064	77,094	108,732	101,052	69,709	20,152	20,123	27,992	44,572	63,293
1946	83,055	84,792	112,817	125,777	154,924	152,651	116,340	74,175	68,550	76,030	86,392	117,564
1947	118,779	130,815	143,715	155,097	133,214	113,865	77,064	24,114	21,013	40,773	72,456	98,225
1948	108,920	108,843	110,851	123,546	155,552	157,572	127,280	78,471	73,732	76,117	93,567	109,455
1949	106,606	100,631	114,241	124,733	156,771	151,901	107,945	64,671	59,327	61,782	75,651	100,017
1950	98,917	97,249	98,822	95,577	120,608	157,770	144,567	91,589	85,835	100,509	118,796	118,796
1951	116,676	129,496	120,542	126,918	156,823	155,054	116,146	56,076	48,118	36,641	45,459	57,382
1952	54,997	60,472	64,343	92,209	107,674	99,105	70,762	31,961	26,006	18,180	15,328	14,411
1953	46,731	71,723	81,392	88,019	103,782	98,061	73,144	41,741	36,437	36,084	56,040	118,796
1954	115,385	138,506	131,243	126,836	134,957	127,776	101,227	56,338	51,492	49,725	62,265	69,653
1955	84,230	81,615	74,357	78,824	109,557	140,473	115,906	79,173	73,832	91,238	118,796	118,796
1956	118,192	111,642	98,157	105,595	139,889	157,770	121,981	70,267	63,647	57,239	69,174	118,306
1957	114,655	112,997	127,877	134,629	146,316	128,163	82,788	32,359	27,597	25,125	35,119	66,024
1958	86,414	123,068	127,604	140,981	116,551	93,415	46,810	10,642	7,080	15,643	41,379	90,266
1959	118,796	120,256	130,825	143,163	148,737	142,879	106,635	56,026	58,645	80,114	113,601	118,308
1960	118,796	135,520	141,327	153,345	153,464	141,850	91,050	42,433	38,251	42,842	75,501	83,613
1961	113,870	145,925	133,994	138,019	141,355	137,865	95,800	40,905	36,000	41,776	47,175	67,904
1962	86,591	103,308	108,863	123,221	99,976	84,794	54,534	12,353	9,970	14,256	35,297	55,482
1963	64,238	90,651	97,030	103,736	75,278	55,480	30,970	11,075	7,897	16,436	40,567	56,706
1964	76,768	82,316	97,854	115,131	134,981	157,044	135,610	86,860	82,441	87,294	98,620	118,213
1965	119,205	142,722	135,456	153,384	148,256	138,287	111,412	70,465	65,289	70,387	78,381	85,601
1966	92,595	94,608	113,612	141,845	151,592	130,286	78,481	17,767	13,211	19,471	28,100	85,717
1967	116,522	131,851	137,508	123,777	127,275	120,631	91,004	44,150	37,910	39,910	45,271	74,618
1968	98,414	133,430	156,681	152,977	127,285	108,549	71,789	29,543	25,728	29,574	47,974	68,477
1969	66,228	58,852	66,947	101,376	137,088	129,035	87,314	34,040	31,265	28,770	35,002	61,179
1970	86,682	105,499	116,123	118,536	111,600	104,724	72,487	27,495	23,506	23,494	26,673	25,369
1971	48,818	69,311	63,308	85,182	146,041	157,638	142,645	101,834	97,562	79,317	94,745	107,589
1972	110,710	116,387	112,692	110,212	142,462	157,098	129,120	79,198	76,875	66,933	78,607	119,678
1973	118,336	122,758	128,785	120,694	90,006	71,885	34,977	9,753	6,385	7,676	23,457	68,588
1974	100,517	110,014	119,268	118,135	127,090	144,616	132,944	81,425	74,670	53,629	57,927	90,616
1975	113,354	112,316	115,244	117,518	151,383	154,958	118,736	76,638	71,723	94,842	118,796	118,796
1976	118,796	122,730	112,640	112,582	143,245	145,870	122,865	81,869	75,594	57,485	57,828	62,033
1977	67,752	72,271	87,291	75,072	48,622	26,920	10,623	10,824	10,391	10,385	35,107	102,485
1978	110,755	118,767	135,096	146,452	125,757	105,613	69,218	19,051	20,492	18,048	28,797	41,168
1979	36,972	37,241	56,197	70,234	99,782	84,362	57,295	14,896	10,404	12,420	10,327	47,094
1980	46,921	55,338	74,092	103,011	110,548	99,686	67,861	16,174	13,334	11,041	25,875	72,467
1981	80,367	111,496	115,479	128,955	100,118	89,038	58,574	13,898	11,508	19,247	34,078	59,439
1982	77,488	109,617	122,714	126,436	148,632	157,464	122,198	67,794	63,305	67,969	81,736	105,223
1983	118,796	139,723	147,670	152,919	134,442	120,049	89,283	42,237	38,479	31,903	70,346	71,577
1984	98,732	105,360	127,434	123,431	115,492	108,364	80,793	45,520	40,308	37,960	46,349	44,610
1985	41,796	34,279	33,474	52,296	70,234	66,662	42,298	12,439	8,745	18,076	32,385	29,517
1986	45,562	55,537	84,990	90,891	96,921	79,822	53,062	15,190	12,363	13,532	50,429	56,597
1987	65,358	85,838	117,074	127,334	112,348	93,345	62,974	18,391	13,325	9,704	13,526	28,068
1988	33,139	47,278	68,860	80,285	87,510	77,513	55,539	22,895	18,949	22,909	43,370	53,462
1989	71,062	66,666	82,160	120,956	136,752	127,653	85,560	39,010	34,149	30,244	44,073	60,371
1990	86,544	88,589	109,494	145,241	146,694	142,159	100,445	58,784	54,052	63,639	118,796	117,363
1991	117,503	145,959	135,064	149,165	152,339	139,419	106,920	60,585	54,058	49,765	59,973	84,066
1992	107,503	133,629	136,760	127,704	103,467	66,362	30,986	10,168	8,447	8,579	15,487	19,623
1993	19,397	21,055	41,387	67,065	96,449	76,409	38,286	11,353	7,784	9,617	13,336	27,256
1994	45,720	46,170	65,969	77,933	81,161	63,970	38,870	13,347	8,980	18,453	24,042	49,477
1995	55,178	87,821	106,513	104,000	97,065	80,209	53,449	20,242	15,520	21,717	58,470	104,022
1996	116,965	131,205	128,203	146,779	146,311	129,898	100,477	54,839	50,231	52,971	58,144	63,306
1997	79,511	90,674	98,625	101,779	134,207	156,881	130,494	73,696	68,235	72,276	93,870	112,992
1998	118,796	137,890	153,091	150,344	143,726	125,897	92,827	42,812	36,865	32,926	52,487	86,537
1999	109,727	114,823	119,826	124,104	126,197	147,512	124,775	75,889	69,431	73,545	114,108	117,596
2000	116,198	121,154	131,483	150,991	146,457	133,915	93,108	37,084	31,356	32,788	33,354	31,467
2001	30,911	30,166	35,731	37,096	57,713	46,158	12,469	9,720	6,474	10,701	33,222	54,559
2002	73,979	79,381	78,851	104,571	142,362	157,770	124,568	71,619	65,528	61,493	63,048	68,665
2003	88,837	107,032	135,927	153,420	125,066	112,274	72,717	16,763	13,267	28,980	38,781	49,658
2004	59,188	67,316	79,367	84,112	78,483	65,782	37,958	13,219	12,154	14,154	32,017	54,117
2005	74,468	77,464	97,242	111,484	106,011	74,729	40,968	11,202	8,018	9,554	25,324	46,896
2006	91,246	94,260	98,379	120,161	148,842	146,091	113,195	73,177	67,426	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	10,350	17,656	49,532
1926	65,706	98,084	111,048	115,967	103,084	43,060	-17,696	-76,424	-123,065	-126,258	-117,863	-106,184
1927	-84,851	-67,285	-57,593	-38,186	-10,604	-15,306	-49,641	-83,981	-130,354	-126,743	-105,076	-81,540
1928	-55,853	-46,908	-5,518	17,541	49,420	30,357	-4,058	-48,448	-97,054	-97,245	-88,814	-82,340
1929	-78,450	-80,241	-62,483	-54,725	-32,533	-50,132	-98,857	-147,520	-194,047	-198,684	-196,052	-184,658
1930	-176,963	-154,660	-138,679	-121,573	-107,648	-124,255	-150,345	-172,013	-199,848	-192,905	-186,271	-180,911
1931	-166,539	-153,741	-125,669	-101,982	-91,538	-104,543	-132,286	-159,658	-199,831	-190,943	-176,907	-165,796
1932	-146,952	-135,442	-89,821	-53,761	-15,353	-16,189	-39,681	-83,679	-140,533	-148,384	-88,116	-47,346
1933	-16,686	-13,582	-6,098	20,233	41,685	44,444	17,927	3,878	3,047	20,567	56,479	165,752
1934	203,025	221,860	236,137	238,365	233,158	191,097	132,853	69,458	6,008	8,673	26,528	62,000
1935	98,603	115,367	122,648	142,977	153,269	140,379	100,668	58,548	-3,288	-16,707	-10,118	-2,476
1936	33,306	33,131	46,230	74,891	96,349	72,672	22,966	-29,952	-78,308	-94,262	-97,610	-75,958
1937	-72,526	-69,369	-52,387	-17,607	7,486	-3,639	-46,768	-90,609	-138,825	-153,358	-122,450	-92,651
1938	-66,371	-59,262	-39,155	-5,564	27,330	20,372	-6,514	-46,335	-96,277	-102,682	-86,978	-64,862
1939	-34,306	-26,516	-12,209	4,885	12,564	-5,032	-43,128	-88,189	-138,016	-148,762	-140,286	-102,473
1940	-92,554	-65,599	-26,801	-9,957	-2,009	-51,524	-107,072	-162,343	-199,841	-195,272	-186,520	-161,998
1941	-148,660	-139,110	-129,882	-126,624	-121,132	-142,023	-167,141	-189,485	-199,822	-198,350	-181,984	-144,446
1942	-135,253	-119,365	-109,871	-95,952	-89,998	-94,998	-121,933	-155,196	-199,846	-199,309	-170,900	-153,776
1943	-146,833	-137,816	-123,084	-84,908	-54,300	-49,969	-68,649	-97,821	-155,601	-159,429	-150,055	-136,145
1944	-126,486	-117,057	-110,119	-95,688	-77,976	-107,219	-145,611	-177,765	-199,778	-199,637	-191,912	-185,242
1945	-162,799	-144,251	-135,070	-114,923	-76,520	-87,335	-120,303	-165,402	-199,783	-188,728	-174,542	-155,432
1946	-133,947	-127,798	-105,543	-85,424	-30,202	-20,598	-55,156	-93,032	-151,134	-151,037	-142,134	-91,556
1947	-71,352	-55,098	-33,885	-4,503	5,580	-10,259	-46,135	-89,409	-136,321	-120,655	-93,771	-67,306
1948	-50,346	-42,302	-35,750	-15,593	32,240	64,545	36,833	-7,585	-61,187	-63,082	-44,394	-20,282
1949	-16,722	-15,697	3,516	34,518	93,209	93,711	53,044	14,380	3,241	9,660	23,575	50,648
1950	56,231	59,581	66,629	92,015	156,456	207,100	203,996	154,174	70,229	61,860	89,562	125,655
1951	139,695	155,083	156,003	192,587	238,127	232,516	179,319	126,157	40,178	23,426	34,389	45,650
1952	48,483	55,843	63,675	93,565	121,444	101,441	60,278	19,913	-27,604	-47,154	-44,813	-40,536
1953	-13,393	17,819	31,356	45,938	75,992	63,167	27,431	-7,545	-56,019	-63,567	-46,526	15,945
1954	42,342	66,168	75,083	94,860	122,707	119,998	97,507	57,129	-3,964	-14,381	-78	7,692
1955	27,560	33,569	35,046	50,099	79,073	110,442	89,564	55,775	9,224	23,125	56,559	100,769
1956	116,452	117,898	125,443	159,494	223,737	238,980	192,794	146,510	61,699	35,758	49,725	96,643
1957	100,338	104,787	124,033	155,551	187,892	167,228	118,814	71,882	14,402	1,589	14,483	39,950
1958	64,612	98,378	107,749	129,103	130,987	109,005	62,865	206	-49,591	-48,043	-19,064	17,799
1959	53,692	60,385	81,536	116,606	144,268	138,591	97,986	50,817	-2,597	8,265	44,242	76,058
1960	84,562	106,373	117,752	139,669	162,240	153,764	105,711	60,821	10,455	3,395	25,885	36,819
1961	63,769	101,644	127,899	148,937	178,462	169,655	129,082	79,522	17,427	13,700	22,247	40,485
1962	59,032	75,255	85,149	111,471	110,404	91,484	54,958	7,124	-42,236	-48,933	-29,615	-9,632
1963	3,979	31,253	42,087	58,297	53,697	26,745	-7,864	-59,425	-106,412	-115,464	-95,948	-78,573
1964	-56,924	-46,992	-31,660	-9,763	23,705	66,578	47,665	4,129	-52,121	-48,897	-37,051	-13,911
1965	6,455	39,278	50,530	83,897	108,140	105,704	81,903	44,780	7,289	-4,825	5,737	12,842
1966	20,610	25,266	40,904	73,402	107,704	87,999	36,968	-14,083	-63,606	-71,155	-58,947	-22,639
1967	14,008	39,611	50,986	54,095	78,660	76,747	49,334	7,874	-40,844	-49,273	-38,633	-13,365
1968	13,307	47,201	80,171	95,991	102,531	90,066	56,472	18,600	-26,515	-28,121	-11,339	14,789
1969	18,959	17,210	33,728	71,155	113,988	103,548	54,514	7,401	-37,308	-46,926	-39,407	-21,007
1970	3,822	22,201	36,029	48,745	74,437	70,515	42,214	3,376	-43,284	-57,022	-50,634	-46,980
1971	-23,046	-1,186	-465	28,780	96,478	137,380	127,024	90,791	20,003	17,541	31,338	49,603
1972	68,188	76,764	113,164	139,092	199,950	226,967	194,592	149,242	70,221	36,430	48,743	96,991
1973	121,435	130,418	141,424	146,317	137,976	109,702	57,942	-3,539	-52,833	-67,523	-52,308	-3,671
1974	29,768	48,262	67,815	89,580	116,231	137,079	123,194	78,039	8,957	-19,729	-11,025	14,592
1975	40,747	46,323	54,855	70,654	123,247	151,451	117,704	80,128	17,876	34,332	65,624	137,123
1976	165,271	174,633	182,342	197,289	230,104	225,064	205,749	169,685	94,389	57,413	60,882	67,809
1977	74,807	83,817	98,864	98,420	84,176	44,556	-4,874	-52,164	-86,275	-101,853	-80,334	-14,170
1978	-3,720	7,777	28,823	48,913	56,695	40,879	6,820	-35,568	-78,621	-94,737	-83,891	-71,399
1979	-71,378	-66,885	-45,047	-27,063	7,321	-9,653	-44,677	-82,237	-129,374	-145,003	-143,685	-116,935
1980	-113,113	-104,632	-83,296	-51,044	-23,730	-36,749	-71,718	-121,198	-168,122	-183,359	-167,079	-138,840
1981	-123,214	-90,271	-80,763	-58,330	-54,918	-63,475	-93,489	-135,139	-181,129	-177,396	-161,338	-134,172
1982	-107,294	-73,316	-54,070	-38,976	-3,189	29,967	-1,177	-51,112	-107,693	-111,795	-95,494	-66,155
1983	-34,802	-8,043	20,241	35,419	45,632	27,547	-3,482	-46,539	-92,861	-108,657	-76,847	-67,284
1984	-35,404	-23,772	3,221	12,688	25,192	19,670	-3,843	-34,234	-82,012	-95,104	-81,818	-77,211
1985	-73,459	-73,245	-67,383	-47,063	-19,056	-27,744	-61,133	-96,452	-142,898	-149,890	-136,155	-133,975
1986	-125,563	-113,931	-81,158	-64,711	-43,293	-65,237	-99,834	-134,254	-177,654	-193,169	-163,265	-154,374
1987	-142,834	-124,455	-94,265	-71,143	-55,824	-73,722	-103,091	-143,482	-191,225	-199,848	-192,301	-177,394
1988	-167,845	-149,783	-123,958	-100,430	-83,493	-99,793	-125,471	-154,987	-199,828	-189,190	-171,593	-159,097
1989	-137,517	-134,073	-115,077	-78,165	-49,023	-58,759	-100,409	-143,029	-192,407	-197,211	-180,146	-162,273
1990	-132,134	-124,155	-98,268	-59,881	-39,333	-43,135	-83,846	-122,899	-171,921	-172,052	-107,073	-88,770
1991	-70,565	-35,347	-26,493	5,406	29,269	20,256	-10,091	-53,001	-103,109	-120,330	-103,266	-82,410
1992	-57,238	-29,777	-17,986	-9,436	-9,273	-50,439	-94,206	-136,331	-179,013	-195,118	-186,551	-181,893
1993	-177,995	-174,464	-155,755	-129,610	-85,056	-109,913	-160,875	-199,833	-199,844	-196,940	-192,205	-178,830
1994	-164,936	-160,497	-136,579	-116,564	-102,994	-123,885	-154,030	-178,375	-199,853	-194,269	-185,693	-163,102
1995	-153,851	-123,074	-105,711	-93,770	-73,529	-93,200	-124,945	-157,719	-199,833	-192,113	-158,213	-109,652
1996	-83,365	-67,641	-58,167	-18,519	3,912	849	-30,210	-72,666	-120,510	-129,281	-122,841	-115,550
1997	-99,036	-83,072	-43,355	-9,675	57,770	87,031	61,145	8,281	-48,593	-66,261	-46,166	-27,137
1998	-8,479	13,902	38,044	47,521	73,253	56,513	24,789	-19,733	-67,820	-79,974	-59,202	-25,842
1999	2,909	14,826	26,068	37,074	60,131	81,163	60,209	15,840	-42,053	-48,349	-17,552	19,410
2000	28,960	38,785	56,739	87,358	111,343	102,682	64,703	15,229	-32,990	-47,047	-43,467	-40,944
2001	-37,622	-33,754	-25,612	-17,311	12,621	-14,037	-68,785	-124,906	-170,871	-180,853	-163,173	-140,960
2002	-119,958	-109,931	-103,404	-72,939	-31,301	5,990	-22,819	-70,280	-128,168	-136,443	-128,738	-120,945
2003	-106,601	-81,117	-49,067	-26,725	-13,799	-22,429	-59,957	-111,422	-160,753	-164,187	-150,643	-140,569
2004	-127,847	-117,480	-96,635	-77,998	-67,478	-84,740	-120,900	-153,841	-196,917	-196,875	-179,330	-159,454
2005	-142,717	-134,956	-111,561	-88,054	-76,176	-112,111	-154,721	-192,571	-199,842	-198,863	-181,797	-161,126
2006	-124,846	-114,782	-110,416	-86,047	-37,581	-35,045	-67,394	-101,988	-159,766	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	28,830	38,529	106,842
1926	131,867	193,680	238,287	283,316	311,756	239,530	123,846	22,513	9,251	31,138	49,048	74,689
1927	104,818	132,642	144,079	194,666	280,567	395,585	276,806	100,332	69,020	91,771	143,361	178,901
1928	223,848	232,187	322,512	374,725	436,572	394,910	237,079	77,854	40,762	60,745	75,621	86,074
1929	87,058	79,116	96,972	117,113	217,614	230,843	147,220	37,994	12,462	11,409	12,726	34,466
1930	44,181	81,724	113,329	176,168	230,314	206,458	146,812	54,718	28,073	35,166	42,901	49,357
1931	73,153	89,148	135,243	186,947	311,037	293,019	135,231	23,744	10,698	24,821	51,419	61,872
1932	84,868	92,342	183,835	279,994	433,615	436,950	290,218	137,466	114,200	117,701	289,786	316,817
1933	334,290	331,025	335,821	355,529	421,686	436,950	339,980	164,859	145,331	174,370	276,657	396,609
1934	372,955	396,571	431,156	436,768	436,341	318,727	159,607	29,832	9,998	55,231	96,111	176,045
1935	251,121	283,999	292,177	337,296	436,950	392,729	236,185	74,718	48,655	45,519	53,195	69,674
1936	142,475	135,319	143,810	223,868	355,777	299,698	129,337	21,090	9,838	8,537	10,381	63,085
1937	61,732	61,788	72,627	141,874	265,539	295,406	148,938	27,457	10,836	15,490	88,857	138,416
1938	184,286	190,617	223,513	304,558	434,972	427,517	282,512	115,506	78,700	85,463	122,832	174,851
1939	244,762	250,427	286,458	363,393	399,515	269,303	124,994	22,314	8,865	17,248	34,899	153,816
1940	175,890	230,182	321,921	385,098	429,408	340,005	202,066	64,468	32,557	41,391	56,505	110,799
1941	139,759	152,644	191,089	210,381	245,357	208,030	137,045	53,366	35,780	44,553	85,789	176,975
1942	189,396	220,885	233,777	276,975	288,424	255,820	142,588	31,898	10,525	9,424	72,082	100,059
1943	105,900	113,398	138,669	227,726	329,786	387,524	298,705	134,228	108,317	114,167	130,055	166,517
1944	189,575	198,746	204,535	238,306	308,577	263,798	172,439	60,849	37,081	36,036	53,292	72,045
1945	123,080	174,508	187,666	221,236	373,568	333,311	174,431	41,092	18,640	44,218	72,304	110,550
1946	142,031	146,863	191,442	248,317	433,588	426,072	307,368	142,738	116,353	134,553	141,575	249,424
1947	278,262	307,863	369,966	435,619	436,950	351,961	165,329	35,583	14,363	81,015	151,111	208,602
1948	233,013	238,432	243,166	274,584	406,424	370,502	221,553	77,407	54,618	60,582	93,785	128,710
1949	124,959	122,516	145,389	221,971	416,442	402,064	273,954	102,462	76,593	88,298	135,425	214,929
1950	224,951	226,395	233,575	241,668	316,851	436,950	382,922	225,847	204,603	250,371	304,162	313,588
1951	312,135	348,623	336,647	337,323	433,856	409,420	261,335	86,785	56,206	58,843	84,192	108,541
1952	104,606	107,557	113,829	191,648	315,363	302,103	177,666	45,098	14,042	8,284	10,232	18,425
1953	72,534	130,682	156,014	184,350	301,815	336,517	230,303	85,460	50,442	54,869	107,233	240,046
1954	294,217	336,647	347,285	361,144	414,106	371,431	256,689	95,079	73,620	70,423	107,137	115,622
1955	144,091	149,644	141,746	140,818	234,992	337,436	243,479	90,424	66,068	121,238	212,160	263,195
1956	288,651	285,184	283,236	278,441	410,683	436,950	336,232	152,971	120,389	121,159	145,793	244,112
1957	240,177	240,066	261,402	342,562	436,340	366,746	198,650	57,736	33,407	36,113	63,782	114,817
1958	162,777	242,584	261,487	306,167	395,141	266,766	93,143	14,978	7,745	22,490	108,057	202,194
1959	274,626	280,958	317,235	395,349	436,425	427,604	261,029	84,836	65,298	107,294	180,544	246,643
1960	251,624	285,287	317,568	373,036	436,914	390,270	235,471	69,700	46,379	54,988	111,338	130,030
1961	178,852	258,547	307,799	359,856	436,638	422,122	244,097	74,556	49,307	58,409	75,130	109,686
1962	144,918	183,572	197,438	285,924	324,465	285,199	139,528	26,387	9,900	18,246	73,585	111,953
1963	144,295	202,165	237,397	260,795	285,577	197,980	62,175	11,991	6,988	26,239	70,450	97,935
1964	129,909	139,881	164,755	218,217	318,139	380,049	283,836	133,190	118,799	129,683	145,332	181,056
1965	211,554	269,868	304,732	394,643	419,829	355,886	204,714	57,021	33,314	40,692	69,433	84,866
1966	93,843	96,453	115,392	197,267	328,540	274,094	134,223	23,626	9,207	26,293	48,607	141,392
1967	222,002	282,871	309,679	285,609	380,353	368,268	218,093	68,995	33,394	45,876	74,021	141,596
1968	193,799	271,503	371,175	391,391	421,274	339,516	156,312	31,715	12,131	22,511	55,238	97,726
1969	97,972	89,641	101,447	179,635	350,108	359,318	185,742	39,467	14,840	17,115	30,146	63,411
1970	92,003	123,826	145,900	159,240	250,519	324,829	182,932	46,202	18,192	18,846	31,164	31,409
1971	60,432	88,867	80,197	126,670	372,989	436,950	373,230	184,015	162,431	156,085	179,113	204,692
1972	229,656	236,051	299,038	298,349	409,990	436,950	358,972	171,575	142,837	127,697	154,414	277,759
1973	310,710	325,705	350,518	361,332	358,739	230,591	79,364	13,415	7,365	13,109	43,546	121,082
1974	204,582	249,401	290,782	310,481	374,449	404,866	342,194	184,182	171,102	142,646	164,484	219,577
1975	267,292	267,569	273,657	301,271	423,494	430,381	333,530	166,628	144,053	209,291	293,014	347,911
1976	337,063	348,523	333,705	327,558	426,198	414,579	331,791	147,111	124,373	102,880	108,355	117,209
1977	126,247	137,855	161,948	177,318	183,334	144,013	59,134	13,761	9,697	12,975	71,348	217,381
1978	231,032	258,633	333,279	381,384	410,647	337,378	168,972	36,184	19,704	14,908	45,136	65,058
1979	62,968	65,356	94,870	131,594	276,471	230,786	99,274	15,997	7,814	13,635	10,766	86,185
1980	89,629	96,769	124,438	210,362	344,698	313,057	163,214	33,747	13,630	10,133	53,546	104,642
1981	136,739	202,384	238,292	302,799	338,993	309,421	153,689	31,740	13,479	27,313	67,598	117,095
1982	166,470	250,164	287,733	335,972	432,805	436,950	302,765	140,323	115,096	126,348	151,935	249,085
1983	301,595	357,799	403,131	434,805	436,937	388,378	244,843	95,982	64,819	59,654	129,750	140,510
1984	203,720	229,330	292,416	296,587	329,752	360,408	279,813	107,110	70,336	68,246	86,989	85,883
1985	82,132	74,745	74,745	115,522	224,074	236,802	116,440	19,913	8,555	32,581	74,710	71,697
1986	82,642	103,191	198,312	238,053	306,457	279,050	123,794	20,647	11,234	14,617	90,365	107,582
1987	125,721	159,598	222,931	280,572	378,357	310,777	156,093	34,196	11,069	7,078	24,789	63,710
1988	73,917	115,768	164,528	228,154	307,449	288,917	155,315	34,286	11,511	36,740	86,129	114,229
1989	147,370	148,592	173,495	287,454	430,720	387,340	230,523	71,622	37,458	39,672	84,300	131,768
1990	208,074	217,071	265,155	408,679	436,685	423,166	280,389	105,897	72,820	101,350	294,441	310,126
1991	315,179	385,933	379,138	427,200	436,772	388,611	261,243	109,061	73,968	66,282	102,460	146,363
1992	191,126	244,505	278,387	307,081	333,938	263,905	148,599	34,942	14,503	11,143	32,526	35,908
1993	37,137	37,471	61,021	118,292	303,862	289,796	184,094	71,716	40,613	33,960	42,973	81,280
1994	110,487	114,319	159,082	216,315	276,033	237,838	152,956	54,846	28,133	33,244	49,548	94,188
1995	115,647	172,406	210,209	231,004	360,497	330,366	175,845	36,536	11,904	35,382	133,266	253,966
1996	301,435	309,852	328,422	391,568	436,141	415,953	274,701	119,506	85,245	97,235	110,147	114,697
1997	139,538	161,031	208,561	256,020	403,103	436,950	337,740	166,493	139,793	145,480	186,479	210,705
1998	234,255	282,017	327,579	351,992	436,950	376,207	208,962	72,453	37,387	35,297	81,710	140,554
1999	193,064	211,891	234,519	270,188	338,722	385,885	282,543	126,242	106,195	109,639	201,573	307,085
2000	308,961	313,246	345,342	412,313	407,106	352,722	191,866	50,593	16,984	21,226	26,641	23,259
2001	23,505	21,728	31,689	63,102	194,884	175,671	94,998	17,393	8,260	19,977	73,412	109,935
2002	139,818	157,812	162,854	240,282	409,588	436,950	298,684	136,789	110,140	100,609	116,735	133,029
2003	162,605	211,589	263,792	325,634	384,101	329,142	158,544	30,669	10,411	39,177	67,679	86,925
2004	98,054	105,472	152,449	210,409	315,758	284,703	121,603	24,918	11,298	15,948	50,222	85,701
2005	114,415	123,135	172,946	232,785	334,829	281,569	185,144	67,559	37,988	37,230	76,444	115,058
2006	171,688	183,462	188,934	257,210	412,841	436,745	302,910	127,486	101,707	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,387	3,332	12,924
1926	15,000	32,359	33,970	33,970	33,970	31,314	24,304	18,032	11,606	6,377	7,338	14,901
1927	15,000	16,990	14,103	20,272	33,657	33,970	30,431	20,388	14,209	11,458	15,000	15,000
1928	15,000	14,535	16,797	21,369	45,148	33,970	29,848	20,335	14,014	12,484	12,939	13,258
1929	11,069	5,705	2,593	4,446	29,963	33,970	29,848	20,335	14,308	8,704	2,970	2,357
1930	1,783	7,816	9,968	18,359	33,970	32,999	28,783	19,701	13,551	8,199	4,384	1,963
1931	3,617	3,182	4,316	12,706	33,970	33,304	27,733	19,094	12,847	11,248	13,434	15,000
1932	15,000	15,598	16,447	15,525	32,936	33,970	30,234	20,404	14,586	9,465	16,830	17,944
1933	15,166	14,828	11,200	15,000	32,163	33,970	30,234	20,365	15,273	14,010	14,985	58,367
1934	18,428	22,518	31,574	33,912	33,970	32,190	24,968	19,065	12,758	12,942	15,206	19,406
1935	16,468	20,828	26,829	33,789	33,970	33,970	29,848	20,335	14,012	7,815	5,959	4,991
1936	15,000	12,184	10,647	25,226	33,970	33,813	28,598	20,335	13,258	1,446	1,495	15,000
1937	10,441	5,550	2,244	10,394	33,929	33,970	28,659	20,346	13,894	3,683	15,665	24,135
1938	15,250	14,262	14,913	15,000	38,791	33,970	29,848	20,335	13,956	8,998	14,240	15,000
1939	15,328	16,749	19,147	33,964	33,970	33,970	29,848	20,335	14,144	4,227	2,005	15,593
1940	15,042	26,901	33,543	33,955	33,970	32,982	25,850	19,762	13,336	8,788	10,330	15,000
1941	15,000	17,760	22,495	28,683	33,970	31,977	25,213	14,433	8,757	3,902	6,616	15,518
1942	15,000	16,848	18,016	25,454	33,970	33,970	29,138	20,335	13,955	7,872	15,007	15,000
1943	13,254	11,851	15,000	15,630	36,289	33,970	29,848	20,386	14,977	13,168	12,239	14,996
1944	15,000	17,318	20,639	24,209	33,970	32,779	26,084	20,242	13,796	7,525	10,665	10,757
1945	15,000	25,039	16,077	23,991	33,956	33,970	29,540	20,335	13,278	8,081	11,160	15,551
1946	15,205	16,219	15,071	15,000	33,294	33,970	29,848	20,340	13,898	12,312	12,251	15,801
1947	15,029	18,664	19,952	33,556	34,290	33,829	28,653	20,341	14,074	15,315	15,109	15,000
1948	15,109	15,970	12,403	15,000	33,929	33,970	29,848	20,361	14,767	12,383	15,000	14,803
1949	12,492	5,623	5,008	15,000	34,628	33,970	29,848	20,342	14,018	12,513	15,465	17,380
1950	15,139	15,000	14,638	15,000	20,896	37,065	33,079	20,853	14,931	13,210	15,026	21,268
1951	15,218	18,602	14,958	15,000	33,010	33,970	29,650	20,348	13,962	15,235	15,000	15,000
1952	14,347	13,757	10,990	26,223	33,906	33,970	29,402	20,335	14,015	7,547	3,412	2,214
1953	15,000	20,419	15,201	21,576	33,920	33,970	29,848	20,381	14,746	9,872	13,965	16,930
1954	15,074	16,184	13,344	18,216	34,911	33,970	29,848	20,416	15,203	10,904	15,000	15,000
1955	15,154	18,898	13,431	15,000	32,014	36,085	29,848	20,402	14,975	15,033	17,005	18,073
1956	15,118	13,865	10,606	15,091	28,874	33,970	30,431	20,420	14,069	12,251	14,578	15,790
1957	15,000	14,182	15,000	18,617	33,779	33,735	28,530	20,335	14,073	9,233	12,608	15,000
1958	15,000	31,011	31,520	33,965	33,970	32,683	25,673	8,389	1,816	2,419	15,503	16,435
1959	16,565	16,314	15,000	22,996	33,806	33,970	29,848	20,335	15,970	14,851	22,642	15,874
1960	15,020	23,681	19,096	33,306	33,957	33,970	29,331	20,335	14,014	10,395	15,000	14,905
1961	15,000	24,580	15,633	23,464	33,872	33,970	29,819	20,335	13,952	11,008	10,014	15,000
1962	15,000	21,668	23,021	33,947	33,970	33,970	29,848	20,337	14,335	9,145	15,457	15,000
1963	15,000	32,734	33,896	33,968	33,970	33,531	27,060	19,911	5,717	4,508	13,509	15,000
1964	15,000	16,029	15,000	15,000	28,558	33,970	29,848	20,448	15,977	11,214	12,974	15,100
1965	17,485	23,167	15,098	29,609	33,899	33,970	29,848	20,335	14,190	9,038	13,833	12,078
1966	8,241	4,489	7,256	23,501	33,937	33,970	28,242	20,335	14,133	4,962	8,151	15,836
1967	15,426	21,271	23,976	23,560	34,115	33,970	29,554	20,335	13,958	15,200	14,054	15,136
1968	15,079	26,343	32,868	33,930	33,970	33,842	28,353	20,547	13,369	12,314	15,000	15,000
1969	14,955	11,099	8,148	15,277	34,836	33,527	28,001	20,335	13,347	7,770	12,731	14,998
1970	15,000	20,761	15,460	18,733	33,929	33,970	29,811	20,335	14,364	9,943	10,907	8,095
1971	15,000	15,263	12,080	14,222	28,007	36,479	30,431	20,439	15,275	10,988	12,738	13,039
1972	12,978	10,720	15,000	15,000	27,511	46,779	31,041	20,502	16,823	10,428	13,060	18,477
1973	15,093	17,224	21,713	26,711	33,970	33,664	26,838	9,114	1,858	2,462	10,130	17,377
1974	16,327	15,684	15,000	15,000	26,573	39,485	29,848	20,355	14,610	8,420	12,525	15,939
1975	15,335	14,800	11,849	10,956	29,796	33,970	29,848	20,573	15,053	15,000	15,000	16,280
1976	15,566	15,193	13,247	15,000	30,640	33,970	29,848	20,435	15,533	10,685	8,058	6,035
1977	5,653	6,519	10,515	22,952	33,970	32,708	26,129	19,612	3,130	2,575	12,778	15,401
1978	15,000	18,101	31,075	33,925	33,970	33,970	29,679	20,335	13,561	7,174	7,655	7,647
1979	3,009	1,896	5,072	11,558	33,970	33,807	28,786	20,337	14,135	5,784	2,029	16,309
1980	14,982	13,173	12,804	26,288	33,844	33,970	29,848	20,335	14,425	7,209	14,854	27,174
1981	15,305	27,499	33,251	33,954	33,970	33,970	29,205	20,335	13,634	10,640	14,327	15,000
1982	15,000	17,756	15,000	15,000	32,685	38,694	30,431	20,422	14,718	11,504	12,233	14,775
1983	15,000	21,209	22,924	33,534	39,859	33,970	29,848	20,406	14,942	9,484	15,364	14,965
1984	15,091	20,110	15,971	20,589	35,039	33,970	29,848	20,361	14,617	11,036	13,746	7,941
1985	3,288	1,879	1,908	7,406	33,970	33,970	29,797	20,338	14,313	12,904	13,240	7,456
1986	4,162	3,704	26,577	33,914	34,956	33,721	29,392	20,214	14,152	9,065	15,190	13,420
1987	11,163	14,662	22,260	33,739	33,970	33,819	28,504	20,335	13,957	6,763	4,458	14,340
1988	11,068	14,697	25,458	33,896	33,970	33,970	29,848	20,335	14,132	9,839	15,380	14,437
1989	15,000	11,151	8,753	23,782	33,828	33,970	29,848	20,335	14,131	8,686	15,000	15,000
1990	15,422	14,869	15,000	30,971	33,886	33,970	29,697	20,337	14,244	15,487	28,701	15,067
1991	15,000	23,707	15,006	25,586	33,913	33,970	29,848	20,335	14,010	7,154	10,990	15,000
1992	15,450	29,274	33,970	33,970	33,970	29,806	22,857	16,586	9,844	3,754	5,780	2,001
1993	1,836	1,689	4,238	11,557	33,967	33,563	28,377	19,895	13,849	3,708	1,932	2,526
1994	2,320	1,967	5,665	16,971	33,970	33,701	28,677	19,694	13,516	7,534	8,998	15,000
1995	15,000	23,227	30,266	33,770	33,970	33,970	29,209	20,336	14,015	11,907	21,379	15,450
1996	15,401	19,686	15,275	22,043	33,718	33,970	29,848	20,335	14,132	11,868	9,105	3,952
1997	3,992	4,358	15,000	15,000	35,628	50,770	32,497	20,728	15,933	13,726	15,000	15,000
1998	15,000	19,659	28,409	32,277	33,970	33,515	26,560	20,335	14,017	8,402	15,904	18,066
1999	15,435	17,556	15,000	15,005	33,149	33,970	29,848	20,365	14,619	9,284	16,688	15,587
2000	15,000	14,700	15,315	31,738	33,957	33,970	28,780	20,335	14,016	8,697	5,849	2,221
2001	2,211	1,978	6,767	11,289	33,970	33,933	29,025	18,789	12,899	3,914	13,702	14,966
2002	15,287	17,254	13,946	15,000	32,981	33,970	30,190	20,418	14,128	7,734	8,056	9,693
2003	15,000	24,923	31,796	33,900	33,970	33,599	26,470	20,335	13,844	12,033	15,000	15,000
2004	15,000	14,651	25,965	33,812	33,970	33,646	26,909	19,073	12,465	7,508	11,217	13,942
2005	15,000	15,600	28,942	33,965	33,970	28,388	21,686	15,906	9,539	4,244	10,393	11,501
2006	15,276	14,849	11,898	15,000	33,239	33,970	29,780	20,337	14,075	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	31,258	39,615	67,342
1926	82,739	114,921	136,820	170,857	196,649	187,150	156,083	99,437	18,262	23,065	36,206	61,694
1927	89,363	108,190	123,870	149,971	180,796	198,000	182,119	153,169	85,606	103,174	129,025	129,025
1928	129,025	142,384	154,792	170,054	197,792	198,000	180,199	150,059	66,844	64,410	82,561	95,816
1929	105,710	111,833	123,090	136,070	166,372	187,420	174,446	134,733	67,607	48,850	50,485	59,465
1930	62,531	75,027	86,586	104,379	127,462	133,664	125,431	117,635	56,445	30,342	37,182	42,308
1931	49,518	59,524	70,026	103,025	165,690	180,431	168,443	128,453	49,095	27,290	46,133	60,945
1932	76,679	90,029	131,513	141,694	196,173	198,000	181,458	154,004	44,314	28,813	86,041	130,117
1933	132,562	149,714	147,209	153,099	182,638	198,000	179,889	148,227	27,794	32,464	68,642	174,694
1934	145,265	171,945	194,826	197,899	198,000	193,138	174,390	141,683	70,781	55,498	90,876	129,025
1935	130,683	157,237	180,909	197,683	198,000	198,000	184,983	162,882	59,594	42,994	53,105	62,315
1936	94,844	103,342	118,345	157,254	198,000	196,705	178,513	115,065	12,101	11,549	17,202	44,123
1937	50,702	55,519	62,961	88,591	143,112	172,864	164,842	118,800	30,296	14,599	64,096	97,976
1938	129,025	142,625	144,298	148,416	196,916	198,000	183,438	161,314	77,995	73,535	92,440	115,990
1939	129,025	142,869	171,523	197,991	198,000	198,000	176,469	113,856	19,885	15,710	24,203	77,758
1940	101,482	148,599	197,246	197,975	198,000	189,255	168,349	133,293	50,101	23,916	37,091	61,563
1941	77,304	88,745	105,422	121,712	143,634	143,092	127,320	111,142	67,539	64,234	79,830	125,783
1942	129,025	146,733	162,041	179,893	198,000	198,000	174,622	138,716	64,561	31,027	71,446	86,307
1943	98,329	110,991	130,175	150,158	192,757	198,000	180,202	151,010	44,707	32,610	42,404	60,025
1944	76,319	94,891	110,939	124,059	148,087	145,795	129,737	117,927	50,945	39,523	54,200	67,232
1945	100,907	127,398	152,977	179,629	197,977	198,000	173,772	133,472	59,067	27,589	43,762	61,476
1946	88,961	103,456	136,291	141,376	196,158	198,000	180,201	152,694	49,312	31,651	44,068	128,297
1947	129,047	147,744	174,024	197,270	197,998	193,784	178,518	131,497	40,328	65,606	92,016	117,650
1948	129,025	143,458	144,542	139,333	186,396	198,000	183,789	159,894	61,662	59,421	79,419	107,273
1949	118,589	126,328	139,290	139,529	196,212	198,000	178,501	146,291	21,139	29,098	47,255	76,685
1950	92,630	104,562	103,184	94,029	132,230	198,000	194,884	168,872	41,816	28,465	61,655	99,767
1951	129,025	158,754	136,415	143,441	196,304	198,000	180,065	149,498	25,530	38,264	53,442	77,299
1952	86,468	98,208	109,768	146,865	197,095	198,000	180,202	150,235	77,420	56,964	59,866	71,261
1953	105,448	144,769	162,485	182,575	197,913	198,000	183,789	158,946	81,880	75,978	91,874	129,025
1954	129,025	146,679	152,947	163,399	197,499	198,000	187,532	168,188	62,744	48,279	67,637	83,378
1955	113,199	129,694	140,627	145,440	174,478	198,000	178,557	147,676	39,212	46,400	90,777	129,025
1956	129,025	142,188	102,400	106,143	183,614	198,000	185,298	160,460	33,491	31,248	48,520	100,640
1957	111,914	123,132	139,242	160,734	197,665	195,404	178,517	142,641	39,500	30,954	48,027	76,224
1958	102,417	156,566	179,317	197,993	198,000	187,544	164,581	73,046	10,000	20,302	68,849	117,516
1959	129,025	146,375	153,061	172,203	197,711	198,000	185,289	160,010	70,696	77,785	117,750	130,958
1960	130,457	151,257	169,797	196,827	197,979	198,000	178,511	144,048	33,413	26,974	61,429	74,153
1961	101,392	153,930	158,679	176,486	197,828	198,000	178,511	141,605	26,947	22,129	35,286	54,224
1962	75,621	94,337	111,370	144,144	173,009	198,000	178,443	124,795	28,605	18,916	60,512	80,918
1963	107,358	151,662	176,587	197,999	198,000	192,739	173,939	79,133	10,000	19,980	41,125	54,240
1964	76,781	91,187	107,481	135,882	165,717	198,000	187,532	168,826	63,229	57,110	67,604	96,124
1965	124,347	170,498	160,305	181,221	197,748	197,998	178,493	146,220	32,234	22,378	37,757	46,658
1966	56,459	60,985	77,094	117,694	179,564	189,972	178,057	119,239	18,401	21,158	37,238	68,597
1967	102,565	147,828	172,300	190,716	198,000	198,000	180,949	152,367	75,393	81,007	97,678	121,095
1968	129,025	182,641	196,052	197,932	198,000	195,183	179,511	152,293	75,354	73,001	95,638	120,523
1969	129,025	137,251	145,416	152,476	197,374	195,590	180,208	145,877	80,045	81,357	98,647	120,959
1970	129,025	156,196	164,619	180,304	197,930	197,975	180,209	146,490	77,367	61,397	70,456	81,392
1971	129,025	158,689	114,294	103,931	166,332	198,000	186,647	164,539	44,506	27,279	42,348	60,493
1972	86,687	101,037	123,631	118,336	170,371	198,000	190,075	167,730	62,877	22,597	36,272	90,396
1973	120,761	137,200	160,615	180,172	197,904	193,654	172,763	74,739	10,000	14,884	38,575	67,414
1974	129,025	163,563	136,292	129,862	162,646	198,000	187,532	167,362	41,432	23,197	39,673	74,001
1975	115,874	131,036	138,446	129,069	170,702	198,000	180,600	159,484	47,176	43,850	63,426	132,349
1976	132,169	157,259	125,168	120,879	180,426	198,000	187,452	167,703	42,418	24,816	33,604	42,969
1977	53,824	65,174	82,750	105,176	112,708	118,479	94,207	31,178	10,000	14,183	42,347	117,300
1978	129,025	145,224	174,307	197,923	198,000	198,000	178,493	132,234	73,341	55,656	65,298	77,439
1979	81,990	84,033	101,550	126,133	184,826	193,492	176,834	122,712	35,206	19,609	23,010	80,452
1980	91,391	102,393	118,011	160,655	197,778	197,961	176,820	138,611	56,113	39,905	60,541	115,009
1981	129,025	178,507	196,731	197,973	198,000	197,965	174,573	124,751	49,848	52,852	71,599	98,283
1982	115,759	139,252	146,194	142,701	195,729	198,000	185,425	159,598	49,559	33,575	47,144	67,558
1983	93,321	113,592	160,938	193,427	197,992	198,000	180,216	153,152	80,411	67,331	129,025	129,025
1984	129,141	147,814	163,001	182,927	197,897	198,000	180,489	153,548	77,087	63,937	84,293	94,432
1985	99,896	101,401	107,761	136,256	181,873	198,000	176,846	126,557	46,633	37,900	55,940	61,907
1986	69,221	78,246	125,530	151,194	180,279	194,520	173,357	119,865	39,964	21,437	54,270	64,604
1987	74,354	90,516	116,955	145,106	198,000	194,730	175,773	140,991	62,153	33,759	41,780	74,974
1988	86,114	100,854	127,105	159,269	198,000	198,000	175,478	140,840	65,763	31,081	70,049	81,996
1989	96,846	105,523	117,882	161,513	197,751	198,000	178,514	148,128	64,517	43,371	63,192	85,794
1990	119,858	132,465	153,270	184,374	197,854	198,000	180,211	153,137	72,587	88,430	132,836	130,809
1991	130,809	177,800	159,465	185,738	197,901	198,000	182,414	153,709	73,870	56,633	76,251	94,636
1992	120,584	151,096	176,913	198,000	198,000	187,109	166,559	134,744	67,736	44,989	58,421	63,399
1993	63,487	63,546	76,886	99,220	166,378	182,758	172,179	132,409	22,228	15,546	22,594	37,115
1994	49,144	51,762	71,086	94,208	139,103	146,064	132,327	123,163	52,996	17,925	31,167	56,746
1995	68,244	104,787	132,177	155,891	198,000	196,875	175,017	138,540	55,513	42,632	85,772	129,263
1996	129,263	170,747	149,584	165,332	197,556	198,000	180,200	152,899	70,234	58,291	68,674	76,866
1997	92,335	106,052	105,766	98,918	171,751	198,000	192,950	168,713	45,910	24,229	55,283	68,454
1998	82,495	99,933	126,189	144,272	198,000	195,545	180,201	152,930	80,649	76,223	113,914	131,509
1999	132,114	152,534	155,443	152,666	181,927	198,000	187,392	168,461	58,630	41,952	81,938	115,203
2000	129,025	143,198	159,493	195,311	197,978	198,000	180,213	150,780	74,663	68,561	77,536	83,601
2001	85,798	88,859	102,489	118,081	163,307	170,864	160,622	104,455	26,099	18,020	47,237	68,573
2002	98,887	118,214	132,501	133,442	181,737	198,000	186,390	159,790	52,963	29,435	38,633	55,764
2003	81,457	122,841	178,118	197,879	198,000	194,844	176,794	135,381	41,200	26,290	42,699	60,961
2004	76,812	91,774	123,686	156,742	198,000	196,967	172,406	124,092	52,772	28,152	44,198	62,509
2005	80,666	93,217	115,703	144,527	170,449	164,035	150,268	131,386	31,168	23,979	47,131	61,887
2006	103,603	123,819	139,744	144,717	196,708	198,000	180,199	150,770	50,876	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP2A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	100,407	125,509	302,605
1926	371,413	537,304	630,972	708,464	718,202	538,728	297,632	72,972	-76,874	-50,385	-1,708	79,537
1927	177,421	259,705	300,271	418,252	588,521	714,121	516,298	230,770	75,646	121,443	252,237	325,655
1928	418,996	453,252	621,434	718,766	873,037	781,113	530,354	235,584	54,614	74,715	121,412	154,619
1929	165,573	148,450	204,730	246,726	444,400	458,072	273,532	54,199	-94,725	-124,838	-124,452	-72,588
1930	-51,104	47,878	122,893	242,689	352,849	305,703	185,892	32,425	-93,264	-104,689	-84,409	-68,045
1931	-735	46,735	164,072	290,147	500,323	471,662	246,121	28,896	-112,875	-107,487	-29,376	16,551
1932	83,941	121,521	345,047	509,408	787,864	791,072	577,415	296,500	96,613	73,251	423,338	536,327
1933	581,737	592,224	602,711	676,057	811,816	855,227	683,161	397,108	249,438	309,385	520,276	927,535
1934	863,863	948,381	1,047,070	1,064,130	1,053,729	852,391	563,248	280,435	114,252	167,080	280,867	466,068
1935	608,916	704,893	751,593	853,478	953,736	890,328	644,208	368,178	164,800	123,954	148,401	189,264
1936	374,490	365,272	403,700	589,012	805,834	709,029	424,316	138,976	-32,888	-64,464	-60,919	81,006
1937	83,205	84,754	128,746	307,515	544,417	586,662	351,202	88,866	-73,898	-108,093	101,034	250,843
1938	366,389	396,049	468,653	591,428	838,536	812,913	594,301	311,309	128,043	122,098	206,891	333,378
1939	473,605	498,370	586,507	737,993	766,341	598,404	350,450	80,716	-86,005	-97,511	-58,653	226,948
1940	289,267	454,020	666,656	756,567	785,070	592,965	325,558	65,205	-97,669	-110,696	-68,203	68,085
1941	135,545	177,308	251,398	288,337	355,301	277,399	138,018	-1,251	-77,864	-72,470	20,110	259,906
1942	287,495	364,799	409,746	493,043	515,579	475,793	280,260	55,626	-95,444	-139,003	25,971	105,096
1943	128,715	162,302	238,281	427,893	632,423	694,832	543,043	277,793	76,398	71,348	109,213	195,399
1944	251,537	293,541	327,029	398,669	529,517	423,731	234,530	38,845	-83,208	-106,150	-57,763	-14,776
1945	120,288	237,041	280,714	387,027	637,713	578,998	327,149	49,649	-88,675	-80,847	-2,744	95,438
1946	195,305	223,532	350,077	445,047	787,763	790,095	578,601	296,917	96,980	103,510	142,152	419,531
1947	469,765	549,988	673,772	817,039	808,032	683,179	403,430	122,126	-46,544	82,054	236,921	372,170
1948	435,721	464,401	475,212	536,870	814,541	824,590	599,303	328,548	143,592	145,421	237,377	339,959
1949	345,926	339,401	407,445	535,752	897,263	879,646	643,293	348,146	174,318	201,352	297,371	459,659
1950	487,868	502,787	516,849	538,288	747,041	1,036,885	959,449	661,335	417,414	454,414	589,201	679,074
1951	712,750	810,559	764,565	815,269	1,058,121	1,028,960	766,514	438,863	183,995	172,408	232,481	303,872
1952	308,900	335,837	362,604	550,509	775,482	734,619	518,310	267,543	103,880	43,822	44,025	65,775
1953	226,321	385,411	446,448	522,459	713,422	729,716	544,515	298,984	127,486	113,236	222,585	520,743
1954	596,043	704,184	719,902	764,456	904,180	851,175	672,804	397,150	199,095	164,950	251,961	291,344
1955	384,234	413,419	405,207	430,181	630,114	822,436	657,355	393,451	203,312	297,034	495,298	629,858
1956	667,437	670,777	619,843	664,764	986,798	1,065,670	866,737	550,627	293,295	257,654	327,791	575,491
1957	582,084	595,165	667,555	812,093	1,001,992	891,275	607,299	324,954	128,980	103,013	174,019	312,014
1958	431,220	651,608	707,676	808,208	874,649	689,414	393,072	107,260	-22,950	12,810	214,724	444,210
1959	592,704	624,288	697,658	850,316	960,947	941,045	680,787	372,024	208,012	288,309	478,778	587,841
1960	600,458	702,118	765,540	896,184	984,555	917,854	640,075	337,337	142,511	138,593	289,154	339,519
1961	472,882	684,626	744,004	846,761	988,155	961,611	677,308	356,923	143,633	147,022	189,851	287,298
1962	381,162	478,141	525,841	698,706	741,825	693,447	457,312	190,996	20,575	11,631	155,236	253,721
1963	334,870	508,466	586,997	654,795	646,523	506,474	286,280	62,686	-75,811	-48,302	69,704	145,308
1964	241,534	282,421	353,430	474,467	671,100	835,640	684,491	413,452	228,326	236,404	287,480	396,582
1965	479,047	645,534	666,121	842,754	907,873	831,846	606,370	338,822	152,316	137,670	205,140	242,045
1966	271,748	281,802	354,258	553,708	801,338	716,321	455,971	166,883	-8,655	729	63,150	288,903
1967	470,523	623,431	694,449	677,757	818,403	797,616	568,934	293,721	119,811	132,720	192,391	339,081
1968	449,624	661,118	836,947	872,221	883,061	767,156	492,437	252,699	100,066	109,279	202,510	316,514
1969	327,138	314,053	355,687	519,919	833,394	821,017	535,779	247,121	102,190	88,087	137,119	239,541
1970	326,532	428,482	478,131	525,558	668,416	732,013	507,653	243,898	90,145	56,658	88,565	99,285
1971	230,229	330,943	269,413	358,784	809,847	966,447	859,977	561,619	339,777	291,211	360,283	435,417
1972	508,219	540,959	663,525	680,990	950,284	1,065,793	903,800	588,248	369,633	264,085	331,097	603,301
1973	686,335	733,305	803,054	835,225	818,595	639,495	371,884	103,481	-27,226	-29,392	63,400	270,790
1974	480,219	586,925	629,158	663,057	806,989	924,046	815,713	531,364	310,771	208,163	263,584	414,727
1975	552,601	572,044	594,050	629,468	898,622	968,760	780,418	503,451	295,881	397,315	555,860	752,459
1976	768,864	818,337	767,101	773,308	1,010,612	1,017,484	877,705	586,803	352,306	253,279	268,726	296,054
1977	328,284	365,636	441,368	478,937	462,810	366,677	185,219	23,211	-53,058	-61,736	81,246	438,397
1978	482,092	548,503	702,581	808,597	825,069	715,840	453,183	172,237	48,476	1,048	62,995	119,914
1979	113,561	121,641	212,643	312,457	602,371	532,795	317,511	91,704	-61,815	-93,555	-97,553	113,105
1980	129,810	163,041	246,050	449,272	663,138	607,926	366,025	87,669	-70,621	-115,071	-12,263	180,453
1981	238,222	429,614	502,991	605,352	616,162	566,919	322,552	55,586	-92,660	-67,343	26,264	155,646
1982	267,423	443,473	517,571	581,133	806,663	861,075	639,642	337,025	134,985	127,602	197,554	370,486
1983	493,910	624,280	754,904	850,104	854,861	767,944	540,708	265,238	105,789	59,716	267,638	288,794
1984	411,280	478,842	602,044	636,222	703,370	720,411	567,101	292,305	120,336	86,075	149,559	155,655
1985	153,653	139,059	150,505	264,417	491,094	507,691	304,247	82,795	-64,653	-48,429	40,120	36,603
1986	76,024	126,747	354,251	449,340	575,320	521,876	279,771	41,662	-99,941	-134,518	46,990	87,829
1987	133,763	226,159	384,955	515,609	666,851	558,948	320,254	70,431	-90,720	-142,545	-107,749	3,698
1988	36,393	128,815	261,993	401,175	543,436	498,607	290,709	63,369	-89,473	-88,621	43,335	105,026
1989	192,761	197,860	267,213	515,540	750,027	688,204	424,036	136,065	-42,152	-75,237	26,419	130,661
1990	297,764	328,839	444,651	709,384	775,786	754,160	506,896	215,257	41,783	96,854	467,700	484,595
1991	507,926	698,052	662,180	793,095	850,194	780,257	570,334	290,690	112,796	59,504	146,408	257,655
1992	377,425	528,727	608,044	657,319	660,102	496,742	274,796	60,109	-78,484	-126,651	-74,336	-60,962
1993	-56,138	-50,703	27,775	166,525	515,601	472,613	262,060	35,540	-115,370	-134,109	-111,370	-30,653
1994	42,735	53,720	165,223	288,863	427,273	357,689	198,800	32,676	-96,227	-117,113	-71,939	52,308
1995	100,218	265,167	373,455	430,894	616,003	548,220	308,573	57,935	-102,881	-80,476	140,674	393,049
1996	479,699	563,850	563,318	707,204	817,637	778,671	555,016	274,913	99,331	91,084	123,229	143,271
1997	216,340	279,043	384,598	462,041	802,459	929,632	754,826	437,911	221,278	189,451	304,464	380,014
1998	442,066	553,401	673,312	726,406	885,899	787,677	533,340	268,798	101,098	72,874	204,813	350,823
1999	453,249	511,631	550,856	599,036	740,126	846,529	684,768	406,798	206,822	186,071	396,755	574,881
2000	598,144	631,082	708,372	877,710	896,841	821,290	558,671	274,021	104,029	84,227	99,914	99,604
2001	104,804	108,977	151,064	212,258	462,495	412,589	228,330	25,451	-117,140	-128,240	4,400	107,073
2002	208,013	262,730	284,748	420,356	735,367	832,680	617,013	318,336	114,592	62,827	97,734	146,207
2003	241,298	385,267	560,565	684,109	727,338	647,430	374,567	91,726	-82,030	-57,707	13,516	71,974
2004	121,207	161,733	284,831	407,077	558,734	496,358	237,976	27,462	-108,229	-131,113	-41,675	56,814
2005	141,831	174,459	303,272	434,706	569,082	436,610	243,345	33,482	-113,129	-123,856	-22,506	74,216
2006	256,967	301,607	328,539	451,041	754,048	779,761	558,690	269,782	74,318	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D-5

Scenario IP2 (KKC and KDRPP) under Adverse Climate Change Conditions

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP2 CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	2,452	511	1,466	1,239	69.2%	81	-42	69.2%	51	-55	6,254	99
Avg. WY 1982 to 2009	2,319	464	1,419	1,172	63.9%	38	-71	64.1%	3	-85	6,043	254
1941 (Dry Year)	1,244	190	748	770	6.2%	-80	-171	6.9%	-72	-175	1,311	0
1994 (Dry Year)	1,472	276	824	791	11.5%	-95	-200	12.6%	-149	-200	2,580	0
2001 (Dry Year)	1,669	255	1,157	943	40.0%	-106	-138	41.7%	-124	-152	7,240	2,722
2005 (Dry Year)	1,693	286	1,103	919	35.3%	-117	-195	35.9%	-132	-200	9,022	0

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,602	175	1,178	989	42.4%	-72	-106	45.0%	-71	-115	575	0
1927	2,417	425	1,452	1,329	64.5%	101	-92	62.5%	140	-90	8,615	0
1928	2,677	645	1,532	1,356	70.0%	107	-6	70.0%	125	-7	0	0
1929	1,655	182	1,204	992	44.1%	-83	-143	46.5%	-122	-159	0	0
1930	1,381	217	799	787	10.3%	-94	-180	10.7%	-138	-196	727	0
1931	1,907	373	1,144	926	36.5%	-111	-190	38.1%	-149	-200	985	0
1932	3,046	820	1,632	1,237	80.8%	119	-59	80.1%	70	-71	5,376	0
1933	3,105	703	1,758	1,485	100.0%	228	55	100.0%	142	21	0	0
1934	2,534	577	1,523	1,358	70.0%	114	6	70.0%	59	-12	5,619	0
1935	2,436	339	1,553	1,265	77.3%	167	18	76.5%	119	2	0	0
1936	2,123	325	1,461	1,200	70.0%	-21	-57	70.0%	-42	-72	5,572	0
1937	1,998	258	1,412	1,128	63.8%	-70	-118	63.2%	-106	-135	8,304	0
1938	2,861	747	1,591	1,224	78.0%	128	-16	77.5%	116	-25	5,428	0
1939	2,034	282	1,447	1,153	70.0%	-51	-78	70.0%	-61	-91	18,132	0
1940	1,964	282	1,401	1,085	61.5%	-72	-123	64.1%	-95	-134	12,498	0
1941	1,244	190	748	770	6.2%	-80	-171	6.9%	-72	-175	1,311	0
1942	1,735	214	1,199	976	41.9%	-91	-153	43.9%	-139	-170	1,956	0
1943	2,921	734	1,560	1,230	78.5%	120	-87	76.0%	81	-97	28	0
1944	1,552	203	1,048	931	32.0%	-87	-185	32.4%	-104	-195	204	0
1945	2,230	339	1,462	1,131	66.7%	-87	-180	64.4%	-140	-198	210	0
1946	2,823	634	1,558	1,217	77.7%	151	2	74.4%	112	-14	28,342	0
1947	2,534	532	1,539	1,350	70.0%	98	-4	70.0%	100	-5	2,180	0
1948	3,007	732	1,646	1,414	90.6%	238	61	89.1%	248	60	182	0
1949	3,023	683	1,752	1,426	100.0%	181	19	100.0%	157	12	6,436	0
1950	3,960	1,357	1,758	1,848	100.0%	435	94	100.0%	416	78	22,682	0
1951	3,438	1,087	1,758	1,439	100.0%	190	35	100.0%	134	13	2,796	0
1952	2,272	372	1,390	1,278	57.4%	107	-7	56.1%	57	-24	15,183	0
1953	2,330	329	1,475	1,373	67.0%	132	-33	65.2%	111	-42	168	0
1954	2,948	643	1,684	1,424	94.2%	238	56	92.7%	204	45	0	0
1955	2,656	407	1,616	1,365	85.2%	217	56	83.2%	245	57	0	0
1956	4,115	1,652	1,758	1,567	100.0%	292	65	100.0%	208	27	0	0
1957	2,888	753	1,598	1,243	79.6%	134	18	77.7%	92	2	9,867	0
1958	2,018	274	1,430	1,166	69.3%	-13	-39	70.0%	13	-40	33,904	0
1959	2,933	632	1,684	1,431	95.9%	237	32	95.3%	248	31	17,837	0
1960	2,580	389	1,637	1,321	90.7%	149	25	89.2%	116	11	0	0
1961	2,808	567	1,682	1,375	100.0%	169	31	99.6%	149	17	2,160	0
1962	2,181	279	1,492	1,288	70.0%	45	-20	70.0%	37	-27	1,160	0
1963	1,693	217	1,215	999	45.8%	-59	-86	47.8%	-80	-103	22,354	0
1964	2,978	613	1,705	1,455	98.4%	263	34	98.2%	272	36	17,462	0
1965	2,699	538	1,609	1,307	83.7%	173	41	82.8%	145	27	0	0
1966	2,274	408	1,488	1,252	70.0%	10	-30	70.0%	-15	-45	299	0
1967	2,312	346	1,454	1,346	64.0%	135	3	63.5%	101	-13	9,540	0
1968	2,339	378	1,485	1,350	68.0%	112	2	67.0%	97	-5	0	0
1969	2,712	668	1,547	1,171	70.5%	111	-4	69.2%	107	-12	619	0
1970	2,329	394	1,444	1,310	63.5%	98	-11	62.7%	50	-27	152	0
1971	3,544	1,002	1,758	1,643	100.0%	377	88	100.0%	280	51	0	0
1972	3,748	1,233	1,758	1,653	100.0%	383	85	100.0%	289	51	2,028	0
1973	1,901	168	1,395	1,144	64.9%	-17	-43	65.5%	-33	-59	26,235	0
1974	3,430	923	1,758	1,633	100.0%	353	84	100.0%	266	48	15,138	0
1975	3,261	803	1,758	1,584	100.0%	309	64	100.0%	248	32	933	0
1976	3,806	1,297	1,758	1,642	100.0%	353	104	100.0%	262	66	0	0
1977	1,320	167	872	854	18.8%	-46	-78	20.5%	-64	-94	11,721	0
1978	2,211	273	1,492	1,312	70.0%	63	-39	70.0%	18	-55	16,444	0
1979	1,722	237	1,214	1,015	44.2%	-60	-100	46.2%	-94	-118	0	0
1980	2,333	440	1,504	1,192	70.0%	-41	-116	70.0%	-82	-131	12,492	0
1981	2,076	305	1,467	1,137	67.9%	-77	-116	67.7%	-47	-113	1,674	1,674

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP2 CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	2,916	686	1,618	1,386	87.0%	232	19	85.9%	197	11	3,912	885
1983	2,630	536	1,558	1,259	77.8%	156	24	76.3%	110	6	0	0
1984	2,560	416	1,587	1,289	82.1%	168	30	80.8%	125	12	0	0
1985	1,831	260	1,276	1,049	51.7%	-55	-89	51.4%	-80	-106	2,259	17
1986	1,801	269	1,289	1,017	49.9%	-98	-143	51.6%	-131	-160	12,753	616
1987	2,057	363	1,373	1,054	54.4%	-86	-134	56.3%	-126	-150	6,336	97
1988	1,878	289	1,274	1,019	46.9%	-84	-169	48.1%	-137	-186	3,989	0
1989	2,517	560	1,523	1,216	70.0%	-23	-121	70.0%	-67	-136	828	0
1990	2,563	509	1,544	1,348	70.0%	95	-56	70.0%	87	-67	511	0
1991	2,772	562	1,635	1,320	87.7%	165	43	87.7%	113	15	224	0
1992	1,582	165	1,151	978	40.3%	-67	-100	42.8%	-91	-117	694	14
1993	1,831	322	1,190	954	41.0%	-124	-192	41.7%	-164	-200	18,844	0
1994	1,472	276	824	791	11.5%	-95	-200	12.6%	-149	-200	2,580	0
1995	2,010	333	1,342	1,045	55.6%	-105	-185	54.6%	-107	-191	3,954	0
1996	2,837	777	1,507	1,194	71.9%	147	6	70.6%	99	-10	11,823	0
1997	3,931	1,493	1,758	1,626	100.0%	349	65	100.0%	310	45	212	0
1998	2,383	358	1,493	1,390	69.3%	145	10	69.2%	114	-4	0	0
1999	2,739	415	1,689	1,430	94.1%	248	49	93.9%	222	42	229	0
2000	2,589	499	1,556	1,223	75.8%	135	17	74.4%	101	1	44	0
2001	1,669	255	1,157	943	40.0%	-106	-138	41.7%	-124	-152	7,240	2,722
2002	3,019	804	1,646	1,269	85.2%	125	-32	85.4%	90	-47	18,794	675
2003	2,003	244	1,440	1,152	68.4%	-39	-68	69.6%	-54	-83	22,039	1,312
2004	1,966	309	1,391	1,080	61.5%	-97	-142	60.8%	-123	-157	20,329	7
2005	1,693	286	1,103	919	35.3%	-117	-195	35.9%	-132	-200	9,022	0
2006	2,736	618	1,548	1,343	70.0%	88	-87	70.0%	NA	NA	4,459	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,452	511	1,466	1,239	69.2%	81	-42	69.2%	51	-55	6,254	99

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.
5) Climate Change inflow dataset provided only extended to the end of Water Year 2006.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP2 CC Adverse (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	16.3%	46.5%	4.6%	17.1%	9.3%
	0 -10% Above Target[1]	38.7%	21.9%	1.7%	1.6%	38.8%
	0-10% Below Target	1.7%	0.7%	6.3%	59.3%	4.1%
	> 10% Below Target	43.3%	30.9%	87.4%	22.0%	47.8%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	44.1%	60.5%	60.9%	18.1%
	0 -10% Above Target	3.8%	3.5%	3.7%	30.2%
	0-10% Below Target	5.0%	3.3%	5.9%	20.2%
	> 10% Below Target	47.1%	32.7%	29.5%	31.5%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			5.0%	
	0 -10% Above Target			8.7%	
	0-10% Below Target			8.1%	
	> 10% Below Target			78.2%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				28.5%	
	0 -10% Above Target				14.3%	
	0-10% Below Target				5.8%	
	> 10% Below Target				51.4%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				91.0%	
	0 -10% Above Target				6.6%	
	0-10% Below Target				0.6%	
	> 10% Below Target				1.8%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	17.0%	22.0%		10.5%
	0 -10% Above Target	1.6%	2.3%		1.8%
	0-10% Below Target	6.7%	2.5%		13.4%
	> 10% Below Target	74.7%	73.2%		74.3%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			13.1%	9.9%	9.2%
	0 -10% Above Target			6.6%	0.4%	0.5%
	0-10% Below Target			13.0%	0.9%	0.5%
	> 10% Below Target			67.3%	88.8%	89.8%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			94.9%	72.4%	57.6%
	0 -10% Above Target			1.7%	9.4%	12.2%
	0-10% Below Target			1.4%	7.5%	10.1%
	> 10% Below Target			2.0%	10.7%	20.1%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			17.8%	
	0 -10% Above Target			6.7%	
	0-10% Below Target			15.4%	
	> 10% Below Target			60.1%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			96.7%	84.9%	70.2%
	0 -10% Above Target			0.9%	6.4%	11.6%
	0-10% Below Target			0.9%	3.8%	8.5%
	> 10% Below Target			1.5%	4.9%	9.7%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP2 CC Adverse (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	3.1%	30.0%	97.4%		14.5%
	0 -10% Above Target	37.6%	26.5%	1.1%		32.1%
	0-10% Below Target	0.0%	0.5%	0.1%		0.8%
	> 10% Below Target	59.3%	43.0%	1.4%		52.6%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	11.8%			
	0 -10% Above Target	0.6%			
	0-10% Below Target	1.1%			
	> 10% Below Target	86.5%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	50.0%			
	0 -10% Above Target	2.8%			
	0-10% Below Target	3.5%			
	> 10% Below Target	43.7%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP2 (Adverse Climate Change)

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	24.2	4.0	1.6	2.5	0.8	1.3	10.4	33.8	70.7	66.6	59.7	47.4	323.0
1927	14.6	1.8	1.6	1.2	1.0	0.9	1.8	10.2	27.5	40.8	34.9	48.2	184.5
1928	7.5	1.0	1.2	1.4	1.9	1.2	2.7	13.2	35.4	43.9	66.1	53.7	229.2
1929	11.0	3.2	4.0	3.8	6.0	1.5	10.9	16.4	40.6	62.7	60.8	48.2	269.2
1930	18.6	3.3	1.8	1.8	0.9	1.3	3.0	7.1	24.9	29.9	24.3	40.2	156.9
1931	19.1	2.0	2.0	1.4	1.2	1.0	5.0	10.7	23.0	29.3	29.6	45.0	169.1
1932	12.7	1.2	1.3	1.1	1.4	0.9	1.4	8.0	27.2	38.3	46.4	58.1	198.2
1933	13.6	1.0	2.1	1.9	3.1	1.8	1.0	21.2	28.5	47.1	66.9	78.0	266.1
1934	44.4	1.4	16.4	75.1	2.8	44.8	19.7	17.3	46.9	78.5	91.0	65.0	503.4
1935	20.5	1.6	2.4	2.0	0.9	2.3	2.6	23.5	34.2	57.5	67.4	66.1	281.0
1936	19.3	4.3	3.9	1.7	5.9	1.3	4.1	16.2	44.4	66.7	73.0	50.0	290.6
1937	17.7	7.1	2.6	1.8	2.0	1.3	2.9	10.6	31.9	52.4	51.5	49.9	231.8
1938	18.9	1.6	1.1	1.0	1.1	0.9	1.4	9.8	30.0	38.3	53.0	61.3	218.3
1939	15.5	1.7	2.8	0.9	1.6	1.3	5.5	22.3	43.4	58.8	64.7	51.0	269.4
1940	17.7	2.7	1.8	1.2	0.9	0.9	3.2	18.7	69.4	69.9	61.0	48.9	296.2
1941	15.2	2.4	1.3	1.4	1.1	1.6	7.2	6.4	25.8	28.7	28.6	34.9	154.7
1942	11.0	1.4	1.5	1.6	1.0	1.4	4.1	15.5	22.5	26.6	34.5	47.1	168.3
1943	19.7	1.3	1.0	1.6	1.3	1.1	1.9	10.4	24.6	30.1	29.4	58.2	180.7
1944	13.8	1.9	1.7	1.7	1.4	1.6	5.7	11.9	43.4	49.0	45.7	42.2	220.2
1945	15.3	2.3	1.8	1.2	0.9	1.0	2.1	8.3	29.3	39.8	39.9	48.1	190.2
1946	19.3	1.0	1.3	1.0	1.2	0.9	1.5	6.1	26.4	34.8	39.3	8.1	140.9
1947	19.0	1.8	2.9	2.3	0.9	0.9	4.4	23.9	41.8	68.9	83.9	57.0	307.7
1948	9.1	1.3	1.1	2.3	3.4	2.5	2.6	8.6	19.8	60.2	91.2	67.2	269.1
1949	9.5	2.4	1.9	3.7	3.4	1.1	2.2	9.1	33.3	87.7	87.7	81.5	323.3
1950	20.2	3.3	1.8	4.0	3.8	2.3	1.8	3.2	18.7	70.5	86.9	86.0	302.5
1951	33.6	2.2	4.9	15.3	3.3	19.7	31.8	22.2	26.6	79.1	86.6	90.6	415.9
1952	32.7	3.0	3.0	3.8	3.7	2.7	1.7	17.4	42.7	58.4	67.0	52.0	288.0
1953	20.4	3.3	3.0	1.4	0.8	1.1	5.1	11.3	35.1	50.6	56.9	49.7	238.7
1954	13.5	1.2	0.9	2.8	2.9	1.0	4.8	18.7	31.6	41.1	76.1	70.4	265.0
1955	14.4	4.0	2.7	1.8	3.4	5.7	9.4	8.5	18.2	42.9	62.2	68.7	241.9
1956	9.4	1.3	1.1	5.4	4.8	35.7	27.9	25.1	21.9	69.1	75.0	87.9	364.4
1957	46.3	2.8	8.0	3.2	2.4	0.9	3.2	15.8	44.3	82.5	83.8	64.0	357.1
1958	24.0	2.8	1.6	1.5	0.8	1.3	5.5	27.6	39.2	67.0	85.8	50.4	307.4
1959	10.9	1.1	1.3	1.0	2.1	0.9	2.3	14.9	32.6	69.2	87.1	70.0	293.4
1960	9.5	3.5	1.6	3.9	1.3	2.1	6.6	16.3	34.7	80.8	91.6	68.5	320.5
1961	20.3	1.4	1.8	1.5	0.8	0.9	5.0	14.3	30.3	76.1	93.7	74.2	320.5
1962	19.4	3.9	2.0	1.9	1.0	2.1	4.6	30.4	40.9	50.3	78.3	50.5	285.3
1963	13.7	1.5	1.5	3.4	1.2	1.5	7.2	26.1	37.4	45.3	60.4	48.0	247.2
1964	20.1	1.0	1.3	1.0	1.0	1.1	2.2	8.4	15.9	36.2	61.2	69.9	219.4
1965	5.3	5.1	1.6	5.1	0.8	1.1	1.5	20.1	33.2	65.1	84.3	68.9	292.1
1966	18.8	3.2	3.1	3.9	2.1	1.5	4.4	15.3	49.7	76.4	87.5	50.7	316.5
1967	18.9	1.4	1.7	0.9	0.8	0.9	12.4	19.3	28.9	39.0	62.6	60.9	247.8
1968	18.2	3.5	2.8	1.9	1.5	1.2	6.4	22.6	35.1	51.1	79.0	56.6	279.9
1969	12.6	2.1	1.6	5.0	6.2	2.3	1.5	7.8	35.6	69.4	80.9	53.2	278.3
1970	13.9	2.2	1.5	2.7	0.8	1.2	7.8	14.4	30.3	37.6	67.3	51.4	231.1
1971	19.5	1.8	2.4	1.3	1.1	4.9	0.9	0.9	17.6	38.5	58.3	83.3	230.6
1972	46.7	3.1	1.5	1.5	3.8	0.9	27.1	28.3	29.9	59.1	76.2	84.3	362.5
1973	42.4	3.4	6.2	9.3	2.6	1.6	11.0	36.1	46.3	70.4	79.0	50.2	358.7
1974	18.6	1.5	0.9	2.3	0.8	0.9	2.3	14.4	32.2	32.3	74.1	80.8	261.0
1975	46.6	2.4	1.8	1.4	3.2	1.6	2.3	2.7	32.8	62.9	80.6	86.7	325.0
1976	39.1	1.8	24.9	20.3	3.2	34.5	27.6	25.0	28.2	41.0	66.0	78.5	390.1
1977	48.9	4.8	3.7	4.7	3.1	2.3	12.9	30.1	46.3	53.5	52.8	38.0	301.1
1978	19.2	1.2	1.9	1.9	1.1	1.1	3.1	20.1	32.2	41.4	62.9	48.9	234.9
1979	18.4	1.5	1.3	2.7	1.6	1.0	6.0	8.2	35.9	45.8	48.2	48.2	218.7
1980	19.8	3.2	1.5	1.7	1.7	0.9	1.1	10.1	30.2	43.1	46.6	49.2	209.0
1981	16.5	1.1	1.3	1.4	1.0	0.9	3.0	19.7	27.0	40.0	55.6	49.9	217.4
1982	7.1	1.4	0.9	1.3	1.0	0.9	1.7	9.9	30.0	52.0	67.7	67.3	241.2
1983	13.3	3.0	1.5	1.8	0.9	0.9	6.1	22.7	36.5	46.8	77.2	66.0	276.6
1984	23.4	1.0	3.3	2.2	0.9	0.9	10.7	25.0	32.0	38.3	48.3	67.5	253.5
1985	21.9	1.4	3.9	2.4	4.0	5.3	6.5	14.1	33.0	54.6	56.8	48.3	252.3
1986	19.1	1.4	2.2	2.5	1.6	0.9	4.3	12.1	33.1	45.2	50.0	46.7	219.2
1987	20.2	1.5	1.5	1.3	0.8	0.9	4.3	15.0	32.3	34.9	47.9	49.3	209.9
1988	19.9	7.4	1.5	1.6	1.0	0.9	4.3	11.5	29.3	32.9	32.6	47.0	189.8
1989	19.0	1.0	1.3	1.1	1.5	1.2	1.9	9.2	27.2	38.3	40.9	50.0	192.5
1990	17.5	1.1	1.6	1.1	1.0	0.9	1.3	12.0	27.2	40.3	49.8	50.0	203.7
1991	14.3	0.9	1.6	3.2	1.2	0.9	3.4	18.0	33.3	46.9	77.9	69.3	271.0
1992	32.1	1.6	2.4	1.3	0.9	2.8	17.6	36.2	70.0	69.2	60.4	45.7	340.2
1993	18.7	2.3	1.8	2.2	1.6	1.2	4.0	5.5	42.4	61.0	57.1	46.9	244.7
1994	9.8	3.0	1.5	1.3	1.3	0.9	1.4	3.2	26.0	30.3	24.2	27.2	130.1
1995	1.2	1.9	1.3	1.2	0.9	1.1	5.4	12.2	30.1	36.0	38.4	48.6	178.3
1996	12.7	1.2	1.1	1.2	1.2	1.2	1.8	13.0	28.8	36.3	40.0	28.8	167.4
1997	18.2	3.2	5.4	2.2	1.5	0.9	0.9	5.8	27.8	67.0	81.9	84.5	299.4
1998	34.8	2.2	1.7	1.8	0.8	1.1	10.2	23.4	41.3	70.8	85.4	70.0	343.5
1999	19.1	1.3	1.3	1.1	1.4	1.0	3.1	25.9	32.1	39.6	66.3	70.7	262.7
2000	13.5	1.8	1.7	2.0	2.0	0.9	7.8	26.8	37.5	73.7	89.8	63.0	320.4
2001	21.3	4.4	5.8	5.4	3.0	2.0	9.1	13.5	49.6	65.4	60.1	47.5	287.2
2002	16.4	1.3	1.2	1.1	1.0	1.0	1.6	5.7	23.8	45.6	62.7	59.2	220.6
2003	17.5	2.1	2.0	1.6	0.8	1.4	4.1	24.1	30.4	45.9	63.9	50.7	244.7
2004	17.1	1.5	1.1	1.7	1.2	0.9	6.1	16.2	35.2	50.8	53.6	47.5	232.9
2005	18.1	1.7	1.2	1.6	1.0	1.0	3.3	12.0	49.1	52.9	50.3	46.0	238.4
2006	7.7	1.4	1.9	1.0	1.5	0.9	1.2	5.1	24.6	36.3	36.5	49.8	167.8
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	18.7	2.2	2.5	3.3	1.8	2.9	5.7	15.2	32.7	50.0	60.3	55.3	250.6

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 CC Adverse (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	972	797	107
1927	237	30	25	19	19	15	30	43	-	164	568	810	119
1928	122	15	17	23	5	-	-	-	-	-	-	93	17
1929	178	17	-	-	-	-	-	-	-	548	989	811	155
1930	303	55	29	29	15	21	50	115	418	486	395	675	157
1931	311	34	33	22	22	15	84	174	386	476	481	756	169
1932	205	20	20	19	25	15	24	28	-	-	25	976	81
1933	221	7	-	-	-	-	-	-	-	-	-	-	14
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	234	-	-	-	-	-	-	-	-	-	-	-	14
1936	-	-	-	-	-	-	-	-	-	-	129	840	58
1937	288	120	40	29	37	21	22	-	-	306	837	839	154
1938	307	25	16	16	20	8	-	-	-	-	-	267	40
1939	251	28	7	-	-	-	-	-	-	-	452	857	96
1940	288	46	29	19	9	-	-	-	-	226	992	821	148
1941	248	40	21	23	20	26	121	104	434	467	465	586	155
1942	180	22	24	26	18	22	69	252	378	432	561	792	168
1943	320	19	17	26	23	19	33	132	-	-	479	978	124
1944	225	33	26	27	25	26	96	194	730	797	744	709	220
1945	248	39	30	20	17	17	36	135	492	648	649	808	190
1946	315	17	19	17	21	15	24	34	-	-	-	-	28
1947	270	29	-	-	-	-	-	-	-	-	-	47	21
1948	139	-	-	-	-	-	-	-	-	-	-	-	9
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	92	5
1953	332	56	49	21	-	-	-	-	-	-	-	544	60
1954	220	20	2	-	-	-	-	-	-	-	-	-	15
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	646	38
1959	176	14	5	-	-	-	-	-	-	-	-	-	12
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	335	20
1963	222	24	5	-	-	-	-	-	-	-	612	806	101
1964	326	17	21	16	18	12	-	-	-	-	-	-	25
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	493	29
1967	306	22	18	-	-	-	-	-	-	-	-	-	21
1968	236	16	-	-	-	-	-	-	-	-	-	-	15
1969	153	-	-	-	-	-	-	-	-	-	-	67	13
1970	226	37	20	-	-	-	-	-	-	-	-	193	29
1971	318	31	40	19	-	-	-	-	-	-	-	-	25
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	710	42
1974	302	25	9	-	-	-	-	-	-	-	-	-	21
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	773	638	85
1978	312	20	3	-	-	-	-	-	-	-	-	722	64
1979	299	26	21	44	28	17	29	-	-	72	784	810	129
1980	323	54	23	27	29	15	18	11	-	370	758	826	149
1981	268	18	19	22	18	14	-	-	-	218	905	838	141
1982	114	22	12	21	19	-	-	-	-	-	-	-	11
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	653	812	89
1986	311	24	36	40	28	15	72	45	97	735	814	786	183
1987	328	23	25	21	15	15	48	-	93	568	779	828	167
1988	323	125	22	26	17	15	72	186	492	535	530	790	190
1989	308	16	21	17	26	20	32	93	-	514	664	840	155
1990	284	19	24	17	18	15	6	-	-	-	109	840	80
1991	233	12	-	-	-	-	-	-	-	-	-	-	15
1992	-	-	-	-	-	-	-	-	-	-	918	769	102
1993	304	38	30	35	29	19	67	75	600	993	929	788	237
1994	159	51	25	21	23	15	23	52	436	493	394	457	130
1995	20	32	20	20	16	18	90	198	506	586	624	817	178
1996	207	17	12	19	21	9	-	-	-	-	-	-	17
1997	200	14	-	-	-	-	-	-	-	-	-	-	13
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	84	14	-	-	-	-	-	-	-	-	-	-	6
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	516	977	799	139
2002	267	22	16	18	19	16	28	42	-	-	-	533	58
2003	285	36	33	26	12	-	-	-	-	-	290	853	93
2004	279	25	17	28	21	15	4	-	-	794	872	799	174
2005	294	29	18	25	18	17	55	196	826	861	818	773	238
2006	126	23	28	16	27	15	20	55	-	22	594	837	106
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	161	19	11	10	8	6	14	27	73	146	278	401	70

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 CC Adverse (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	36	33	5	72	315	279	47	-	-	7	-	-	47
1927	-	-	-	-	-	-	150	306	-	4	-	-	28
1928	-	-	-	205	118	310	400	400	21	2	246	13	104
1929	-	19	30	30	56	6	-	-	-	60	-	-	12
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	231	-	-	-	-	-	14
1932	-	-	-	-	-	129	400	400	400	101	174	-	97
1933	-	160	400	400	334	64	158	-	-	375	263	13	131
1934	110	188	364	400	25	149	-	-	-	365	374	13	122
1935	-	8	82	351	400	121	-	-	-	187	247	13	84
1936	29	36	29	9	56	4	123	366	38	90	180	-	58
1937	-	-	-	-	-	-	63	182	-	39	-	-	17
1938	-	-	-	383	57	263	301	400	67	-	196	13	102
1939	-	-	18	181	10	44	335	-	-	82	83	-	46
1940	-	-	-	110	326	400	306	58	-	70	-	-	76
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	97	26	238	86	91	-	-	-	-	-	32
1943	-	-	-	-	-	-	360	395	64	-	-	-	50
1944	-	-	-	-	-	-	-	13	-	-	-	-	1
1945	-	-	-	-	-	-	-	339	98	-	-	-	27
1946	-	-	-	34	11	400	363	400	333	-	177	13	105
1947	-	-	242	364	348	219	-	-	13	171	334	13	103
1948	1	5	169	213	27	16	230	160	-	400	400	13	100
1949	19	16	213	30	28	65	200	-	-	400	400	13	84
1950	83	28	152	198	35	16	292	186	-	327	400	337	125
1951	281	379	374	1	18	71	1	-	-	400	400	13	118
1952	123	25	77	33	138	19	339	306	148	32	258	13	91
1953	-	-	-	-	-	2	75	275	-	41	238	13	39
1954	-	-	232	400	343	299	3	-	-	335	266	13	114
1955	10	33	18	10	29	47	-	170	174	335	262	13	67
1956	5	228	400	81	37	223	-	-	-	385	400	13	108
1957	77	126	281	400	178	117	-	-	-	379	354	13	117
1958	84	20	7	162	400	369	36	-	16	95	206	-	83
1959	-	-	70	400	364	299	53	-	-	400	333	13	117
1960	5	121	400	386	30	9	-	-	-	400	400	13	108
1961	46	6	141	316	400	52	13	-	-	400	400	13	107
1962	19	35	72	317	338	98	216	-	-	25	218	-	80
1963	-	-	7	28	152	123	259	-	-	-	-	-	33
1964	-	-	-	-	19	245	311	217	400	314	235	13	106
1965	17	46	53	73	400	207	-	-	-	400	307	13	91
1966	28	26	23	34	15	218	400	168	215	102	292	-	92
1967	-	-	12	400	400	110	17	-	32	-	241	13	73
1968	-	22	18	28	267	400	55	-	151	32	303	13	78
1969	6	13	7	44	61	14	127	400	232	110	319	13	82
1970	-	-	-	19	153	201	157	-	-	8	274	13	50
1971	-	-	-	-	3	43	-	367	160	400	400	58	88
1972	72	242	270	53	112	117	0	-	-	374	400	72	104
1973	48	65	325	400	116	6	-	-	47	101	152	-	77
1974	-	-	-	169	372	258	400	39	-	400	389	13	122
1975	74	16	48	313	116	63	129	23	-	400	400	13	97
1976	73	400	400	264	16	189	-	-	-	400	400	13	132
1977	79	43	28	40	26	176	57	-	-	-	-	-	27
1978	-	-	219	298	142	228	251	10	-	0	128	-	77
1979	-	-	-	-	-	-	-	235	-	30	-	-	16
1980	-	-	-	-	-	-	225	296	-	7	-	-	32
1981	-	-	-	-	186	361	233	27	-	2	-	-	48
1982	-	-	-	-	171	400	266	400	400	233	244	13	128
1983	7	23	7	305	322	142	-	-	-	255	318	13	84
1984	59	1	27	212	295	299	65	25	89	21	209	13	79
1985	16	6	31	15	35	42	-	-	-	42	32	-	13
1986	-	-	-	-	-	30	118	91	-	-	-	-	14
1987	-	-	-	-	50	359	335	53	-	-	-	-	48
1988	-	-	-	-	-	-	-	69	-	-	-	-	4
1989	-	-	-	-	-	-	387	400	170	-	-	-	58
1990	-	-	-	-	-	196	400	347	66	8	170	-	72
1991	-	40	332	236	366	312	55	-	-	359	339	13	124
1992	31	8	16	74	400	374	-	-	-	7	-	-	54
1993	-	-	-	-	-	-	-	194	-	-	-	-	12
1994	-	-	-	-	-	-	-	35	-	-	-	-	2
1995	-	-	-	-	86	327	132	-	-	-	-	-	33
1996	-	-	302	358	239	93	365	400	46	-	146	13	119
1997	-	21	48	14	8	225	400	90	-	370	400	39	98
1998	67	345	344	343	100	1	-	-	-	321	337	13	114
1999	39	0	4	308	99	89	83	72	83	321	239	13	82
2000	11	24	400	290	59	-	-	-	-	400	283	13	91
2001	27	39	52	49	24	11	-	-	-	82	-	-	17
2002	-	-	-	-	-	4	333	400	400	330	266	13	106
2003	-	-	-	-	-	225	400	20	-	31	105	-	47
2004	-	-	-	-	-	-	96	-	-	-	-	-	6
2005	-	-	-	-	-	152	357	56	-	-	-	-	34
2006	-	-	-	113	138	7	337	390	196	8	-	-	71
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	20	35	85	123	119	129	142	113	50	145	179	12	70

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 CC Adverse (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	55	315	275	47	-	-	-	-	-	41
1927	-	-	-	-	-	-	150	306	-	-	-	-	28
1928	-	-	-	205	106	307	400	400	21	-	-	-	87
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	231	-	-	-	-	-	14
1932	-	-	-	-	-	129	400	400	400	97	-	-	86
1933	-	159	384	388	309	56	158	-	-	369	-	-	110
1934	-	182	119	-	-	-	-	-	-	106	-	-	25
1935	-	-	65	339	400	109	-	-	-	181	-	-	65
1936	-	-	-	-	-	-	123	366	38	-	-	-	32
1937	-	-	-	-	-	-	63	182	-	-	-	-	15
1938	-	-	-	383	57	263	301	400	67	-	-	-	89
1939	-	-	-	181	1	40	335	-	-	-	-	-	34
1940	-	-	-	110	326	400	306	58	-	-	-	-	72
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	97	26	238	86	91	-	-	-	-	-	32
1943	-	-	-	-	-	-	360	395	64	-	-	-	50
1944	-	-	-	-	-	-	-	13	-	-	-	-	1
1945	-	-	-	-	-	-	-	339	98	-	-	-	27
1946	-	-	-	34	11	400	363	400	333	-	-	-	93
1947	-	-	219	347	347	219	-	-	13	110	-	-	75
1948	-	-	168	198	-	-	230	160	-	184	-	-	57
1949	-	-	202	1	-	64	200	-	-	59	-	-	32
1950	-	-	141	163	-	-	292	186	-	143	4	324	76
1951	243	364	374	-	-	-	1	-	-	241	2	-	75
1952	-	-	52	-	106	-	339	306	148	-	-	-	57
1953	-	-	-	-	-	-	75	275	-	-	-	-	21
1954	-	-	232	378	320	298	3	-	-	335	-	-	94
1955	-	-	-	-	-	-	-	170	174	330	-	-	41
1956	-	223	399	12	-	-	-	-	-	331	50	-	62
1957	-	104	175	375	162	117	-	-	-	233	-	-	70
1958	-	-	-	156	400	366	36	-	16	-	-	-	57
1959	-	-	68	399	350	299	53	-	-	348	4	-	91
1960	-	90	392	356	26	-	-	-	-	128	-	-	61
1961	-	-	131	309	400	52	13	-	-	73	-	-	58
1962	-	-	61	307	336	86	216	-	-	-	-	-	59
1963	-	-	-	-	147	117	259	-	-	-	-	-	31
1964	-	-	-	-	19	243	311	217	400	312	-	-	91
1965	-	-	46	26	400	206	-	-	-	399	26	-	65
1966	-	-	-	-	-	211	400	168	215	-	-	-	60
1967	-	-	9	400	400	110	17	-	32	-	-	-	57
1968	-	-	-	17	259	397	55	-	151	-	-	-	53
1969	-	-	-	-	-	-	127	400	232	44	-	-	49
1970	-	-	-	-	153	198	157	-	-	-	-	-	30
1971	-	-	-	-	-	-	-	367	160	387	111	44	65
1972	-	217	264	48	83	117	0	-	-	338	56	59	72
1973	-	35	249	267	96	-	-	-	47	-	-	-	42
1974	-	-	-	153	372	258	400	39	-	400	159	-	106
1975	-	-	39	308	91	56	129	23	-	314	12	-	59
1976	31	389	99	21	-	-	-	-	-	396	206	-	69
1977	-	-	-	-	-	163	57	-	-	-	-	-	13
1978	-	-	208	287	138	226	251	10	-	-	-	-	67
1979	-	-	-	-	-	-	-	235	-	-	-	-	14
1980	-	-	-	-	-	-	225	296	-	-	-	-	32
1981	-	-	-	-	186	361	233	27	-	-	-	-	48
1982	-	-	-	-	171	400	266	400	400	232	-	-	113
1983	-	-	-	295	322	142	-	-	-	255	-	-	60
1984	-	-	-	198	295	299	65	25	89	20	-	-	59
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	30	118	91	-	-	-	-	14
1987	-	-	-	-	50	359	335	53	-	-	-	-	48
1988	-	-	-	-	-	-	-	69	-	-	-	-	4
1989	-	-	-	-	-	-	387	400	170	-	-	-	58
1990	-	-	-	-	-	196	400	347	66	-	-	-	61
1991	-	40	325	209	362	312	55	-	-	355	-	-	100
1992	-	-	-	70	400	359	-	-	-	-	-	-	49
1993	-	-	-	-	-	-	-	194	-	-	-	-	12
1994	-	-	-	-	-	-	-	35	-	-	-	-	2
1995	-	-	-	-	86	327	132	-	-	-	-	-	33
1996	-	-	302	358	239	90	365	400	46	-	-	-	109
1997	-	-	-	-	-	225	400	90	-	329	46	25	68
1998	35	329	335	335	100	-	-	-	-	243	-	-	83
1999	-	-	-	306	93	88	83	72	83	321	-	-	63
2000	-	14	391	281	49	-	-	-	-	400	2	-	70
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	4	333	400	400	306	-	-	87
2003	-	-	-	-	-	219	400	20	-	-	-	-	38
2004	-	-	-	-	-	-	96	-	-	-	-	-	6
2005	-	-	-	-	-	152	357	56	-	-	-	-	34
2006	-	-	-	113	138	7	337	390	196	-	-	-	71
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	4	26	68	104	109	117	142	113	50	103	8	6	51

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 CC Adverse (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	36	33	5	18	-	4	-	-	-	7	-	-	6
1927	-	-	-	-	-	-	-	-	-	4	-	-	0
1928	-	-	-	-	12	3	-	-	-	2	246	13	17
1929	-	19	30	30	56	6	-	-	-	60	-	-	12
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	4	174	-	11
1933	-	1	16	12	25	8	-	-	-	6	263	13	21
1934	110	6	245	400	25	149	-	-	-	259	374	13	97
1935	-	8	17	12	0	11	-	-	-	7	247	13	19
1936	29	36	29	9	56	4	-	-	-	90	180	-	26
1937	-	-	-	-	-	-	-	-	-	39	-	-	2
1938	-	-	-	-	-	-	-	-	-	-	196	13	13
1939	-	-	18	0	9	4	-	-	-	82	83	-	12
1940	-	-	-	-	-	-	-	-	-	70	-	-	4
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	177	13	12
1947	-	-	23	17	0	-	-	-	-	61	334	13	28
1948	1	5	1	14	27	16	-	-	-	216	400	13	43
1949	19	16	11	29	28	1	-	-	-	341	400	13	52
1950	83	28	10	35	35	16	-	-	-	184	396	13	49
1951	37	15	-	1	18	71	-	-	-	159	398	13	44
1952	123	25	25	33	32	19	-	-	-	32	258	13	34
1953	-	-	-	-	-	2	-	-	-	41	238	13	18
1954	-	-	-	22	24	1	-	-	-	-	266	13	20
1955	10	33	18	10	29	47	-	-	-	6	262	13	26
1956	5	5	1	69	37	223	-	-	-	54	350	13	46
1957	77	22	106	25	16	-	-	-	-	146	354	13	47
1958	84	20	7	7	-	3	-	-	-	95	206	-	26
1959	-	-	2	1	14	-	-	-	-	52	329	13	25
1960	5	30	8	29	4	9	-	-	-	272	400	13	47
1961	46	6	10	7	0	-	-	-	-	327	400	13	50
1962	19	35	11	11	2	12	-	-	-	25	218	-	20
1963	-	-	7	28	4	6	-	-	-	-	-	-	3
1964	-	-	-	-	-	2	-	-	-	2	235	13	15
1965	17	46	8	47	-	1	-	-	-	1	282	13	25
1966	28	26	23	34	15	6	-	-	-	102	292	-	32
1967	-	-	3	-	-	-	-	-	-	-	241	13	16
1968	-	22	18	11	8	3	-	-	-	32	303	13	25
1969	6	13	7	44	61	14	-	-	-	66	319	13	33
1970	-	-	-	19	0	3	-	-	-	8	274	13	19
1971	-	-	-	-	3	43	-	-	-	13	289	13	22
1972	72	26	6	6	29	-	-	-	-	36	344	13	33
1973	48	30	76	133	20	6	-	-	-	101	152	-	35
1974	-	-	-	16	-	-	-	-	-	-	230	13	16
1975	74	16	9	5	25	7	-	-	-	86	388	13	38
1976	41	11	301	242	16	189	-	-	-	4	194	13	62
1977	79	43	28	40	26	13	-	-	-	-	-	-	14
1978	-	-	12	12	3	2	-	-	-	0	128	-	10
1979	-	-	-	-	-	-	-	-	-	30	-	-	2
1980	-	-	-	-	-	-	-	-	-	7	-	-	0
1981	-	-	-	-	-	-	-	-	-	2	-	-	0
1982	-	-	-	-	-	-	-	-	-	1	244	13	16
1983	7	23	7	10	1	-	-	-	-	-	318	13	23
1984	59	1	27	14	-	-	-	-	-	1	209	13	20
1985	16	6	31	15	35	42	-	-	-	42	32	-	13
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	8	170	-	11
1991	-	-	8	27	4	-	-	-	-	5	339	13	24
1992	31	8	16	4	-	15	-	-	-	7	-	-	5
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	2	-	-	-	-	146	13	10
1997	-	21	48	14	8	0	-	-	-	40	354	13	31
1998	31	16	9	8	-	1	-	-	-	78	337	13	30
1999	39	0	4	2	6	0	-	-	-	-	239	13	19
2000	11	10	9	9	10	-	-	-	-	-	282	13	21
2001	27	39	52	49	24	11	-	-	-	82	-	-	17
2002	-	-	-	-	-	-	-	-	-	24	266	13	19
2003	-	-	-	-	-	5	-	-	-	31	105	-	9
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	8	-	-	1
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	16	9	16	19	9	12	-	-	-	43	171	7	18

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 CC Adverse (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26	-	-	-	-	-	7,472	34,995	36,158	41,653	40,708	13,378	174,392
1927	26	-	-	-	-	-	10,369	40,829	45,431	57,406	55,367	16,834	226,261
1928	26	-	-	-	-	-	10,377	44,167	45,116	59,463	59,048	17,132	235,329
1929	26	-	-	-	-	-	7,977	37,106	37,552	43,015	41,783	13,649	181,107
1930	26	-	-	-	-	-	3,139	11,558	11,271	12,236	13,069	5,642	56,941
1931	26	-	-	-	-	-	8,030	34,163	32,153	36,027	35,426	12,041	157,866
1932	26	-	-	-	-	-	10,375	44,288	45,403	55,693	53,024	36,215	245,024
1933	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1934	18,446	-	-	-	-	-	10,375	44,046	45,402	59,531	59,978	18,172	255,951
1935	26	-	-	-	-	-	7,533	44,649	45,402	54,253	50,880	34,719	237,462
1936	26	-	-	-	-	-	10,384	44,292	45,402	59,463	59,048	17,132	235,747
1937	26	-	-	-	-	-	10,122	44,303	45,503	56,897	55,083	16,910	228,843
1938	26	-	-	-	-	-	10,375	44,323	44,453	54,451	51,157	35,094	239,879
1939	26	-	-	-	-	-	10,355	40,941	45,402	59,531	59,644	18,172	234,071
1940	26	-	-	-	-	-	10,378	42,217	45,765	55,876	54,543	16,142	224,946
1941	26	-	-	-	-	-	1,969	6,587	7,591	8,617	9,643	4,748	39,182
1942	26	-	-	-	-	-	9,855	35,700	35,939	40,829	39,712	13,143	175,205
1943	26	-	-	-	-	-	10,375	43,018	45,402	54,224	50,769	34,525	238,340
1944	26	-	-	-	-	-	6,716	27,417	28,485	32,042	31,229	10,390	136,305
1945	26	-	-	-	-	-	9,926	44,122	44,995	58,611	56,901	17,265	231,847
1946	26	-	-	-	-	-	10,375	44,288	44,826	54,100	50,167	5,719	209,502
1947	26	-	-	-	-	-	10,377	44,288	45,161	59,531	59,978	18,172	237,533
1948	26	-	-	-	-	-	8,215	44,289	45,402	59,357	58,533	39,679	255,501
1949	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	44,758	266,551
1950	16,516	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	283,312
1951	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1952	18,446	-	-	-	-	-	10,375	43,448	44,867	52,337	48,896	14,703	233,073
1953	26	-	-	-	-	-	7,246	43,426	45,514	58,785	57,298	17,341	229,636
1954	26	-	-	-	-	-	10,375	44,288	45,402	60,006	60,764	41,121	261,984
1955	26	-	-	-	-	-	8,153	44,310	45,402	57,541	55,116	37,389	247,937
1956	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1957	18,446	-	-	-	-	-	10,375	44,288	44,893	55,123	51,634	35,192	259,952
1958	26	-	-	-	-	-	10,122	44,301	45,402	59,439	59,830	18,157	237,276
1959	26	-	-	-	-	-	10,375	43,985	45,402	60,024	61,922	42,178	263,912
1960	26	-	-	-	-	-	10,205	44,335	43,630	59,347	58,505	39,756	255,803
1961	26	-	-	-	-	-	10,244	43,537	44,113	59,731	62,714	43,731	264,097
1962	26	-	-	-	-	-	10,382	43,943	45,402	59,531	59,978	18,172	237,434
1963	26	-	-	-	-	-	9,170	38,635	38,779	44,212	42,686	13,802	187,308
1964	26	-	-	-	-	-	10,375	44,288	45,402	59,932	62,724	43,286	266,034
1965	26	-	-	-	-	-	10,377	44,026	45,402	57,250	54,779	37,240	249,099
1966	26	-	-	-	-	-	9,785	43,300	45,402	59,531	59,978	18,172	236,194
1967	26	-	-	-	-	-	7,125	43,099	45,491	57,210	55,472	16,978	225,400
1968	26	-	-	-	-	-	7,306	43,838	45,487	59,024	57,588	16,697	229,966
1969	26	-	-	-	-	-	10,375	44,353	44,451	58,303	59,593	23,523	240,624
1970	26	-	-	-	-	-	6,995	42,522	45,525	56,765	54,809	16,851	223,493
1971	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1972	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1973	18,446	-	-	-	-	-	10,066	44,354	45,463	57,733	56,482	17,222	249,766
1974	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1975	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1976	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1977	18,446	-	-	-	-	-	4,058	17,192	17,830	19,850	21,041	7,755	106,172
1978	26	-	-	-	-	-	10,491	44,045	45,402	59,531	59,978	18,172	237,646
1979	26	-	-	-	-	-	8,636	39,193	37,646	43,074	41,546	13,590	183,711
1980	26	-	-	-	-	-	10,375	44,296	44,424	59,463	59,048	17,132	234,764
1981	26	-	-	-	-	-	10,404	43,925	45,403	59,110	58,620	17,795	235,284
1982	26	-	-	-	-	-	7,745	44,458	45,402	58,289	56,646	38,439	251,005
1983	26	-	-	-	-	-	7,652	44,525	45,402	54,372	50,905	34,681	237,562
1984	26	-	-	-	-	-	9,701	44,350	45,402	56,234	53,296	36,382	245,391
1985	26	-	-	-	-	-	9,156	43,436	41,479	47,668	45,561	14,600	201,926
1986	26	-	-	-	-	-	9,051	43,364	42,112	48,113	46,028	14,677	203,370
1987	26	-	-	-	-	-	10,292	44,265	44,588	51,497	49,575	15,577	215,820
1988	26	-	-	-	-	-	10,368	40,349	39,933	45,232	42,783	13,284	191,975
1989	26	-	-	-	-	-	10,375	44,364	44,525	59,531	59,978	18,172	236,972
1990	26	-	-	-	-	-	10,375	44,291	44,331	59,531	59,978	18,172	236,705
1991	26	-	-	-	-	-	10,375	43,635	44,778	58,505	57,314	39,082	253,715
1992	26	-	-	-	-	-	7,979	33,869	34,729	39,897	38,515	12,288	167,303
1993	26	-	-	-	-	-	8,748	39,041	35,269	40,177	38,741	12,740	174,741
1994	26	-	-	-	-	-	3,296	12,192	12,189	13,334	14,627	4,650	60,316
1995	-	-	-	-	-	-	10,122	44,487	44,142	50,935	48,306	15,220	213,212
1996	26	-	-	-	-	-	10,375	43,684	45,431	50,963	47,215	21,102	218,795
1997	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1998	18,446	-	-	-	-	-	7,485	42,949	45,597	59,364	59,421	18,059	251,322
1999	26	-	-	-	-	-	10,375	44,288	45,402	60,028	61,158	41,552	262,829
2000	26	-	-	-	-	-	10,391	44,347	45,407	53,365	49,697	33,817	237,048
2001	26	-	-	-	-	-	8,123	36,630	34,509	39,249	37,982	12,655	169,174
2002	26	-	-	-	-	-	10,375	43,497	45,402	57,285	55,935	38,229	250,749
2003	26	-	-	-	-	-	10,122	44,301	45,402	59,330	59,099	18,046	236,326
2004	26	-	-	-	-	-	10,325	44,475	45,763	55,521	52,618	15,553	224,281
2005	26	-	-	-	-	-	7,148	30,850	30,957	34,995	34,291	11,621	149,888
2006	26	-	-	-	-	-	10,375	44,360	43,590	58,643	59,978	18,172	235,144
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,503	-	-	-	-	-	9,295	41,132	41,994	52,755	52,217	24,847	224,745

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 CC Adverse (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	1,075	-	-	-	-	9,848	18,700	24,067	30,061	31,438	31,440	20,628	167,257
1927	1,075	-	-	-	-	9,848	33,028	40,536	47,317	45,726	44,214	28,653	250,396
1928	1,075	-	-	-	-	9,848	33,338	46,605	50,451	49,896	48,680	31,821	271,715
1929	1,075	-	-	-	-	9,848	20,259	25,741	31,386	32,603	32,377	21,270	174,560
1930	1,075	-	-	-	-	9,848	13,732	6,357	7,469	7,414	8,267	5,084	59,246
1931	1,075	-	-	-	-	9,848	26,614	23,473	26,259	26,659	26,826	17,511	158,264
1932	1,075	-	-	-	-	9,848	33,741	46,592	52,492	57,411	55,899	35,995	293,052
1933	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1934	20,709	-	-	-	-	9,848	33,741	44,648	49,757	49,896	48,680	31,821	289,101
1935	1,075	-	-	-	-	9,848	31,493	45,973	53,487	54,987	53,420	34,659	284,942
1936	1,075	-	-	-	-	9,848	26,966	39,771	49,757	49,896	48,680	31,821	257,815
1937	1,075	-	-	-	-	9,848	26,884	37,233	45,859	45,167	43,978	28,863	238,907
1938	1,075	-	-	-	-	9,848	33,741	46,699	51,832	55,286	53,741	35,003	287,226
1939	1,075	-	-	-	-	9,848	33,935	41,968	49,757	49,896	48,680	31,821	266,982
1940	1,075	-	-	-	-	9,848	33,608	38,519	42,174	44,022	44,289	29,296	242,830
1941	1,075	-	-	-	-	9,848	13,574	2,632	4,171	4,497	5,454	3,393	44,643
1942	1,075	-	-	-	-	9,848	33,600	24,967	29,853	30,730	30,569	20,093	180,735
1943	1,075	-	-	-	-	9,846	33,741	45,357	52,953	55,059	53,319	34,479	285,830
1944	1,075	-	-	-	-	9,848	14,907	17,995	22,845	23,383	23,589	14,986	128,629
1945	1,075	-	-	-	-	9,848	31,829	46,570	47,536	47,193	45,557	29,645	259,253
1946	1,075	-	-	-	-	9,848	33,862	46,592	52,313	54,850	52,723	33,807	285,069
1947	1,075	-	-	-	-	9,848	33,811	46,592	50,414	49,896	48,680	31,821	272,138
1948	1,075	-	-	-	-	9,848	33,828	46,879	52,490	61,209	60,414	38,345	304,089
1949	1,075	-	-	-	-	9,848	33,838	46,592	52,490	60,108	59,321	39,294	302,566
1950	22,549	-	-	-	-	9,845	33,740	46,592	52,490	60,108	59,321	39,294	323,940
1951	20,709	-	-	-	-	9,848	33,743	46,592	52,490	60,108	59,321	39,294	322,105
1952	20,709	-	-	-	-	9,848	33,091	38,500	39,339	40,639	39,234	25,666	247,028
1953	1,075	-	-	-	-	9,848	30,282	43,151	48,851	47,450	45,899	29,843	256,398
1954	1,075	-	-	-	-	9,848	33,741	46,594	52,490	60,826	60,182	38,937	303,694
1955	1,075	-	-	-	-	9,848	33,927	47,019	52,565	59,977	58,270	36,912	299,593
1956	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1957	20,709	-	-	-	-	9,848	33,742	46,592	52,488	56,283	54,293	35,095	309,050
1958	1,075	-	-	-	-	9,845	27,896	39,776	49,567	49,301	48,406	31,793	257,658
1959	1,075	-	-	-	-	9,848	33,741	46,611	52,490	60,609	59,933	39,187	303,495
1960	1,075	-	-	-	-	9,848	33,612	46,653	50,943	61,202	60,439	38,402	302,174
1961	1,075	-	-	-	-	9,848	33,728	46,145	51,407	60,172	59,552	39,468	301,394
1962	1,075	-	-	-	-	9,848	33,541	40,123	49,757	49,896	48,680	31,821	264,742
1963	1,075	-	-	-	-	9,845	32,109	26,952	32,550	33,615	33,157	21,638	190,942
1964	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,377	59,645	39,395	303,164
1965	1,075	-	-	-	-	9,848	33,633	46,790	52,716	59,440	57,920	36,804	298,226
1966	1,075	-	-	-	-	9,848	33,241	43,109	49,757	49,896	48,680	31,821	267,428
1967	1,075	-	-	-	-	9,848	29,862	42,483	47,829	45,465	44,316	29,007	249,884
1968	1,075	-	-	-	-	9,848	31,847	43,698	49,248	48,192	46,954	30,685	261,547
1969	1,075	-	-	-	-	9,848	33,741	46,699	50,958	49,786	48,411	31,779	272,298
1970	1,075	-	-	-	-	9,848	31,638	41,757	47,526	45,003	43,741	28,713	249,300
1971	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1972	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1973	20,709	-	-	-	-	9,848	25,511	36,842	46,533	46,079	45,195	29,621	260,338
1974	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1975	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1976	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1977	20,709	-	-	-	-	9,848	12,308	10,541	13,346	13,546	14,827	9,253	104,377
1978	1,075	-	-	-	-	9,848	33,572	40,642	49,757	49,896	48,680	31,821	265,292
1979	1,075	-	-	-	-	9,848	20,825	27,450	31,476	32,656	32,171	21,127	176,628
1980	1,075	-	-	-	-	9,848	33,698	46,659	49,686	49,896	48,680	31,821	271,364
1981	1,075	-	-	-	-	9,848	33,854	40,711	48,803	48,141	47,070	30,916	260,418
1982	1,075	-	-	-	-	9,848	32,433	46,660	52,591	60,860	59,703	37,607	300,777
1983	1,075	-	-	-	-	9,848	32,357	46,567	53,490	55,173	53,449	34,630	286,589
1984	1,075	-	-	-	-	9,848	32,437	47,046	52,638	57,943	56,213	36,114	293,314
1985	1,075	-	-	-	-	9,848	22,636	30,814	35,110	36,572	35,678	23,484	195,216
1986	1,075	-	-	-	-	9,848	27,901	30,700	35,716	36,950	36,080	23,651	201,921
1987	1,075	-	-	-	-	9,848	33,764	42,309	38,772	39,835	39,176	25,757	230,536
1988	1,075	-	-	-	-	9,846	33,732	29,132	33,577	34,500	33,813	22,080	197,755
1989	1,075	-	-	-	-	9,848	33,779	46,708	50,667	49,896	48,680	31,821	272,475
1990	1,075	-	-	-	-	9,848	33,741	46,595	50,670	49,896	48,680	31,821	272,327
1991	1,075	-	-	-	-	9,848	33,759	46,083	51,986	61,026	60,245	37,979	302,002
1992	1,075	-	-	-	-	9,848	17,039	22,947	28,641	29,954	30,026	19,577	159,107
1993	1,075	-	-	-	-	9,848	24,769	27,366	29,216	30,174	29,707	19,126	171,280
1994	1,075	-	-	-	-	9,848	20,041	6,831	8,291	8,297	9,552	6,001	69,937
1995	1,072	-	-	-	-	9,848	28,561	35,865	38,487	39,404	38,103	24,926	216,265
1996	1,075	-	-	-	-	9,848	33,841	43,921	52,270	50,968	49,184	32,058	273,165
1997	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1998	20,709	-	-	-	-	9,848	31,167	42,621	49,730	49,187	47,938	31,549	282,750
1999	1,075	-	-	-	-	9,848	33,741	46,730	52,490	60,818	60,105	39,031	303,838
2000	1,075	-	-	-	-	9,848	33,761	45,843	53,461	53,844	52,053	33,810	283,694
2001	1,075	-	-	-	-	9,848	21,835	25,396	28,494	29,385	29,054	18,953	164,041
2002	1,075	-	-	-	-	9,848	33,760	45,947	52,490	59,710	59,052	37,471	299,353
2003	1,075	-	-	-	-	9,848	27,923	39,759	48,911	48,718	47,977	31,534	255,745
2004	1,075	-	-	-	-	9,848	31,312	35,254	43,257	43,629	42,610	27,807	234,792
2005	1,075	-	-	-	-	9,848	25,016	20,798	25,119	25,785	25,823	16,517	149,981
2006	1,075	-	-	-	-	9,848	33,804	46,684	50,938	51,196	48,680	31,821	274,046
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	3,764	-	-	-	-	9,848	30,372	39,246	44,662	47,288	46,394	30,243	251,818

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 CC Adverse (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	23,894	-	-	-	-	6,904	45,088	72,189	69,600	76,552	72,807	49,897	416,930
1927	23,792	-	-	-	-	6,904	53,299	91,855	86,659	92,623	85,657	53,802	494,590
1928	23,894	-	-	-	-	6,904	54,451	108,227	95,338	97,312	90,146	55,333	531,605
1929	23,894	-	-	-	-	6,904	45,873	74,353	70,909	77,863	73,749	50,207	423,753
1930	23,894	-	-	-	-	6,904	39,109	49,389	47,255	49,535	49,513	42,347	307,944
1931	23,894	-	-	-	-	6,904	45,855	71,454	65,838	71,176	68,171	48,382	401,673
1932	23,894	-	-	-	-	6,904	56,318	110,491	119,647	106,716	97,402	57,659	579,030
1933	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1934	27,579	-	-	-	-	6,904	56,318	103,159	89,080	97,312	90,146	55,333	525,831
1935	23,894	-	-	-	-	6,904	51,182	101,905	94,792	103,037	94,912	56,817	533,442
1936	23,894	-	-	-	-	6,904	49,888	92,416	89,080	97,312	90,146	55,333	504,973
1937	23,894	-	-	-	-	6,904	49,157	89,160	85,222	91,994	85,414	53,898	485,642
1938	23,894	-	-	-	-	6,904	56,318	108,798	107,917	103,375	95,227	57,028	559,460
1939	23,894	-	-	-	-	6,904	53,332	90,411	89,080	97,312	90,146	52,269	503,348
1940	23,725	-	-	-	-	6,904	54,767	87,997	81,589	90,703	85,716	54,109	485,510
1941	23,894	-	-	-	-	6,904	37,480	44,580	43,994	46,255	46,680	41,525	291,312
1942	23,894	-	-	-	-	6,904	48,418	72,870	69,394	75,755	71,932	49,634	418,801
1943	23,894	-	-	-	-	6,904	56,318	96,931	98,662	103,118	94,815	56,712	537,353
1944	23,894	-	-	-	-	6,904	43,088	64,366	62,462	67,491	64,924	47,161	380,291
1945	23,894	-	-	-	-	6,904	47,033	107,203	90,226	94,273	87,005	54,286	510,823
1946	23,894	-	-	-	-	6,904	55,452	110,491	109,876	102,884	94,213	56,345	560,059
1947	23,894	-	-	-	-	6,904	55,684	110,491	94,382	97,312	90,146	55,333	534,146
1948	23,894	-	-	-	-	6,904	52,809	108,541	105,244	113,471	103,809	59,601	574,273
1949	23,894	-	-	-	-	6,904	55,709	110,491	119,660	123,857	118,505	79,571	638,591
1950	21,071	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	637,888
1951	27,579	-	-	-	-	6,904	56,308	110,491	119,660	123,857	118,505	80,862	644,166
1952	24,213	-	-	-	-	6,904	53,599	91,300	78,780	86,902	80,648	52,345	474,691
1953	23,894	-	-	-	-	6,904	50,502	96,871	88,179	94,561	87,350	54,379	502,640
1954	23,894	-	-	-	-	6,904	56,318	110,127	112,932	116,287	106,419	60,410	593,292
1955	23,894	-	-	-	-	6,904	53,621	107,291	101,922	109,008	99,839	58,316	560,794
1956	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1957	27,579	-	-	-	-	6,904	56,313	110,491	104,958	104,507	95,791	57,083	563,627
1958	23,894	-	-	-	-	6,904	47,304	92,416	88,890	96,642	89,938	50,721	496,709
1959	23,559	-	-	-	-	6,904	56,318	107,412	108,388	117,940	108,010	61,003	589,533
1960	23,894	-	-	-	-	6,904	54,061	109,679	100,700	113,518	103,772	59,646	572,174
1961	23,894	-	-	-	-	6,904	53,206	104,207	110,530	122,894	110,786	61,868	594,289
1962	23,894	-	-	-	-	6,904	54,691	91,855	89,080	97,312	90,146	55,333	509,215
1963	23,894	-	-	-	-	6,904	48,189	75,918	72,061	79,002	74,538	49,027	429,534
1964	23,188	-	-	-	-	6,904	56,318	110,491	117,386	119,795	110,070	61,625	605,775
1965	23,894	-	-	-	-	6,904	52,632	106,200	101,070	108,285	99,444	58,233	556,662
1966	23,894	-	-	-	-	6,904	51,725	96,669	89,080	97,312	90,146	55,333	511,063
1967	23,894	-	-	-	-	6,904	50,506	95,929	87,164	92,328	85,754	53,970	496,450
1968	23,894	-	-	-	-	6,904	49,529	97,537	88,574	95,396	88,407	54,786	505,027
1969	23,894	-	-	-	-	6,904	56,318	109,044	99,590	97,189	89,866	55,322	538,126
1970	23,894	-	-	-	-	6,904	47,252	94,985	86,864	91,809	85,174	53,827	490,709
1971	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1972	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1973	27,579	-	-	-	-	6,904	49,106	88,626	85,889	93,019	86,640	52,152	489,916
1974	23,838	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,655
1975	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1976	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1977	27,579	-	-	-	-	6,904	40,802	54,770	53,067	56,430	56,112	44,369	340,034
1978	23,894	-	-	-	-	6,904	50,516	94,009	89,080	97,312	90,146	55,333	507,195
1979	23,894	-	-	-	-	6,904	47,133	76,575	70,998	77,924	73,542	50,138	427,108
1980	23,894	-	-	-	-	6,904	54,506	109,520	89,529	97,312	90,146	55,333	527,145
1981	23,894	-	-	-	-	6,904	55,128	94,164	88,135	95,338	88,520	54,898	506,981
1982	23,894	-	-	-	-	6,904	51,824	104,636	101,266	110,661	101,615	58,905	559,706
1983	23,894	-	-	-	-	6,904	50,846	103,781	95,116	103,247	94,942	56,798	535,528
1984	23,894	-	-	-	-	6,904	48,362	106,128	101,382	106,473	97,719	57,749	548,612
1985	23,894	-	-	-	-	6,904	48,072	80,914	74,598	82,328	77,066	51,283	445,059
1986	23,894	-	-	-	-	6,904	46,763	80,737	75,193	82,755	77,473	51,366	445,086
1987	23,894	-	-	-	-	6,904	52,367	101,137	78,214	85,997	80,585	52,388	481,486
1988	23,894	-	-	-	-	6,904	54,654	77,769	73,076	79,997	75,196	50,604	442,093
1989	23,894	-	-	-	-	6,904	55,884	109,025	98,077	97,312	90,146	55,333	536,574
1990	23,894	-	-	-	-	6,904	56,318	110,451	99,967	97,312	90,146	55,333	540,326
1991	23,894	-	-	-	-	6,904	56,210	106,861	102,238	111,245	102,388	59,262	569,002
1992	23,894	-	-	-	-	6,904	44,895	70,747	68,195	74,882	71,389	49,386	410,291
1993	23,804	-	-	-	-	6,904	44,810	76,491	68,764	75,130	71,074	49,169	416,147
1994	23,894	-	-	-	-	6,904	38,865	49,996	48,068	50,528	50,803	42,793	311,851
1995	23,785	-	-	-	-	6,904	47,591	87,438	77,940	85,513	79,510	51,984	460,665
1996	23,894	-	-	-	-	6,904	55,703	97,380	92,097	98,518	90,654	55,450	520,601
1997	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1998	27,579	-	-	-	-	6,904	50,681	96,875	89,051	96,515	89,394	55,201	512,200
1999	23,894	-	-	-	-	6,904	56,318	109,832	115,077	116,346	106,911	60,649	595,931
2000	23,894	-	-	-	-	6,904	56,068	102,706	94,073	101,752	93,542	56,334	535,273
2001	23,894	-	-	-	-	6,904	45,567	73,932	68,050	74,243	70,412	49,080	412,083
2002	23,744	-	-	-	-	6,904	56,205	106,008	119,660	109,631	100,782	58,786	581,718
2003	23,894	-	-	-	-	6,904	50,119	92,397	88,242	95,987	89,434	51,602	498,579
2004	23,567	-	-	-	-	6,904	51,171	86,614	82,652	90,264	84,040	53,386	478,599
2005	23,894	-	-	-	-	6,904	42,750	67,986	64,712	70,193	67,170	47,902	391,511
2006	23,894	-	-	-	-	6,904	55,946	109,253	107,059	97,745	90,146	55,333	546,281
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,248	-	-	-	-	6,904	51,725	95,282	92,199	97,141	90,740	57,589	515,827

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 CC Adverse (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26,528	-	-	-	-	11,217	42,742	52,986	52,199	54,428	54,233	47,742	342,075
1927	18,280	-	-	-	-	11,217	43,902	60,130	65,184	66,018	65,074	52,889	382,694
1928	26,528	-	-	-	-	11,217	44,660	63,883	66,346	67,183	66,313	53,537	399,668
1929	26,528	-	-	-	-	11,217	42,859	53,758	52,739	54,901	54,609	48,469	345,081
1930	25,801	-	-	-	-	11,217	42,008	47,083	45,416	46,892	47,335	45,148	310,901
1931	25,549	-	-	-	-	11,217	43,546	54,885	53,056	54,878	54,682	48,465	346,278
1932	21,152	-	-	-	-	11,217	45,989	64,825	72,974	71,029	69,936	55,070	412,192
1933	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1934	33,447	-	-	-	-	11,217	45,989	63,036	65,770	67,196	66,334	53,588	406,576
1935	26,528	-	-	-	-	11,217	44,012	63,097	68,316	69,936	68,905	54,595	406,604
1936	26,528	-	-	-	-	11,217	44,048	60,488	60,722	62,111	61,563	46,317	372,992
1937	18,326	-	-	-	-	11,217	43,310	59,666	59,439	60,711	60,107	50,845	363,620
1938	21,100	-	-	-	-	11,217	45,989	64,142	68,907	70,063	69,036	54,714	405,168
1939	26,510	-	-	-	-	11,217	44,554	55,506	59,213	60,571	60,125	37,662	355,358
1940	16,419	-	-	-	-	11,217	44,997	55,210	56,214	58,311	58,396	50,171	350,935
1941	25,240	-	-	-	-	11,217	42,012	46,673	45,167	46,673	46,673	45,014	308,669
1942	24,581	-	-	-	-	11,217	41,970	53,785	53,011	55,025	54,740	48,527	342,855
1943	26,528	-	-	-	-	11,217	45,989	60,202	69,395	69,967	68,864	54,535	406,697
1944	26,528	-	-	-	-	11,217	42,404	51,164	50,321	52,186	52,076	47,229	333,125
1945	26,318	-	-	-	-	11,217	39,546	63,474	60,074	60,410	59,654	50,583	371,275
1946	26,444	-	-	-	-	11,217	45,392	64,825	68,880	69,878	68,615	54,305	409,557
1947	24,621	-	-	-	-	11,217	45,664	64,825	65,999	66,788	65,901	53,372	398,387
1948	26,346	-	-	-	-	11,217	44,464	63,472	70,395	73,859	72,587	56,168	418,508
1949	26,528	-	-	-	-	11,217	45,561	63,472	71,459	76,952	77,292	60,173	432,654
1950	25,253	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	435,463
1951	36,172	-	-	-	-	11,217	45,977	64,592	71,459	76,952	77,292	62,853	446,514
1952	25,389	-	-	-	-	11,217	43,678	61,665	61,983	63,866	63,001	52,067	382,866
1953	26,361	-	-	-	-	11,217	43,785	62,921	65,730	66,748	65,775	53,216	395,750
1954	26,528	-	-	-	-	11,217	45,219	63,472	70,684	74,699	73,668	56,626	422,112
1955	26,528	-	-	-	-	11,217	44,885	63,472	70,072	72,182	70,944	55,442	414,740
1956	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1957	30,520	-	-	-	-	11,217	45,983	64,825	69,113	70,489	69,268	54,745	416,160
1958	26,528	-	-	-	-	11,217	42,155	60,196	60,225	61,671	61,223	29,450	352,664
1959	14,323	-	-	-	-	11,217	45,989	63,157	70,575	75,129	74,290	56,961	411,639
1960	26,528	-	-	-	-	11,217	44,877	64,389	65,350	73,876	72,572	56,193	415,002
1961	26,268	-	-	-	-	11,217	44,577	62,044	68,589	76,609	74,989	55,868	420,159
1962	25,874	-	-	-	-	11,217	44,580	61,071	63,506	64,858	64,035	52,512	387,653
1963	26,408	-	-	-	-	11,217	41,887	54,020	52,885	54,989	54,603	30,460	326,469
1964	13,284	-	-	-	-	11,217	45,029	63,472	71,205	75,036	74,850	57,312	411,404
1965	26,528	-	-	-	-	11,217	43,324	63,113	70,008	71,910	70,781	55,395	412,276
1966	26,528	-	-	-	-	11,217	43,769	60,011	62,320	63,530	62,825	52,036	382,236
1967	17,129	-	-	-	-	11,217	43,988	62,859	65,299	65,908	65,115	52,985	384,501
1968	26,528	-	-	-	-	11,217	43,914	62,953	65,897	67,062	66,213	53,446	397,230
1969	25,909	-	-	-	-	11,217	45,989	64,320	66,164	67,736	66,818	53,748	401,901
1970	26,376	-	-	-	-	11,217	42,644	62,772	65,172	65,712	64,875	52,904	391,672
1971	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1972	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1973	36,441	-	-	-	-	11,217	43,607	58,980	59,073	60,442	59,987	31,604	361,351
1974	14,977	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	425,187
1975	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1976	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1977	35,602	-	-	-	-	11,217	42,183	46,673	45,189	46,873	47,308	36,879	311,922
1978	13,054	-	-	-	-	11,217	42,913	62,272	64,523	65,553	64,837	52,858	377,226
1979	26,528	-	-	-	-	11,217	43,264	54,739	53,000	55,098	54,716	48,514	347,077
1980	14,036	-	-	-	-	11,217	44,634	64,459	59,386	61,090	60,438	50,987	366,247
1981	26,528	-	-	-	-	11,217	45,437	59,279	59,207	60,486	59,970	50,796	372,920
1982	23,501	-	-	-	-	11,217	44,371	63,344	69,995	72,804	71,679	55,775	412,686
1983	26,528	-	-	-	-	11,217	44,230	63,274	68,438	70,015	68,917	54,583	407,202
1984	26,528	-	-	-	-	11,217	41,089	63,471	69,963	71,229	70,067	55,122	408,685
1985	26,528	-	-	-	-	11,217	43,521	56,117	54,544	56,435	56,039	47,146	351,547
1986	14,701	-	-	-	-	11,217	43,463	56,152	54,836	56,700	56,261	49,172	342,502
1987	20,290	-	-	-	-	11,217	43,717	61,113	54,364	56,456	56,016	49,088	352,261
1988	22,539	-	-	-	-	11,217	45,064	55,504	54,984	57,045	56,490	49,246	352,089
1989	25,701	-	-	-	-	11,217	45,642	64,279	63,234	61,639	60,946	51,196	383,854
1990	26,017	-	-	-	-	11,217	45,989	64,802	65,898	67,030	66,084	53,397	400,433
1991	26,304	-	-	-	-	11,217	45,865	63,108	68,871	73,024	72,000	55,978	416,367
1992	26,528	-	-	-	-	11,217	42,727	52,487	51,633	53,836	53,674	47,393	339,495
1993	8,778	-	-	-	-	11,217	41,993	56,010	53,659	55,731	55,269	48,645	331,302
1994	25,427	-	-	-	-	11,217	40,882	48,041	46,584	48,071	48,641	45,744	314,607
1995	22,758	-	-	-	-	11,217	42,779	59,322	57,730	59,428	58,772	50,241	362,246
1996	25,889	-	-	-	-	11,217	45,560	61,827	67,314	68,236	67,142	53,822	401,007
1997	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1998	36,441	-	-	-	-	11,217	43,663	62,831	66,099	67,482	66,622	53,682	408,038
1999	26,508	-	-	-	-	11,217	45,029	63,472	70,979	74,518	73,872	56,761	422,355
2000	26,528	-	-	-	-	11,217	45,915	62,825	68,080	69,453	68,337	54,322	406,676
2001	26,358	-	-	-	-	11,217	42,606	53,560	51,484	53,511	53,184	44,485	336,406
2002	9,750	-	-	-	-	11,217	45,871	62,750	72,982	71,917	71,335	55,708	401,531
2003	25,920	-	-	-	-	11,217	44,412	59,813	59,971	61,455	61,044	36,965	360,796
2004	10,628	-	-	-	-	11,217	44,818	57,641	57,633	59,098	58,615	50,157	349,807
2005	17,679	-	-	-	-	11,217	41,609	52,185	50,947	52,867	52,688	47,512	326,704
2006	22,069	-	-	-	-	11,217	45,740	64,317	66,857	66,517	65,840	53,254	395,809
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,813	-	-	-	-	11,217	44,169	60,269	63,062	65,328	64,798	52,315	385,969

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 CC Adverse (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	869	-	-	-	-	458	1,863	14,174	16,335	16,910	16,912	15,334	82,854
1927	744	-	-	-	-	458	4,907	13,488	17,395	18,447	18,447	16,504	90,390
1928	869	-	-	-	-	458	5,006	13,955	17,169	18,447	18,447	16,541	90,890
1929	869	-	-	-	-	458	2,077	14,199	16,434	17,004	16,988	15,381	83,411
1930	869	-	-	-	-	458	1,624	13,836	14,930	15,416	15,506	14,326	76,964
1931	869	-	-	-	-	458	3,535	14,217	16,493	16,999	17,003	15,381	84,953
1932	869	-	-	-	-	458	5,193	14,249	17,885	18,264	18,447	16,568	91,932
1933	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1934	3,562	-	-	-	-	458	5,193	13,899	17,395	18,447	18,447	16,543	93,943
1935	869	-	-	-	-	458	4,218	14,249	17,395	18,447	18,447	16,562	90,644
1936	869	-	-	-	-	458	3,514	14,249	17,395	18,431	18,402	15,856	89,174
1937	776	-	-	-	-	458	3,144	14,249	17,388	18,156	18,108	16,041	88,319
1938	869	-	-	-	-	458	5,193	14,046	16,851	18,447	18,447	16,564	90,874
1939	869	-	-	-	-	458	4,960	12,391	17,384	18,129	18,111	14,560	86,861
1940	720	-	-	-	-	458	5,045	12,987	17,041	17,680	17,760	15,859	87,549
1941	869	-	-	-	-	458	1,730	13,818	14,876	15,372	15,372	14,280	76,775
1942	869	-	-	-	-	458	4,519	14,146	16,485	17,029	17,015	15,397	85,917
1943	869	-	-	-	-	458	5,193	13,324	17,395	18,447	18,447	16,562	90,694
1944	869	-	-	-	-	458	1,568	14,099	15,959	16,465	16,471	15,018	80,908
1945	869	-	-	-	-	458	4,418	13,838	16,783	18,097	18,015	15,972	88,449
1946	869	-	-	-	-	458	5,110	14,249	16,575	18,447	18,447	16,559	90,712
1947	869	-	-	-	-	458	5,138	14,249	17,176	18,447	18,447	16,537	91,320
1948	869	-	-	-	-	458	4,545	14,249	17,395	18,447	18,447	16,582	90,990
1949	869	-	-	-	-	458	5,154	14,249	17,887	20,637	21,193	17,239	97,686
1950	2,868	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	99,756
1951	3,968	-	-	-	-	458	5,192	14,249	17,887	20,637	21,193	17,146	100,730
1952	3,872	-	-	-	-	458	4,927	14,140	17,395	18,447	18,444	16,343	94,026
1953	869	-	-	-	-	458	4,083	14,249	17,395	18,447	18,447	16,534	90,480
1954	869	-	-	-	-	458	5,193	14,249	17,396	18,447	18,447	16,587	91,645
1955	869	-	-	-	-	458	4,648	14,249	17,395	18,447	18,447	16,573	91,084
1956	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1957	3,126	-	-	-	-	458	5,192	14,249	16,985	18,447	18,447	16,564	93,467
1958	869	-	-	-	-	458	3,409	14,249	17,395	18,347	18,334	13,326	86,387
1959	710	-	-	-	-	458	5,193	14,051	17,395	18,447	18,447	16,591	91,292
1960	869	-	-	-	-	458	5,027	14,150	15,486	18,447	18,447	16,582	89,465
1961	869	-	-	-	-	458	4,895	13,485	16,485	20,001	18,447	16,598	91,237
1962	773	-	-	-	-	458	5,089	14,031	17,395	18,447	18,447	16,440	91,080
1963	869	-	-	-	-	458	4,545	14,208	16,462	17,021	16,987	12,605	83,154
1964	772	-	-	-	-	458	5,193	14,249	17,709	18,447	18,447	16,596	91,869
1965	869	-	-	-	-	458	4,872	14,051	17,395	18,447	18,447	16,572	91,110
1966	869	-	-	-	-	458	4,751	13,449	17,395	18,447	18,443	16,336	90,148
1967	736	-	-	-	-	458	4,036	14,249	17,395	18,447	18,447	16,518	90,285
1968	869	-	-	-	-	458	4,303	14,249	17,395	18,447	18,447	16,539	90,705
1969	869	-	-	-	-	458	5,193	14,059	16,377	18,447	18,447	16,545	90,394
1970	869	-	-	-	-	458	4,047	14,249	17,395	18,447	18,447	16,507	90,417
1971	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1972	3,785	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,673
1973	3,968	-	-	-	-	458	2,860	14,249	17,378	18,103	18,083	13,886	88,985
1974	758	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,646
1975	3,963	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,851
1976	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1977	3,937	-	-	-	-	458	996	13,818	14,881	15,412	15,501	13,267	78,270
1978	765	-	-	-	-	458	4,647	14,097	17,395	18,447	18,447	16,500	90,755
1979	869	-	-	-	-	458	2,264	14,212	16,483	17,043	17,010	15,394	83,733
1980	869	-	-	-	-	458	5,005	14,110	16,635	18,231	18,175	16,081	89,565
1981	869	-	-	-	-	458	5,111	14,011	17,383	18,112	18,080	16,029	90,052
1982	869	-	-	-	-	458	4,376	14,249	17,395	18,447	18,447	16,577	90,817
1983	869	-	-	-	-	458	4,361	14,249	17,395	18,447	18,447	16,562	90,786
1984	869	-	-	-	-	458	4,409	14,249	17,395	18,447	18,447	16,569	90,842
1985	869	-	-	-	-	458	2,524	14,241	16,774	17,308	17,279	15,343	84,796
1986	698	-	-	-	-	458	3,495	14,248	16,813	17,361	17,324	15,581	85,979
1987	869	-	-	-	-	458	4,839	14,064	16,734	17,312	17,275	15,557	87,108
1988	869	-	-	-	-	458	5,055	14,113	16,836	17,429	17,371	15,603	87,733
1989	869	-	-	-	-	458	5,152	14,041	16,307	18,340	18,278	16,137	89,582
1990	869	-	-	-	-	458	5,193	14,243	16,336	18,447	18,447	16,538	90,530
1991	869	-	-	-	-	458	5,187	13,810	16,890	18,447	18,447	16,580	90,686
1992	869	-	-	-	-	458	1,735	14,152	16,226	16,793	16,797	15,211	82,241
1993	777	-	-	-	-	458	2,954	14,233	16,605	17,169	17,122	15,432	84,748
1994	869	-	-	-	-	458	2,646	13,903	15,179	15,649	15,772	14,532	79,009
1995	869	-	-	-	-	458	3,465	14,249	17,237	17,902	17,835	15,877	87,892
1996	869	-	-	-	-	458	5,155	13,835	17,395	18,447	18,447	16,548	91,154
1997	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1998	3,968	-	-	-	-	458	4,169	14,249	17,395	18,447	18,447	16,545	93,676
1999	869	-	-	-	-	458	5,193	14,249	17,570	18,447	18,447	16,589	91,821
2000	869	-	-	-	-	458	5,172	14,190	17,395	18,447	18,447	16,559	91,537
2001	869	-	-	-	-	458	2,331	14,172	16,196	16,728	16,698	14,479	81,931
2002	758	-	-	-	-	458	5,186	13,699	17,887	18,226	18,447	16,576	91,238
2003	869	-	-	-	-	458	3,410	14,249	17,395	18,304	18,298	14,532	87,514
2004	715	-	-	-	-	458	4,272	14,249	17,210	17,836	17,804	15,855	88,399
2005	869	-	-	-	-	458	3,109	14,128	16,089	16,601	16,596	15,103	82,952
2006	869	-	-	-	-	458	5,172	14,100	16,030	17,898	18,447	16,534	89,508
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,237	-	-	-	-	458	4,306	14,079	17,037	18,287	18,350	16,070	89,825

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP2 CC Adverse (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	5,536	-	-	-	-	20	9,967	13,395	13,121	11,463	14,194	12,849	80,544
1927	5,536	-	-	-	-	20	11,174	13,830	14,458	13,127	14,194	12,849	85,187
1928	5,536	-	-	-	-	20	11,409	15,223	14,673	14,065	14,735	13,329	88,990
1929	5,536	-	-	-	-	20	10,502	13,543	13,121	12,524	14,194	12,849	82,289
1930	5,536	-	-	-	-	20	8,312	12,454	11,508	10,903	11,990	11,798	72,522
1931	5,536	-	-	-	-	20	10,698	13,399	13,121	11,427	13,468	12,611	80,280
1932	5,536	-	-	-	-	20	11,828	15,543	16,251	14,236	14,735	13,329	91,478
1933	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1934	7,393	-	-	-	-	20	11,828	14,964	14,527	14,065	14,735	13,329	90,861
1935	5,536	-	-	-	-	20	10,642	13,791	14,527	14,065	14,735	13,329	86,646
1936	5,536	-	-	-	-	20	10,781	13,791	14,527	14,065	14,735	13,329	86,784
1937	5,536	-	-	-	-	20	10,583	13,694	14,281	13,127	14,194	12,849	84,284
1938	5,536	-	-	-	-	20	11,828	15,310	14,955	14,065	14,735	13,329	89,778
1939	5,536	-	-	-	-	20	11,243	13,164	14,527	14,065	14,735	13,329	86,619
1940	5,536	-	-	-	-	20	11,488	13,494	14,230	13,127	14,194	12,849	84,938
1941	5,536	-	-	-	-	20	8,526	12,454	11,508	10,903	11,990	11,798	72,736
1942	5,536	-	-	-	-	20	10,352	13,359	13,121	11,427	13,468	12,611	79,894
1943	5,536	-	-	-	-	20	11,828	13,565	14,527	14,065	14,735	13,329	87,605
1944	5,536	-	-	-	-	20	8,279	12,833	12,155	11,120	12,579	12,125	74,647
1945	5,536	-	-	-	-	20	9,807	15,086	14,146	14,065	14,735	13,285	86,680
1946	5,536	-	-	-	-	20	11,607	15,543	14,976	14,065	14,735	13,329	89,811
1947	5,536	-	-	-	-	20	11,696	15,543	14,634	14,065	14,735	13,329	89,558
1948	5,536	-	-	-	-	20	11,167	14,763	15,001	14,065	14,735	13,329	88,617
1949	5,536	-	-	-	-	20	11,655	15,543	16,253	17,629	17,780	15,757	100,172
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,826	15,543	16,253	17,629	17,780	15,757	102,200
1952	7,393	-	-	-	-	20	11,128	14,100	14,230	13,127	14,194	12,849	87,040
1953	5,536	-	-	-	-	20	10,620	13,791	14,527	14,065	14,735	13,329	86,624
1954	5,536	-	-	-	-	20	11,828	15,463	15,908	17,070	17,346	14,285	97,455
1955	5,536	-	-	-	-	20	11,377	14,583	14,527	14,065	14,735	13,329	88,173
1956	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1957	7,393	-	-	-	-	20	11,827	15,543	14,842	14,065	14,735	13,329	91,753
1958	5,536	-	-	-	-	20	10,051	13,791	14,527	14,065	14,735	13,329	86,055
1959	5,536	-	-	-	-	20	11,828	14,967	15,644	17,070	17,346	15,376	97,786
1960	5,536	-	-	-	-	20	11,435	15,430	13,713	14,065	14,735	13,329	88,263
1961	5,536	-	-	-	-	20	11,323	14,686	15,029	17,433	17,346	15,376	96,749
1962	5,536	-	-	-	-	20	11,390	13,851	14,527	14,065	14,735	13,329	87,453
1963	5,536	-	-	-	-	20	10,495	13,571	14,230	13,127	14,194	12,849	84,021
1964	5,536	-	-	-	-	20	11,828	15,543	16,134	17,070	17,346	15,376	98,852
1965	5,536	-	-	-	-	20	10,919	14,916	14,571	14,065	14,735	13,329	88,091
1966	5,536	-	-	-	-	20	11,094	14,184	14,527	14,065	14,735	13,329	87,490
1967	5,536	-	-	-	-	20	10,695	13,791	14,444	13,127	14,194	12,849	84,655
1968	5,536	-	-	-	-	20	10,800	13,791	14,527	14,065	14,735	13,329	86,803
1969	5,536	-	-	-	-	20	11,828	15,338	14,348	14,065	14,735	13,329	89,199
1970	5,536	-	-	-	-	20	10,228	13,791	14,444	13,127	14,194	12,849	84,188
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,733	13,637	14,487	13,127	14,448	13,329	87,173
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	7,668	12,454	11,508	10,903	11,990	11,798	73,735
1978	5,536	-	-	-	-	20	10,682	14,195	14,527	14,065	14,735	13,329	87,090
1979	5,536	-	-	-	-	20	10,560	13,553	13,121	12,605	14,194	12,849	82,438
1980	5,536	-	-	-	-	20	11,375	15,414	14,082	14,065	14,735	13,329	88,557
1981	5,536	-	-	-	-	20	11,611	14,234	14,527	14,065	14,735	13,329	88,057
1982	5,536	-	-	-	-	20	10,677	13,791	14,527	14,065	14,735	13,329	86,681
1983	5,536	-	-	-	-	20	10,634	13,791	14,527	14,065	14,735	13,329	86,638
1984	5,536	-	-	-	-	20	10,247	13,948	14,527	14,065	14,735	13,329	86,407
1985	5,536	-	-	-	-	20	10,573	13,571	14,230	13,127	14,194	12,849	84,100
1986	5,536	-	-	-	-	20	10,654	13,571	14,230	13,127	14,194	12,849	84,180
1987	5,536	-	-	-	-	20	11,038	15,043	14,230	13,127	14,194	12,849	86,036
1988	5,536	-	-	-	-	20	11,485	13,584	14,230	13,127	14,194	12,849	85,025
1989	5,536	-	-	-	-	20	11,714	15,346	14,244	14,065	14,735	13,329	88,989
1990	5,536	-	-	-	-	20	11,828	15,538	14,365	14,065	14,735	13,329	89,415
1991	5,536	-	-	-	-	20	11,799	15,031	14,364	14,065	14,735	13,329	88,880
1992	5,536	-	-	-	-	20	9,856	13,395	13,121	11,427	13,468	12,611	79,433
1993	5,536	-	-	-	-	20	10,047	13,535	13,121	11,427	13,468	12,611	79,765
1994	5,536	-	-	-	-	20	9,223	12,454	11,508	10,903	11,990	11,798	73,433
1995	5,536	-	-	-	-	20	10,181	13,635	14,230	13,127	14,194	12,849	83,771
1996	5,536	-	-	-	-	20	11,655	14,046	14,527	14,065	14,735	13,329	87,914
1997	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1998	7,393	-	-	-	-	20	10,529	13,791	14,527	14,065	14,735	13,329	88,389
1999	5,536	-	-	-	-	20	11,828	15,344	16,021	17,070	17,346	15,376	98,540
2000	5,536	-	-	-	-	20	11,791	13,764	14,527	14,065	14,735	13,329	87,767
2001	5,536	-	-	-	-	20	10,409	13,472	13,121	11,427	13,468	12,611	80,064
2002	5,536	-	-	-	-	20	11,801	14,939	16,253	14,247	14,735	13,329	90,861
2003	5,536	-	-	-	-	20	10,810	13,791	14,527	14,065	14,735	13,329	86,814
2004	5,536	-	-	-	-	20	11,281	13,571	14,230	13,127	14,194	12,849	84,808
2005	5,536	-	-	-	-	20	10,108	13,395	13,121	11,427	13,468	12,611	79,685
2006	5,536	-	-	-	-	20	11,729	15,377	14,577	13,956	14,735	13,329	89,259
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,788	-	-	-	-	20	10,996	14,346	14,500	14,123	14,943	13,533	88,250

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	29,906	33,658	73,231
1926	79,987	84,652	80,343	73,708	49,139	19,344	9,801	8,570	6,266	14,577	22,867	33,758
1927	52,418	68,499	75,145	81,987	77,572	77,561	55,311	25,182	21,847	27,219	55,376	69,762
1928	79,987	78,040	99,691	90,365	81,809	69,714	48,269	15,740	10,206	16,355	21,367	24,320
1929	22,917	15,128	27,683	26,833	43,527	36,241	10,733	6,695	3,148	4,365	4,901	15,264
1930	16,883	37,490	51,225	64,749	67,266	54,935	32,773	11,617	7,859	13,948	16,839	18,686
1931	38,967	48,076	79,610	75,561	68,374	57,461	36,147	12,382	10,668	19,131	35,580	43,568
1932	53,384	58,034	94,179	113,198	107,659	85,493	62,539	35,325	31,418	34,008	96,309	104,241
1933	102,458	79,485	80,582	93,781	104,247	116,754	78,642	48,039	46,437	58,291	81,751	129,905
1934	121,981	134,073	152,860	157,084	151,689	116,898	67,603	28,884	23,851	41,354	58,758	82,214
1935	93,882	87,106	82,265	95,877	96,755	97,021	63,477	32,894	27,598	26,125	28,198	36,842
1936	70,996	63,672	67,062	83,354	79,598	68,874	37,104	10,988	8,822	7,252	6,773	33,916
1937	32,044	30,493	42,525	79,662	79,543	74,562	42,807	11,560	8,895	10,536	53,963	82,068
1938	79,740	80,246	81,335	92,116	83,280	78,656	60,014	31,624	25,673	28,145	35,905	64,133
1939	80,068	76,136	80,458	78,446	72,274	56,775	26,889	9,194	6,050	11,313	18,135	79,933
1940	80,363	86,135	88,348	80,163	61,861	28,601	10,421	7,056	3,326	8,563	13,457	41,817
1941	51,271	56,421	61,448	52,412	48,895	30,271	11,333	8,218	8,910	12,860	29,539	79,818
1942	81,530	78,688	79,493	75,218	54,891	54,040	34,253	11,645	8,178	7,379	33,751	52,925
1943	53,518	59,353	73,008	93,551	80,494	77,784	60,294	33,831	28,416	35,925	39,918	55,570
1944	62,895	65,541	67,060	73,794	79,967	52,268	16,297	8,140	6,525	6,911	13,466	17,917
1945	41,589	51,839	56,556	74,556	85,899	73,916	45,062	12,373	13,577	27,108	43,689	62,411
1946	80,059	81,193	84,624	83,368	95,806	79,203	63,770	36,731	32,294	36,607	48,792	98,364
1947	86,973	80,871	86,974	106,888	102,030	92,302	56,482	20,263	16,498	36,542	66,969	81,161
1948	78,482	77,429	78,258	83,183	114,592	143,937	97,332	58,112	54,661	57,144	74,752	78,373
1949	75,983	70,447	80,143	94,129	150,238	149,999	103,146	62,265	57,663	58,928	72,816	88,520
1950	77,664	76,213	77,870	79,613	120,608	158,154	141,697	104,321	80,087	85,427	96,267	110,951
1951	114,121	127,767	120,542	126,944	156,823	155,054	109,454	67,405	61,312	61,874	70,583	79,159
1952	76,627	75,928	79,759	87,454	86,509	73,882	50,106	17,783	12,243	8,757	9,145	10,823
1953	43,454	68,445	78,117	80,273	79,896	77,067	54,863	25,329	20,093	20,238	40,225	93,335
1954	89,461	95,105	80,162	94,372	110,626	112,116	75,205	44,038	39,813	38,077	50,820	58,335
1955	72,981	70,553	63,524	67,156	88,648	111,466	76,492	45,521	41,256	60,505	88,313	110,818
1956	117,895	112,185	98,157	105,832	140,073	157,770	116,319	74,455	68,665	73,723	79,432	114,794
1957	89,830	79,445	87,153	114,436	136,037	125,638	75,686	38,162	33,798	31,736	41,715	72,614
1958	83,434	97,874	79,996	93,750	81,946	69,222	38,260	10,494	6,891	15,457	41,197	85,920
1959	98,402	80,906	81,152	110,554	124,752	127,632	80,258	44,026	47,536	69,016	97,249	103,013
1960	82,563	97,959	104,240	121,900	136,764	134,625	84,134	45,897	42,466	47,014	79,674	79,767
1961	91,100	111,760	133,120	138,169	146,831	148,291	97,700	56,880	52,742	59,721	65,033	81,961
1962	81,819	79,895	80,288	83,360	70,288	61,640	38,505	11,494	9,239	13,719	34,786	54,979
1963	63,771	82,013	81,243	73,788	49,251	32,430	12,213	9,803	6,687	15,233	39,369	55,519
1964	75,583	80,028	80,613	80,031	88,988	107,513	75,041	46,908	43,695	48,652	60,497	79,467
1965	93,942	100,607	94,434	122,316	127,336	126,711	82,761	49,383	45,357	51,552	59,703	67,080
1966	74,281	76,374	82,419	88,454	96,644	76,021	45,385	11,590	8,247	16,041	24,702	81,825
1967	88,035	81,149	80,013	69,397	79,491	78,598	56,954	25,459	19,568	22,136	27,684	57,156
1968	79,944	100,108	103,736	107,562	91,898	73,954	47,839	16,371	12,826	19,592	38,033	58,563
1969	56,487	49,312	57,456	84,460	98,019	83,533	52,425	16,823	15,137	13,275	19,658	45,898
1970	71,484	81,807	80,254	75,459	72,710	72,051	49,776	17,501	14,036	15,144	18,400	17,225
1971	40,707	61,208	55,350	77,228	125,012	151,861	121,669	82,572	76,728	79,745	82,412	79,141
1972	79,437	80,914	107,369	110,212	144,327	157,770	124,822	84,517	79,741	74,728	84,293	118,796
1973	111,694	111,035	117,118	110,429	85,345	68,179	34,474	10,038	6,634	7,925	23,691	68,823
1974	91,351	80,178	81,918	84,923	101,357	125,956	96,229	60,002	54,288	46,563	50,947	81,290
1975	85,155	79,492	79,118	80,371	126,472	151,701	113,280	75,351	70,349	88,838	107,224	118,796
1976	118,796	122,985	112,640	112,582	143,245	145,871	108,362	72,346	67,688	61,652	61,978	66,171
1977	71,872	76,384	81,410	66,652	41,781	21,237	9,910	10,313	9,835	9,938	34,665	89,305
1978	79,999	80,355	82,814	80,403	68,687	56,440	32,627	11,059	13,834	12,388	23,187	35,591
1979	31,543	31,867	50,832	64,601	79,551	65,368	38,937	11,012	7,443	9,657	8,399	45,275
1980	45,135	53,583	72,337	87,893	79,295	71,061	43,258	11,987	10,287	8,430	23,308	69,926
1981	77,856	98,647	80,429	80,727	55,683	48,861	23,664	8,957	7,460	16,290	31,158	56,520
1982	74,603	97,230	85,732	81,615	84,610	98,394	69,599	38,222	34,414	39,112	53,104	76,663
1983	84,731	87,835	108,191	117,088	110,864	105,161	72,205	37,347	34,689	30,238	69,889	72,781
1984	89,278	80,083	85,022	80,846	81,341	79,994	59,921	30,011	25,866	25,034	34,809	34,847
1985	33,667	27,804	28,212	47,011	62,514	58,979	31,079	10,261	6,680	16,026	30,373	27,599
1986	43,755	53,782	81,400	79,932	79,132	62,007	33,988	10,271	8,587	10,064	47,088	53,287
1987	62,066	79,783	88,954	80,231	65,399	49,337	25,583	9,401	5,510	3,190	8,368	23,088
1988	28,202	42,349	63,931	75,421	77,780	67,069	43,290	15,711	12,180	20,615	41,077	51,178
1989	68,781	64,400	79,902	95,856	89,586	74,250	48,551	16,756	12,255	13,693	27,548	43,941
1990	70,134	72,201	81,031	93,129	78,945	76,368	53,245	23,245	17,830	26,793	86,952	78,814
1991	80,853	93,604	80,045	106,660	120,222	116,312	77,443	41,444	37,180	34,595	46,208	71,919
1992	92,411	96,680	79,363	72,139	47,318	18,357	10,268	7,580	5,914	6,160	13,320	17,537
1993	17,425	19,149	39,502	64,383	79,995	59,157	19,402	9,552	6,189	8,171	12,160	26,082
1994	44,548	45,000	64,799	76,863	79,183	63,033	38,857	14,183	9,859	19,248	24,834	50,267
1995	55,967	83,849	82,465	72,834	67,926	52,765	28,010	10,916	7,466	16,869	53,630	80,667
1996	78,933	79,577	79,803	101,408	82,272	74,914	56,403	32,965	29,514	32,648	39,689	46,936
1997	64,640	77,072	89,678	98,842	136,022	157,770	123,370	82,674	77,563	83,266	85,334	83,920
1998	82,193	96,133	117,590	115,957	126,336	116,760	68,262	30,286	24,445	22,403	42,030	76,102
1999	80,491	80,478	80,052	78,819	82,660	107,272	74,754	44,604	39,308	43,481	83,306	94,620
2000	78,625	81,054	91,384	113,649	126,706	128,166	80,117	45,806	41,740	44,592	46,710	46,505
2001	47,615	48,263	55,204	55,748	74,335	59,719	16,551	10,025	6,772	10,993	33,527	54,872
2002	74,297	79,706	78,958	84,952	99,506	110,215	70,980	37,155	31,621	24,551	26,423	32,330
2003	52,689	70,887	86,339	81,416	61,511	56,001	29,742	9,964	7,575	23,828	33,701	44,598
2004	54,234	62,409	74,460	73,518	68,626	55,090	23,216	12,383	11,824	13,933	31,453	53,566
2005	73,945	76,950	87,374	80,388	70,919	41,475	11,850	7,607	4,512	6,602	22,378	43,961
2006	81,380	76,781	80,443	82,211	88,396	78,471	58,482	26,146	21,002	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP2 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,478	14,827	46,718
1926	66,272	116,145	146,002	151,012	131,026	64,612	-421	-59,429	-106,112	-109,310	-100,936	-89,273
1927	-67,946	-50,386	-40,694	-12,446	32,492	25,715	-10,946	-45,553	-91,669	-88,083	-66,429	-42,938
1928	-4,770	10,192	70,439	116,420	165,837	138,241	96,497	46,205	-6,354	-6,608	1,595	7,823
1929	11,491	9,339	27,051	32,112	48,823	22,206	-34,967	-95,070	-143,015	-158,978	-157,588	-146,407
1930	-138,749	-116,447	-100,482	-83,559	-70,384	-88,645	-116,693	-140,181	-179,995	-189,993	-183,365	-178,011
1931	-163,640	-150,844	-122,772	-85,672	-75,881	-89,155	-117,260	-146,447	-189,578	-190,943	-176,909	-165,799
1932	-146,956	-135,449	-81,893	-22,579	38,241	57,419	33,067	-2,063	-58,867	-66,531	3,207	67,538
1933	121,984	141,895	152,621	188,308	196,613	195,102	178,007	128,752	54,745	37,296	83,991	200,208
1934	203,025	221,860	236,137	238,287	232,954	191,222	136,694	69,458	5,902	8,594	26,457	65,918
1935	123,302	162,262	175,951	195,344	194,549	174,919	134,316	82,548	17,711	4,277	10,719	18,217
1936	53,951	53,531	66,611	102,061	141,320	112,528	52,936	-8,338	-56,861	-73,000	-76,573	-54,924
1937	-51,520	-48,401	-31,440	6,926	42,071	28,925	-18,749	-69,190	-117,947	-132,522	-101,718	-71,922
1938	-22,082	-11,871	24,424	75,549	128,803	119,013	84,732	44,440	-15,817	-22,047	-6,530	15,400
1939	57,057	64,825	81,557	116,076	113,426	82,616	31,409	-27,445	-77,845	-88,891	-81,463	-43,721
1940	-27,080	18,635	82,028	115,723	117,217	49,894	-14,169	-74,552	-123,053	-131,575	-123,163	-98,670
1941	-85,366	-75,838	-66,669	-64,467	-60,759	-84,406	-112,141	-139,884	-170,718	-175,182	-158,827	-115,351
1942	-104,618	-75,517	-60,823	-42,281	-39,849	-47,725	-72,618	-106,517	-153,069	-171,687	-143,297	-126,177
1943	-119,268	-110,273	-95,553	-36,211	15,885	20,322	-596	-28,975	-86,671	-90,362	-81,242	-67,549
1944	-58,091	-48,795	-42,006	-29,054	-14,664	-52,074	-100,006	-144,889	-185,350	-196,621	-189,140	-182,481
1945	-160,043	-141,496	-132,317	-112,205	-53,609	-60,705	-97,017	-136,205	-180,459	-187,879	-173,694	-154,586
1946	-130,987	-124,237	-77,387	-36,179	41,037	64,970	37,288	9,394	2,164	-5,848	2,845	66,756
1947	108,206	143,763	178,426	205,182	200,085	170,557	113,808	51,058	-3,556	11,760	38,583	75,331
1948	104,219	111,790	118,006	150,608	203,080	218,530	189,179	124,629	60,523	58,530	77,060	113,410
1949	116,512	117,097	140,225	181,871	233,320	218,870	162,508	99,721	19,476	13,769	27,664	63,368
1950	78,708	81,840	88,735	131,048	204,697	238,980	217,940	159,258	93,653	98,743	147,901	203,025
1951	202,943	217,504	204,637	210,546	238,127	232,516	186,040	124,709	35,253	21,556	32,629	47,238
1952	50,218	63,751	71,622	121,615	165,395	146,277	94,714	43,873	-6,881	-26,759	-25,191	-21,541
1953	5,497	36,709	50,243	68,915	113,979	97,662	56,702	16,047	-32,716	-40,271	-23,262	53,490
1954	102,923	144,226	171,457	189,003	206,601	195,221	182,577	124,123	55,605	45,157	59,257	66,901
1955	86,699	92,521	93,574	105,504	143,018	181,927	168,572	123,499	55,778	65,088	111,715	180,392
1956	196,680	197,287	183,974	191,086	231,506	238,980	201,928	151,898	65,310	36,451	56,644	114,351
1957	140,755	153,932	180,350	210,400	232,827	199,621	141,924	80,929	18,188	5,388	18,298	43,771
1958	78,003	133,984	165,767	186,549	175,683	143,301	83,494	11,041	-38,835	-37,290	-8,315	32,712
1959	93,145	119,134	158,671	196,108	214,651	200,201	159,780	93,765	31,699	42,550	83,782	139,597
1960	169,322	192,503	203,501	220,938	232,000	211,003	157,116	92,299	24,767	16,339	38,829	57,712
1961	103,581	163,664	193,093	212,845	235,299	221,397	172,424	104,000	31,000	22,224	30,858	52,897
1962	90,273	125,137	140,151	177,713	165,294	138,437	92,106	29,529	-20,067	-26,774	-7,479	12,496
1963	26,070	61,517	79,460	109,093	97,487	64,083	20,829	-38,508	-85,818	-94,889	-75,376	-58,013
1964	-36,365	-25,331	4,951	44,829	88,755	146,978	143,989	100,831	34,006	37,127	48,453	74,273
1965	95,586	150,624	174,466	207,234	218,147	206,096	172,201	108,181	40,637	29,616	40,019	46,969
1966	54,529	59,106	87,702	142,242	177,860	156,049	89,351	20,276	-29,792	-37,427	-25,251	11,551
1967	72,793	120,610	138,730	136,739	152,387	144,699	109,537	62,397	2,585	-5,851	4,602	29,746
1968	57,425	106,172	163,530	178,760	173,343	160,052	112,253	55,935	2,063	448	17,188	43,289
1969	47,287	45,337	61,806	106,658	171,598	166,437	105,293	44,599	-4,198	-13,766	-6,397	11,940
1970	36,685	63,559	89,563	108,859	129,712	119,551	87,714	37,677	-11,056	-24,988	-18,677	-15,152
1971	8,749	30,601	31,177	60,418	150,676	187,485	196,436	165,211	87,722	56,726	83,278	117,630
1972	139,040	151,815	195,356	195,102	230,227	238,980	212,245	161,518	85,050	47,893	62,315	125,846
1973	166,661	180,709	191,587	192,247	173,566	138,759	75,737	6,816	-42,852	-57,540	-42,310	6,327
1974	49,167	88,331	123,729	167,980	188,402	202,127	208,056	163,349	83,846	43,341	51,959	79,902
1975	124,897	135,098	146,932	169,152	221,779	229,501	200,815	148,623	63,771	51,586	105,905	177,987
1976	203,025	211,395	197,343	197,289	230,104	225,065	218,256	180,750	104,191	62,992	66,478	73,417
1977	80,433	89,451	114,468	116,139	99,334	57,526	5,259	-43,595	-77,820	-93,435	-71,920	6,981
1978	35,008	54,161	89,076	122,899	121,464	97,793	57,892	4,662	-39,077	-55,201	-44,404	-31,944
1979	-32,072	-27,633	-5,805	11,452	58,779	37,037	-4,969	-52,482	-100,304	-115,970	-115,595	-88,959
1980	-85,169	-76,720	-55,384	-9,769	33,602	17,533	-22,724	-68,746	-116,067	-131,367	-115,129	-86,914
1981	-71,319	-28,039	3,671	39,186	37,246	24,541	-13,673	-68,877	-116,500	-112,676	-96,655	-69,490
1982	-42,647	833	44,674	75,132	130,251	166,140	136,517	84,197	19,393	15,257	31,333	60,600
1983	109,952	154,559	191,571	203,058	199,454	172,255	144,295	87,772	24,293	7,284	39,097	48,625
1984	92,631	121,224	166,582	173,468	173,518	163,992	131,322	96,414	30,276	13,537	26,843	31,333
1985	35,084	35,212	40,586	58,781	81,275	63,535	13,024	-41,380	-89,225	-96,248	-82,551	-80,465
1986	-72,164	-60,584	-25,977	-3,207	20,904	-6,317	-49,716	-98,964	-143,269	-159,096	-129,525	-120,665
1987	-109,142	-88,001	-35,747	6,140	19,538	-4,087	-37,482	-84,675	-133,643	-152,967	-151,133	-136,298
1988	-126,792	-108,737	-82,912	-59,678	-39,895	-59,485	-90,309	-122,330	-168,620	-175,978	-158,383	-145,895
1989	-124,319	-120,890	-101,902	-42,154	9,053	5,565	-30,979	-71,528	-121,110	-134,075	-117,037	-99,259
1990	-69,140	-61,183	-23,220	38,815	74,994	69,212	31,449	-6,695	-56,147	-56,153	11,206	49,357
1991	80,048	135,305	163,264	196,752	208,327	189,027	168,007	111,406	43,290	15,647	32,700	53,500
1992	82,972	133,441	166,677	163,117	138,436	70,621	3,625	-56,015	-100,098	-116,470	-108,788	-104,211
1993	-100,427	-96,962	-78,275	-52,850	2,019	-29,876	-89,318	-145,474	-191,789	-196,973	-192,797	-179,424
1994	-165,532	-161,095	-137,177	-117,128	-100,950	-120,613	-149,695	-173,099	-199,853	-194,211	-185,632	-163,039
1995	-153,787	-118,250	-80,811	-61,875	-43,639	-65,210	-99,643	-136,772	-184,963	-186,488	-152,596	-85,520
1996	-37,317	-7,997	6,939	67,867	108,267	96,169	63,544	33,320	5,763	-2,668	3,664	10,716
1997	27,179	43,123	96,644	154,125	222,973	238,980	202,316	145,510	65,307	44,118	83,737	123,303
1998	162,274	190,210	214,301	216,120	226,058	193,302	143,211	79,251	10,313	-2,110	18,596	51,934
1999	99,485	116,512	133,182	147,461	161,431	178,545	168,987	118,554	49,315	42,960	74,496	135,383
2000	161,855	174,206	192,161	217,343	221,443	198,314	151,039	79,040	17,380	3,806	7,510	10,195
2001	13,697	17,695	25,906	32,831	60,575	25,531	-32,944	-91,492	-138,432	-148,567	-130,901	-108,695
2002	-87,698	-77,678	-70,933	-20,789	43,949	89,994	72,094	26,465	-31,620	-48,228	-40,841	-33,337
2003	-19,181	6,301	51,793	96,145	97,379	81,426	39,125	-17,717	-67,977	-71,520	-58,047	-47,994
2004	-35,377	-25,057	-4,213	18,926	26,020	1,745	-48,045	-97,377	-141,926	-155,360	-138,242	-118,380
2005	-101,671	-93,918	-61,176	-17,033	-5,491	-49,038	-100,133	-149,937	-195,408	-198,906	-181,847	-161,186
2006	-117,976	-100,300	-95,476	-51,112	19,839	29,551	-2,134	-37,892	-87,241	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	29,124	38,823	107,136
1926	132,161	193,974	238,581	283,700	312,333	239,014	124,080	22,682	9,274	31,156	49,066	74,707
1927	104,836	132,660	144,096	194,717	281,108	396,758	280,467	101,618	70,085	92,836	144,426	179,966
1928	224,913	233,251	323,577	375,493	436,572	393,853	226,265	59,806	23,569	43,553	58,429	68,882
1929	69,866	61,924	79,791	100,018	199,084	208,704	118,786	22,135	8,771	10,178	12,457	34,286
1930	44,001	81,544	113,149	175,936	229,745	205,513	145,735	53,120	26,311	33,444	41,179	47,636
1931	71,431	87,426	133,521	185,366	309,618	292,852	136,705	22,937	10,525	24,786	51,384	61,837
1932	84,834	92,307	183,801	279,959	433,615	436,950	287,297	109,213	85,351	89,840	261,926	312,843
1933	331,048	327,932	332,728	355,529	418,804	373,661	268,282	99,769	76,310	86,598	186,505	397,229
1934	373,686	396,467	431,184	436,768	436,340	318,207	158,885	29,612	9,968	55,213	96,092	176,026
1935	251,103	283,981	292,159	337,281	436,950	392,566	235,990	74,294	48,213	45,077	52,753	69,232
1936	142,033	134,877	143,368	223,452	355,540	299,643	129,456	21,115	9,841	8,538	10,381	63,085
1937	61,732	61,788	72,651	141,581	264,749	292,277	144,528	26,276	10,552	15,408	88,755	138,314
1938	184,184	190,515	223,411	304,456	434,972	427,540	264,946	84,881	57,846	64,610	101,979	153,997
1939	223,908	229,573	265,605	341,206	378,021	249,983	104,136	17,924	8,203	17,081	34,328	153,245
1940	175,319	229,611	321,350	384,624	427,738	332,414	188,071	46,265	15,974	24,160	39,274	93,568
1941	122,529	135,413	173,896	192,892	225,933	183,965	106,353	24,692	12,290	21,083	62,319	153,505
1942	165,926	197,415	210,386	254,124	267,575	236,520	114,138	19,060	8,333	8,221	70,888	98,865
1943	104,706	112,203	137,475	226,584	329,392	387,142	299,225	132,384	106,367	112,884	128,772	165,234
1944	188,292	197,463	203,275	236,410	304,403	256,634	162,153	47,873	23,609	22,564	39,820	58,574
1945	109,609	161,036	174,195	207,830	360,191	323,234	169,504	35,426	16,145	42,161	70,247	108,492
1946	139,974	144,805	189,384	246,299	433,588	426,152	284,349	107,806	82,353	101,795	111,197	221,506
1947	252,803	284,626	349,188	430,530	436,950	351,826	177,770	38,643	14,007	78,200	145,916	200,947
1948	222,898	226,016	228,291	258,052	403,760	377,116	226,122	71,745	47,610	53,574	86,777	121,702
1949	117,951	115,508	138,381	214,887	409,773	402,804	274,554	99,992	69,999	64,102	111,229	190,732
1950	200,755	202,199	209,317	241,668	316,851	436,950	390,772	227,682	206,670	247,918	301,710	313,588
1951	312,135	348,623	336,647	337,323	433,856	409,420	261,335	90,842	59,948	53,035	78,384	102,733
1952	98,798	101,749	108,021	185,912	309,999	295,978	172,071	41,857	12,614	7,861	10,194	18,403
1953	72,512	130,660	155,993	184,440	300,706	334,389	227,448	80,960	46,026	50,453	102,816	235,630
1954	289,800	332,231	342,868	361,447	414,737	375,085	254,190	87,604	65,929	62,731	99,446	107,931
1955	136,400	141,953	134,251	132,818	227,450	335,678	235,133	82,509	58,498	115,005	205,928	256,962
1956	282,418	278,951	277,601	274,511	410,683	436,950	332,760	148,165	115,772	107,665	132,300	230,618
1957	226,683	226,572	247,908	329,211	436,340	369,289	204,530	58,063	33,569	36,274	63,943	114,978
1958	162,938	242,745	261,649	306,453	395,550	265,707	88,428	14,398	7,610	22,378	107,945	202,083
1959	274,515	280,846	317,124	395,407	436,425	427,079	265,410	88,833	69,197	111,193	184,443	250,542
1960	255,523	289,186	321,467	377,102	436,914	391,757	231,838	68,320	44,789	52,243	108,593	127,285
1961	176,107	255,802	305,054	359,313	436,638	422,234	246,828	77,122	51,788	60,119	76,840	111,396
1962	146,628	185,282	199,157	287,688	327,271	288,638	142,385	27,398	10,065	18,339	73,678	112,046
1963	144,388	202,258	237,490	260,656	284,911	195,774	59,588	11,775	6,913	26,190	70,402	97,887
1964	129,860	139,833	164,710	218,543	318,803	382,544	282,505	119,054	103,740	114,624	130,273	165,998
1965	196,495	254,809	289,673	379,584	419,988	357,761	211,182	64,941	41,140	44,134	72,875	88,308
1966	97,285	99,896	118,834	200,863	332,379	278,684	133,982	23,687	9,216	26,299	48,613	141,398
1967	222,008	282,877	309,685	286,351	380,959	368,575	208,446	52,664	18,061	30,543	58,689	126,263
1968	178,466	256,171	355,842	376,573	421,420	336,378	147,433	28,396	11,281	22,128	54,855	97,343
1969	97,589	89,259	101,064	179,253	349,772	359,330	187,955	40,988	18,987	21,262	34,294	67,559
1970	96,150	127,973	150,047	163,463	254,550	327,749	173,812	36,686	13,567	17,109	29,426	29,672
1971	58,694	87,129	78,459	124,932	371,251	436,950	366,398	174,569	154,375	144,969	167,997	193,576
1972	218,540	224,935	297,889	297,614	409,990	436,950	358,302	172,845	144,427	121,530	148,247	271,591
1973	310,710	325,705	350,589	362,799	359,793	230,892	80,095	13,491	7,386	13,119	43,555	121,091
1974	204,591	249,410	290,791	310,481	375,329	407,858	343,806	173,421	161,215	127,463	149,301	204,394
1975	252,108	252,386	258,473	284,982	423,494	429,044	316,580	146,376	120,133	169,254	252,976	342,007
1976	334,990	346,501	333,191	327,253	426,198	414,579	332,949	148,783	125,988	95,335	100,809	109,663
1977	118,702	130,309	154,419	170,108	176,691	137,952	54,065	13,232	9,587	12,921	71,295	217,328
1978	230,978	258,580	333,226	381,366	410,884	340,390	167,336	33,364	18,286	13,490	43,718	63,640
1979	61,550	63,938	93,452	130,231	274,824	228,509	93,673	15,091	7,628	13,533	10,676	86,122
1980	89,565	96,706	124,375	210,299	344,712	313,443	163,193	32,353	13,113	10,074	53,500	104,596
1981	136,693	202,338	238,246	302,852	336,596	297,224	133,204	23,431	11,310	25,214	65,498	114,995
1982	164,370	248,065	285,634	335,155	432,805	436,950	297,158	119,721	95,339	106,592	132,178	229,329
1983	281,839	338,043	402,683	435,304	436,937	374,886	211,092	58,152	38,306	35,601	108,077	121,296
1984	186,965	214,877	280,422	289,814	324,641	350,502	253,845	80,903	55,839	56,208	77,332	78,685
1985	77,394	72,229	74,663	116,870	225,589	223,236	91,651	14,854	7,697	32,139	74,268	71,255
1986	82,200	102,749	197,870	237,432	304,642	269,369	108,499	17,143	10,955	14,534	90,168	107,385
1987	125,524	159,401	222,734	280,613	374,486	302,391	136,096	22,526	8,808	5,888	23,531	62,453
1988	72,660	114,511	163,271	227,132	306,286	280,393	143,844	28,142	10,064	35,971	85,360	113,459
1989	146,601	147,823	172,726	286,691	429,957	387,998	211,370	52,817	20,159	22,373	67,001	114,469
1990	190,775	199,773	247,856	391,380	436,685	423,052	258,384	80,539	44,729	70,799	261,510	296,681
1991	309,433	377,966	377,462	425,427	436,772	378,516	225,857	68,086	43,646	38,419	76,978	123,340
1992	170,562	226,242	262,585	291,669	311,954	241,419	125,096	23,298	10,917	10,501	31,870	35,252
1993	36,482	36,815	60,365	117,225	302,490	285,516	176,791	49,132	18,236	17,540	26,438	64,744
1994	93,951	97,783	142,546	199,841	260,071	224,455	142,721	47,603	21,222	26,461	42,766	87,406
1995	108,865	165,624	203,427	224,355	353,843	324,852	172,773	35,394	11,540	35,116	133,000	253,700
1996	301,169	309,587	328,156	391,597	436,141	414,087	267,753	94,006	71,289	79,465	94,757	101,767
1997	129,067	152,782	202,771	256,020	403,103	436,950	355,074	172,384	144,257	147,666	188,664	212,890
1998	236,440	284,202	329,765	356,959	436,950	364,416	193,331	42,426	12,403	12,357	59,336	118,179
1999	170,690	189,517	212,144	246,978	319,432	384,009	274,167	104,901	83,790	87,233	179,167	284,680
2000	297,039	301,323	333,419	403,085	407,195	339,029	185,923	45,951	22,987	29,689	37,484	36,562
2001	39,267	39,712	52,132	85,016	218,276	195,571	110,295	20,615	8,770	20,229	73,664	110,187
2002	140,070	158,064	163,106	240,579	410,021	436,950	284,075	98,927	71,088	61,558	77,683	93,977
2003	123,553	172,537	224,740	286,998	347,106	300,294	124,454	20,044	8,653	38,028	66,531	85,777
2004	96,906	104,324	151,300	209,408	312,021	267,428	100,080	20,600	10,243	15,630	49,731	85,210
2005	113,924	122,644	172,462	232,268	333,415	278,380	179,825	60,290	30,546	29,808	69,021	107,636
2006	164,266	176,040	181,512	249,803	405,443	436,749	288,285	104,603	67,464	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,387	3,332	12,924
1926	15,000	32,359	33,970	33,970	33,970	29,879	22,869	16,597	8,225	4,626	5,769	13,332
1927	15,000	16,990	14,103	20,272	33,657	33,970	30,431	20,388	14,204	11,453	15,000	15,000
1928	15,000	14,535	16,797	21,369	45,148	33,970	29,848	20,335	14,014	12,484	12,938	13,258
1929	11,069	5,705	2,593	4,446	29,963	33,970	29,848	20,335	14,308	8,703	2,857	2,357
1930	1,783	7,816	9,968	18,359	33,970	33,006	28,794	19,661	13,520	8,168	4,357	1,962
1931	3,617	3,182	4,316	12,706	33,970	33,303	27,731	19,201	12,953	11,354	13,434	15,000
1932	15,000	15,598	16,447	15,525	32,936	33,970	30,039	20,382	14,572	9,450	16,830	17,944
1933	15,166	14,828	11,200	15,000	32,163	33,970	29,848	20,335	15,253	14,006	14,985	58,367
1934	18,428	22,518	31,574	33,912	33,970	32,190	24,968	19,065	12,758	12,942	15,206	19,406
1935	16,468	20,828	26,829	33,789	33,970	33,970	29,848	20,335	14,012	7,815	5,959	4,991
1936	15,000	12,184	10,647	25,226	33,970	33,813	28,598	20,335	7,607	1,393	1,494	15,000
1937	10,440	5,549	2,244	10,394	33,929	33,970	28,661	20,346	13,894	2,595	15,665	24,135
1938	15,250	14,262	14,913	15,000	38,791	33,970	29,848	20,335	13,956	8,980	14,240	15,000
1939	15,328	16,749	19,147	33,964	33,970	33,970	29,848	13,240	2,924	1,936	1,977	15,590
1940	15,042	26,901	33,543	33,955	33,970	32,982	25,850	19,762	13,336	2,866	5,310	14,840
1941	15,000	17,760	22,495	28,683	33,970	31,982	25,218	14,436	8,764	3,909	6,621	15,518
1942	15,000	16,848	18,016	25,454	33,970	33,970	29,152	20,335	13,955	4,315	15,007	15,000
1943	13,254	11,851	15,000	15,630	36,289	33,970	29,848	20,386	14,977	13,168	12,240	14,996
1944	15,000	17,318	20,639	24,209	33,970	32,784	26,093	20,235	13,800	7,529	10,668	10,760
1945	15,000	25,039	16,077	23,991	33,956	33,970	29,540	20,328	13,278	8,080	11,159	15,551
1946	15,205	16,219	15,071	15,000	33,294	33,970	29,848	20,340	13,898	12,312	12,252	15,801
1947	15,029	18,664	19,952	33,556	34,290	33,829	28,653	20,341	14,074	15,317	15,109	15,000
1948	15,109	15,970	12,403	15,000	33,929	33,970	29,848	20,361	14,767	12,377	15,000	14,803
1949	12,491	5,622	5,007	15,000	34,628	33,970	29,848	20,342	13,589	5,939	14,473	17,380
1950	15,139	15,000	14,638	15,000	20,896	37,065	33,079	20,853	14,931	13,210	15,026	21,268
1951	15,218	18,602	14,958	15,000	33,010	33,970	29,650	20,348	13,962	14,938	15,000	15,000
1952	14,347	13,757	10,990	26,223	33,906	33,970	29,403	20,335	14,015	7,547	3,412	2,214
1953	15,000	20,419	15,201	21,576	33,920	33,970	29,848	20,381	14,746	9,872	13,965	16,930
1954	15,074	16,184	13,344	18,216	34,911	33,970	29,848	20,416	15,203	10,904	15,000	15,000
1955	15,154	18,898	13,431	15,000	32,014	36,085	29,848	20,402	14,975	15,033	17,005	18,073
1956	15,118	13,865	10,606	15,091	28,874	33,970	30,431	20,420	14,069	12,254	14,578	15,790
1957	15,000	14,182	15,000	18,617	33,779	33,735	28,530	20,335	14,073	9,201	12,577	15,000
1958	15,000	31,011	31,520	33,965	33,970	32,683	25,673	7,291	1,584	2,393	15,503	16,435
1959	16,565	16,314	15,000	22,996	33,806	33,970	29,848	20,335	15,970	14,851	22,641	15,874
1960	15,020	23,681	19,096	33,306	33,957	33,970	29,331	20,335	14,014	10,395	15,000	14,905
1961	15,000	24,580	15,633	23,464	33,872	33,970	29,534	20,335	13,952	11,033	10,036	15,000
1962	15,000	21,668	23,021	33,947	33,970	33,970	29,848	20,337	14,335	10,319	15,705	15,000
1963	15,000	32,734	33,896	33,968	33,970	33,531	27,068	16,579	2,815	4,449	13,449	15,000
1964	15,000	16,029	15,000	15,000	28,558	33,970	29,848	20,448	15,977	11,215	12,974	15,100
1965	17,485	23,167	15,098	29,609	33,899	33,970	29,848	20,335	14,190	9,612	14,385	12,076
1966	8,238	4,487	7,254	23,498	33,937	33,970	28,242	20,335	12,038	4,679	7,876	15,836
1967	15,426	21,271	23,976	23,560	34,115	33,970	29,526	20,335	13,958	15,200	14,053	15,136
1968	15,079	26,343	32,868	33,930	33,970	33,842	28,354	20,537	13,372	12,318	15,000	15,000
1969	14,955	11,099	8,148	15,277	34,836	33,527	28,001	20,335	13,346	7,770	12,730	14,998
1970	15,000	20,761	15,460	18,733	33,929	33,970	29,811	20,335	14,365	9,943	10,907	8,095
1971	15,000	15,263	12,080	14,222	28,007	36,479	30,632	20,463	15,275	10,988	12,737	13,039
1972	12,977	10,720	15,000	15,000	27,511	46,779	31,041	20,502	16,823	10,428	13,060	18,477
1973	15,093	17,224	21,713	26,711	33,970	33,663	26,838	7,826	1,669	2,460	10,129	17,377
1974	16,327	15,684	15,000	15,000	26,573	39,485	29,848	20,355	14,610	8,420	12,525	15,939
1975	15,335	14,800	11,849	10,956	29,796	33,970	29,848	20,558	15,053	15,000	15,000	16,280
1976	15,566	15,193	13,247	15,000	30,640	33,970	29,848	20,435	15,533	10,685	8,059	6,035
1977	5,653	6,519	10,516	22,952	33,970	32,708	26,129	19,681	2,695	2,571	12,774	15,401
1978	15,000	18,101	31,075	33,925	33,970	33,970	29,679	20,335	13,561	7,174	7,655	7,647
1979	3,009	1,896	5,072	11,558	33,970	33,809	28,793	20,337	14,135	3,722	1,857	16,300
1980	14,982	13,173	12,804	26,288	33,844	33,970	29,848	20,335	14,425	7,209	14,854	27,174
1981	15,305	27,499	33,251	33,954	33,970	33,970	29,204	20,335	10,502	4,436	8,595	15,000
1982	15,000	17,756	15,000	15,000	32,685	38,694	30,431	20,422	14,718	11,504	12,232	14,775
1983	15,000	21,209	22,924	33,534	39,859	33,970	29,848	20,406	15,024	9,565	15,364	14,965
1984	15,091	20,110	15,971	20,589	35,039	33,970	29,848	20,361	14,617	11,036	13,745	7,939
1985	3,286	1,879	1,908	7,406	33,970	33,970	29,354	20,338	9,390	5,683	10,681	5,483
1986	2,860	3,629	26,503	33,914	34,956	33,723	29,398	20,289	13,865	2,723	13,357	12,111
1987	9,854	13,353	21,924	33,739	33,970	33,823	28,512	20,335	13,957	1,406	2,381	13,269
1988	9,996	13,626	24,386	33,896	33,970	33,970	29,848	20,335	14,132	9,839	15,380	14,437
1989	15,000	11,151	8,753	23,782	33,828	33,970	29,848	20,335	14,131	8,686	15,000	15,000
1990	15,422	14,869	15,000	30,971	33,886	33,970	29,697	20,337	14,244	15,487	28,701	15,067
1991	15,000	23,707	15,006	25,586	33,913	33,970	29,848	20,335	14,010	7,154	10,990	15,000
1992	15,450	29,274	33,970	33,970	33,970	29,806	22,858	16,586	6,417	1,736	4,332	1,903
1993	1,835	1,689	4,238	11,557	33,967	33,573	28,407	20,007	13,982	2,973	1,917	2,519
1994	2,319	1,967	5,665	16,971	33,970	33,696	28,668	19,610	13,426	9,779	11,211	15,000
1995	15,000	23,227	30,266	33,770	33,970	33,970	29,209	20,336	14,015	11,907	21,379	15,450
1996	15,401	19,686	15,275	22,043	33,718	33,970	29,848	20,335	14,132	11,869	9,107	3,953
1997	3,992	4,358	15,000	15,000	35,628	50,770	32,293	20,697	15,926	13,717	15,000	15,000
1998	15,000	19,659	28,409	32,277	33,970	33,521	26,576	20,335	14,017	8,404	15,905	18,066
1999	15,435	17,556	15,000	15,005	33,149	33,970	29,848	20,365	14,619	9,284	16,688	15,587
2000	15,000	14,700	15,315	31,738	33,957	33,970	28,817	20,335	14,016	8,705	5,856	2,223
2001	2,211	1,978	6,767	11,289	33,970	33,937	29,278	19,461	7,006	2,918	12,806	14,965
2002	15,287	17,254	13,946	15,000	32,981	33,970	30,192	20,418	14,128	7,603	7,931	9,580
2003	15,000	24,923	31,796	33,900	33,970	33,601	26,472	13,987	2,816	4,197	10,000	15,000
2004	15,000	14,651	25,965	33,812	33,970	33,651	26,920	17,223	10,630	1,941	6,797	9,751
2005	14,743	15,600	28,942	33,965	33,970	28,404	21,702	15,922	9,555	4,257	10,406	11,511
2006	15,276	14,849	11,898	15,000	33,239	33,970	29,780	20,337	14,075	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	25,794	34,151	61,878
1926	77,275	109,457	131,356	165,393	191,186	183,871	142,780	86,865	10,000	22,567	35,526	61,014
1927	88,683	107,510	123,190	149,291	180,116	198,000	182,119	153,191	86,463	104,015	129,025	129,025
1928	129,025	142,384	154,801	170,059	197,792	198,000	180,199	146,505	65,647	63,214	81,364	94,619
1929	104,513	110,637	121,894	134,878	165,180	186,218	169,800	115,377	33,576	17,762	21,671	30,856
1930	33,921	46,417	57,977	75,779	98,901	105,245	97,127	87,906	38,098	21,228	28,065	33,169
1931	40,377	50,383	60,886	93,919	156,602	171,471	159,624	122,085	44,537	30,770	49,612	64,424
1932	80,158	93,509	131,513	141,694	196,173	198,000	184,315	157,922	46,866	28,999	86,228	129,703
1933	132,524	149,685	147,209	153,099	182,364	198,000	180,208	142,511	35,587	32,073	68,252	174,688
1934	145,926	171,945	194,841	197,899	198,000	193,141	174,398	132,803	61,197	46,045	81,424	128,400
1935	130,683	157,237	180,909	197,683	198,000	198,000	185,245	161,382	59,862	43,609	53,720	62,931
1936	95,459	103,957	118,960	157,860	198,000	196,705	178,513	97,999	10,000	10,905	16,558	43,570
1937	50,149	54,966	62,406	87,987	142,509	172,259	164,215	105,360	14,418	13,167	62,764	96,644
1938	129,025	142,625	144,298	148,416	196,916	198,000	183,530	151,685	45,988	44,935	63,840	87,390
1939	120,768	134,986	163,639	194,743	198,000	198,000	176,169	79,859	10,000	12,471	21,123	74,679
1940	98,402	145,520	196,247	197,975	198,000	188,985	151,779	100,717	18,494	17,241	29,148	53,620
1941	69,361	80,802	97,479	113,775	135,709	135,171	117,345	95,003	61,167	61,355	76,952	122,905
1942	129,025	146,733	162,041	179,893	198,000	198,000	174,133	114,885	31,704	12,346	52,953	67,815
1943	79,836	92,498	111,682	150,158	192,757	198,000	183,789	159,852	57,041	43,069	52,863	70,484
1944	86,779	105,350	121,398	134,589	158,634	156,421	140,376	107,784	54,629	48,034	61,989	75,021
1945	108,696	135,188	160,766	187,419	197,977	198,000	173,261	118,065	50,117	30,953	47,126	64,840
1946	92,325	106,820	139,654	141,376	196,158	198,000	178,504	145,281	20,714	20,871	33,288	117,518
1947	129,025	147,722	174,043	197,270	197,998	193,781	178,957	139,190	57,469	81,342	107,752	129,025
1948	129,025	143,458	144,542	139,333	186,397	198,000	182,930	159,257	60,820	58,998	78,997	106,850
1949	118,167	125,904	139,155	139,529	196,212	197,990	175,597	137,685	20,000	27,396	45,152	74,582
1950	90,527	102,459	102,953	94,006	132,230	198,000	194,885	167,047	39,940	28,465	61,655	99,767
1951	129,025	158,754	136,415	143,441	196,304	198,000	180,036	138,462	20,000	38,263	53,441	77,298
1952	86,467	98,207	109,767	146,864	197,095	198,000	180,202	147,601	74,800	53,024	53,459	62,885
1953	96,868	136,188	154,142	176,510	197,913	198,000	183,789	161,603	83,393	77,542	93,438	129,025
1954	129,025	146,679	152,947	163,402	197,499	198,000	187,532	166,133	61,583	47,420	66,778	82,518
1955	112,340	128,834	139,768	145,440	174,479	198,000	180,236	147,906	46,988	54,913	99,291	130,255
1956	130,255	143,418	102,403	106,143	183,614	198,000	185,298	154,860	28,673	31,242	48,515	100,634
1957	111,908	123,127	139,237	160,734	197,665	195,408	178,517	138,447	34,364	26,180	43,252	71,449
1958	97,642	151,791	174,542	197,993	198,000	187,545	163,859	69,451	10,000	20,286	68,824	117,491
1959	129,025	146,375	153,061	172,203	197,711	198,000	186,473	158,010	72,503	79,738	119,703	130,937
1960	130,457	151,257	169,797	196,827	197,979	198,000	176,167	133,239	22,707	20,648	55,104	67,827
1961	95,066	147,604	158,679	176,486	197,828	198,000	175,941	130,900	20,000	22,130	35,286	54,224
1962	75,622	94,338	111,370	144,145	173,010	198,000	180,184	127,020	31,322	21,545	62,703	83,110
1963	109,549	153,853	178,779	197,999	198,000	192,681	173,251	63,364	10,000	19,816	41,024	54,139
1964	76,680	91,086	107,380	135,882	165,717	198,000	187,532	164,342	65,926	59,851	70,346	98,866
1965	127,089	173,240	160,305	181,239	197,748	197,999	178,493	139,612	31,425	25,105	40,505	49,406
1966	59,206	63,729	79,839	120,439	182,309	192,717	178,513	109,783	10,000	21,066	37,138	68,496
1967	102,465	147,727	172,199	190,529	198,000	198,000	183,214	150,598	80,784	86,559	103,230	126,647
1968	129,025	182,641	196,052	197,932	198,000	195,184	179,505	146,557	72,358	69,762	92,399	117,284
1969	129,025	137,251	145,416	152,476	197,374	195,590	180,208	142,260	68,098	69,431	86,721	109,033
1970	129,025	156,196	164,619	180,281	197,930	197,975	180,209	140,347	67,535	50,690	59,748	70,684
1971	125,579	158,260	114,294	103,931	166,332	198,000	189,169	163,942	42,817	27,279	42,348	60,493
1972	86,687	101,037	123,631	118,336	170,371	198,000	190,075	161,231	56,512	22,595	36,270	90,394
1973	120,759	137,198	160,613	180,029	197,904	193,534	171,749	74,198	10,000	14,830	38,522	67,360
1974	129,025	163,563	136,292	129,862	162,646	198,000	187,594	165,262	39,334	23,197	39,673	74,001
1975	115,874	131,036	138,446	129,069	170,687	198,000	183,934	162,923	39,336	36,951	56,527	132,169
1976	132,104	157,259	125,168	120,879	180,426	198,000	187,452	164,609	39,103	24,816	33,604	42,969
1977	53,825	65,175	82,751	105,177	112,709	118,475	90,570	24,343	10,000	14,136	42,299	117,253
1978	129,025	145,224	174,307	197,923	198,000	198,000	178,119	117,791	56,852	39,146	48,789	60,929
1979	65,480	67,523	85,040	109,660	168,366	177,114	166,228	100,837	10,865	18,920	20,951	78,343
1980	89,283	100,285	115,903	158,546	197,778	197,961	178,498	121,052	36,974	21,104	41,738	96,206
1981	123,199	173,072	195,138	197,973	198,000	197,965	175,227	91,787	10,114	22,248	40,681	67,361
1982	84,837	108,330	133,908	142,701	195,729	198,000	188,210	166,655	67,718	51,412	64,981	85,395
1983	111,158	131,430	178,567	197,231	197,992	198,000	178,527	141,088	44,144	32,570	98,135	109,325
1984	129,112	147,785	163,001	183,000	197,897	198,000	178,499	140,444	41,784	31,868	52,223	62,362
1985	67,825	69,327	75,686	104,141	149,752	171,838	161,932	89,350	10,000	20,517	38,525	43,904
1986	50,545	58,358	105,642	131,335	160,421	180,891	166,963	98,037	12,327	15,002	48,231	58,564
1987	68,315	84,476	110,916	139,075	197,666	194,794	175,705	109,405	19,342	11,006	22,542	55,529
1988	66,670	81,409	107,661	139,834	195,320	198,000	175,768	129,007	48,023	26,633	65,601	77,548
1989	92,398	101,076	113,435	157,065	197,751	198,000	178,514	135,624	51,921	34,532	54,353	76,955
1990	111,019	123,626	149,512	184,374	197,854	198,000	180,211	151,203	74,363	92,336	135,653	130,818
1991	130,818	177,803	159,465	185,741	197,901	198,000	178,400	136,495	27,175	20,570	40,189	58,573
1992	84,521	115,033	140,851	169,261	192,693	181,447	141,217	82,849	10,000	11,923	26,481	30,158
1993	30,148	30,205	43,544	65,908	133,075	149,556	139,008	103,034	29,663	15,421	22,444	36,959
1994	48,986	51,603	70,927	94,075	139,003	146,090	132,489	123,507	59,946	24,445	37,630	63,208
1995	74,707	111,250	138,640	162,420	198,000	196,915	174,523	126,261	47,359	40,477	83,618	129,263
1996	129,263	170,747	149,584	165,332	197,556	198,000	178,501	145,149	26,582	22,235	32,619	40,812
1997	56,281	69,999	94,087	98,918	171,757	198,000	192,586	164,804	46,059	24,229	55,283	68,454
1998	82,495	99,933	126,189	143,871	198,000	195,552	183,012	150,652	83,795	77,918	115,610	131,372
1999	132,109	152,529	155,443	152,664	181,924	198,000	187,395	165,273	60,769	44,435	84,422	117,687
2000	129,025	143,198	159,493	195,312	197,978	198,000	178,522	139,505	38,398	32,060	41,036	47,106
2001	49,306	52,367	65,997	81,538	126,717	134,018	124,399	73,676	10,000	16,726	45,982	67,318
2002	97,631	116,958	131,672	133,442	181,737	198,000	186,380	153,093	39,305	32,045	41,237	58,357
2003	84,050	125,433	180,711	197,879	198,000	194,846	174,383	82,190	10,000	20,672	36,598	54,860
2004	70,712	85,673	117,585	150,638	198,000	196,945	173,031	93,366	12,490	16,936	32,916	50,997
2005	69,116	81,667	104,153	132,988	158,940	152,646	136,871	98,825	34,057	28,034	51,186	65,944
2006	107,661	127,876	143,296	144,717	196,708	198,000	180,199	152,345	72,213	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP2 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	99,689	124,790	301,886
1926	370,694	536,586	630,253	707,783	717,655	536,719	299,108	75,286	-72,347	-36,384	12,293	93,538
1927	192,990	275,274	315,840	433,820	604,945	732,005	537,383	254,826	100,929	147,439	277,397	350,815
1928	444,155	478,402	665,306	773,706	927,159	833,779	581,078	288,591	107,083	128,997	175,694	208,901
1929	219,855	202,731	259,012	298,288	486,577	487,340	294,201	69,471	-83,212	-117,969	-115,702	-63,645
1930	-42,161	56,821	131,836	251,264	359,498	310,054	187,737	32,123	-94,207	-113,205	-92,924	-76,558
1931	-9,248	38,223	155,560	281,881	492,682	465,932	242,947	30,158	-110,896	-104,902	-26,897	19,030
1932	86,419	123,999	344,046	527,797	808,624	811,832	597,257	320,778	119,339	95,767	464,500	632,268
1933	703,179	713,825	724,341	805,717	934,192	917,488	734,987	439,406	228,332	228,265	435,485	960,398
1934	863,046	946,863	1,046,596	1,063,951	1,052,954	851,658	562,549	279,822	113,675	164,148	277,936	471,963
1935	615,437	711,413	758,114	859,974	960,225	896,475	648,876	371,453	167,396	126,903	151,350	192,214
1936	377,439	368,221	406,650	591,953	808,429	711,564	426,606	142,100	-20,591	-44,911	-41,368	100,647
1937	102,845	104,393	148,385	326,551	562,800	601,993	361,462	94,352	-70,188	-90,815	119,429	269,239
1938	386,117	415,777	488,381	635,537	882,762	857,179	623,070	332,965	127,647	124,623	209,433	335,920
1939	497,130	522,269	610,406	764,434	795,692	621,344	368,452	92,772	-50,669	-46,090	-5,900	279,726
1940	342,047	506,801	721,517	812,439	838,785	632,876	361,952	99,249	-71,922	-78,744	-35,974	105,175
1941	172,795	214,558	288,649	323,295	383,748	296,984	148,108	2,466	-79,586	-75,975	16,604	256,395
1942	286,863	364,167	409,113	492,408	514,587	474,805	279,058	59,408	-90,900	-139,426	29,302	108,427
1943	132,046	165,633	241,612	449,712	654,817	717,219	572,560	317,478	120,130	114,685	152,550	238,736
1944	294,874	336,878	370,366	439,947	562,310	446,034	244,913	39,144	-86,788	-111,583	-63,196	-20,209
1945	114,852	231,605	275,278	381,591	624,414	568,415	320,351	49,986	-87,343	-79,577	-1,474	96,708
1946	196,575	224,800	351,346	449,863	799,884	802,295	593,759	319,553	151,423	165,737	208,374	519,945
1947	592,036	675,645	808,583	973,426	971,353	842,295	555,670	269,495	98,493	223,161	374,328	501,464
1948	549,733	574,663	581,500	646,176	941,759	971,553	725,412	434,105	238,381	240,624	332,585	435,138
1949	441,105	434,578	502,911	645,415	1,024,172	1,003,632	745,654	420,005	180,728	170,133	271,335	434,583
1950	462,792	477,711	493,514	561,335	795,283	1,069,148	978,372	679,161	435,281	473,763	622,559	748,599
1951	773,442	871,251	813,200	833,255	1,058,121	1,028,960	766,514	441,766	190,475	189,667	250,036	321,428
1952	326,455	353,392	380,159	568,068	792,905	748,107	526,496	271,449	106,791	50,430	51,019	72,784
1953	233,330	392,421	453,696	531,713	726,413	741,088	552,649	304,320	131,540	117,833	227,182	528,410
1954	626,283	734,425	760,779	826,440	964,375	914,393	729,353	442,315	238,132	204,290	291,301	330,684
1955	423,574	452,759	444,548	465,918	665,609	863,156	690,281	419,838	217,496	310,544	522,252	696,500
1956	742,366	745,706	672,742	692,663	994,750	1,065,670	866,737	549,797	292,489	261,335	331,469	576,188
1957	584,176	597,258	669,647	833,398	1,036,648	923,691	629,188	335,936	133,992	108,779	179,785	317,811
1958	437,017	657,405	713,473	818,709	885,150	698,457	399,714	112,675	-12,750	23,224	225,155	454,641
1959	611,652	643,576	725,009	897,268	1,007,345	986,882	721,770	404,969	236,906	317,348	507,818	639,963
1960	652,884	754,586	818,101	950,073	1,037,615	969,355	678,586	360,090	148,743	146,639	297,200	347,497
1961	480,854	703,410	805,579	910,277	1,050,468	1,023,892	722,426	389,238	169,482	175,227	218,054	315,479
1962	409,343	506,321	553,987	726,853	769,833	720,686	483,029	215,778	44,894	37,148	179,393	277,630
1963	358,779	532,375	610,868	675,505	663,618	518,499	292,948	63,014	-59,403	-29,200	88,867	164,531
1964	260,757	301,645	372,654	494,285	690,821	869,005	718,915	451,583	263,346	271,468	322,543	433,703
1965	530,598	702,447	733,975	919,981	997,119	922,536	674,485	382,452	172,749	160,020	227,487	263,838
1966	293,540	303,592	376,048	575,496	823,128	737,441	475,473	185,670	9,710	30,657	93,077	319,106
1967	500,726	653,634	724,604	706,577	844,953	823,842	587,677	311,454	134,956	148,587	208,259	354,948
1968	459,939	671,434	852,028	894,757	918,631	799,409	515,384	267,796	111,901	124,248	217,475	331,479
1969	345,342	332,257	373,890	538,124	851,599	838,417	553,883	265,006	111,371	97,973	147,005	249,427
1970	348,345	450,295	499,943	546,795	688,832	751,296	521,322	252,546	98,447	67,896	99,804	110,524
1971	248,729	352,461	291,359	380,730	841,278	1,010,774	904,305	606,758	376,916	319,707	388,773	463,879
1972	536,681	569,421	739,245	736,264	982,426	1,078,479	916,485	600,613	382,554	277,174	344,186	625,105
1973	724,917	771,871	841,620	872,216	850,578	665,027	388,893	112,370	-17,163	-19,205	73,587	280,978
1974	490,461	597,166	647,730	708,245	854,306	973,426	865,533	582,390	353,294	248,984	304,405	455,527
1975	593,370	612,813	634,819	674,530	972,228	1,042,217	844,458	553,831	308,642	361,628	537,633	787,240
1976	804,481	853,333	781,588	773,003	1,010,612	1,017,484	876,867	586,923	352,502	255,479	270,927	298,255
1977	330,486	367,838	443,565	481,028	464,486	367,899	185,934	23,973	-45,703	-53,869	89,113	446,268
1978	490,010	556,421	710,499	816,516	833,004	726,593	465,654	187,211	63,457	16,998	78,945	135,863
1979	129,510	137,590	228,592	327,503	615,489	541,836	322,662	94,795	-60,232	-70,139	-73,711	137,081
1980	153,796	187,027	270,035	473,257	689,232	633,967	392,073	116,981	-41,268	-84,550	18,272	210,988
1981	281,734	473,516	550,736	654,692	661,496	602,561	347,626	75,633	-77,114	-44,488	49,276	184,386
1982	296,164	472,214	564,948	649,602	876,080	938,178	721,915	429,217	231,582	223,877	293,829	466,762
1983	602,680	733,075	903,936	986,215	985,105	884,272	635,968	344,765	156,456	115,259	330,561	366,993
1984	513,077	584,078	710,998	747,717	812,435	826,459	653,435	368,132	168,381	137,683	204,952	215,165
1985	217,256	206,450	221,055	334,210	553,099	551,558	327,041	93,423	-55,458	-21,883	71,296	67,777
1986	107,196	157,934	385,438	479,406	600,056	539,673	289,131	46,777	-97,534	-116,772	69,319	110,682
1987	156,616	249,012	408,781	539,798	691,058	576,258	328,414	76,992	-86,026	-131,477	-94,312	18,042
1988	50,737	143,158	276,336	416,606	573,461	519,948	302,442	70,866	-84,221	-82,920	49,035	110,727
1989	198,461	203,560	272,914	521,239	760,175	699,782	437,304	154,005	-22,644	-54,791	46,865	151,107
1990	318,210	349,286	470,179	738,669	822,364	800,601	552,987	268,628	95,019	149,264	524,022	570,737
1991	616,152	808,385	795,242	940,166	997,135	915,824	679,555	377,766	165,301	116,386	207,065	322,332
1992	445,917	600,670	683,446	730,157	724,371	541,650	303,063	74,298	-66,850	-86,150	-32,784	-19,360
1993	-14,537	-9,104	69,374	206,222	551,547	497,927	274,290	36,252	-123,719	-152,868	-129,839	-49,119
1994	24,272	35,257	146,760	270,622	411,278	346,661	193,040	31,805	-95,398	-114,278	-69,192	52,842
1995	100,751	265,700	373,988	431,503	610,101	543,292	304,873	56,135	-104,584	-82,119	139,031	393,560
1996	487,449	571,599	579,757	748,247	857,953	817,140	596,050	325,776	147,279	143,549	179,836	204,183
1997	281,159	347,333	498,180	622,905	969,483	1,082,470	905,639	586,069	349,112	312,995	428,018	503,568
1998	578,402	690,137	816,252	865,184	1,021,314	903,550	614,392	322,950	144,973	118,973	251,476	395,652
1999	498,210	556,592	595,821	640,927	778,596	901,796	735,150	453,698	247,801	227,394	438,078	647,955
2000	681,544	714,482	791,771	961,128	987,278	897,479	624,418	330,637	134,521	118,852	138,596	142,591
2001	152,095	160,015	206,006	266,422	513,873	448,776	247,577	32,285	-105,884	-97,701	35,078	138,647
2002	239,587	294,304	316,748	453,185	768,193	869,129	643,721	336,057	124,522	77,527	112,434	160,907
2003	256,111	400,081	575,379	696,338	737,966	666,168	394,176	108,468	-38,934	15,205	88,783	152,241
2004	201,474	242,000	365,098	486,302	638,637	554,859	275,202	46,196	-96,739	-106,920	-17,344	81,144
2005	170,058	202,942	331,756	462,577	591,753	451,868	250,115	32,706	-116,739	-130,205	-28,856	67,866
2006	250,606	295,246	321,673	440,619	743,624	776,741	554,611	265,539	87,513	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D-6
Scenario IP3A (CEPR Only) under Adverse Climate Change Conditions

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP3A CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	2,519	518	1,450	1,217	67.9%	170	43	67.7%	131	31	1,401	13
Avg. WY 1982 to 2009	2,405	471	1,406	1,169	63.6%	152	37	63.7%	109	26	1,125	41
1941 (Dry Year)	1,352	191	703	753	1.2%	128	26	2.6%	129	28	0	0
1994 (Dry Year)	1,543	270	827	793	10.7%	110	22	12.3%	48	10	117	117
2001 (Dry Year)	1,690	292	929	826	18.4%	84	18	19.2%	43	9	133	133
2005 (Dry Year)	1,806	286	1,055	899	29.3%	90	17	30.3%	62	14	49	0

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,610	200	943	878	21.4%	121	27	22.7%	106	25	17	0
1927	2,556	422	1,575	1,271	80.5%	155	21	79.4%	194	26	151	0
1928	2,809	655	1,605	1,267	81.9%	146	43	81.6%	165	45	0	0
1929	1,721	208	1,027	911	27.7%	110	24	28.6%	66	15	0	0
1930	1,471	219	778	778	7.2%	108	32	7.7%	59	16	0	0
1931	1,989	381	1,137	925	34.7%	84	10	35.6%	42	6	0	0
1932	3,176	832	1,756	1,445	100.0%	191	50	100.0%	117	18	512	0
1933	3,167	730	1,758	1,537	100.0%	263	81	100.0%	171	45	14,491	0
1934	2,550	589	1,520	1,170	69.7%	119	29	68.7%	64	16	4,029	0
1935	2,483	333	1,585	1,311	81.6%	187	57	80.9%	137	41	0	0
1936	2,166	342	1,335	1,076	54.4%	122	31	53.2%	80	24	243	0
1937	2,080	289	1,305	1,055	52.1%	109	14	50.0%	56	6	122	0
1938	3,025	767	1,689	1,366	96.7%	176	53	97.2%	162	42	0	0
1939	2,107	280	1,359	1,064	55.7%	97	13	54.1%	62	10	135	0
1940	2,085	318	1,293	1,016	45.5%	108	20	47.5%	76	13	0	0
1941	1,352	191	703	753	1.2%	128	26	2.6%	129	28	0	0
1942	1,890	222	1,198	978	39.8%	104	14	41.1%	54	7	0	0
1943	3,021	697	1,695	1,413	95.9%	223	59	95.3%	185	48	0	0
1944	1,619	206	929	875	20.5%	121	35	21.1%	99	32	0	0
1945	2,300	324	1,477	1,148	66.3%	114	14	63.7%	59	7	0	0
1946	2,952	624	1,754	1,427	100.0%	170	43	100.0%	96	15	0	0
1947	2,513	492	1,539	1,174	70.2%	115	29	68.4%	118	31	10,680	0
1948	3,076	771	1,658	1,442	93.1%	255	83	91.5%	265	82	0	0
1949	3,045	692	1,758	1,443	100.0%	186	53	100.0%	153	26	0	0
1950	3,927	1,312	1,758	1,845	100.0%	447	116	100.0%	426	99	13,440	0
1951	3,450	1,089	1,760	1,454	100.0%	197	60	100.0%	132	24	0	0
1952	2,265	378	1,383	1,073	56.8%	101	11	54.9%	49	5	7,715	0
1953	2,339	295	1,501	1,208	70.3%	148	12	68.4%	128	10	1,729	0
1954	3,005	685	1,692	1,441	95.8%	247	78	94.2%	214	67	0	0
1955	2,665	397	1,626	1,385	86.8%	228	70	84.9%	255	71	0	0
1956	4,104	1,624	1,758	1,581	100.0%	309	93	100.0%	218	55	0	0
1957	2,907	763	1,604	1,251	80.6%	136	30	78.9%	95	21	5,498	0
1958	2,022	314	1,257	1,018	45.5%	108	15	46.7%	108	18	55	0
1959	2,980	625	1,752	1,466	100.0%	217	58	100.0%	197	39	0	0
1960	2,588	392	1,638	1,326	91.4%	153	46	90.2%	120	37	457	0
1961	2,782	541	1,706	1,363	98.4%	140	30	100.0%	92	14	6,127	0
1962	2,114	292	1,350	1,060	51.8%	108	12	52.1%	98	12	16,750	0
1963	1,759	250	1,060	908	27.9%	105	13	28.3%	54	7	0	0
1964	3,104	645	1,758	1,562	100.0%	300	95	100.0%	269	75	0	0
1965	2,730	519	1,637	1,347	87.6%	192	62	87.0%	163	51	0	0
1966	2,293	423	1,391	1,083	55.0%	106	21	55.4%	58	12	0	0
1967	2,382	345	1,509	1,198	69.7%	150	39	69.1%	119	32	0	0
1968	2,429	401	1,528	1,204	73.9%	127	24	72.3%	111	21	0	0
1969	2,759	650	1,587	1,239	79.4%	131	27	77.8%	128	26	0	0
1970	2,405	390	1,506	1,172	70.5%	114	22	69.5%	66	12	0	0
1971	3,612	1,024	1,758	1,687	100.0%	422	128	100.0%	326	93	0	0
1972	3,768	1,238	1,758	1,667	100.0%	398	109	100.0%	305	77	1,584	0
1973	1,916	196	1,219	1,025	43.2%	128	29	44.2%	85	19	0	0
1974	3,502	945	1,758	1,677	100.0%	403	120	100.0%	314	86	0	0
1975	3,310	823	1,758	1,612	100.0%	337	96	100.0%	276	67	673	0
1976	3,821	1,298	1,758	1,657	100.0%	366	113	100.0%	273	78	0	0
1977	1,331	188	682	743	0.0%	123	52	0.0%	75	34	860	0
1978	2,353	266	1,546	1,235	76.2%	146	23	75.0%	101	12	0	0
1979	1,806	267	1,061	939	29.4%	132	31	30.4%	72	18	0	0
1980	2,444	469	1,476	1,132	61.6%	116	16	62.2%	73	9	94	0
1981	2,243	325	1,413	1,098	59.9%	105	14	57.8%	127	19	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP3A CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,079	679	1,758	1,530	100.0%	262	79	100.0%	193	43	89	89
1983	2,642	507	1,582	1,292	80.9%	171	50	79.7%	125	40	9,264	0
1984	2,590	408	1,608	1,322	85.2%	184	48	84.0%	141	35	0	0
1985	1,848	299	1,045	928	27.9%	129	27	28.9%	81	19	143	0
1986	1,941	290	1,221	985	41.9%	96	9	42.8%	46	5	0	0
1987	2,201	372	1,333	1,030	47.1%	109	19	48.0%	55	9	97	97
1988	1,977	302	1,232	1,000	41.6%	112	14	42.2%	56	7	992	0
1989	2,616	559	1,565	1,214	76.0%	128	24	74.7%	81	13	0	0
1990	2,698	496	1,649	1,313	89.2%	152	44	89.0%	145	41	0	0
1991	2,881	593	1,681	1,400	97.2%	203	65	96.7%	151	47	0	0
1992	1,623	184	956	886	22.5%	127	28	23.9%	71	16	183	0
1993	1,920	323	1,135	927	34.6%	84	10	35.9%	38	6	41	41
1994	1,543	270	827	793	10.7%	110	22	12.3%	48	10	117	117
1995	2,137	338	1,336	1,047	53.7%	94	9	52.1%	89	12	74	0
1996	3,052	788	1,647	1,376	90.5%	203	62	89.5%	154	44	0	0
1997	3,977	1,523	1,758	1,641	100.0%	366	97	100.0%	326	75	396	0
1998	2,393	359	1,501	1,204	70.8%	144	35	69.9%	114	29	0	0
1999	2,806	440	1,704	1,474	97.8%	278	87	97.5%	252	80	0	0
2000	2,627	484	1,587	1,267	80.0%	155	47	79.1%	121	39	0	0
2001	1,690	292	929	826	18.4%	84	18	19.2%	43	9	133	133
2002	3,121	797	1,752	1,451	100.0%	195	54	100.0%	128	20	3,484	539
2003	2,038	276	1,288	1,035	48.1%	105	17	49.4%	57	10	7,782	0
2004	2,072	335	1,273	1,006	45.9%	91	6	46.3%	47	4	638	0
2005	1,806	286	1,055	899	29.3%	90	17	30.3%	62	14	49	0
2006	2,844	583	1,728	1,387	100.0%	141	31	100.0%	NA	NA	4,640	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,519	518	1,450	1,217	67.9%	170	43	67.7%	131	31	1,401	13

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.
5) Climate Change inflow dataset provided only extended to the end of Water Year 2006.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP3A CC Adverse (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	34.1%	54.4%	23.3%	72.7%	17.4%
	0 -10% Above Target[1]	15.8%	10.2%	2.4%	1.0%	19.1%
	0-10% Below Target	3.2%	1.2%	2.1%	1.0%	3.9%
	> 10% Below Target	46.9%	34.2%	72.2%	25.2%	59.6%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	43.7%	61.2%	71.2%	23.3%
	0 -10% Above Target	3.9%	3.5%	3.2%	13.7%
	0-10% Below Target	4.7%	3.1%	3.4%	20.9%
	> 10% Below Target	47.7%	32.2%	22.2%	42.1%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			0.0%	
	0 -10% Above Target			6.1%	
	0-10% Below Target			9.5%	
	> 10% Below Target			84.4%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				15.8%	
	0 -10% Above Target				6.2%	
	0-10% Below Target				17.5%	
	> 10% Below Target				60.5%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				94.0%	
	0 -10% Above Target				4.3%	
	0-10% Below Target				1.4%	
	> 10% Below Target				0.3%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	16.9%	21.9%		10.5%
	0 -10% Above Target	1.6%	2.5%		1.9%
	0-10% Below Target	6.7%	2.6%		13.2%
	> 10% Below Target	74.8%	73.0%		74.4%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			13.1%	9.8%	9.1%
	0 -10% Above Target			7.8%	0.5%	0.5%
	0-10% Below Target			13.9%	0.9%	0.6%
	> 10% Below Target			65.2%	88.8%	89.8%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.2%	78.9%	60.5%
	0 -10% Above Target			1.3%	9.6%	14.5%
	0-10% Below Target			0.3%	6.0%	11.8%
	> 10% Below Target			0.2%	5.5%	13.2%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			18.4%	
	0 -10% Above Target			7.9%	
	0-10% Below Target			15.6%	
	> 10% Below Target			58.1%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.0%	91.3%	76.2%
	0 -10% Above Target			0.5%	4.7%	12.6%
	0-10% Below Target			0.3%	2.0%	6.7%
	> 10% Below Target			0.2%	2.0%	4.5%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP3A CC Adverse (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	2.7%	28.4%	97.3%		15.9%
	0 -10% Above Target	22.2%	14.7%	0.5%		19.7%
	0-10% Below Target	0.0%	0.6%	0.1%		0.9%
	> 10% Below Target	75.1%	56.3%	2.1%		63.5%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	8.4%			
	0 -10% Above Target	0.5%			
	0-10% Below Target	0.9%			
	> 10% Below Target	90.2%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	51.7%			
	0 -10% Above Target	2.8%			
	0-10% Below Target	3.4%			
	> 10% Below Target	42.1%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP3A (Adverse Climate Change)

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	14.3	2.1	1.3	1.5	0.8	1.0	4.9	14.2	13.4	19.4	44.0	43.4	160.4
1927	8.0	2.0	1.7	1.3	1.1	1.0	2.1	13.9	12.7	24.6	45.1	63.8	177.3
1928	3.5	1.0	1.3	1.5	1.2	1.0	2.3	8.3	12.7	36.8	50.8	67.1	187.5
1929	8.2	1.9	2.0	1.9	2.7	1.2	8.4	8.4	9.7	17.0	33.4	45.2	140.0
1930	11.5	2.2	1.7	2.1	0.9	1.4	3.1	7.2	7.3	10.1	24.5	40.0	111.9
1931	18.6	2.5	2.4	1.5	1.3	1.0	7.5	13.5	12.2	20.4	47.0	40.4	168.2
1932	7.3	1.3	1.5	1.2	1.7	0.9	0.9	8.4	10.9	27.8	40.8	88.7	191.4
1933	33.6	0.9	1.2	1.1	1.6	1.2	0.9	16.3	8.7	26.7	47.7	77.9	217.9
1934	41.6	1.1	2.9	53.4	1.4	35.6	19.7	17.0	41.1	59.7	61.8	50.2	385.6
1935	14.3	1.1	1.4	1.2	0.8	1.2	1.7	12.3	12.1	27.5	38.6	67.8	180.0
1936	17.6	2.1	2.1	1.2	2.7	1.1	4.6	15.0	17.4	25.4	45.3	49.7	184.0
1937	9.3	3.9	1.6	1.9	2.3	1.4	2.9	11.4	13.7	25.4	50.5	46.4	170.7
1938	8.7	1.4	1.1	1.0	1.1	0.9	1.0	7.6	11.2	20.4	54.1	70.2	178.7
1939	17.0	1.7	1.6	0.9	1.0	1.0	4.9	20.7	18.5	27.7	59.1	47.9	202.0
1940	6.4	2.1	2.0	1.2	0.9	0.9	2.1	9.9	14.1	23.8	55.7	49.0	168.2
1941	11.2	2.3	1.4	1.5	1.2	1.7	7.2	5.2	7.3	9.5	26.8	25.1	100.4
1942	5.0	1.5	1.7	1.8	1.1	1.6	5.6	21.6	11.2	20.5	49.5	45.8	167.0
1943	8.8	1.4	1.1	1.8	1.4	1.2	2.3	14.7	8.5	11.9	29.0	69.7	151.8
1944	14.5	2.4	2.1	2.0	1.6	1.7	5.6	9.8	11.9	16.4	39.9	36.8	144.7
1945	8.6	2.8	2.2	1.4	1.0	1.1	3.1	11.6	17.2	31.2	62.7	47.3	190.3
1946	8.3	1.0	1.5	1.1	1.3	0.9	1.2	4.0	7.3	27.3	45.2	90.1	189.2
1947	31.7	1.9	1.6	1.3	0.8	0.9	1.8	11.1	13.4	32.9	63.9	51.6	212.8
1948	5.3	1.0	1.0	1.2	1.6	1.4	1.9	5.4	2.4	32.0	60.3	66.3	179.8
1949	8.4	1.5	1.3	2.1	1.9	1.0	1.9	6.0	19.1	46.0	52.3	86.4	227.8
1950	35.6	1.9	1.3	2.2	2.1	1.5	1.9	1.8	1.3	25.1	29.5	84.3	188.6
1951	29.9	1.3	0.9	1.1	1.7	2.0	28.3	22.2	20.5	39.1	61.3	87.1	295.3
1952	39.3	1.7	1.7	2.0	2.0	1.6	1.6	15.4	15.6	24.4	51.9	46.2	203.4
1953	8.3	5.1	2.8	1.2	0.8	1.0	5.9	11.4	14.8	23.5	48.1	49.5	172.3
1954	6.4	1.2	0.9	1.2	1.3	0.9	3.0	11.3	7.3	25.9	45.3	69.2	173.8
1955	13.8	2.2	1.6	1.3	1.9	3.0	12.3	9.9	5.1	21.0	42.7	68.2	182.9
1956	8.6	1.1	1.0	1.1	2.4	1.3	24.9	25.1	22.0	35.2	34.7	85.2	242.5
1957	41.2	1.6	1.6	1.4	1.3	0.9	2.0	7.0	18.9	50.2	62.5	67.4	255.9
1958	11.1	1.7	1.2	1.1	0.8	1.0	3.1	15.7	10.3	30.2	58.1	48.2	182.4
1959	6.9	1.2	1.2	0.9	1.2	0.9	1.7	7.9	12.8	37.1	52.4	79.6	203.8
1960	28.2	1.7	1.0	1.4	1.0	1.2	2.3	4.8	10.3	40.7	55.6	69.2	217.5
1961	12.3	1.1	1.2	1.1	0.8	0.9	3.8	9.9	14.4	41.4	59.0	89.3	235.3
1962	22.0	2.0	1.4	1.2	0.9	1.4	3.4	20.3	13.8	17.6	43.0	46.5	173.4
1963	6.4	1.6	1.1	1.8	1.0	1.1	6.2	16.6	9.7	14.8	42.7	43.7	146.7
1964	7.6	1.0	1.3	1.0	1.1	1.0	1.7	8.3	2.4	12.8	34.6	78.3	151.1
1965	28.6	2.5	1.1	2.3	0.8	0.9	0.9	12.5	14.7	40.4	64.4	71.7	241.0
1966	13.8	1.8	1.8	2.0	1.3	1.2	4.0	11.7	17.2	30.4	57.5	51.5	194.2
1967	12.0	1.5	1.6	0.9	0.8	0.9	10.6	16.6	7.4	31.8	52.1	53.3	189.5
1968	10.0	2.1	1.7	1.2	1.0	1.0	3.6	15.6	14.0	45.2	57.4	64.1	216.8
1969	8.8	1.3	1.1	2.1	2.7	1.3	1.4	5.8	11.4	30.9	55.3	65.6	187.7
1970	6.0	2.1	1.4	1.5	0.8	1.0	7.3	14.1	10.2	26.6	53.5	55.0	179.6
1971	12.8	1.7	2.3	1.3	0.9	2.1	0.9	0.9	1.9	14.0	15.8	81.2	135.8
1972	38.9	1.7	1.1	1.1	2.0	0.9	26.8	28.3	29.9	29.6	31.5	82.7	274.5
1973	36.8	1.8	1.6	1.1	1.4	1.2	7.2	24.4	15.0	41.2	53.9	49.0	234.7
1974	11.7	1.1	0.9	1.4	0.8	0.9	1.0	9.5	13.2	19.9	35.4	78.4	174.3
1975	38.7	1.5	1.3	1.1	1.6	1.2	1.7	1.8	26.7	33.2	37.7	84.9	231.4
1976	34.2	1.2	0.9	13.2	2.2	22.9	27.6	25.0	19.1	23.5	35.2	76.8	281.9
1977	40.1	2.4	2.2	2.4	1.8	1.4	8.2	14.5	8.6	14.6	33.8	22.9	152.9
1978	21.0	1.3	1.1	1.2	0.9	1.0	2.6	17.2	15.7	40.1	59.5	63.9	225.5
1979	12.9	1.6	1.4	2.9	1.6	1.1	5.9	4.8	12.0	16.3	28.1	44.9	133.4
1980	14.3	2.7	1.5	1.9	1.9	0.9	1.1	11.3	14.5	24.4	51.3	50.4	176.2
1981	9.3	1.2	1.4	1.5	1.1	1.0	2.9	19.7	10.6	21.8	52.3	48.2	170.9
1982	5.2	1.5	0.9	1.4	1.1	0.9	1.5	6.4	3.8	35.9	41.1	84.0	183.7
1983	43.3	1.7	1.1	1.2	0.9	0.9	3.3	14.4	14.9	26.2	52.1	67.0	227.1
1984	10.8	0.9	1.8	1.3	0.9	0.9	7.8	19.1	9.5	26.1	35.5	67.3	182.0
1985	15.0	1.1	2.1	1.5	2.2	2.9	5.2	7.5	9.2	17.5	31.3	44.4	140.1
1986	10.4	1.6	2.6	2.9	1.8	0.9	5.1	12.8	14.3	23.4	50.9	42.0	168.7
1987	7.0	1.4	1.7	1.4	0.8	0.9	4.9	15.2	12.9	18.3	47.3	50.2	162.0
1988	11.6	2.5	1.6	1.8	1.0	0.9	6.1	14.2	13.8	18.8	35.8	47.2	155.5
1989	8.0	1.0	1.4	1.1	1.7	1.4	2.2	9.9	10.8	21.4	47.1	66.4	172.3
1990	12.9	1.2	1.8	1.1	1.0	0.9	1.3	10.7	10.4	22.8	43.6	69.1	176.8
1991	6.8	0.9	1.1	1.4	0.9	0.9	2.7	18.8	26.6	38.8	57.3	69.0	225.3
1992	19.5	1.2	1.5	1.0	0.9	1.5	8.8	15.7	14.6	23.3	48.0	43.8	179.7
1993	13.4	1.5	2.0	2.5	1.8	1.2	3.7	5.0	12.6	21.4	51.1	42.8	158.9
1994	6.3	2.9	1.7	1.4	1.4	0.9	1.5	3.8	8.3	11.0	27.7	40.7	107.7
1995	14.2	2.3	1.5	1.3	0.9	1.1	7.1	14.5	15.2	23.4	49.9	42.3	173.6
1996	4.1	1.3	1.1	1.1	1.2	1.0	1.7	11.2	12.7	32.8	48.9	69.6	186.7
1997	20.0	2.1	2.7	1.4	1.1	0.9	0.9	16.2	27.8	33.6	35.2	83.1	225.3
1998	31.1	1.4	1.2	1.1	0.8	0.9	4.8	11.8	17.0	41.9	63.0	62.1	237.2
1999	7.9	1.3	1.0	1.0	1.0	0.9	2.6	22.3	7.4	16.5	36.0	69.5	167.4
2000	12.8	1.2	1.0	1.1	1.2	0.9	4.6	14.6	18.5	46.5	66.3	68.5	237.3
2001	11.3	2.3	3.0	2.7	1.7	1.4	6.6	7.6	9.5	15.3	38.6	43.3	143.3
2002	11.1	1.4	1.2	1.1	1.1	1.0	1.9	6.2	3.7	26.0	43.1	87.5	185.4
2003	38.3	3.2	2.3	1.7	0.8	1.1	3.9	20.3	11.6	17.4	47.1	50.3	198.0
2004	9.6	1.6	1.1	1.9	1.3	0.9	7.3	16.7	14.4	28.9	53.9	27.0	164.6
2005	4.5	1.5	1.3	1.7	1.1	1.0	3.1	10.0	12.9	17.6	40.2	45.1	140.1
2006	6.8	1.6	2.3	1.0	1.7	0.9	1.3	4.7	8.0	23.7	48.4	90.2	190.4
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	15.4	1.7	1.5	2.2	1.3	1.8	4.9	12.0	12.6	25.9	44.8	58.3	182.2

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A CC Adverse (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A CC Adverse (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A CC Adverse (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A CC Adverse (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	-	-	-	-	-	-	-	-	-	-	-

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A CC Adverse (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26	-	-	-	-	-	4,635	19,347	19,799	22,228	23,188	8,535	97,758
1927	26	-	-	-	-	-	10,376	43,076	45,402	55,690	52,509	35,728	242,806
1928	26	-	-	-	-	-	10,381	44,087	45,087	56,413	53,654	36,717	246,365
1929	26	-	-	-	-	-	5,910	25,331	24,955	27,917	28,061	9,917	122,116
1930	26	-	-	-	-	-	2,695	9,205	8,799	9,486	10,416	4,906	45,534
1931	26	-	-	-	-	-	7,795	32,811	30,766	34,351	33,842	11,575	151,166
1932	26	-	-	-	-	-	10,375	44,197	45,289	59,587	62,114	45,029	266,617
1933	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1934	18,446	-	-	-	-	-	10,375	43,391	45,635	59,409	59,397	17,982	254,635
1935	26	-	-	-	-	-	7,711	44,495	45,402	56,280	53,462	36,421	243,796
1936	26	-	-	-	-	-	10,410	44,260	43,304	49,874	46,679	14,186	208,740
1937	26	-	-	-	-	-	9,259	43,058	42,006	47,909	45,222	14,249	201,729
1938	26	-	-	-	-	-	10,375	44,324	44,455	60,012	62,327	42,770	264,288
1939	26	-	-	-	-	-	10,308	43,678	43,999	51,048	48,381	15,166	212,606
1940	26	-	-	-	-	-	10,378	39,727	38,604	43,834	42,415	13,162	188,147
1941	26	-	-	-	-	-	1,412	3,084	3,583	4,322	5,664	3,701	21,791
1942	26	-	-	-	-	-	9,853	34,190	34,338	38,867	37,926	12,616	167,816
1943	26	-	-	-	-	-	10,375	44,288	45,402	60,039	61,817	42,108	264,056
1944	26	-	-	-	-	-	4,875	18,678	19,309	21,262	21,863	7,839	93,851
1945	26	-	-	-	-	-	9,926	44,050	45,011	58,392	56,489	17,110	231,004
1946	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1947	21,210	-	-	-	-	-	10,377	44,288	45,314	59,058	59,540	17,998	257,784
1948	26	-	-	-	-	-	8,298	44,288	45,402	59,915	60,069	40,638	258,636
1949	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1950	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1951	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1952	18,446	-	-	-	-	-	10,375	43,377	44,601	51,831	48,345	14,393	231,368
1953	26	-	-	-	-	-	7,433	43,898	45,549	58,560	57,909	17,851	231,225
1954	26	-	-	-	-	-	10,375	44,288	45,402	60,024	61,539	41,707	263,361
1955	26	-	-	-	-	-	8,243	44,298	45,402	58,101	56,085	38,031	250,185
1956	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1957	18,446	-	-	-	-	-	10,375	44,288	44,893	55,608	52,288	35,667	261,566
1958	26	-	-	-	-	-	8,790	40,034	38,599	44,332	42,483	13,716	187,980
1959	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,723	45,029	267,430
1960	18,446	-	-	-	-	-	10,211	44,350	43,474	59,549	59,005	40,150	275,185
1961	26	-	-	-	-	-	10,243	43,536	44,146	58,732	62,678	45,029	264,390
1962	20,718	-	-	-	-	-	10,382	43,793	43,417	49,802	46,489	14,728	229,329
1963	26	-	-	-	-	-	9,070	25,943	25,087	27,863	28,042	9,884	125,915
1964	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1965	18,446	-	-	-	-	-	10,376	44,026	45,402	58,605	57,181	38,859	272,895
1966	26	-	-	-	-	-	9,787	43,450	45,032	51,981	49,633	15,455	215,364
1967	26	-	-	-	-	-	7,466	44,528	45,481	59,459	59,697	18,075	234,731
1968	26	-	-	-	-	-	7,618	44,482	45,427	52,188	48,560	33,101	231,403
1969	26	-	-	-	-	-	10,375	44,338	44,187	55,018	51,724	35,321	240,989
1970	26	-	-	-	-	-	7,314	44,369	45,465	54,727	59,185	22,954	234,040
1971	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1972	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1973	18,446	-	-	-	-	-	7,856	36,612	36,954	42,266	40,459	13,218	195,811
1974	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1975	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1976	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1977	18,446	-	-	-	-	-	1,412	3,034	2,936	3,368	4,289	2,954	36,438
1978	26	-	-	-	-	-	10,490	44,452	45,405	53,493	49,997	34,186	238,048
1979	26	-	-	-	-	-	6,959	29,022	26,377	29,621	29,536	10,372	131,914
1980	26	-	-	-	-	-	10,375	44,295	44,616	57,311	54,187	15,787	226,597
1981	26	-	-	-	-	-	10,404	44,142	45,662	54,178	51,551	15,920	221,882
1982	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1983	18,446	-	-	-	-	-	7,811	44,389	45,402	55,888	52,863	36,012	260,812
1984	26	-	-	-	-	-	9,757	44,307	45,402	57,508	55,206	37,640	249,847
1985	26	-	-	-	-	-	6,665	28,883	25,120	28,175	28,275	9,997	127,140
1986	26	-	-	-	-	-	8,150	38,203	36,262	40,965	39,499	12,975	176,080
1987	26	-	-	-	-	-	10,313	43,017	39,800	44,836	43,645	13,997	195,633
1988	26	-	-	-	-	-	10,371	37,057	35,950	40,490	37,664	12,204	173,762
1989	26	-	-	-	-	-	10,375	44,365	44,414	53,490	49,806	34,036	236,512
1990	26	-	-	-	-	-	10,375	44,292	44,341	59,074	58,094	39,605	255,808
1991	26	-	-	-	-	-	10,375	43,688	44,788	59,993	62,278	42,602	263,751
1992	26	-	-	-	-	-	5,186	20,419	20,775	23,376	23,863	8,444	102,089
1993	26	-	-	-	-	-	8,036	34,733	30,519	34,459	33,846	11,604	153,222
1994	26	-	-	-	-	-	3,168	11,528	11,520	12,594	13,874	6,006	58,715
1995	26	-	-	-	-	-	10,073	44,676	43,120	49,366	46,691	14,708	208,660
1996	26	-	-	-	-	-	10,375	43,568	45,402	59,362	58,600	39,807	257,141
1997	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1998	18,446	-	-	-	-	-	7,560	43,342	45,599	50,254	56,040	28,624	249,866
1999	26	-	-	-	-	-	10,375	44,288	45,402	59,960	62,621	42,964	265,637
2000	26	-	-	-	-	-	10,390	44,299	45,402	55,535	52,377	35,702	243,732
2001	26	-	-	-	-	-	5,542	21,435	17,616	19,355	20,225	7,673	91,871
2002	26	-	-	-	-	-	10,375	43,473	45,402	59,587	62,114	45,029	266,006
2003	18,446	-	-	-	-	-	8,761	40,643	40,550	46,774	44,580	14,248	214,001
2004	26	-	-	-	-	-	9,842	40,173	38,977	44,458	41,688	12,490	187,654
2005	26	-	-	-	-	-	6,412	26,422	26,232	29,452	29,510	10,314	128,369
2006	26	-	-	-	-	-	10,375	44,373	43,893	59,587	62,114	45,029	265,397
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	4,181	-	-	-	-	-	8,992	39,189	39,485	49,023	48,934	27,319	217,124

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A CC Adverse (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	1,075	-	-	-	-	9,848	12,483	12,162	15,108	15,464	16,597	10,557	93,294
1927	1,075	-	-	-	-	9,848	33,738	44,972	53,107	57,089	55,359	35,649	290,838
1928	1,075	-	-	-	-	9,848	33,585	46,526	52,634	58,181	56,628	36,385	294,861
1929	1,075	-	-	-	-	9,848	15,225	16,616	19,728	20,053	20,611	13,180	116,336
1930	1,075	-	-	-	-	9,848	12,823	4,606	5,254	5,198	6,086	3,691	48,581
1931	1,075	-	-	-	-	9,848	26,346	22,400	24,944	25,251	25,436	16,404	151,705
1932	1,075	-	-	-	-	9,848	33,741	46,542	52,469	60,108	59,321	39,294	302,398
1933	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1934	20,709	-	-	-	-	9,848	33,741	44,751	49,871	49,437	47,940	31,359	287,655
1935	1,075	-	-	-	-	9,848	32,180	46,625	53,075	57,956	56,405	36,149	293,311
1936	1,075	-	-	-	-	9,848	25,375	31,614	37,314	38,472	37,272	24,351	205,321
1937	1,075	-	-	-	-	9,848	23,378	30,505	35,611	36,778	35,364	22,922	195,481
1938	1,075	-	-	-	-	9,848	33,741	46,699	51,601	60,546	59,829	39,302	302,640
1939	1,075	-	-	-	-	9,848	33,886	32,436	37,899	39,503	38,121	24,774	217,543
1940	1,075	-	-	-	-	9,848	33,611	35,472	32,314	33,318	33,481	21,765	200,884
1941	1,075	-	-	-	-	9,848	13,318	36	578	1,036	2,190	1,407	29,489
1942	1,075	-	-	-	-	9,848	33,598	23,774	28,332	29,069	29,001	18,841	173,537
1943	1,075	-	-	-	-	9,846	33,741	46,592	52,490	60,668	59,960	39,164	303,537
1944	1,075	-	-	-	-	9,848	11,382	11,548	14,640	14,693	15,745	9,843	88,773
1945	1,075	-	-	-	-	9,848	31,829	46,497	47,254	46,911	45,192	29,278	257,883
1946	1,075	-	-	-	-	9,848	33,329	46,592	52,490	60,108	59,321	39,294	302,058
1947	24,560	-	-	-	-	9,848	33,811	46,592	50,874	49,692	48,129	31,364	294,870
1948	1,075	-	-	-	-	9,848	33,835	46,835	52,490	60,936	60,305	38,777	304,101
1949	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1950	20,709	-	-	-	-	9,845	33,741	46,592	52,490	60,108	59,321	39,294	322,101
1951	20,709	-	-	-	-	9,848	33,754	46,592	52,490	60,108	59,321	39,294	322,117
1952	20,709	-	-	-	-	9,848	33,092	38,233	38,805	40,189	38,740	25,164	244,780
1953	1,075	-	-	-	-	9,848	31,071	43,939	51,015	49,783	48,154	31,272	266,158
1954	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,652	60,030	39,078	303,506
1955	1,075	-	-	-	-	9,848	33,908	46,966	52,515	60,680	59,215	37,361	301,567
1956	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1957	20,709	-	-	-	-	9,848	33,742	46,592	52,431	56,997	55,048	35,516	310,883
1958	1,075	-	-	-	-	9,845	24,524	28,108	32,380	33,725	32,976	21,402	184,035
1959	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,430	39,294	302,578
1960	20,709	-	-	-	-	9,848	33,619	46,671	50,821	61,125	60,433	38,606	321,832
1961	1,075	-	-	-	-	9,848	33,727	46,144	51,432	59,298	59,409	39,294	300,228
1962	24,560	-	-	-	-	9,848	33,544	32,734	37,092	38,386	37,018	23,933	237,114
1963	1,075	-	-	-	-	9,845	32,424	17,070	19,846	20,006	20,592	13,107	133,966
1964	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1965	20,709	-	-	-	-	9,848	33,929	46,647	52,521	61,117	60,165	37,867	322,803
1966	1,075	-	-	-	-	9,848	33,243	40,998	39,408	40,268	39,213	25,435	229,490
1967	1,075	-	-	-	-	9,848	31,376	44,957	51,605	49,533	48,296	31,565	268,254
1968	1,075	-	-	-	-	9,848	32,482	45,594	52,997	52,414	50,739	33,002	278,151
1969	1,075	-	-	-	-	9,848	33,741	46,710	51,909	56,142	54,396	35,230	289,051
1970	1,075	-	-	-	-	9,848	32,242	44,683	52,122	49,972	48,576	31,797	270,315
1971	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1972	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1973	20,709	-	-	-	-	9,848	19,004	25,360	30,818	31,966	31,210	20,241	189,156
1974	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1975	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1976	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1977	20,709	-	-	-	-	9,848	7,476	-	-	275	1,014	23	39,345
1978	1,075	-	-	-	-	9,848	33,564	45,115	53,459	54,025	52,400	34,147	283,632
1979	1,075	-	-	-	-	9,848	16,420	19,443	21,003	21,422	21,828	14,038	125,077
1980	1,075	-	-	-	-	9,848	33,694	46,658	45,150	45,273	43,940	28,563	254,200
1981	1,075	-	-	-	-	9,848	33,850	36,909	41,452	42,385	40,885	26,521	232,924
1982	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1983	20,709	-	-	-	-	9,848	32,810	46,972	53,140	57,394	55,713	35,813	312,399
1984	1,075	-	-	-	-	9,848	32,423	47,042	52,523	59,932	58,341	37,078	298,262
1985	1,075	-	-	-	-	9,848	15,887	19,294	19,876	20,259	20,789	13,327	120,356
1986	1,075	-	-	-	-	9,848	26,876	26,606	30,158	30,844	30,372	19,665	175,445
1987	1,075	-	-	-	-	9,848	33,775	41,318	33,522	34,150	33,989	22,047	209,724
1988	1,075	-	-	-	-	9,846	33,755	26,577	29,801	30,465	30,105	19,434	181,058
1989	1,075	-	-	-	-	9,848	33,778	46,708	52,303	54,012	52,179	33,994	283,897
1990	1,075	-	-	-	-	9,848	33,741	46,598	51,605	61,317	60,440	38,282	302,906
1991	1,075	-	-	-	-	9,848	33,748	46,138	51,944	60,504	59,847	39,271	302,374
1992	1,075	-	-	-	-	9,848	11,245	12,837	15,950	16,398	17,424	11,072	95,849
1993	1,075	-	-	-	-	9,848	23,597	23,953	24,714	25,337	25,441	16,482	150,448
1994	1,075	-	-	-	-	9,848	19,903	6,336	7,691	7,701	8,939	5,779	67,272
1995	1,075	-	-	-	-	9,848	27,775	34,414	36,803	38,019	36,665	23,842	208,440
1996	1,075	-	-	-	-	9,848	33,788	46,335	52,490	61,209	60,418	38,408	303,572
1997	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1998	20,709	-	-	-	-	9,848	31,467	43,086	50,724	50,158	48,680	31,854	286,526
1999	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,437	59,744	39,336	303,264
2000	1,075	-	-	-	-	9,848	33,760	46,525	53,198	56,849	55,151	35,530	291,937
2001	1,075	-	-	-	-	9,848	16,878	13,755	13,153	13,148	14,150	8,929	90,936
2002	1,075	-	-	-	-	9,848	33,758	45,924	52,490	60,108	59,321	39,294	301,818
2003	20,709	-	-	-	-	9,848	23,975	28,555	34,233	35,809	34,808	22,637	210,575
2004	1,075	-	-	-	-	9,848	30,305	27,937	32,668	33,844	32,973	21,265	189,915
2005	1,075	-	-	-	-	9,848	24,196	17,447	20,872	21,289	21,802	13,931	130,459
2006	1,075	-	-	-	-	9,848	33,822	46,707	51,446	60,108	59,321	39,294	301,621
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,533	-	-	-	-	9,848	29,636	37,117	41,482	45,147	44,442	28,933	242,137

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A CC Adverse (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	23,894	-	-	-	-	6,904	41,141	56,859	54,811	58,583	57,891	45,007	345,090
1927	23,894	-	-	-	-	6,904	54,865	97,949	97,567	105,440	96,862	57,441	540,921
1928	23,894	-	-	-	-	6,904	54,925	107,787	101,690	106,734	98,133	57,936	558,003
1929	23,894	-	-	-	-	6,904	43,217	62,606	59,380	63,744	61,928	46,280	367,953
1930	23,894	-	-	-	-	6,904	38,464	47,134	45,064	47,043	47,318	41,670	297,491
1931	23,894	-	-	-	-	6,904	45,610	70,073	64,538	69,592	66,778	47,848	395,237
1932	23,894	-	-	-	-	6,904	56,318	109,315	117,935	123,857	118,505	81,083	637,810
1933	27,156	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	643,973
1934	27,579	-	-	-	-	6,904	56,318	103,295	89,191	96,796	89,401	55,111	524,594
1935	23,894	-	-	-	-	6,904	51,458	104,233	97,752	106,461	97,913	57,772	546,386
1936	23,894	-	-	-	-	6,904	48,653	81,936	76,780	84,464	78,673	51,708	453,013
1937	23,894	-	-	-	-	6,904	47,428	80,500	75,092	82,560	76,759	51,015	444,153
1938	23,894	-	-	-	-	6,904	56,318	108,806	111,420	118,443	108,714	61,330	595,828
1939	23,894	-	-	-	-	6,904	52,798	81,332	77,352	85,624	79,531	51,915	459,350
1940	23,894	-	-	-	-	6,904	54,763	84,121	71,828	78,664	74,865	50,452	445,491
1941	23,894	-	-	-	-	6,904	36,658	41,242	40,441	42,362	43,392	40,561	275,454
1942	23,894	-	-	-	-	6,904	48,411	71,330	67,889	73,886	70,361	49,030	411,706
1943	23,894	-	-	-	-	6,904	56,318	110,491	115,666	117,506	107,837	60,961	599,577
1944	23,894	-	-	-	-	6,904	40,936	56,065	54,347	57,718	57,038	44,661	341,563
1945	23,894	-	-	-	-	6,904	47,032	106,737	89,939	93,956	86,640	54,109	509,212
1946	23,894	-	-	-	-	6,904	53,397	110,491	119,660	123,857	118,505	81,083	637,791
1947	24,707	-	-	-	-	6,904	55,685	110,491	94,842	97,083	89,591	55,119	534,422
1948	23,894	-	-	-	-	6,904	52,832	108,979	107,369	115,467	105,597	60,139	581,181
1949	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1950	26,733	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	643,550
1951	27,579	-	-	-	-	6,904	56,239	110,491	119,660	123,857	118,505	81,083	644,318
1952	27,402	-	-	-	-	6,904	53,600	90,956	78,247	86,396	80,153	52,104	475,762
1953	23,894	-	-	-	-	6,904	51,220	98,579	90,397	97,185	89,619	55,073	512,871
1954	23,894	-	-	-	-	6,904	56,318	110,491	114,986	117,624	107,397	60,739	598,351
1955	23,894	-	-	-	-	6,904	53,784	107,809	102,926	110,304	100,966	58,676	565,262
1956	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1957	27,579	-	-	-	-	6,904	56,313	110,491	105,324	105,341	96,550	57,350	565,853
1958	23,894	-	-	-	-	6,904	45,102	77,417	71,893	79,126	74,358	50,275	428,970
1959	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	114,140	81,083	636,347
1960	27,579	-	-	-	-	6,904	54,123	109,433	100,224	114,073	104,351	59,867	576,554
1961	23,894	-	-	-	-	6,904	53,204	104,206	110,626	120,419	114,654	79,351	613,257
1962	23,054	-	-	-	-	6,904	54,693	82,353	76,552	84,369	78,423	51,508	457,856
1963	23,894	-	-	-	-	6,904	49,158	63,195	59,496	63,691	61,910	46,246	374,496
1964	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1965	27,579	-	-	-	-	6,904	54,176	107,574	103,749	111,409	102,235	59,141	572,768
1966	23,894	-	-	-	-	6,904	51,730	94,030	78,843	86,485	80,629	52,239	474,754
1967	23,894	-	-	-	-	6,904	51,194	99,901	91,069	96,904	89,756	55,214	514,836
1968	23,894	-	-	-	-	6,904	50,291	101,944	92,757	100,145	92,217	55,911	524,063
1969	23,894	-	-	-	-	6,904	56,318	108,790	101,443	104,343	95,890	57,160	554,742
1970	23,894	-	-	-	-	6,904	47,438	99,520	91,806	97,398	90,037	55,327	512,324
1971	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1972	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1973	27,579	-	-	-	-	6,904	45,963	73,862	70,348	77,147	72,582	49,711	424,096
1974	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1975	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1976	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1977	27,579	-	-	-	-	6,904	36,821	41,197	39,868	41,502	42,228	39,660	275,759
1978	23,894	-	-	-	-	6,904	50,525	100,133	94,456	101,956	93,883	56,520	528,271
1979	23,894	-	-	-	-	6,904	44,645	66,270	60,641	65,285	63,150	46,697	377,486
1980	23,894	-	-	-	-	6,904	54,499	109,510	85,034	92,114	85,379	53,760	511,093
1981	23,894	-	-	-	-	6,904	55,151	89,293	80,874	88,865	82,310	52,766	480,056
1982	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1983	27,468	-	-	-	-	6,904	51,198	105,437	97,341	105,797	97,217	57,544	548,906
1984	23,894	-	-	-	-	6,904	48,454	107,196	103,282	108,952	99,939	58,455	557,077
1985	23,894	-	-	-	-	6,904	44,461	66,087	59,526	63,977	62,106	46,352	373,308
1986	23,894	-	-	-	-	6,904	45,833	75,467	69,696	75,885	71,740	49,433	418,852
1987	23,894	-	-	-	-	6,904	52,438	99,908	73,022	79,600	75,377	50,590	461,733
1988	23,894	-	-	-	-	6,904	54,757	74,474	69,341	75,458	71,471	49,322	425,621
1989	23,894	-	-	-	-	6,904	55,882	109,030	98,562	101,942	93,664	56,435	546,312
1990	23,894	-	-	-	-	6,904	56,318	110,422	105,059	112,691	103,294	59,556	578,138
1991	23,894	-	-	-	-	6,904	56,275	106,999	107,535	118,788	108,578	61,236	590,211
1992	23,894	-	-	-	-	6,904	41,496	57,729	55,643	59,632	58,724	45,256	349,279
1993	23,894	-	-	-	-	6,904	43,770	72,099	64,311	69,689	66,782	47,883	395,332
1994	23,894	-	-	-	-	6,904	38,740	49,359	47,475	49,858	50,182	42,683	309,095
1995	23,894	-	-	-	-	6,904	47,096	85,566	76,276	83,955	78,066	51,460	453,217
1996	23,894	-	-	-	-	6,904	56,035	104,757	104,922	113,470	103,886	59,671	573,540
1997	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1998	27,579	-	-	-	-	6,904	50,833	97,653	90,045	97,608	90,144	55,351	516,117
1999	23,894	-	-	-	-	6,904	56,318	110,491	117,690	119,315	109,334	61,441	605,386
2000	23,894	-	-	-	-	6,904	56,070	104,535	96,970	105,155	96,653	57,367	547,547
2001	23,894	-	-	-	-	6,904	41,871	58,949	52,877	55,983	55,432	44,215	340,125
2002	23,894	-	-	-	-	6,904	56,220	105,844	119,660	123,857	118,505	81,083	635,967
2003	27,579	-	-	-	-	6,904	47,750	77,976	73,726	81,471	76,198	50,876	442,481
2004	23,894	-	-	-	-	6,904	50,191	77,194	72,178	79,259	74,357	50,210	434,187
2005	23,894	-	-	-	-	6,904	42,004	63,671	60,512	65,134	63,127	46,645	371,891
2006	23,894	-	-	-	-	6,904	55,734	108,950	105,968	123,857	118,505	80,304	624,117
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,603	-	-	-	-	6,904	51,332	93,030	90,481	96,262	90,480	59,334	512,426

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A CC Adverse (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26,528	-	-	-	-	11,217	42,701	52,515	51,647	53,446	53,581	47,918	339,553
1927	26,528	-	-	-	-	11,217	45,105	60,678	69,156	70,840	69,712	54,947	408,183
1928	26,528	-	-	-	-	11,217	45,021	63,662	69,279	71,327	70,239	55,228	412,500
1929	26,528	-	-	-	-	11,217	43,294	54,604	53,581	55,393	55,252	48,638	348,507
1930	26,528	-	-	-	-	11,217	42,299	48,975	47,521	48,990	49,365	46,031	320,926
1931	26,528	-	-	-	-	11,217	43,804	57,001	55,767	57,600	57,260	49,524	358,700
1932	26,016	-	-	-	-	11,217	45,989	64,336	70,879	76,952	77,292	64,789	437,471
1933	26,666	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,876
1934	35,036	-	-	-	-	11,217	45,989	63,106	66,158	67,588	66,624	53,631	409,348
1935	26,528	-	-	-	-	11,217	43,930	63,321	69,230	71,224	70,147	55,134	410,731
1936	26,528	-	-	-	-	11,217	44,022	60,451	61,149	62,949	62,184	51,706	380,205
1937	26,528	-	-	-	-	11,217	43,371	60,229	60,420	62,233	61,391	51,314	376,702
1938	26,528	-	-	-	-	11,217	45,989	64,146	69,546	75,239	74,516	57,147	424,328
1939	26,528	-	-	-	-	11,217	44,215	59,465	61,383	63,386	62,538	51,823	380,554
1940	26,528	-	-	-	-	11,217	44,996	56,217	58,855	60,954	60,607	50,996	370,371
1941	26,528	-	-	-	-	11,217	42,011	46,758	45,563	47,237	47,751	45,404	312,468
1942	26,528	-	-	-	-	11,217	41,965	57,205	57,186	59,204	58,743	50,192	362,242
1943	26,528	-	-	-	-	11,217	45,291	63,472	71,054	75,016	74,227	56,938	423,743
1944	26,528	-	-	-	-	11,217	42,561	52,228	51,451	53,147	53,228	47,722	338,080
1945	26,528	-	-	-	-	11,217	39,546	63,273	64,491	66,520	65,481	53,062	390,118
1946	26,528	-	-	-	-	11,217	43,739	64,778	71,459	76,952	77,292	64,789	436,754
1947	31,196	-	-	-	-	11,217	45,665	64,825	66,693	67,696	66,703	53,634	407,629
1948	26,528	-	-	-	-	11,217	44,372	63,472	70,530	74,495	73,327	56,472	420,413
1949	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1950	26,407	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,617
1951	36,441	-	-	-	-	11,217	45,894	63,966	71,459	76,952	77,292	64,789	448,011
1952	30,379	-	-	-	-	11,217	43,678	61,594	61,762	63,676	62,796	51,930	387,032
1953	26,528	-	-	-	-	11,217	44,108	62,935	66,673	67,735	66,714	53,608	399,518
1954	26,528	-	-	-	-	11,217	45,029	63,472	70,971	75,031	74,064	56,811	423,123
1955	26,528	-	-	-	-	11,217	44,903	63,472	70,150	72,670	71,410	55,645	415,995
1956	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1957	33,571	-	-	-	-	11,217	45,983	64,825	69,268	70,803	69,583	54,896	420,146
1958	26,528	-	-	-	-	11,217	42,104	59,382	58,904	61,119	60,397	50,896	370,548
1959	26,528	-	-	-	-	11,217	45,989	63,511	71,459	76,952	75,923	64,789	436,368
1960	35,954	-	-	-	-	11,217	44,897	64,333	65,027	74,068	72,813	56,318	424,626
1961	26,528	-	-	-	-	11,217	44,576	62,043	68,636	75,268	76,206	60,913	425,388
1962	28,771	-	-	-	-	11,217	44,585	59,815	60,975	62,987	62,080	51,592	382,023
1963	26,528	-	-	-	-	11,217	42,823	54,818	53,633	55,385	55,245	48,618	348,266
1964	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1965	36,441	-	-	-	-	11,217	44,463	63,130	70,322	73,086	71,936	55,908	426,503
1966	26,528	-	-	-	-	11,217	43,772	59,869	61,850	63,887	62,993	52,005	382,121
1967	26,528	-	-	-	-	11,217	44,029	63,007	66,912	67,629	66,771	53,688	399,782
1968	26,528	-	-	-	-	11,217	44,037	63,085	67,557	68,848	67,789	54,082	403,144
1969	26,528	-	-	-	-	11,217	45,989	64,185	66,834	70,427	69,310	54,788	409,278
1970	26,528	-	-	-	-	11,217	42,280	62,961	67,175	67,815	66,888	53,752	398,616
1971	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1972	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1973	36,441	-	-	-	-	11,217	43,588	58,334	58,225	60,403	59,662	50,577	378,447
1974	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1975	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1976	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1977	36,441	-	-	-	-	11,217	42,204	46,673	45,167	46,789	47,098	44,787	320,375
1978	26,528	-	-	-	-	11,217	42,911	62,874	68,170	69,529	68,480	54,427	404,134
1979	26,528	-	-	-	-	11,217	43,445	55,822	54,115	55,965	55,758	48,873	351,723
1980	26,528	-	-	-	-	11,217	44,626	64,453	62,636	65,926	64,959	52,865	393,210
1981	26,528	-	-	-	-	11,217	45,458	61,031	62,862	64,605	63,689	52,303	387,693
1982	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1983	30,286	-	-	-	-	11,217	44,249	63,455	69,151	70,974	69,859	55,005	414,196
1984	26,528	-	-	-	-	11,217	41,088	63,472	70,165	72,161	70,986	55,521	411,138
1985	26,528	-	-	-	-	11,217	43,496	55,811	53,643	55,478	55,326	48,678	350,177
1986	26,528	-	-	-	-	11,217	43,789	58,876	57,950	59,941	59,314	50,420	368,035
1987	26,528	-	-	-	-	11,217	43,747	62,145	59,361	61,308	60,819	51,074	376,199
1988	26,528	-	-	-	-	11,217	45,107	57,733	57,802	59,767	59,202	50,357	367,711
1989	26,528	-	-	-	-	11,217	45,640	64,282	65,913	69,524	68,388	54,378	405,870
1990	26,528	-	-	-	-	11,217	45,989	64,784	67,896	73,568	72,375	56,144	418,500
1991	26,528	-	-	-	-	11,217	45,939	62,659	69,330	75,305	74,484	57,094	422,556
1992	26,528	-	-	-	-	11,217	42,784	52,832	51,999	53,861	53,926	48,059	341,205
1993	26,528	-	-	-	-	11,217	42,226	57,655	55,670	57,609	57,262	49,544	357,711
1994	26,528	-	-	-	-	11,217	41,126	49,785	48,542	50,046	50,548	46,604	324,396
1995	26,528	-	-	-	-	11,217	42,918	61,111	60,918	62,758	61,932	51,566	378,948
1996	26,528	-	-	-	-	11,217	45,758	62,280	70,373	73,860	72,619	56,208	418,844
1997	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1998	36,441	-	-	-	-	11,217	43,669	62,885	66,522	67,894	66,932	53,766	409,325
1999	26,528	-	-	-	-	11,217	45,029	63,472	71,222	75,385	74,680	57,209	424,742
2000	26,528	-	-	-	-	11,217	45,914	62,958	69,014	70,733	69,626	54,906	410,895
2001	26,528	-	-	-	-	11,217	42,614	53,267	50,828	52,478	52,588	47,470	336,990
2002	23,582	-	-	-	-	11,217	45,879	62,673	72,006	76,952	77,292	64,789	434,391
2003	29,863	-	-	-	-	11,217	44,399	59,623	59,800	61,897	61,159	51,236	379,194
2004	26,528	-	-	-	-	11,217	44,947	59,317	59,001	61,197	60,397	50,859	373,463
2005	26,528	-	-	-	-	11,217	41,956	54,993	54,062	55,917	55,748	48,844	349,264
2006	26,528	-	-	-	-	11,217	45,542	64,166	66,348	76,952	77,292	61,403	429,448
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	27,994	-	-	-	-	11,217	44,215	60,694	64,059	67,221	66,760	55,117	397,277

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A CC Adverse (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	869	-	-	-	-	458	1,818	14,152	16,229	16,715	16,778	15,223	82,243
1927	869	-	-	-	-	458	5,057	13,491	17,395	18,447	18,447	16,567	90,730
1928	869	-	-	-	-	458	5,051	13,899	17,160	18,447	18,447	16,570	90,900
1929	869	-	-	-	-	458	2,210	14,225	16,590	17,102	17,118	15,430	84,001
1930	869	-	-	-	-	458	1,857	13,960	15,379	15,832	15,919	14,631	78,905
1931	869	-	-	-	-	458	3,698	14,249	16,954	17,539	17,527	15,682	86,976
1932	869	-	-	-	-	458	5,193	14,080	17,643	20,637	21,193	17,272	97,344
1933	2,806	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	99,694
1934	3,562	-	-	-	-	458	5,193	13,901	17,395	18,447	18,447	16,544	93,945
1935	869	-	-	-	-	458	4,309	14,249	17,395	18,447	18,447	16,569	90,742
1936	869	-	-	-	-	458	3,556	14,249	17,395	18,447	18,428	16,259	89,660
1937	869	-	-	-	-	458	3,280	14,249	17,395	18,444	18,368	16,167	89,229
1938	869	-	-	-	-	458	5,193	14,046	16,852	18,447	18,447	16,594	90,906
1939	869	-	-	-	-	458	4,917	13,998	17,395	18,447	18,436	16,287	90,806
1940	869	-	-	-	-	458	5,044	12,983	17,365	18,204	18,209	16,083	89,215
1941	869	-	-	-	-	458	1,730	13,831	14,961	15,484	15,591	14,415	77,338
1942	869	-	-	-	-	458	4,518	14,184	17,146	17,857	17,829	15,864	88,726
1943	869	-	-	-	-	458	5,193	14,249	17,605	18,447	18,447	16,591	91,858
1944	869	-	-	-	-	458	1,754	14,144	16,189	16,656	16,706	15,165	81,941
1945	869	-	-	-	-	458	4,418	13,777	16,841	18,447	18,447	16,528	89,784
1946	869	-	-	-	-	458	4,907	14,249	17,887	20,637	21,193	17,272	97,471
1947	3,764	-	-	-	-	458	5,138	14,249	17,177	18,447	18,447	16,543	94,221
1948	869	-	-	-	-	458	4,556	14,249	17,395	18,447	18,447	16,585	91,005
1949	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1950	3,134	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,022
1951	3,968	-	-	-	-	458	5,188	14,249	17,887	20,637	21,193	17,272	100,852
1952	3,968	-	-	-	-	458	4,927	14,140	17,395	18,447	18,440	16,312	94,087
1953	869	-	-	-	-	458	4,180	14,249	17,395	18,447	18,447	16,543	90,586
1954	869	-	-	-	-	458	5,193	14,249	17,535	18,447	18,447	16,590	91,786
1955	869	-	-	-	-	458	4,670	14,249	17,395	18,447	18,447	16,575	91,108
1956	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1957	3,514	-	-	-	-	458	5,192	14,249	16,985	18,447	18,447	16,566	93,857
1958	869	-	-	-	-	458	3,322	14,249	17,369	18,237	18,166	16,056	88,725
1959	869	-	-	-	-	458	5,193	14,249	17,887	20,637	18,892	17,272	95,456
1960	3,964	-	-	-	-	458	5,033	14,122	15,398	18,447	18,447	16,583	92,452
1961	869	-	-	-	-	458	4,895	13,485	16,499	20,111	19,030	17,059	92,406
1962	3,423	-	-	-	-	458	5,089	14,030	17,395	18,447	18,422	16,233	93,496
1963	869	-	-	-	-	458	4,642	14,230	16,601	17,100	17,117	15,425	86,441
1964	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1965	3,968	-	-	-	-	458	5,016	14,054	17,395	18,447	18,447	16,579	94,363
1966	869	-	-	-	-	458	4,752	13,448	17,395	18,447	18,443	16,330	90,142
1967	869	-	-	-	-	458	4,232	14,249	17,395	18,447	18,447	16,545	90,640
1968	869	-	-	-	-	458	4,376	14,249	17,395	18,447	18,447	16,553	90,793
1969	869	-	-	-	-	458	5,193	14,027	16,281	18,447	18,447	16,564	90,285
1970	869	-	-	-	-	458	4,082	14,249	17,395	18,447	18,447	16,546	90,491
1971	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1972	3,843	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,731
1973	3,968	-	-	-	-	458	2,838	14,249	17,278	18,095	18,016	15,969	90,871
1974	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1975	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1976	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1977	3,968	-	-	-	-	458	997	13,818	14,876	15,395	15,458	14,212	79,182
1978	869	-	-	-	-	458	4,648	14,098	17,395	18,447	18,447	16,560	90,921
1979	869	-	-	-	-	458	2,502	14,237	16,689	17,215	17,221	15,497	84,688
1980	869	-	-	-	-	458	5,004	14,109	16,635	18,447	18,447	16,500	90,469
1981	869	-	-	-	-	458	5,112	14,010	17,395	18,447	18,447	16,399	91,136
1982	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1983	3,272	-	-	-	-	458	4,413	14,249	17,395	18,447	18,447	16,567	93,248
1984	869	-	-	-	-	458	4,409	14,249	17,395	18,447	18,447	16,574	90,847
1985	869	-	-	-	-	458	2,499	14,233	16,602	17,118	17,133	15,441	84,353
1986	869	-	-	-	-	458	3,707	14,249	17,231	18,003	17,945	15,927	88,390
1987	869	-	-	-	-	458	4,846	14,072	17,389	18,275	18,252	16,105	90,265
1988	869	-	-	-	-	458	5,063	14,115	17,223	17,969	17,923	15,910	89,529
1989	869	-	-	-	-	458	5,151	14,042	16,111	18,447	18,447	16,560	90,084
1990	869	-	-	-	-	458	5,193	14,240	16,341	18,447	18,447	16,582	90,575
1991	869	-	-	-	-	458	5,190	13,830	16,918	18,447	18,447	16,593	90,751
1992	869	-	-	-	-	458	1,808	14,167	16,298	16,798	16,848	15,265	82,510
1993	869	-	-	-	-	458	3,154	14,249	16,942	17,541	17,527	15,687	86,427
1994	869	-	-	-	-	458	2,776	14,014	15,592	16,041	16,160	14,821	80,731
1995	869	-	-	-	-	458	3,676	14,249	17,395	18,447	18,417	16,226	89,736
1996	869	-	-	-	-	458	5,177	13,821	17,395	18,447	18,447	16,582	91,195
1997	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1998	3,968	-	-	-	-	458	4,212	14,249	17,395	18,447	18,447	16,547	93,721
1999	869	-	-	-	-	458	5,193	14,249	17,746	18,447	18,447	16,595	92,001
2000	869	-	-	-	-	458	5,172	14,191	17,395	18,447	18,447	16,566	91,544
2001	869	-	-	-	-	458	2,334	14,150	16,064	16,523	16,576	15,091	82,065
2002	869	-	-	-	-	458	5,187	13,680	17,887	20,637	21,193	17,272	97,183
2003	3,477	-	-	-	-	458	3,386	14,249	17,395	18,391	18,321	16,146	91,822
2004	869	-	-	-	-	458	4,334	14,249	17,379	18,253	18,166	16,046	89,752
2005	869	-	-	-	-	458	3,303	14,236	16,679	17,205	17,219	15,488	85,458
2006	869	-	-	-	-	458	5,160	14,064	15,863	20,637	21,193	17,062	95,306
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,497	-	-	-	-	458	4,352	14,115	17,132	18,594	18,676	16,376	91,199

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3A CC Adverse (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	5,536	-	-	-	-	20	7,378	12,454	11,508	10,903	11,990	11,798	71,587
1927	5,536	-	-	-	-	20	11,514	13,833	14,527	14,065	14,735	13,329	87,560
1928	5,536	-	-	-	-	20	11,516	15,161	14,664	14,065	14,735	13,329	89,027
1929	5,536	-	-	-	-	20	8,515	12,833	12,155	11,120	12,579	12,125	74,883
1930	5,536	-	-	-	-	20	8,312	12,454	11,508	10,903	11,990	11,798	72,522
1931	5,536	-	-	-	-	20	10,589	13,395	12,800	11,195	13,468	12,611	79,613
1932	5,536	-	-	-	-	20	11,828	15,387	16,024	17,629	17,780	15,757	99,961
1933	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1934	7,393	-	-	-	-	20	11,828	14,966	14,527	14,065	14,735	13,329	90,862
1935	5,536	-	-	-	-	20	10,611	13,791	14,527	14,065	14,735	13,329	86,615
1936	5,536	-	-	-	-	20	10,715	13,571	14,230	13,127	14,194	12,849	84,242
1937	5,536	-	-	-	-	20	10,408	13,571	14,230	13,127	14,194	12,849	83,935
1938	5,536	-	-	-	-	20	11,828	15,311	15,390	17,070	17,346	15,376	97,877
1939	5,536	-	-	-	-	20	11,141	13,491	14,230	13,127	14,194	12,849	84,587
1940	5,536	-	-	-	-	20	11,488	13,490	14,230	13,127	14,194	12,849	84,934
1941	5,536	-	-	-	-	20	8,525	12,454	11,508	10,903	11,990	11,798	72,735
1942	5,536	-	-	-	-	20	10,351	13,359	13,121	11,427	13,468	12,611	79,893
1943	5,536	-	-	-	-	20	11,828	15,543	16,047	17,070	17,346	15,376	98,764
1944	5,536	-	-	-	-	20	7,202	12,454	11,508	10,903	11,990	11,798	71,412
1945	5,536	-	-	-	-	20	9,807	15,020	14,130	14,065	14,420	12,849	85,847
1946	5,536	-	-	-	-	20	11,106	15,543	16,253	17,629	17,780	15,757	99,623
1947	7,393	-	-	-	-	20	11,697	15,543	14,634	14,065	14,735	13,329	91,415
1948	5,536	-	-	-	-	20	11,142	14,763	15,251	14,138	14,735	13,329	88,915
1949	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,807	15,543	16,253	17,629	17,780	15,757	102,182
1952	7,393	-	-	-	-	20	11,128	14,094	14,230	13,127	14,194	12,849	87,034
1953	5,536	-	-	-	-	20	10,719	13,791	14,527	14,065	14,735	13,329	86,723
1954	5,536	-	-	-	-	20	11,828	15,543	15,993	17,070	17,346	15,376	98,711
1955	5,536	-	-	-	-	20	11,479	14,745	14,527	14,065	14,735	13,329	88,436
1956	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1957	7,393	-	-	-	-	20	11,827	15,543	14,842	14,065	14,735	13,329	91,754
1958	5,536	-	-	-	-	20	9,989	13,571	14,230	13,127	14,194	12,849	83,515
1959	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,457	15,757	100,022
1960	7,393	-	-	-	-	20	11,444	15,394	13,633	14,065	14,735	13,329	90,012
1961	5,536	-	-	-	-	20	11,323	14,686	15,042	17,163	17,489	15,757	97,015
1962	7,393	-	-	-	-	20	11,391	13,640	14,230	13,127	14,194	12,849	86,843
1963	5,536	-	-	-	-	20	10,718	12,833	12,155	11,120	12,579	12,125	77,086
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,278	14,920	14,741	14,065	14,735	13,329	90,482
1966	5,536	-	-	-	-	20	11,095	14,135	14,230	13,127	14,194	12,849	85,185
1967	5,536	-	-	-	-	20	10,695	13,791	14,527	14,065	14,735	13,329	86,698
1968	5,536	-	-	-	-	20	10,834	13,791	14,527	14,065	14,735	13,329	86,838
1969	5,536	-	-	-	-	20	11,828	15,303	14,259	14,065	14,735	13,329	89,075
1970	5,536	-	-	-	-	20	10,111	13,791	14,527	14,065	14,735	13,329	86,115
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,535	13,472	13,121	12,524	13,652	12,611	83,328
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	7,673	12,454	11,508	10,903	11,990	11,798	73,740
1978	5,536	-	-	-	-	20	10,683	14,195	14,527	14,065	14,735	13,329	87,091
1979	5,536	-	-	-	-	20	9,894	13,067	12,155	11,120	12,579	12,125	76,496
1980	5,536	-	-	-	-	20	11,373	15,413	13,834	13,127	14,194	12,849	86,346
1981	5,536	-	-	-	-	20	11,617	14,070	14,230	13,127	14,194	12,849	85,643
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	10,635	13,791	14,527	14,065	14,735	13,329	88,495
1984	5,536	-	-	-	-	20	10,247	14,400	14,527	14,065	14,735	13,329	86,860
1985	5,536	-	-	-	-	20	9,849	13,121	12,155	11,120	12,579	12,125	76,505
1986	5,536	-	-	-	-	20	10,655	13,571	13,121	11,427	13,468	12,611	80,408
1987	5,536	-	-	-	-	20	11,049	15,042	14,230	13,127	14,194	12,849	86,046
1988	5,536	-	-	-	-	20	11,507	13,438	13,121	11,427	13,468	12,611	81,128
1989	5,536	-	-	-	-	20	11,713	15,347	14,048	14,065	14,735	13,329	88,793
1990	5,536	-	-	-	-	20	11,828	15,534	14,369	14,065	14,735	13,329	89,416
1991	5,536	-	-	-	-	20	11,817	15,050	15,358	17,070	17,346	15,376	97,574
1992	5,536	-	-	-	-	20	7,095	12,454	11,508	10,917	12,298	11,798	71,626
1993	5,536	-	-	-	-	20	10,048	13,458	12,187	11,209	13,468	12,611	78,536
1994	5,536	-	-	-	-	20	9,223	12,454	11,508	10,903	11,990	11,798	73,433
1995	5,536	-	-	-	-	20	10,181	13,583	14,230	13,127	14,194	12,849	83,719
1996	5,536	-	-	-	-	20	11,750	14,699	14,809	14,065	14,735	13,329	88,943
1997	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1998	7,393	-	-	-	-	20	10,529	13,791	14,527	14,065	14,735	13,329	88,389
1999	5,536	-	-	-	-	20	11,828	15,543	16,152	17,070	17,346	15,376	98,870
2000	5,536	-	-	-	-	20	11,791	13,764	14,527	14,065	14,735	13,329	87,767
2001	5,536	-	-	-	-	20	8,831	12,645	11,508	10,903	11,990	11,798	73,231
2002	5,536	-	-	-	-	20	11,805	14,917	16,253	17,629	17,780	15,757	99,697
2003	7,393	-	-	-	-	20	10,723	13,571	14,230	13,127	14,194	12,849	86,106
2004	5,536	-	-	-	-	20	11,248	13,571	14,230	13,127	14,194	12,849	84,774
2005	5,536	-	-	-	-	20	9,676	12,833	12,155	11,120	12,579	12,125	76,044
2006	5,536	-	-	-	-	20	11,668	15,337	14,439	17,629	17,780	15,757	98,166
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,949	-	-	-	-	20	10,865	14,323	14,344	14,238	15,014	13,657	88,409

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	20,324	24,175	63,787
1926	73,963	96,122	108,755	108,658	98,129	62,920	31,052	11,599	9,336	17,818	26,336	37,396
1927	56,130	72,268	78,920	94,731	106,448	90,728	38,779	9,737	8,320	16,732	46,183	62,009
1928	86,371	91,940	132,851	135,428	147,904	115,583	77,462	26,807	22,292	30,041	36,562	41,075
1929	41,244	34,985	48,810	53,524	83,598	74,613	34,905	9,791	6,102	6,040	6,576	16,943
1930	18,846	39,461	53,313	68,322	75,786	62,216	37,304	14,278	10,579	16,547	19,766	22,005
1931	42,447	51,683	83,223	92,096	88,453	62,591	17,625	8,281	6,792	15,768	32,329	40,460
1932	50,368	55,245	99,325	125,957	142,756	128,210	74,582	22,262	18,398	16,714	88,493	118,796
1933	116,414	110,520	114,979	132,196	134,069	126,770	85,434	42,061	40,575	44,699	79,019	129,663
1934	121,738	133,865	152,860	157,084	151,985	109,253	60,177	15,233	11,368	33,310	52,066	80,908
1935	114,724	131,269	134,266	148,049	139,273	117,268	59,466	21,191	17,919	16,826	20,528	30,800
1936	66,300	60,679	65,289	90,168	109,951	78,544	28,575	9,934	8,052	6,783	6,307	33,454
1937	31,769	30,455	42,477	84,558	98,184	77,734	21,879	10,007	7,410	9,253	52,765	80,913
1938	102,157	105,841	123,119	129,028	142,637	123,195	78,926	29,966	25,193	30,579	39,860	69,607
1939	97,891	95,278	103,378	121,394	111,489	71,269	27,567	9,289	6,227	11,550	18,535	80,506
1940	87,728	112,262	139,071	148,378	130,660	85,286	37,348	10,302	6,454	10,742	14,646	43,120
1941	52,713	57,946	63,257	58,581	60,345	41,903	18,205	9,609	10,381	14,833	31,683	88,136
1942	91,633	102,074	107,971	107,750	85,417	69,385	37,152	11,187	7,815	7,015	33,519	52,725
1943	53,553	59,543	73,279	114,686	119,542	104,037	62,524	22,556	17,382	24,595	29,006	45,010
1944	52,662	55,528	57,403	68,699	88,215	60,342	24,969	9,352	7,746	8,039	14,287	19,111
1945	42,925	53,225	57,989	76,030	111,181	81,555	22,284	8,374	9,790	23,770	40,386	59,256
1946	79,060	80,940	108,967	125,777	155,398	138,463	77,499	23,732	19,823	22,029	34,331	97,469
1947	107,414	120,608	140,161	155,334	137,634	102,719	45,506	11,047	9,281	32,226	63,940	89,726
1948	100,523	100,697	102,864	121,595	155,552	157,201	93,576	40,137	35,023	37,564	55,271	71,382
1949	69,165	63,712	77,349	103,096	156,143	140,968	83,206	33,447	27,880	25,422	38,062	61,130
1950	58,920	56,180	56,546	74,372	120,608	157,770	131,527	73,448	68,147	83,372	115,816	118,796
1951	116,699	129,799	120,542	126,944	156,823	148,894	90,492	38,788	32,921	28,725	37,588	49,564
1952	47,249	52,781	56,689	84,597	101,079	72,010	20,843	8,946	5,414	3,654	5,142	8,000
1953	42,001	68,104	79,047	86,041	102,863	78,319	28,145	10,591	7,338	9,877	31,227	99,847
1954	116,067	140,619	131,243	127,531	137,509	116,569	77,595	38,699	34,402	32,682	45,528	53,110
1955	67,797	65,468	58,584	60,946	92,803	112,575	73,487	35,782	29,392	47,369	87,198	118,796
1956	117,973	110,305	98,157	105,812	139,704	157,611	106,944	54,866	49,272	45,478	57,513	112,232
1957	110,072	108,487	123,367	134,607	147,447	112,702	56,656	15,086	11,418	14,781	24,827	55,759
1958	76,174	112,828	117,383	132,318	114,421	80,621	51,119	11,996	8,538	17,118	42,884	91,804
1959	118,796	120,317	130,825	143,246	148,858	131,852	70,933	22,654	27,524	46,315	81,487	112,675
1960	115,127	133,121	140,402	153,486	153,940	130,013	71,920	23,872	21,313	27,321	60,014	68,192
1961	98,502	141,371	133,994	137,389	142,083	127,790	82,399	29,181	24,219	22,391	27,898	48,673
1962	67,411	84,136	89,746	104,506	86,271	56,088	21,092	10,001	7,821	12,509	33,736	53,948
1963	62,824	89,254	95,661	102,947	86,009	59,104	30,619	11,276	8,358	16,904	41,064	57,290
1964	77,367	82,956	98,483	116,350	132,938	154,747	106,085	54,387	50,852	49,716	61,703	83,506
1965	99,672	128,552	134,995	153,385	147,301	127,970	74,964	31,217	28,063	33,250	41,536	49,062
1966	56,466	58,634	77,707	107,071	121,689	86,585	31,316	10,229	7,095	15,017	23,738	81,471
1967	112,276	127,604	133,261	116,499	119,231	98,648	63,404	25,096	21,147	27,415	34,528	65,483
1968	90,722	127,060	156,382	150,452	127,913	99,661	56,628	17,321	15,815	24,502	44,296	66,170
1969	65,653	59,965	69,491	105,231	142,861	117,188	47,519	10,868	11,280	12,831	20,807	48,455
1970	75,468	95,406	107,320	109,844	103,055	84,373	54,404	14,666	12,310	15,322	20,119	20,621
1971	45,469	67,138	62,978	86,075	146,318	157,581	125,641	71,770	68,033	60,273	75,990	88,928
1972	92,138	98,319	112,692	110,212	144,327	157,770	118,817	66,182	64,610	55,100	66,939	118,796
1973	118,336	122,842	128,864	123,279	103,166	79,058	45,690	11,305	8,051	9,342	25,051	70,183
1974	102,199	111,696	119,268	118,142	128,109	133,613	111,808	68,168	62,245	44,640	49,094	81,883
1975	104,674	103,917	106,936	115,069	151,637	155,043	107,994	56,587	51,955	67,797	109,354	118,796
1976	118,796	122,985	112,640	112,582	143,245	136,786	107,060	65,936	60,557	44,113	44,648	49,011
1977	54,928	59,552	74,794	69,878	64,304	45,797	21,691	13,508	13,448	13,168	37,975	105,396
1978	113,712	121,738	138,082	148,711	127,269	98,035	56,392	16,332	18,246	17,381	28,249	40,698
1979	36,859	37,262	56,240	71,778	108,065	80,232	37,445	10,126	6,635	8,849	7,865	44,818
1980	44,899	53,556	72,310	101,300	111,292	82,281	28,834	10,391	8,805	7,144	22,087	68,805
1981	76,868	108,057	112,050	125,727	99,760	76,170	38,544	10,810	9,357	18,314	33,292	58,657
1982	76,850	109,057	122,153	126,437	149,487	156,974	94,717	40,249	36,554	29,889	43,970	67,561
1983	93,805	114,765	143,848	149,437	135,017	107,436	65,202	23,738	21,877	21,231	60,885	63,912
1984	92,611	100,394	123,698	119,061	113,303	94,742	62,396	26,324	22,315	20,675	30,465	30,592
1985	29,457	23,677	24,119	45,500	71,580	63,075	24,063	9,481	6,029	15,376	29,859	27,424
1986	43,981	54,184	83,637	89,742	99,215	65,894	17,213	8,029	6,480	8,140	45,366	51,761
1987	60,657	81,138	112,374	121,932	109,677	76,311	35,894	10,065	6,218	3,698	8,558	23,399
1988	28,725	42,911	64,493	76,234	87,744	61,962	19,706	8,493	5,861	14,476	34,965	45,211
1989	62,873	58,747	74,382	113,525	132,530	109,713	55,428	14,707	11,013	12,604	26,517	43,116
1990	69,354	71,471	92,376	128,304	134,151	118,333	63,609	16,573	12,878	25,237	88,966	102,104
1991	117,508	145,959	135,064	150,088	157,007	134,786	81,523	33,960	29,399	24,473	36,119	61,917
1992	86,732	114,008	118,666	114,387	101,464	64,301	30,624	10,371	8,702	8,816	15,864	20,297
1993	20,488	22,379	42,787	69,981	100,974	73,490	26,350	10,038	6,701	8,644	12,609	26,735
1994	45,336	45,943	65,742	78,144	84,057	65,042	36,330	11,264	7,809	17,386	23,334	48,915
1995	54,725	87,386	106,141	103,050	100,241	65,404	14,950	10,330	6,898	16,438	53,307	98,918
1996	116,970	131,278	128,203	146,303	147,947	125,814	69,666	26,941	24,341	28,169	35,379	42,881
1997	60,657	73,126	98,625	101,779	136,022	157,770	112,837	56,796	53,262	59,153	80,899	100,107
1998	118,796	138,290	153,091	145,619	143,978	109,948	57,689	13,880	10,033	12,411	33,410	68,779
1999	93,243	99,577	105,842	109,876	113,763	120,879	83,389	44,180	38,860	43,055	83,758	117,598
2000	116,211	121,283	131,613	148,043	146,352	128,042	68,761	23,926	20,055	24,239	26,590	26,736
2001	28,147	28,914	35,914	42,836	73,839	64,281	30,471	11,318	8,161	12,330	34,980	56,399
2002	75,873	81,345	80,834	106,222	143,492	157,153	87,965	25,600	20,180	10,545	14,288	20,610
2003	41,101	59,301	88,273	107,318	90,950	70,869	34,384	10,503	8,381	24,650	34,623	45,550
2004	55,339	63,583	75,634	80,944	81,540	53,109	11,454	11,656	11,204	13,495	31,300	53,505
2005	74,080	77,142	96,980	112,497	112,412	75,212	34,183	10,224	7,130	9,032	24,985	46,921
2006	91,293	94,559	98,679	120,114	149,458	133,422	74,706	19,391	15,443	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	32,245	39,471	71,324
1926	87,457	119,835	132,806	140,550	140,197	131,058	112,793	69,501	26,768	30,163	38,310	49,804
1927	71,056	88,560	98,245	117,231	139,647	147,669	127,015	82,217	20,511	28,092	49,755	73,195
1928	98,709	107,607	148,985	171,516	201,282	195,054	160,323	110,201	43,428	45,971	54,273	60,606
1929	64,408	62,392	80,115	87,705	112,474	116,764	101,650	68,941	24,027	15,177	17,603	28,867
1930	36,241	58,535	74,383	91,159	104,231	103,508	95,292	71,640	32,008	22,529	28,693	33,655
1931	47,864	60,534	88,594	109,507	116,456	114,001	94,768	48,157	9,593	13,563	27,485	38,450
1932	57,202	68,482	114,102	150,162	186,034	197,708	177,741	137,556	50,114	22,392	82,652	123,323
1933	153,974	156,805	164,170	190,504	203,698	221,994	202,285	156,017	81,308	59,867	95,703	203,025
1934	203,025	221,860	236,137	238,287	233,290	197,387	139,266	78,227	28,670	37,572	55,492	90,998
1935	127,627	144,397	151,736	172,062	182,464	184,902	162,799	124,649	57,358	43,899	50,375	57,892
1936	93,628	93,190	106,233	133,878	151,854	147,797	123,960	79,240	31,047	23,317	23,003	45,657
1937	48,873	51,755	68,568	103,177	126,350	131,443	108,336	58,882	13,659	9,295	40,297	70,049
1938	96,318	103,350	123,456	157,038	187,841	192,848	176,545	123,031	53,163	45,387	60,931	82,870
1939	113,429	121,193	135,497	150,668	149,656	143,749	118,540	60,280	13,022	13,215	21,248	58,817
1940	68,666	95,618	134,417	151,065	157,811	145,753	123,428	68,297	19,619	15,157	23,623	48,002
1941	61,168	70,613	79,655	81,820	86,730	81,679	73,204	47,277	26,257	27,799	43,983	81,285
1942	90,233	106,051	115,221	126,810	123,134	126,529	107,695	58,849	13,660	5,900	34,158	51,246
1943	57,920	66,760	81,399	118,986	142,538	159,317	156,529	128,582	59,403	55,026	63,727	77,069
1944	86,199	95,276	101,903	114,947	130,696	124,828	109,441	70,429	35,399	30,774	37,761	44,046
1945	66,343	84,839	93,971	113,083	147,525	146,681	118,951	56,946	13,501	17,127	31,277	50,238
1946	71,681	77,686	99,940	119,787	174,535	197,773	177,538	132,837	42,854	22,185	30,762	81,107
1947	101,221	117,482	138,695	168,036	175,780	173,902	142,553	79,310	29,309	48,321	75,175	101,622
1948	118,482	126,274	132,667	152,280	198,095	230,979	205,173	146,924	82,911	80,860	99,290	123,179
1949	126,108	126,610	145,796	175,786	230,291	230,025	190,766	138,817	52,875	26,629	40,211	67,104
1950	72,128	74,982	81,711	106,597	170,227	221,860	226,174	200,312	116,299	107,820	135,374	171,467
1951	185,484	200,593	201,158	210,546	238,127	238,674	207,561	146,932	60,220	32,358	43,275	54,485
1952	57,246	64,549	72,343	102,183	129,138	128,267	108,731	57,125	11,372	3,589	3,416	7,236
1953	34,399	65,611	79,163	92,500	120,622	124,673	108,295	61,827	12,467	12,066	29,110	91,581
1954	118,011	141,853	150,769	170,003	195,038	207,872	189,882	145,923	77,811	67,347	81,344	88,920
1955	108,678	114,400	115,219	124,309	149,979	191,731	179,618	137,908	69,849	79,670	112,987	157,161
1956	172,794	173,693	181,026	191,067	231,506	238,880	212,041	177,748	93,035	64,573	78,439	125,253
1957	128,853	133,230	152,476	183,780	214,968	207,167	158,488	96,995	30,024	24,960	37,768	63,207
1958	87,844	121,611	130,961	152,157	153,199	148,809	120,010	62,570	14,819	20,384	49,333	86,163
1959	122,054	128,686	149,838	184,707	210,254	215,612	182,717	130,888	58,379	50,177	86,017	117,812
1960	126,281	148,092	159,460	181,201	203,755	207,207	168,847	115,449	46,426	43,165	65,623	76,490
1961	103,387	141,262	167,517	187,685	214,539	216,456	177,663	119,367	30,463	17,978	26,417	44,609
1962	63,104	79,320	89,157	115,045	112,717	112,984	97,819	57,126	11,563	12,120	31,350	51,306
1963	64,797	92,055	102,859	118,148	116,049	110,392	97,662	55,983	12,904	16,360	35,848	53,136
1964	74,770	84,661	99,973	121,869	152,515	200,401	201,543	170,590	94,598	73,342	84,527	107,546
1965	127,168	159,990	171,216	204,582	223,098	229,497	195,735	132,678	61,525	53,785	64,055	70,854
1966	78,213	82,714	98,281	129,396	158,260	156,156	129,224	72,239	21,371	20,596	32,712	68,905
1967	105,552	131,154	142,529	141,354	159,752	171,793	143,907	92,375	39,352	39,051	49,586	74,793
1968	101,450	135,351	168,324	183,040	184,621	183,457	139,609	86,282	24,161	25,978	42,794	68,947
1969	73,091	71,319	87,871	125,257	167,620	172,926	143,515	88,834	26,856	25,133	32,593	50,975
1970	75,761	94,144	107,972	118,368	139,530	149,541	128,256	75,168	21,997	14,806	21,220	24,847
1971	48,791	70,667	71,370	100,622	168,320	211,389	220,167	206,813	127,992	100,417	113,926	132,097
1972	150,592	158,664	195,065	195,102	230,227	238,980	218,752	188,222	109,133	74,649	86,798	134,900
1973	159,342	168,240	179,181	183,635	176,735	170,411	130,344	77,211	28,716	20,903	36,530	85,167
1974	118,519	137,012	156,566	178,323	201,237	233,914	227,615	197,683	119,804	82,601	91,148	116,666
1975	142,767	148,063	156,503	171,650	223,763	237,537	213,944	180,095	96,257	84,463	115,612	187,099
1976	203,025	211,395	197,343	197,289	230,104	234,149	220,207	188,859	113,260	76,008	79,286	86,054
1977	92,854	101,759	116,862	119,823	118,653	114,544	101,150	71,310	52,196	34,768	56,202	122,322
1978	132,728	144,211	165,241	184,651	185,530	178,294	139,686	82,014	23,249	12,655	23,382	35,797
1979	35,460	39,820	61,636	79,048	115,222	117,404	103,006	75,565	31,050	20,962	21,822	48,438
1980	52,006	60,247	81,583	113,764	137,738	137,387	115,429	64,705	16,116	7,945	24,159	52,273
1981	67,736	100,617	110,117	131,803	128,201	131,904	111,676	59,834	13,906	19,574	35,486	62,648
1982	89,381	123,282	142,528	157,428	191,410	229,765	201,895	161,119	78,877	44,305	60,291	89,526
1983	120,702	147,453	175,738	189,992	194,702	189,073	166,048	115,026	49,768	41,700	73,510	82,902
1984	114,707	126,340	153,333	159,174	163,613	171,332	149,643	114,670	47,989	37,062	50,353	54,754
1985	58,461	58,504	63,705	83,199	112,276	118,323	102,320	71,418	27,462	29,145	42,705	44,453
1986	52,353	63,756	96,529	111,377	129,265	120,784	99,124	48,996	9,395	6,804	36,466	45,129
1987	56,535	74,912	105,102	126,471	136,378	132,138	115,371	68,705	18,840	7,796	14,620	29,327
1988	38,621	56,636	82,461	103,829	116,604	112,464	95,764	60,487	13,962	17,670	35,238	47,579
1989	69,098	72,272	91,126	127,530	153,461	156,270	136,686	89,914	23,974	15,602	32,582	50,154
1990	80,228	88,136	114,022	152,229	168,369	175,522	154,756	112,422	43,865	51,362	116,341	134,578
1991	152,619	187,822	196,677	227,514	238,279	225,627	190,645	133,837	65,218	48,281	65,301	86,013
1992	111,163	138,624	150,195	155,484	151,344	138,924	117,415	70,206	28,039	16,961	25,366	29,727
1993	33,207	36,506	55,138	80,840	124,311	122,262	102,477	52,402	10,193	8,469	12,751	25,920
1994	39,677	43,959	67,878	87,841	101,269	99,306	89,556	62,701	22,369	15,065	23,282	45,727
1995	54,869	85,628	102,925	112,216	128,166	121,477	99,693	51,049	9,186	16,237	50,021	98,523
1996	124,806	140,462	149,920	189,220	206,891	208,190	179,032	130,839	61,716	51,454	57,617	64,414
1997	80,805	96,711	136,431	170,111	222,973	238,980	212,980	178,305	97,120	75,510	95,452	114,396
1998	132,949	155,330	179,468	186,644	208,174	199,709	158,750	96,522	34,698	31,082	51,835	85,185
1999	113,932	125,822	137,070	146,868	160,053	196,956	190,684	155,776	86,968	80,590	111,248	148,206
2000	157,742	167,450	185,405	213,790	230,106	225,943	181,295	115,373	47,402	42,163	45,635	47,968
2001	51,169	55,049	63,200	72,704	106,277	111,400	97,972	60,879	18,204	13,338	30,887	53,018
2002	73,967	83,924	90,431	120,516	160,210	202,524	183,877	141,518	54,383	16,975	23,278	30,518
2003	44,541	70,022	101,994	122,716	126,597	129,443	113,785	67,305	17,500	21,459	34,832	44,856
2004	57,319	67,571	88,415	104,668	111,234	107,723	79,799	30,223	6,192	6,414	23,758	43,528
2005	60,041	67,737	91,112	114,194	124,342	117,027	101,229	61,513	16,903	14,362	31,245	51,553
2006	87,810	97,621	101,987	126,167	173,501	188,121	168,514	120,856	31,154	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP3A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	27,792	37,483	105,796
1926	130,821	192,634	237,187	282,627	315,084	235,235	122,825	27,835	10,845	32,340	50,251	75,891
1927	106,020	133,844	145,281	196,550	282,389	394,570	266,611	87,926	66,428	91,638	145,608	183,608
1928	231,015	241,654	334,439	388,953	451,166	395,914	220,500	61,858	36,144	58,587	75,843	88,756
1929	92,199	86,479	106,698	126,251	229,638	243,893	146,683	34,478	14,645	11,735	12,801	34,522
1930	44,238	81,781	113,385	175,583	228,331	192,457	120,595	35,000	17,286	22,948	30,638	37,094
1931	60,890	76,885	122,984	178,429	303,714	292,364	152,756	31,005	15,180	26,008	52,606	63,059
1932	86,055	93,529	185,022	281,181	448,209	451,480	297,283	114,861	85,138	65,621	237,707	325,885
1933	347,376	344,203	348,999	370,123	433,504	389,164	284,130	112,043	87,288	106,656	206,563	410,869
1934	388,237	411,061	445,777	451,362	448,499	331,588	176,312	40,261	18,223	60,096	103,356	185,749
1935	263,285	298,385	309,022	356,423	451,480	405,810	251,919	86,129	60,645	54,228	64,284	83,222
1936	158,483	153,628	164,445	246,994	384,158	339,425	185,518	42,653	24,118	17,846	15,632	67,404
1937	66,052	66,107	77,129	147,679	272,320	316,420	193,178	50,212	32,201	29,352	102,727	152,286
1938	198,156	204,487	237,383	318,428	449,566	441,199	262,781	83,708	56,342	62,266	102,015	156,493
1939	228,864	236,750	275,241	353,485	397,708	293,379	161,549	38,545	17,881	24,030	41,702	160,619
1940	182,693	236,985	328,725	391,526	433,971	319,706	164,428	35,894	15,192	24,046	39,161	93,454
1941	122,415	135,299	173,625	190,664	224,412	174,080	90,388	18,227	10,316	19,411	60,648	151,834
1942	164,254	195,744	209,146	255,790	278,374	250,976	134,073	31,035	12,077	9,943	72,601	100,577
1943	106,419	113,916	139,188	229,175	327,501	395,037	294,505	115,701	87,514	93,046	108,934	145,396
1944	168,454	177,625	183,243	216,476	288,271	232,835	132,018	31,762	17,193	16,148	33,404	52,158
1945	103,193	154,620	167,779	202,373	355,154	325,653	186,333	45,160	27,168	52,747	80,832	119,078
1946	150,559	155,391	199,970	256,693	448,182	432,662	285,199	103,812	73,052	65,569	74,971	185,280
1947	216,577	248,400	312,962	394,412	451,480	362,111	186,115	47,430	27,260	93,913	164,009	221,500
1948	245,910	251,329	256,064	287,964	416,070	378,010	240,282	94,294	70,316	76,280	109,483	144,408
1949	140,657	138,214	161,087	237,669	432,547	418,475	279,679	102,086	69,587	70,415	115,162	192,206
1950	199,769	198,992	203,915	238,072	331,445	451,480	402,779	227,228	205,586	250,954	304,745	327,862
1951	326,422	362,910	351,059	351,917	448,450	423,577	272,898	99,448	67,035	69,312	94,661	119,010
1952	115,075	118,026	124,298	202,129	325,803	311,350	188,258	50,164	27,577	15,444	15,768	24,594
1953	81,163	141,531	169,324	199,381	317,552	339,328	235,228	84,594	61,575	68,462	123,205	258,478
1954	315,108	359,760	369,570	379,177	425,383	374,103	263,545	96,890	74,246	71,049	107,763	116,248
1955	144,717	150,271	142,659	138,956	232,222	343,378	242,741	87,012	60,534	114,582	203,124	251,699
1956	274,696	268,928	269,601	283,807	425,277	451,480	345,320	149,707	116,630	117,788	142,422	240,741
1957	236,806	236,695	258,031	339,225	450,934	382,359	212,301	66,141	41,098	43,804	71,439	122,473
1958	170,434	250,241	269,145	314,837	408,851	313,913	145,427	31,303	12,206	25,543	111,110	205,247
1959	277,679	284,011	320,288	403,863	451,019	439,753	281,319	99,981	78,022	115,699	191,328	259,887
1960	267,327	303,291	338,032	395,672	451,480	405,051	233,954	67,880	43,541	50,021	106,371	125,064
1961	173,885	253,581	302,832	356,383	451,232	436,408	251,307	80,430	51,016	45,146	61,866	96,422
1962	131,654	170,308	184,177	272,666	318,837	301,532	175,026	45,451	23,767	30,961	86,300	124,668
1963	157,011	214,880	250,113	274,722	310,456	241,147	122,078	27,100	10,346	28,279	72,491	99,976
1964	131,949	141,922	166,826	222,300	325,434	387,737	286,771	121,804	101,358	105,343	120,993	156,717
1965	187,215	245,529	280,392	370,303	434,374	371,353	226,187	75,202	51,748	56,203	84,943	100,377
1966	109,354	111,964	130,902	213,025	344,691	307,512	177,340	41,904	19,619	33,147	55,461	148,245
1967	228,856	289,724	316,533	295,967	391,161	370,539	208,614	54,305	30,467	45,408	75,934	145,968
1968	200,631	280,636	382,767	405,352	433,329	337,879	158,388	36,071	17,800	29,606	64,713	109,660
1969	112,366	106,257	120,522	201,090	374,120	382,349	207,784	52,072	29,736	34,471	49,883	85,607
1970	116,658	150,702	175,236	190,710	283,243	344,093	179,767	39,880	21,642	24,716	39,413	42,118
1971	73,600	104,256	98,046	146,899	395,678	451,480	383,483	186,269	165,181	166,001	189,029	214,608
1972	239,572	245,967	312,863	312,588	424,584	451,480	372,330	175,256	145,794	130,154	156,871	280,215
1973	325,304	340,299	365,181	381,093	391,177	280,826	144,527	31,872	12,574	14,523	45,168	122,704
1974	206,204	251,022	292,403	325,075	391,757	412,532	351,775	178,621	164,794	138,772	160,610	215,703
1975	263,417	263,695	269,782	296,483	438,088	445,629	334,603	156,450	129,713	185,537	269,260	357,059
1976	349,774	361,282	347,836	341,878	440,792	428,950	346,542	157,068	133,737	110,864	116,338	125,193
1977	134,231	145,839	169,654	183,692	193,649	155,446	74,851	17,719	10,319	13,273	71,646	217,680
1978	231,330	258,932	333,578	383,096	411,744	337,282	173,029	37,277	24,849	20,053	50,281	70,203
1979	68,113	70,501	100,015	141,289	288,041	261,768	149,517	33,082	13,984	16,277	13,124	88,139
1980	91,582	98,722	126,392	212,316	347,501	326,937	192,629	48,128	29,313	23,164	66,245	117,341
1981	149,438	215,083	250,992	316,044	356,418	327,321	168,845	34,693	18,437	32,272	72,556	122,053
1982	171,428	255,122	292,691	343,246	447,399	451,480	322,829	134,716	104,036	97,866	123,453	220,603
1983	273,114	329,317	417,003	448,559	451,480	387,433	220,663	60,928	39,992	37,286	109,762	122,982
1984	188,651	216,562	282,108	292,867	329,035	360,277	258,951	83,057	57,572	54,968	76,092	77,445
1985	76,153	70,988	73,563	119,306	235,425	258,925	155,692	37,916	17,930	37,975	80,104	77,091
1986	88,036	108,585	203,706	245,654	317,790	297,545	157,046	32,684	16,111	16,500	92,246	109,463
1987	127,602	161,480	224,812	284,903	382,922	319,180	164,417	36,212	15,331	8,579	25,635	64,557
1988	74,764	116,615	165,375	230,834	312,169	297,152	174,050	42,963	21,445	44,564	93,953	122,053
1989	155,194	156,416	181,319	295,446	438,712	396,500	220,349	58,663	34,277	36,490	81,118	128,587
1990	204,893	213,890	261,973	405,497	451,279	429,771	247,832	71,270	45,841	74,371	267,462	305,093
1991	324,535	395,289	393,311	442,281	451,366	398,942	256,784	87,635	60,746	49,503	88,062	134,424
1992	181,646	237,326	273,375	300,378	321,700	241,660	123,896	27,310	12,980	10,889	32,293	35,674
1993	36,904	37,237	60,787	117,124	302,491	273,129	145,578	27,803	10,474	13,990	22,845	61,152
1994	90,358	94,190	138,953	196,028	255,894	205,332	108,744	23,169	9,163	19,854	36,158	80,798
1995	102,257	159,016	196,822	221,641	351,134	328,125	188,861	43,883	22,149	45,556	143,440	264,140
1996	311,608	320,026	338,595	406,502	450,734	423,333	269,814	92,911	68,444	75,714	91,006	98,016
1997	125,316	149,031	199,020	270,614	417,697	451,480	369,473	178,561	149,723	156,727	197,725	221,952
1998	245,501	293,263	338,826	366,143	451,480	377,265	211,743	62,968	38,250	38,619	87,412	148,716
1999	203,685	224,734	249,821	286,619	360,754	394,110	287,175	115,668	93,284	96,727	188,661	294,174
2000	306,533	310,817	342,914	415,217	421,679	353,133	198,662	51,027	27,374	34,076	41,871	40,949
2001	43,655	44,099	56,519	88,349	223,126	202,162	115,124	24,112	9,588	20,591	74,026	110,550
2002	140,433	158,427	163,469	241,624	412,458	451,480	305,069	116,525	83,412	54,436	70,561	86,856
2003	116,431	165,415	217,618	279,293	351,873	331,918	171,644	37,388	16,316	42,448	70,950	90,196
2004	101,325	108,743	155,720	216,062	322,452	297,984	146,615	34,153	18,010	19,145	53,291	88,769
2005	117,484	126,203	175,975	235,212	335,532	261,736	148,534	34,014	14,381	13,643	52,856	91,470
2006	148,100	159,874	165,347	234,180	390,018	451,254	278,643	91,235	60,602	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP3A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,387	3,283	12,875
1926	15,000	32,359	33,970	33,970	33,970	29,831	22,821	16,549	10,123	9,460	10,102	15,000
1927	15,000	16,990	14,103	20,272	33,657	33,970	30,234	20,366	15,007	11,796	15,000	15,000
1928	15,000	14,535	16,797	21,369	45,148	33,970	29,848	20,335	14,014	13,171	12,938	13,258
1929	11,069	5,705	2,593	4,446	29,963	33,970	30,094	20,409	14,357	8,753	3,019	2,358
1930	1,783	7,816	9,968	18,359	33,970	32,989	28,769	19,834	13,670	6,400	2,682	1,941
1931	3,617	3,182	4,316	12,706	33,970	33,290	27,703	19,100	12,852	6,707	10,179	12,616
1932	15,000	15,598	16,447	15,525	32,936	33,970	30,039	20,382	14,572	9,252	16,830	17,944
1933	15,166	14,828	11,200	15,000	32,163	33,970	29,848	20,335	15,253	14,006	14,985	58,367
1934	18,428	22,518	31,574	33,912	33,970	32,190	24,968	19,065	12,758	12,942	15,206	19,406
1935	16,468	20,828	26,829	33,789	33,970	33,970	29,848	20,335	14,012	8,104	6,227	5,230
1936	15,000	12,184	10,647	25,226	33,970	33,810	28,569	20,335	14,069	7,520	1,950	15,000
1937	10,444	5,553	2,245	10,394	33,929	33,970	28,648	20,346	13,894	7,426	15,665	24,135
1938	15,250	14,262	14,913	15,000	38,791	33,970	29,848	20,335	13,956	9,524	14,239	15,000
1939	15,328	16,749	19,147	33,964	33,970	33,970	29,848	20,335	14,191	8,456	4,584	15,711
1940	15,043	26,901	33,543	33,955	33,970	32,982	25,850	19,762	13,336	8,789	10,331	15,000
1941	15,000	17,760	22,495	28,683	33,970	31,976	25,212	15,901	10,426	5,535	7,888	15,518
1942	15,000	16,848	18,016	25,454	33,970	33,970	29,134	20,335	13,955	7,872	15,007	15,000
1943	13,254	11,851	15,000	15,630	36,289	33,970	29,848	20,386	14,977	13,167	12,239	14,996
1944	15,000	17,318	20,639	24,209	33,970	32,772	26,073	20,247	14,608	8,454	11,544	11,637
1945	15,000	25,039	16,077	23,991	33,956	33,970	29,540	20,335	14,499	9,242	12,255	16,398
1946	15,214	16,219	15,071	15,000	33,294	33,970	29,848	20,340	13,898	12,182	12,083	15,801
1947	15,029	18,664	19,952	33,556	34,290	33,829	28,653	20,341	14,074	15,373	15,116	15,000
1948	15,109	15,970	12,403	15,000	33,929	33,970	29,848	20,361	14,767	12,377	15,000	14,803
1949	12,491	5,622	5,007	15,000	34,628	33,970	29,848	20,342	14,018	12,604	15,465	17,380
1950	15,139	15,000	14,638	15,000	20,896	37,065	33,079	20,853	14,931	13,210	15,026	21,268
1951	15,218	18,602	14,958	15,000	33,010	33,970	29,650	20,348	13,962	15,235	15,000	15,000
1952	14,347	13,757	10,990	26,223	33,906	33,970	29,461	20,335	14,015	6,666	2,364	2,145
1953	15,000	20,419	15,201	21,576	33,920	33,970	29,848	20,381	14,746	10,339	14,350	16,930
1954	15,074	16,184	13,344	18,216	34,911	33,970	29,848	20,426	15,203	10,904	15,000	15,000
1955	15,154	18,898	13,431	15,000	32,014	36,085	29,848	20,402	14,975	15,033	17,005	18,073
1956	15,118	13,865	10,606	15,091	28,874	33,970	30,431	20,420	14,069	12,248	14,579	15,790
1957	15,000	14,182	15,000	18,617	33,779	33,735	28,530	20,335	14,073	9,244	12,372	15,000
1958	15,000	31,011	31,520	33,965	33,970	32,677	25,668	19,642	13,216	11,787	15,986	16,453
1959	16,566	16,315	15,000	22,996	33,806	33,970	29,848	20,335	15,970	14,851	22,658	15,874
1960	15,020	23,681	19,096	33,306	33,957	33,970	29,331	20,335	14,014	10,687	15,000	14,905
1961	15,000	24,580	15,633	23,464	33,872	33,970	29,819	20,335	13,952	10,620	9,309	15,000
1962	15,000	21,668	23,021	33,947	33,970	33,970	29,848	20,337	14,426	10,646	15,705	15,000
1963	15,000	32,734	33,896	33,968	33,970	33,531	26,982	20,335	13,837	11,852	15,000	15,000
1964	15,000	16,029	15,000	15,000	28,558	33,970	29,848	20,448	15,977	11,796	13,571	15,100
1965	17,485	23,167	15,098	29,609	33,899	33,970	29,848	20,335	14,190	9,613	14,386	12,076
1966	8,239	4,487	7,254	23,499	33,937	33,970	28,216	20,335	14,133	11,966	14,974	15,842
1967	15,427	21,271	23,977	23,560	34,115	33,970	29,554	20,335	13,958	15,529	14,054	15,136
1968	15,079	26,343	32,868	33,930	33,970	33,843	28,356	20,547	14,834	13,530	15,052	15,000
1969	14,955	11,049	8,098	15,277	34,836	33,529	28,006	20,335	14,553	9,845	13,237	14,998
1970	15,000	20,761	15,460	18,733	33,929	33,970	29,811	20,335	14,371	9,949	10,787	7,984
1971	15,000	15,263	12,080	14,222	28,007	36,479	30,431	20,439	15,275	10,988	12,738	13,039
1972	12,978	10,721	15,000	15,000	27,511	46,779	31,041	20,502	16,823	10,428	13,060	18,477
1973	15,093	17,224	21,713	26,711	33,970	33,655	26,829	20,335	13,731	9,354	15,000	17,377
1974	16,327	15,684	15,000	15,000	26,573	39,485	29,848	20,355	14,610	8,420	12,525	15,939
1975	15,335	14,800	11,849	10,956	29,796	33,970	29,848	20,573	15,053	15,000	15,000	16,280
1976	15,566	15,193	13,247	15,000	30,640	33,970	29,848	20,435	15,533	10,685	8,059	6,035
1977	5,654	6,519	10,516	22,953	33,970	32,692	26,113	17,039	11,950	6,986	15,000	15,401
1978	15,000	18,101	31,075	33,925	33,970	33,970	29,716	20,335	15,057	8,631	8,954	8,783
1979	3,750	1,905	5,073	11,559	33,970	33,801	28,746	20,337	14,135	10,565	5,268	16,337
1980	14,982	13,174	12,805	26,288	33,844	33,970	29,848	20,335	14,425	7,347	14,988	27,174
1981	15,305	27,499	33,251	33,954	33,970	33,970	29,154	20,335	14,312	11,624	14,327	15,000
1982	15,000	17,756	15,000	15,000	32,685	38,694	30,431	20,422	14,718	11,369	12,125	14,775
1983	15,000	21,209	22,924	33,534	39,859	33,970	29,848	20,406	15,024	9,565	15,364	14,965
1984	15,091	20,110	15,971	20,589	35,039	33,970	29,848	20,361	14,617	11,373	13,759	7,951
1985	3,293	1,879	1,908	7,406	33,970	33,970	29,329	20,338	14,313	12,970	13,240	7,458
1986	4,163	3,704	26,578	33,914	34,956	33,717	29,380	20,065	14,293	9,203	15,190	13,420
1987	11,164	14,662	22,260	33,739	33,970	33,811	28,493	20,335	13,957	6,763	4,458	14,341
1988	11,068	14,698	25,458	33,896	33,970	33,970	29,848	20,335	14,132	10,065	15,416	14,437
1989	15,000	11,152	8,754	23,782	33,828	33,970	29,848	20,335	14,131	8,686	15,000	15,000
1990	15,422	14,869	15,000	30,971	33,886	33,970	29,697	20,337	14,244	15,519	28,706	15,067
1991	15,000	23,707	15,006	25,586	33,913	33,970	29,848	20,335	14,010	7,153	10,989	15,000
1992	15,450	29,274	33,970	33,970	33,970	29,804	22,856	16,584	10,039	3,933	5,927	2,023
1993	1,836	1,689	4,238	11,557	33,967	33,561	28,368	20,244	14,173	4,698	1,977	2,546
1994	2,321	1,967	5,665	16,971	33,970	33,691	28,657	19,973	13,835	10,153	11,585	15,000
1995	15,000	23,227	30,266	33,770	33,970	33,970	29,207	20,336	14,015	12,086	21,379	15,450
1996	15,401	19,686	15,275	22,043	33,718	33,970	29,848	20,335	14,132	12,303	9,505	4,145
1997	4,155	4,517	15,000	15,000	35,628	50,770	32,293	20,697	15,926	13,717	15,000	15,000
1998	15,000	19,659	28,409	32,277	33,970	33,521	26,576	20,335	14,017	9,347	16,229	18,066
1999	15,435	17,556	15,000	15,005	33,149	33,970	29,848	20,365	14,619	9,285	16,688	15,587
2000	15,000	14,700	15,315	31,738	33,957	33,970	28,820	20,335	14,016	9,598	6,667	2,703
2001	2,212	1,978	6,767	11,289	33,970	33,919	29,354	18,247	12,356	4,896	14,585	14,966
2002	15,287	17,254	13,946	15,000	32,981	33,970	30,209	20,418	14,128	7,734	8,057	9,696
2003	15,000	24,923	31,796	33,900	33,970	33,568	26,429	20,335	13,844	12,981	15,000	15,000
2004	15,000	14,651	25,965	33,812	33,970	33,643	26,900	19,075	13,480	6,286	10,145	12,880
2005	15,000	15,600	28,942	33,965	33,970	28,373	21,671	15,891	9,524	4,416	10,565	11,640
2006	15,276	14,849	11,898	15,000	33,239	33,970	29,780	20,337	14,075	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP3A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	18,678	27,863	55,589
1926	70,986	103,168	125,067	159,109	184,920	177,867	156,531	132,739	63,940	50,641	64,103	89,591
1927	117,260	136,087	151,767	164,480	195,306	198,000	179,885	138,002	44,310	54,641	90,147	111,661
1928	129,025	142,384	154,709	170,068	197,792	198,000	178,500	137,680	29,955	22,923	41,074	54,328
1929	64,222	70,346	81,603	94,452	124,725	145,606	141,249	120,561	50,533	26,868	28,709	37,819
1930	40,885	53,381	64,941	82,716	105,714	111,613	103,117	92,833	34,929	15,371	23,363	26,959
1931	34,147	44,153	54,655	87,529	150,179	164,594	152,252	121,366	39,837	21,295	39,452	54,088
1932	69,822	83,173	131,513	141,694	196,173	198,000	180,820	146,007	22,884	27,903	85,132	129,703
1933	132,557	149,710	147,209	153,099	182,364	198,000	180,208	147,597	38,382	32,073	68,252	174,682
1934	145,920	171,945	194,841	197,899	198,000	193,140	174,399	135,483	47,883	25,929	61,307	108,283
1935	130,609	157,162	180,835	197,683	198,000	198,000	178,505	142,513	36,569	24,715	34,847	44,086
1936	76,615	85,113	100,116	138,972	185,710	196,704	176,840	134,485	44,889	16,955	21,190	46,978
1937	53,557	58,376	65,820	91,264	145,784	175,525	167,242	129,272	41,926	14,473	63,971	97,850
1938	129,025	142,625	144,298	148,416	196,916	198,000	178,493	140,153	26,989	25,567	44,472	68,022
1939	101,400	115,618	144,271	175,417	198,000	198,000	175,665	131,097	45,741	18,847	27,821	81,376
1940	105,100	152,217	197,246	197,975	198,000	188,707	166,994	135,075	53,038	33,728	47,194	71,666
1941	87,407	98,847	115,524	131,820	153,741	153,127	137,256	117,880	70,758	57,776	73,732	119,685
1942	129,025	146,733	162,041	179,893	198,000	198,000	175,375	136,631	56,651	22,441	62,860	77,721
1943	89,743	102,405	121,589	150,159	191,797	198,000	180,202	150,478	43,429	32,610	42,404	60,025
1944	76,319	94,891	110,939	123,942	147,941	145,512	129,406	106,683	46,176	27,897	42,703	55,735
1945	89,410	115,902	141,480	168,133	197,977	198,000	175,047	123,587	48,939	16,153	32,920	50,634
1946	78,119	92,615	125,449	141,376	196,158	198,000	180,201	142,325	20,777	19,759	32,217	116,446
1947	129,025	147,722	174,043	197,270	197,998	193,782	176,885	131,302	35,466	52,501	78,911	104,546
1948	129,025	143,458	144,542	139,333	186,398	198,000	180,216	150,819	51,754	50,014	70,012	97,866
1949	109,182	116,920	135,182	139,529	196,212	197,990	180,200	144,376	22,125	27,378	45,534	74,964
1950	90,909	102,841	103,015	94,012	132,230	198,000	194,885	168,899	41,854	28,465	61,655	99,767
1951	129,025	158,754	136,415	143,441	196,304	198,000	180,065	145,990	22,909	38,264	53,442	77,299
1952	86,468	98,208	109,768	146,865	197,096	198,000	176,454	131,532	43,067	11,465	17,415	28,007
1953	61,933	101,253	119,208	141,485	186,406	198,000	178,509	146,139	51,656	35,660	51,638	109,673
1954	129,025	146,679	152,947	163,405	197,499	198,000	180,209	150,720	45,614	31,500	50,858	66,598
1955	96,420	112,914	123,847	140,089	171,729	198,000	180,236	150,643	53,053	61,549	105,926	130,255
1956	130,255	143,418	102,403	106,143	183,614	198,000	186,273	163,579	35,972	31,253	48,525	100,645
1957	111,919	123,137	139,247	160,734	197,665	195,409	178,517	140,933	39,572	18,174	36,307	64,504
1958	90,698	144,847	167,597	197,993	198,000	187,588	167,296	138,729	59,244	43,438	92,132	129,025
1959	129,025	146,375	153,061	172,204	197,711	198,000	179,184	143,661	37,421	38,017	77,982	110,494
1960	125,737	147,196	169,699	196,827	197,979	198,000	178,511	137,094	27,231	19,002	53,547	66,270
1961	93,509	146,048	158,679	176,485	197,828	198,000	178,511	134,067	20,000	18,620	32,121	51,050
1962	72,448	91,164	108,196	140,967	169,832	198,000	176,335	135,069	49,962	32,469	73,538	93,945
1963	120,384	164,688	189,614	197,999	198,000	192,656	174,641	135,545	59,284	30,115	51,418	64,533
1964	87,075	101,481	117,775	135,882	165,717	198,000	183,789	158,732	37,118	21,367	31,865	60,385
1965	88,608	134,760	160,165	181,223	197,748	197,999	178,604	146,522	36,918	24,938	40,338	49,239
1966	59,039	63,563	79,673	120,272	182,142	192,548	176,840	130,518	43,446	21,803	38,065	69,424
1967	103,392	148,655	173,127	191,261	198,000	198,000	178,505	140,078	45,063	39,605	56,276	79,692
1968	104,899	160,181	196,052	197,932	198,000	195,184	177,846	146,558	54,749	46,046	68,683	93,568
1969	108,140	116,526	131,037	152,476	197,374	195,592	176,842	132,535	48,763	38,582	55,892	78,205
1970	113,130	141,176	164,533	180,217	197,930	197,975	176,845	131,615	43,789	19,541	28,816	39,744
1971	94,638	133,792	114,241	103,929	166,332	198,000	188,738	166,986	45,762	27,279	42,348	60,493
1972	86,687	101,037	123,631	118,336	170,371	198,000	190,075	166,779	62,030	22,597	36,272	90,396
1973	120,760	137,200	160,615	180,050	197,904	193,650	174,391	142,088	64,664	41,773	64,582	93,420
1974	129,025	163,563	136,292	129,862	162,646	198,000	187,532	167,379	41,624	23,197	39,673	74,001
1975	115,874	131,036	138,446	129,069	170,687	198,000	186,026	168,487	44,014	36,954	56,530	132,169
1976	132,104	157,259	125,168	120,879	180,426	198,000	187,452	167,703	42,419	24,816	33,604	42,969
1977	53,826	65,176	82,751	105,176	112,705	118,545	103,725	82,403	34,952	14,853	43,057	118,011
1978	129,025	145,224	174,307	197,923	198,000	198,000	176,814	135,704	64,909	41,488	51,290	63,594
1979	68,541	71,296	88,818	113,311	171,989	180,525	169,612	141,220	65,898	37,863	41,897	99,611
1980	110,551	121,553	137,171	179,817	197,778	197,959	176,820	130,600	47,204	22,074	42,672	97,140
1981	124,133	174,006	196,072	197,973	198,000	197,959	175,325	130,597	49,215	47,820	66,568	93,252
1982	110,728	134,220	146,148	142,701	195,729	198,000	182,702	150,873	27,370	26,920	40,489	60,903
1983	86,666	106,937	154,283	186,498	197,992	198,000	178,527	143,001	44,780	20,422	85,987	97,177
1984	128,044	147,393	163,001	183,001	197,897	198,000	178,499	142,427	41,531	29,144	49,500	59,640
1985	65,107	66,616	72,975	101,447	147,063	169,320	159,819	132,211	63,491	42,301	60,342	66,309
1986	73,625	82,651	129,935	155,445	184,530	194,296	173,459	128,671	49,804	15,938	49,340	59,674
1987	69,424	85,586	112,025	140,176	198,000	194,393	176,619	137,075	54,416	20,099	27,745	60,841
1988	71,982	86,721	112,972	145,136	198,000	198,000	176,302	136,532	56,977	23,428	62,405	74,352
1989	89,202	97,879	110,238	153,871	197,751	198,000	178,514	145,464	44,421	20,205	40,026	62,628
1990	96,692	109,299	135,186	184,609	197,854	198,000	178,519	139,502	34,758	42,632	90,642	113,146
1991	129,025	177,022	159,465	185,742	197,901	198,000	180,193	146,976	33,555	24,560	44,177	62,562
1992	88,510	119,022	144,840	173,199	196,614	185,370	164,518	137,076	67,664	34,360	47,845	52,936
1993	53,046	53,106	66,445	88,672	155,822	171,972	161,133	129,190	42,483	14,789	22,839	37,373
1994	49,410	52,029	71,353	94,396	139,212	145,893	131,931	118,811	56,328	22,096	35,281	60,860
1995	72,358	108,901	136,291	159,859	198,000	196,858	175,382	131,980	41,878	22,836	65,977	129,025
1996	129,025	170,694	149,584	165,334	197,556	198,000	180,200	146,120	34,414	31,133	41,549	49,943
1997	65,441	79,161	94,966	98,918	171,757	198,000	192,586	168,427	49,598	24,229	55,283	68,454
1998	82,495	99,933	126,189	143,828	198,000	195,553	178,502	144,135	47,472	29,696	67,400	99,609
1999	129,025	149,445	155,442	152,664	181,912	198,000	180,209	150,424	43,877	27,655	67,641	100,906
2000	121,443	135,905	152,199	188,019	197,978	198,000	178,522	145,191	45,720	28,661	37,720	44,119
2001	46,797	49,859	63,488	79,025	124,222	131,646	122,279	104,212	36,046	17,509	46,925	68,261
2002	98,575	117,901	132,198	133,442	181,762	198,000	183,613	145,747	22,703	20,950	29,364	46,344
2003	72,037	113,420	168,698	197,879	198,000	194,853	176,449	134,472	48,746	24,148	40,557	58,819
2004	74,670	89,632	121,544	154,532	198,000	196,887	171,403	130,002	41,666	16,777	33,180	51,481
2005	69,638	82,190	104,675	133,470	159,314	152,492	138,307	114,901	41,869	22,042	45,194	59,984
2006	101,700	121,916	137,841	144,717	196,708	198,000	178,500	135,410	20,000	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP3A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3A CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	106,426	132,274	309,370
1926	378,227	544,118	637,786	724,914	772,301	636,910	446,022	258,223	121,012	140,423	189,101	267,682
1927	365,466	447,750	488,316	593,264	757,447	864,936	642,524	338,248	154,576	202,899	346,693	445,473
1928	560,119	598,121	787,782	887,335	1,043,293	938,521	666,633	356,881	145,833	170,692	220,690	258,023
1929	273,142	259,906	319,819	366,378	580,398	614,846	454,582	254,180	109,664	68,573	68,708	120,508
1930	141,992	240,975	315,990	436,139	548,033	502,782	385,077	233,585	108,473	83,795	105,142	121,655
1931	188,965	236,436	353,773	480,267	692,771	666,840	445,104	227,909	84,254	83,340	162,051	208,674
1932	278,447	316,027	546,410	714,518	1,006,107	1,009,367	760,466	441,068	191,106	141,882	510,814	715,650
1933	765,487	776,066	786,557	860,922	985,799	969,897	781,905	478,053	262,806	257,302	464,522	976,606
1934	877,348	961,249	1,061,190	1,078,545	1,065,744	863,558	575,122	288,270	118,901	169,850	287,427	485,345
1935	652,713	752,041	802,689	908,007	1,005,187	939,949	682,538	394,818	186,503	147,772	176,262	221,230
1936	410,026	404,794	446,729	635,237	865,643	796,280	543,462	286,647	122,176	72,421	68,083	208,493
1937	210,695	212,246	256,238	437,074	676,567	735,091	519,284	268,718	109,090	69,800	275,425	425,234
1938	540,906	570,566	643,170	767,909	1,015,751	989,212	726,593	397,195	175,642	173,323	261,517	391,992
1939	556,913	585,588	677,533	834,928	890,822	740,367	513,169	259,546	97,061	76,098	113,889	397,029
1940	459,230	623,983	833,001	922,898	954,412	772,434	518,047	269,330	107,639	92,461	134,955	271,242
1941	338,703	380,465	454,555	491,568	559,197	482,765	344,266	208,894	128,137	125,354	217,934	456,457
1942	490,145	567,449	612,395	695,696	718,895	678,859	483,429	258,037	104,158	53,171	218,145	297,270
1943	320,889	354,476	430,455	628,636	817,667	890,361	723,608	437,703	222,705	218,445	256,310	342,496
1944	398,634	440,638	474,127	548,274	689,094	596,289	421,907	238,473	121,122	91,312	139,699	182,687
1945	316,871	433,624	477,297	583,610	845,793	785,859	532,155	254,402	113,897	119,039	197,670	295,604
1946	394,633	422,851	549,396	658,633	1,007,567	1,000,868	750,286	423,047	170,404	141,724	184,363	496,103
1947	569,265	652,875	785,813	948,608	997,183	866,344	579,713	289,431	115,391	242,334	397,152	532,394
1948	609,049	637,728	648,539	716,171	990,043	998,159	749,096	452,534	254,770	257,095	349,057	451,638
1949	457,604	451,078	524,422	671,080	1,049,821	1,021,428	763,699	439,068	186,485	162,447	254,435	412,784
1950	436,865	447,996	459,825	528,053	775,407	1,066,175	988,444	690,741	446,817	483,820	632,616	739,159
1951	772,849	870,658	824,132	847,848	1,072,715	1,043,116	780,665	451,506	197,047	183,893	243,966	315,357
1952	320,385	347,321	374,088	561,997	787,021	743,598	523,747	268,102	101,446	40,819	44,105	69,982
1953	234,495	396,918	461,942	540,983	761,363	774,290	580,026	323,532	147,781	136,403	249,531	576,510
1954	693,284	805,095	817,874	858,332	990,339	930,514	741,079	452,657	247,277	213,482	300,493	339,877
1955	432,766	461,952	453,740	479,301	678,748	881,770	705,931	431,748	227,804	318,203	526,241	675,985
1956	710,836	710,209	661,794	701,920	1,008,975	1,079,941	881,009	566,319	308,977	271,339	341,479	594,661
1957	602,649	615,731	688,120	836,963	1,044,793	931,372	634,493	339,491	136,186	110,963	182,713	320,944
1958	440,149	660,537	716,605	831,269	908,442	763,609	509,521	264,240	108,022	118,270	311,445	528,692
1959	664,120	695,703	769,013	927,016	1,041,649	1,019,187	744,001	417,519	217,317	265,059	459,472	616,741
1960	649,491	755,382	826,689	960,493	1,041,111	974,241	682,563	364,629	152,525	150,197	300,555	350,920
1961	484,283	706,840	778,654	881,406	1,039,554	1,012,624	719,698	383,381	139,650	114,756	157,611	255,753
1962	349,617	446,596	494,297	667,131	721,627	702,574	500,121	267,983	107,538	98,706	240,630	338,867
1963	420,015	593,611	672,143	727,785	744,484	636,830	451,982	250,239	104,729	103,510	215,822	289,935
1964	386,161	427,049	498,057	611,402	805,160	974,855	808,036	525,961	299,903	261,564	312,658	423,254
1965	520,148	691,997	761,866	939,102	1,036,421	960,788	705,338	405,953	192,444	177,789	245,257	281,608
1966	311,310	321,362	393,818	593,263	840,720	776,771	542,936	275,225	105,664	102,529	164,950	383,887
1967	565,502	718,409	789,428	768,640	902,259	872,950	623,983	332,188	149,987	167,008	230,377	381,072
1968	512,781	729,571	936,393	970,706	977,833	850,024	560,826	306,779	127,358	139,662	235,537	353,345
1969	374,204	365,117	417,019	599,330	916,810	901,584	603,666	304,645	131,189	120,861	172,412	278,240
1970	396,017	502,189	570,520	617,870	757,687	809,952	569,082	281,664	114,108	84,334	120,356	135,315
1971	277,498	391,116	358,714	451,746	904,655	1,054,929	948,460	652,277	422,244	364,959	434,031	509,165
1972	581,967	614,708	759,250	751,238	997,019	1,093,009	931,015	616,942	398,389	292,929	359,940	642,784
1973	738,836	785,805	855,555	894,769	902,952	757,600	521,782	282,811	127,736	95,895	186,331	388,850
1974	572,273	678,979	719,529	766,401	910,322	1,017,544	908,579	632,205	403,078	297,629	353,051	504,193
1975	642,068	661,510	683,516	723,228	1,013,971	1,070,178	872,415	582,191	336,991	389,751	565,756	811,403
1976	819,265	868,114	796,234	787,628	1,025,206	1,031,855	891,109	600,000	365,506	266,486	281,934	309,262
1977	341,493	378,845	454,578	501,522	523,280	467,025	327,530	201,978	122,864	83,048	223,881	578,810
1978	621,794	688,205	842,283	948,307	956,513	845,581	575,637	291,663	146,311	100,209	162,157	219,076
1979	212,724	220,783	311,782	416,986	717,288	673,730	488,326	280,331	131,702	94,516	89,976	297,342
1980	314,020	347,252	430,260	633,484	828,153	778,533	543,560	274,160	115,863	67,674	170,151	362,733
1981	433,480	625,262	702,482	805,501	816,349	767,323	523,544	256,269	105,226	129,605	222,228	351,610
1982	463,387	639,437	718,521	784,811	1,016,710	1,074,913	832,574	507,379	261,555	210,349	280,328	453,368
1983	589,287	719,682	913,796	1,008,019	1,019,050	915,911	660,288	363,099	171,441	130,205	345,507	381,939
1984	539,103	610,798	738,110	774,691	838,886	858,320	679,338	386,838	184,023	153,222	220,168	230,381
1985	232,471	221,665	236,270	356,859	600,313	643,613	471,223	271,365	129,226	137,767	226,251	222,735
1986	262,157	312,881	540,385	636,132	765,755	712,235	476,223	238,445	96,084	56,585	238,608	279,448
1987	325,382	417,778	576,573	707,221	860,948	755,832	520,793	272,392	108,763	46,936	81,017	192,465
1988	225,160	317,581	450,760	589,929	748,487	703,549	495,671	268,810	112,376	110,202	241,977	303,632
1989	391,367	396,466	465,819	714,154	956,282	894,452	620,826	329,084	127,817	93,588	195,244	299,486
1990	466,589	497,665	618,558	901,611	985,539	955,596	674,413	360,105	151,587	209,122	592,117	669,988
1991	738,686	929,799	899,522	1,031,212	1,078,466	991,325	738,994	422,743	202,928	153,969	244,648	359,916
1992	483,501	638,254	721,045	777,418	805,092	660,058	459,309	261,547	127,424	74,959	127,295	140,656
1993	145,481	150,917	229,395	368,174	717,565	674,414	463,906	239,677	84,025	50,590	73,020	153,726
1994	227,103	238,088	349,591	473,380	614,402	549,265	395,218	235,918	109,504	84,554	129,640	251,300
1995	299,209	464,158	572,446	630,536	811,510	745,835	508,093	257,577	94,127	113,153	334,123	606,056
1996	697,810	782,146	781,579	929,402	1,036,845	989,306	728,561	417,146	203,046	198,773	235,056	259,398
1997	336,374	402,547	544,043	656,421	984,077	1,097,000	920,169	602,786	365,629	329,336	444,359	519,909
1998	594,741	706,476	825,983	874,510	1,035,603	915,996	633,261	337,840	144,470	121,155	256,285	420,355
1999	555,320	617,133	663,175	711,032	849,632	943,916	771,306	486,413	277,607	257,312	467,996	676,471
2000	716,929	750,155	827,445	996,807	1,030,072	939,087	656,060	355,852	154,568	138,739	158,482	162,477
2001	171,980	179,898	225,889	294,204	561,435	543,409	395,201	218,768	84,355	68,663	201,404	303,194
2002	404,134	458,851	480,878	616,804	930,903	1,043,127	790,733	449,808	194,807	110,640	145,548	194,023
2003	289,111	433,081	608,379	741,107	801,390	760,652	522,691	270,003	104,786	125,687	195,963	254,421
2004	303,654	344,180	467,278	590,017	747,196	689,346	436,171	225,109	90,553	62,116	151,674	250,164
2005	336,243	368,871	497,684	629,338	765,571	634,840	443,923	236,544	89,806	63,495	164,845	261,567
2006	444,179	488,820	515,751	640,178	942,923	1,004,767	730,142	387,229	141,274	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D-7

Scenario IP3 (KKC, KDRPP, and CEPR) under Adverse Climate Change Conditions

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP3 CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	2,457	506	1,470	1,245	69.8%	85	-42	69.7%	54	-55	6,074	97
Avg. WY 1982 to 2009	2,327	462	1,423	1,174	64.7%	44	-70	64.9%	9	-83	6,018	252
1941 (Dry Year)	1,246	191	746	769	6.0%	-80	-173	6.6%	-73	-178	958	0
1994 (Dry Year)	1,473	276	825	792	11.6%	-95	-200	12.7%	-149	-200	3,768	0
2001 (Dry Year)	1,685	250	1,176	953	41.6%	-104	-136	43.4%	-122	-150	7,402	2,712
2005 (Dry Year)	1,693	286	1,101	918	35.0%	-117	-198	35.7%	-129	-200	7,387	0

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,607	175	1,185	992	42.8%	-73	-107	45.5%	-72	-116	418	0
1927	2,417	426	1,450	1,328	64.4%	100	-94	62.3%	140	-92	8,329	0
1928	2,677	634	1,530	1,367	69.5%	120	-5	69.0%	136	-6	0	0
1929	1,668	180	1,219	999	45.1%	-83	-144	47.7%	-122	-160	0	0
1930	1,381	218	798	787	10.3%	-94	-182	10.7%	-138	-198	710	0
1931	1,909	374	1,144	926	36.5%	-112	-192	38.1%	-150	-200	1,000	0
1932	3,047	812	1,638	1,253	82.9%	121	-61	82.6%	73	-73	5,485	0
1933	3,117	703	1,758	1,495	100.0%	240	59	100.0%	152	24	0	0
1934	2,550	579	1,525	1,370	69.7%	123	10	69.8%	68	-7	4,779	0
1935	2,442	322	1,567	1,284	79.1%	175	18	78.3%	125	6	0	0
1936	2,129	321	1,466	1,212	70.0%	-15	-53	70.0%	-38	-69	2,037	0
1937	1,998	257	1,417	1,132	64.3%	-70	-118	63.7%	-106	-135	7,129	0
1938	2,862	732	1,604	1,239	80.1%	130	-17	79.6%	118	-26	5,388	0
1939	2,038	270	1,461	1,156	69.9%	-53	-81	70.0%	-64	-94	14,450	0
1940	1,961	283	1,399	1,083	61.2%	-73	-126	63.8%	-97	-137	11,710	0
1941	1,246	191	746	769	6.0%	-80	-173	6.6%	-73	-178	958	0
1942	1,736	214	1,197	974	41.7%	-91	-155	43.7%	-139	-172	1,963	0
1943	2,923	721	1,568	1,240	79.6%	122	-90	77.3%	83	-101	41	0
1944	1,559	203	1,050	933	32.2%	-87	-190	32.6%	-104	-200	199	0
1945	2,235	338	1,465	1,134	67.1%	-88	-184	64.7%	-139	-200	210	0
1946	2,826	621	1,568	1,231	79.7%	156	2	76.5%	117	-14	31,718	0
1947	2,540	526	1,529	1,364	68.7%	120	2	67.7%	122	0	2,433	0
1948	3,018	721	1,654	1,435	92.3%	251	63	90.8%	261	62	190	0
1949	3,038	681	1,757	1,445	100.0%	192	24	100.0%	168	14	1,019	0
1950	3,944	1,327	1,758	1,863	100.0%	450	96	100.0%	430	80	22,112	0
1951	3,453	1,089	1,759	1,454	100.0%	203	41	100.0%	144	15	1,207	0
1952	2,280	372	1,398	1,284	58.2%	107	-7	56.9%	57	-25	13,771	0
1953	2,330	330	1,474	1,372	66.9%	131	-35	65.1%	111	-44	149	0
1954	2,948	632	1,690	1,434	95.2%	244	56	93.7%	210	45	0	0
1955	2,662	405	1,620	1,372	85.8%	222	58	83.9%	249	58	0	0
1956	4,119	1,641	1,758	1,581	100.0%	307	70	100.0%	219	31	0	0
1957	2,899	745	1,613	1,262	82.0%	138	19	80.2%	97	3	7,533	0
1958	2,023	270	1,436	1,175	70.0%	-11	-38	70.0%	14	-40	29,281	0
1959	2,936	618	1,690	1,446	97.5%	246	32	96.8%	258	31	17,530	0
1960	2,590	383	1,645	1,337	92.7%	156	27	91.3%	123	12	0	0
1961	2,816	534	1,730	1,387	100.0%	155	21	100.0%	104	-4	13,066	0
1962	2,132	276	1,487	1,246	70.0%	9	-38	70.0%	8	-45	12,802	0
1963	1,670	219	1,198	988	44.0%	-67	-95	46.0%	-89	-112	16,758	0
1964	2,974	603	1,705	1,457	98.6%	264	27	98.3%	272	30	16,287	0
1965	2,701	532	1,613	1,313	84.3%	176	42	83.5%	147	28	0	0
1966	2,277	409	1,488	1,254	70.0%	11	-31	70.0%	-16	-46	297	0
1967	2,311	334	1,463	1,355	65.0%	137	1	64.4%	104	-14	7,409	0
1968	2,342	370	1,493	1,361	69.1%	115	2	68.0%	100	-5	0	0
1969	2,712	669	1,545	1,171	70.5%	112	-5	69.1%	108	-13	612	0
1970	2,328	392	1,445	1,312	63.7%	99	-12	62.9%	51	-28	154	0
1971	3,543	986	1,758	1,656	100.0%	391	91	100.0%	294	54	0	0
1972	3,765	1,237	1,758	1,667	100.0%	397	88	100.0%	303	54	1,584	0
1973	1,921	168	1,414	1,156	66.5%	-17	-43	67.1%	-32	-59	25,224	0
1974	3,431	910	1,758	1,647	100.0%	366	85	100.0%	278	49	14,983	0
1975	3,273	799	1,758	1,600	100.0%	325	67	100.0%	264	37	933	0
1976	3,820	1,297	1,758	1,657	100.0%	366	107	100.0%	276	69	0	0
1977	1,333	168	887	862	20.0%	-48	-80	21.6%	-66	-95	11,439	0
1978	2,209	267	1,493	1,316	70.0%	66	-40	70.0%	21	-56	16,490	0
1979	1,727	237	1,218	1,017	44.4%	-60	-104	46.4%	-97	-121	0	0
1980	2,333	441	1,503	1,189	70.0%	-45	-121	70.0%	-85	-135	10,182	0
1981	2,074	308	1,463	1,133	67.4%	-79	-121	67.0%	-50	-118	1,566	1,566

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP3 CC Adverse (EPOR)

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	2,912	671	1,623	1,397	87.8%	237	17	86.8%	202	8	3,155	859
1983	2,642	534	1,567	1,270	78.9%	161	26	77.5%	115	8	0	0
1984	2,565	411	1,592	1,298	83.0%	173	31	81.7%	129	19	24	0
1985	1,835	259	1,279	1,052	52.1%	-53	-86	51.9%	-77	-103	3,825	236
1986	1,801	269	1,292	1,018	50.2%	-98	-144	51.9%	-131	-160	12,955	636
1987	2,057	363	1,372	1,053	54.3%	-86	-135	56.2%	-128	-152	5,972	97
1988	1,878	290	1,272	1,018	46.7%	-84	-170	47.9%	-138	-188	3,380	0
1989	2,519	556	1,516	1,231	70.0%	-11	-121	70.0%	-56	-137	824	0
1990	2,574	510	1,543	1,362	70.0%	106	-55	70.0%	98	-66	501	0
1991	2,790	562	1,644	1,336	89.6%	173	44	89.7%	121	16	224	0
1992	1,591	165	1,160	982	41.0%	-67	-101	43.6%	-92	-118	509	10
1993	1,831	323	1,188	953	40.9%	-124	-193	41.5%	-163	-200	18,186	0
1994	1,473	276	825	792	11.6%	-95	-200	12.7%	-149	-200	3,768	0
1995	2,010	332	1,342	1,046	55.8%	-105	-187	54.6%	-107	-193	4,294	0
1996	2,836	761	1,517	1,206	73.3%	153	5	72.0%	105	-11	13,266	0
1997	3,937	1,485	1,758	1,641	100.0%	364	69	100.0%	324	48	427	0
1998	2,398	362	1,493	1,206	71.0%	154	23	69.9%	122	8	0	0
1999	2,798	427	1,704	1,478	98.1%	280	69	97.9%	254	62	476	0
2000	2,625	493	1,582	1,260	79.3%	150	25	78.2%	116	7	0	0
2001	1,685	250	1,176	953	41.6%	-104	-136	43.4%	-122	-150	7,402	2,712
2002	3,020	790	1,659	1,286	87.6%	129	-32	88.3%	94	-47	18,754	653
2003	2,007	243	1,446	1,157	68.9%	-39	-69	70.0%	-54	-84	19,836	1,079
2004	1,966	309	1,390	1,080	61.4%	-97	-144	60.7%	-124	-159	19,845	1
2005	1,693	286	1,101	918	35.0%	-117	-198	35.7%	-129	-200	7,387	0
2006	2,739	613	1,546	1,357	70.0%	99	-87	70.0%	NA	NA	5,443	14
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,457	506	1,470	1,245	69.8%	85	-42	69.7%	54	-55	6,074	97

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.
5) Climate Change inflow dataset provided only extended to the end of Water Year 2006.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP3 CC Adverse (EPOR)

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	16.3%	46.6%	4.8%	16.6%	9.3%
	0 -10% Above Target[1]	38.8%	22.2%	1.6%	1.4%	38.9%
	0-10% Below Target	1.6%	0.6%	6.4%	59.3%	4.1%
	> 10% Below Target	43.3%	30.6%	87.2%	22.7%	47.7%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	44.1%	60.8%	60.7%	17.9%
	0 -10% Above Target	3.9%	3.4%	3.5%	30.3%
	0-10% Below Target	4.9%	3.2%	6.0%	20.1%
	> 10% Below Target	47.1%	32.6%	29.8%	31.7%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			5.9%	
	0 -10% Above Target			4.4%	
	0-10% Below Target			12.3%	
	> 10% Below Target			77.4%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				30.7%	
	0 -10% Above Target				11.7%	
	0-10% Below Target				5.1%	
	> 10% Below Target				52.5%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				91.7%	
	0 -10% Above Target				5.7%	
	0-10% Below Target				0.8%	
	> 10% Below Target				1.8%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	16.9%	21.6%		10.5%
	0 -10% Above Target	1.7%	2.3%		1.8%
	0-10% Below Target	6.7%	2.5%		13.6%
	> 10% Below Target	74.7%	73.6%		74.1%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			13.1%	9.8%	9.1%
	0 -10% Above Target			6.7%	0.4%	0.5%
	0-10% Below Target			13.1%	1.0%	0.5%
	> 10% Below Target			67.1%	88.8%	89.9%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			94.9%	72.8%	58.1%
	0 -10% Above Target			1.8%	9.2%	11.9%
	0-10% Below Target			1.4%	7.4%	10.2%
	> 10% Below Target			1.9%	10.6%	19.8%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			18.0%	
	0 -10% Above Target			6.8%	
	0-10% Below Target			15.2%	
	> 10% Below Target			60.0%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			96.8%	84.9%	70.7%
	0 -10% Above Target			0.9%	6.4%	11.3%
	0-10% Below Target			0.9%	3.8%	8.3%
	> 10% Below Target			1.4%	4.9%	9.7%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP3 CC Adverse (EPOR)

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	2.9%	29.1%	97.3%		14.9%
	0 -10% Above Target	37.8%	26.8%	1.1%		32.4%
	0-10% Below Target	0.0%	0.4%	0.1%		0.7%
	> 10% Below Target	59.3%	43.7%	1.5%		52.0%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	11.9%			
	0 -10% Above Target	0.6%			
	0-10% Below Target	1.0%			
	> 10% Below Target	86.5%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	49.7%			
	0 -10% Above Target	2.8%			
	0-10% Below Target	3.5%			
	> 10% Below Target	44.0%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP3 (Adverse Climate Change)

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	14.6	1.8	1.6	2.5	0.8	1.3	10.7	34.7	72.1	67.2	59.7	47.4	314.4
1927	7.5	1.0	1.2	1.2	1.0	0.9	1.8	10.2	27.5	41.6	35.1	48.2	177.3
1928	11.0	3.2	4.0	1.4	1.9	1.2	2.7	13.1	34.9	42.5	61.1	54.3	231.1
1929	18.6	2.8	1.7	3.8	6.0	1.5	11.2	17.1	41.9	63.0	60.8	48.4	276.8
1930	19.1	2.0	2.0	1.8	0.9	1.3	3.0	7.1	25.1	30.2	24.5	40.2	157.1
1931	10.5	1.2	1.3	1.4	1.2	1.0	5.1	10.7	23.2	29.8	29.0	45.0	159.3
1932	13.8	0.9	2.1	1.1	1.4	0.9	1.4	8.1	27.2	39.3	46.1	58.1	200.6
1933	45.3	1.4	16.4	1.9	3.1	1.8	1.0	21.0	28.7	45.3	62.0	77.8	305.5
1934	20.5	1.6	2.4	77.7	2.8	44.8	19.7	17.0	44.2	75.9	89.2	66.6	462.6
1935	14.2	4.3	3.9	2.0	0.9	2.3	2.7	23.8	34.5	59.0	68.1	66.5	282.2
1936	17.7	7.1	2.6	1.7	5.9	1.3	4.2	16.5	45.8	67.5	72.7	50.0	293.0
1937	18.9	1.6	1.1	1.8	2.1	1.3	3.0	10.7	32.6	54.8	52.6	50.0	230.3
1938	15.4	1.7	2.8	1.0	1.1	0.9	1.4	9.8	30.0	39.0	53.1	61.3	217.3
1939	17.7	2.7	1.8	0.9	1.6	1.3	5.5	23.7	44.3	58.2	63.2	51.0	271.9
1940	15.2	2.4	1.3	1.2	0.9	0.9	3.2	18.7	70.6	69.1	60.9	48.8	293.2
1941	11.0	1.4	1.5	1.4	1.1	1.6	7.2	6.3	25.9	28.8	28.1	34.7	149.0
1942	19.7	1.3	1.0	1.6	1.0	1.4	4.1	15.6	22.6	26.5	34.0	47.1	175.9
1943	13.8	1.9	1.7	1.6	1.3	1.1	2.0	10.5	24.6	30.5	29.9	58.2	177.1
1944	13.3	2.3	1.8	1.7	1.4	1.6	5.8	12.0	43.7	49.1	45.9	42.2	220.8
1945	16.5	1.0	1.3	1.2	0.9	1.0	2.1	8.3	29.5	40.3	39.8	48.1	190.1
1946	19.0	1.8	2.9	1.0	1.2	0.9	1.5	6.2	26.4	35.4	39.5	7.2	142.9
1947	10.7	1.3	1.1	2.3	0.9	0.9	4.3	23.8	39.4	63.3	79.9	60.8	288.7
1948	9.5	2.4	1.9	2.3	3.4	2.5	2.7	9.5	19.7	60.6	91.5	67.4	273.3
1949	24.1	3.6	2.1	3.7	3.4	1.1	2.2	9.6	33.4	86.5	84.4	83.8	337.8
1950	33.5	2.2	6.4	4.4	4.3	2.6	1.8	2.0	11.8	70.5	85.0	85.9	310.3
1951	36.0	3.0	3.0	15.3	3.3	20.6	31.8	22.2	26.5	76.5	83.9	90.6	412.6
1952	20.5	3.4	3.1	3.8	3.7	2.7	1.7	17.6	43.9	60.1	67.2	51.6	279.2
1953	13.5	1.2	0.9	1.4	0.8	1.1	5.1	11.3	35.5	51.9	56.7	49.6	229.2
1954	14.4	4.0	2.7	2.8	2.9	1.0	4.7	18.6	31.7	41.1	73.0	70.4	267.3
1955	9.4	1.3	1.1	1.8	3.4	5.7	9.6	8.5	18.3	42.3	60.5	68.8	230.7
1956	46.8	2.8	8.0	5.4	4.8	37.0	27.9	25.1	21.9	68.4	72.2	86.8	407.0
1957	24.8	2.8	1.6	3.2	2.4	0.9	3.3	16.4	44.8	83.7	82.7	65.2	331.7
1958	10.9	1.1	1.3	1.5	0.8	1.3	5.6	27.7	39.2	66.2	86.1	50.4	292.1
1959	9.5	3.5	1.6	1.0	2.1	0.9	2.3	15.4	32.7	69.1	86.7	70.2	294.9
1960	21.2	1.4	1.8	3.9	1.3	2.1	6.7	16.3	34.6	78.6	90.5	69.3	327.7
1961	36.9	3.0	2.0	1.5	0.8	0.9	5.3	15.0	31.4	75.6	94.1	84.2	350.8
1962	13.6	1.7	1.1	1.9	1.0	2.1	4.2	27.8	40.3	50.3	67.5	50.4	262.0
1963	20.1	1.0	1.3	3.4	1.2	1.5	6.7	24.1	35.6	41.9	59.2	47.7	243.7
1964	5.3	5.1	1.6	1.0	1.0	1.0	2.2	8.4	15.7	35.8	58.9	69.5	205.5
1965	19.4	3.2	3.1	5.1	0.8	1.1	1.5	20.5	33.3	63.6	80.4	68.9	301.1
1966	18.9	1.4	1.7	3.9	2.1	1.5	4.4	15.4	50.7	77.1	85.8	50.6	313.5
1967	18.1	3.2	2.8	0.9	0.8	0.9	12.9	19.8	28.8	39.3	61.2	59.9	248.8
1968	12.6	2.1	1.6	1.9	1.5	1.2	6.6	22.8	35.2	50.0	78.0	56.7	270.3
1969	13.9	2.2	1.5	5.0	6.2	2.3	1.5	7.8	37.1	70.7	80.3	52.2	280.6
1970	19.5	1.8	2.4	2.7	0.8	1.2	7.8	14.5	30.4	37.7	66.5	51.1	236.5
1971	46.2	3.1	1.5	1.3	1.1	4.9	0.9	0.9	17.7	38.5	54.6	82.9	253.5
1972	41.9	3.4	6.2	1.5	3.8	1.6	29.1	28.3	29.9	58.6	73.9	84.2	362.5
1973	18.6	1.5	0.9	9.3	2.6	1.6	11.0	36.3	46.2	70.8	79.7	50.4	328.9
1974	45.6	2.4	1.8	2.3	0.8	0.9	2.3	14.4	32.3	32.7	73.5	80.4	289.2
1975	37.7	1.8	25.6	1.4	3.2	1.6	2.3	2.8	32.9	63.0	79.1	85.9	337.4
1976	48.5	4.8	3.7	24.2	3.2	34.5	27.6	25.0	28.2	40.5	63.7	78.4	382.4
1977	19.2	1.2	1.8	4.7	3.1	2.3	13.3	31.5	48.0	55.1	53.3	38.2	271.6
1978	18.4	1.5	1.3	1.9	1.1	1.1	3.2	20.4	32.2	41.0	61.1	48.8	232.0
1979	19.8	3.2	1.5	2.7	1.6	1.0	6.1	8.2	36.6	46.5	48.5	48.2	223.9
1980	16.5	1.1	1.3	1.7	1.7	0.9	1.1	10.1	30.6	43.6	46.7	49.1	204.3
1981	7.1	1.4	0.9	1.4	1.0	0.9	3.0	19.7	27.1	39.6	55.5	49.8	207.4
1982	13.3	3.0	1.5	1.3	1.0	0.9	1.8	9.7	29.8	51.5	66.2	66.9	247.0
1983	24.3	1.0	3.3	1.8	0.9	0.9	6.0	22.5	36.4	44.8	73.6	66.6	282.2
1984	15.3	1.4	3.9	2.2	0.9	0.9	10.9	25.3	31.9	38.0	48.2	67.6	246.5
1985	19.1	1.4	2.2	2.4	4.0	5.4	6.7	14.6	34.0	56.4	58.5	48.4	253.2
1986	20.2	1.5	1.5	2.5	1.6	0.9	4.4	12.4	33.9	46.3	50.5	46.8	222.4
1987	19.9	7.5	1.5	1.3	0.8	0.9	4.3	15.1	32.6	35.4	47.8	49.2	216.4
1988	19.0	1.0	1.3	1.6	1.0	0.9	4.3	11.4	29.5	33.4	31.8	46.9	182.1
1989	17.6	1.1	1.6	1.1	1.5	1.2	1.9	9.2	26.7	38.3	39.7	49.9	189.8
1990	14.3	0.9	1.6	1.1	1.0	0.9	1.3	12.0	27.2	40.2	48.7	49.9	199.1
1991	32.4	1.6	2.4	3.2	1.2	0.9	3.4	18.1	33.3	49.7	75.7	69.5	291.5
1992	18.7	2.3	1.8	1.3	0.9	2.8	18.1	37.4	71.4	69.6	60.3	45.8	330.3
1993	8.3	3.0	1.5	2.2	1.6	1.2	4.0	5.5	42.7	61.1	57.2	46.9	235.3
1994	1.3	1.9	1.3	1.3	1.3	0.9	1.4	3.2	26.3	30.7	24.4	26.0	120.1
1995	12.7	1.2	1.1	1.2	0.9	1.1	5.4	12.2	30.4	36.9	38.6	48.6	190.3
1996	18.2	3.1	5.4	1.2	1.2	1.2	1.8	13.0	28.7	36.8	40.1	26.5	177.3
1997	34.4	2.2	1.7	2.2	1.5	0.9	0.9	4.9	27.8	66.9	78.9	84.3	306.7
1998	20.9	1.8	1.2	1.8	0.8	1.1	10.7	23.9	41.8	67.0	76.8	67.8	315.6
1999	13.5	1.8	1.7	1.0	1.3	0.9	3.6	29.3	30.6	36.3	71.0	71.0	261.9
2000	22.7	4.4	5.8	2.0	2.0	0.9	9.5	28.4	35.5	77.7	88.3	67.8	345.0
2001	16.4	1.3	1.2	5.4	3.0	2.0	9.4	14.0	51.6	68.7	60.4	47.7	281.1
2002	17.5	2.1	2.0	1.1	1.0	1.0	1.7	5.8	23.8	46.9	63.8	59.2	226.0
2003	17.1	1.5	1.1	1.6	0.8	1.4	4.1	24.3	30.4	45.8	63.6	50.8	242.4
2004	18.0	1.7	1.2	1.7	1.2	0.9	6.2	16.2	35.8	51.4	53.8	47.5	235.7
2005	5.1	1.4	1.9	1.6	1.0	1.0	3.3	12.0	49.5	53.3	50.2	46.0	226.3
2006	-	-	-	1.0	1.5	0.9	1.2	5.1	24.6	36.2	36.1	49.8	156.4
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	18.5	2.1	2.5	3.4	1.8	3.0	5.8	15.3	32.8	50.0	59.3	55.4	250.0

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 CC Adverse (EPOR)

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	971	797	107
1927	237	30	25	19	19	15	30	48	-	219	571	810	123
1928	122	15	17	23	6	-	-	-	-	-	-	67	15
1929	178	14	-	-	-	-	-	-	-	581	989	813	157
1930	302	47	28	29	15	21	50	115	422	491	398	675	157
1931	311	34	33	22	22	15	85	174	390	485	471	755	169
1932	170	20	20	19	25	15	24	28	-	-	61	976	81
1933	225	8	-	-	-	-	-	-	-	-	-	-	14
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	156	-	-	-	-	-	-	-	-	-	-	-	10
1936	-	-	-	-	-	-	-	-	-	-	65	840	54
1937	288	120	40	29	37	21	21	-	-	284	855	840	154
1938	307	25	16	16	20	8	-	-	-	-	-	267	40
1939	251	28	7	-	-	-	-	-	-	-	484	857	98
1940	287	46	29	19	10	-	-	-	-	290	991	820	152
1941	248	40	21	23	20	26	121	103	435	468	457	583	154
1942	180	22	24	26	18	22	70	254	379	431	552	791	168
1943	320	19	17	26	23	19	33	143	-	48	486	978	128
1944	225	33	26	27	25	26	97	196	734	799	747	710	221
1945	217	38	30	20	17	17	36	135	496	655	647	808	189
1946	269	17	19	17	21	15	24	38	-	-	-	-	26
1947	270	29	-	-	-	-	-	-	-	-	-	-	18
1948	24	-	-	-	-	-	-	-	-	-	-	-	1
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	118	7
1953	334	57	50	22	-	-	-	-	-	-	-	577	63
1954	220	20	2	-	-	-	-	-	-	-	-	-	15
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	646	38
1959	176	14	5	-	-	-	-	-	-	-	-	-	12
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	159	15	-	-	-	-	-	-	-	-	-	615	47
1963	222	26	18	1	-	-	-	-	-	-	796	802	113
1964	326	17	21	16	18	16	2	-	-	-	-	-	25
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	521	31
1967	305	22	18	-	-	-	-	-	-	-	-	-	21
1968	256	20	-	-	-	-	-	-	-	-	-	-	17
1969	153	-	-	-	-	-	-	-	-	-	-	108	16
1970	226	38	20	-	-	-	-	-	-	-	-	193	29
1971	317	31	40	19	-	-	-	-	-	-	-	-	25
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	713	42
1974	302	25	9	-	-	-	-	-	-	-	-	-	21
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	778	643	86
1978	312	20	5	-	-	-	-	-	-	-	-	756	66
1979	299	26	21	44	28	17	29	-	-	122	788	810	132
1980	323	54	23	27	29	15	18	17	-	448	760	826	154
1981	268	18	19	22	18	15	1	-	-	305	902	837	146
1982	114	22	12	21	18	1	-	-	-	-	-	-	12
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	608	813	86
1986	311	24	36	40	29	15	73	5	76	754	821	786	181
1987	328	23	25	21	15	15	53	-	112	575	778	827	168
1988	324	126	22	26	17	15	72	186	495	544	517	788	190
1989	308	16	21	17	26	20	32	106	-	532	646	839	156
1990	287	19	24	17	18	15	6	-	-	-	82	839	79
1991	233	12	-	-	-	-	-	-	-	-	-	-	15
1992	-	-	-	-	-	-	-	-	-	-	917	770	102
1993	304	38	30	35	29	19	67	84	638	994	931	788	240
1994	136	51	25	21	23	15	23	53	443	500	397	437	129
1995	20	32	20	20	16	18	91	198	511	600	627	816	180
1996	207	17	12	19	21	10	-	-	-	-	-	-	17
1997	200	14	-	-	-	-	-	-	-	-	-	-	13
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	484	983	802	138
2002	267	22	16	18	19	16	28	18	-	-	-	533	56
2003	285	36	33	26	12	-	-	-	-	-	290	854	93
2004	278	25	17	28	21	15	4	-	-	821	874	798	175
2005	294	29	18	25	18	17	55	195	832	867	817	773	239
2006	83	23	28	16	27	15	20	57	-	22	587	837	104
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	158	19	12	10	8	6	14	27	74	152	280	406	71

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 CC Adverse (EPOR)

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	35	33	5	73	315	279	46	-	-	7	-	-	47
1927	-	-	-	-	-	-	148	305	-	3	-	-	28
1928	-	-	-	194	117	310	400	400	16	-	221	13	101
1929	-	20	30	30	56	6	-	-	-	54	-	-	12
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	228	-	-	-	-	-	14
1932	-	-	-	-	-	129	400	400	400	100	157	-	96
1933	-	160	400	400	316	64	174	-	-	363	266	13	130
1934	98	185	364	400	25	149	-	-	-	348	364	13	119
1935	-	7	81	352	400	101	-	-	-	202	248	13	84
1936	9	36	29	9	56	4	133	380	38	92	177	-	59
1937	-	-	-	-	-	-	63	182	-	52	-	-	18
1938	-	-	-	382	57	263	301	400	67	-	195	13	102
1939	-	-	18	176	10	44	335	-	-	76	63	-	44
1940	-	-	-	108	326	400	305	57	-	69	-	-	76
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	97	26	238	86	91	-	-	-	-	-	31
1943	-	-	-	-	-	-	360	390	64	-	-	-	49
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	337	98	-	-	-	27
1946	-	-	-	30	11	400	363	400	333	-	190	13	106
1947	-	-	242	345	348	223	-	-	-	163	322	13	100
1948	27	5	195	228	27	15	231	100	-	400	400	13	100
1949	19	16	263	30	27	66	171	-	-	400	400	13	86
1950	90	32	82	195	40	18	204	205	-	330	400	337	118
1951	280	379	361	1	19	84	1	-	-	400	400	13	118
1952	116	25	83	33	138	19	339	306	148	36	259	13	92
1953	-	-	-	-	-	2	70	274	-	47	238	13	39
1954	-	-	232	400	330	299	26	-	-	323	256	13	114
1955	10	33	18	10	29	48	-	164	183	330	263	13	67
1956	5	222	400	81	36	222	-	-	-	385	400	13	108
1957	72	132	281	400	178	85	-	-	-	391	366	13	117
1958	96	20	7	161	400	369	30	-	20	81	211	-	83
1959	-	-	75	400	364	299	53	-	-	400	329	13	117
1960	5	122	400	386	23	9	-	-	-	400	400	13	108
1961	45	6	146	316	400	39	27	-	-	400	400	13	108
1962	54	24	24	306	338	98	263	3	-	23	122	-	74
1963	-	-	-	28	138	123	257	-	-	-	-	-	32
1964	-	-	-	-	20	243	310	213	400	313	231	13	106
1965	17	46	47	73	400	290	-	-	-	400	289	13	94
1966	26	26	23	34	15	198	400	168	213	107	279	-	90
1967	-	-	12	400	400	110	17	-	10	0	234	13	71
1968	-	18	18	29	267	400	67	-	147	27	299	13	77
1969	6	13	7	44	61	14	125	400	236	108	319	13	82
1970	-	-	-	19	143	198	157	-	-	9	272	13	49
1971	-	-	-	-	3	43	-	366	168	400	400	52	88
1972	69	246	270	53	112	103	0	-	-	374	400	73	103
1973	45	68	325	400	54	6	-	-	64	98	161	-	75
1974	-	-	-	169	372	258	400	39	-	400	390	13	122
1975	73	16	58	313	116	63	129	6	-	400	400	13	97
1976	74	400	400	261	16	189	-	-	-	400	400	13	132
1977	77	42	28	40	26	189	57	-	-	-	-	-	28
1978	-	-	219	295	142	228	249	9	-	-	117	-	76
1979	-	-	-	-	-	-	-	229	-	30	-	-	16
1980	-	-	-	-	-	-	224	295	-	2	-	-	32
1981	-	-	-	-	186	360	233	26	-	0	-	-	48
1982	-	-	-	-	171	400	262	400	400	231	240	13	128
1983	7	23	7	305	315	155	-	-	6	239	309	13	83
1984	59	1	27	215	295	299	46	28	93	17	207	13	78
1985	20	6	31	15	34	43	-	-	-	45	46	-	14
1986	-	-	-	-	-	28	118	82	-	-	-	-	14
1987	-	-	-	-	48	359	333	53	-	-	-	-	48
1988	-	-	-	-	-	-	-	66	-	-	-	-	4
1989	-	-	-	-	-	-	386	400	172	-	-	-	58
1990	-	-	-	-	-	201	400	346	66	7	165	-	72
1991	-	40	339	236	369	312	50	-	-	375	337	13	125
1992	29	8	16	83	400	395	-	-	-	5	-	-	56
1993	-	-	-	-	-	-	-	194	-	-	-	-	12
1994	-	-	-	-	-	-	-	34	-	-	-	-	2
1995	-	-	-	-	86	317	132	-	-	-	-	-	32
1996	-	-	301	358	239	93	365	400	43	-	149	13	119
1997	-	20	48	14	8	214	400	90	-	370	400	39	98
1998	67	345	344	343	70	1	-	-	-	299	321	13	110
1999	56	10	16	400	205	109	77	23	-	400	267	13	95
2000	11	49	400	159	10	-	-	-	-	400	372	13	87
2001	26	40	52	49	24	11	-	-	-	128	-	-	20
2002	-	-	-	-	-	2	333	400	400	332	271	13	106
2003	-	-	-	-	-	223	400	13	-	29	102	-	46
2004	-	-	-	-	-	-	97	-	-	-	-	-	6
2005	-	-	-	-	-	152	356	57	-	-	-	-	34
2006	-	-	-	112	138	7	337	390	195	8	-	-	71
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	20	35	84	122	117	129	142	111	49	146	178	12	69

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 CC Adverse (EPOR)

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	55	315	275	46	-	-	-	-	-	41
1927	-	-	-	-	-	-	148	305	-	-	-	-	28
1928	-	-	-	194	106	307	400	400	16	-	-	-	86
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	228	-	-	-	-	-	14
1932	-	-	-	-	-	129	400	400	400	94	-	-	86
1933	-	160	384	388	292	55	174	-	-	352	-	-	109
1934	-	179	119	-	-	-	-	-	-	139	-	-	26
1935	-	-	65	340	400	90	-	-	-	194	-	-	65
1936	-	-	-	-	-	-	133	380	38	-	-	-	34
1937	-	-	-	-	-	-	63	182	-	-	-	-	15
1938	-	-	-	382	57	263	301	400	67	-	-	-	89
1939	-	-	-	176	1	40	335	-	-	-	-	-	33
1940	-	-	-	108	326	400	305	57	-	-	-	-	72
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	97	26	238	86	91	-	-	-	-	-	31
1943	-	-	-	-	-	-	360	390	64	-	-	-	49
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	337	98	-	-	-	27
1946	-	-	-	30	11	400	363	400	333	-	-	-	93
1947	-	-	220	328	347	223	-	-	-	116	-	-	74
1948	-	-	194	214	-	-	231	100	-	177	-	-	56
1949	-	-	253	1	-	65	171	-	-	62	-	-	34
1950	-	-	69	155	-	-	204	205	-	140	5	324	67
1951	244	364	361	-	-	-	1	-	-	251	4	-	75
1952	-	-	58	-	106	-	339	306	148	-	-	-	58
1953	-	-	-	-	-	-	70	274	-	-	-	-	21
1954	-	-	232	378	306	298	26	-	-	323	-	-	94
1955	-	-	-	-	-	-	-	164	183	322	-	-	41
1956	-	217	399	12	-	-	-	-	-	337	57	-	62
1957	-	109	175	375	162	85	-	-	-	188	-	-	66
1958	-	-	-	154	400	366	30	-	20	-	-	-	57
1959	-	-	73	399	350	299	53	-	-	351	1	-	92
1960	-	92	392	356	19	-	-	-	-	127	-	-	60
1961	-	-	136	309	400	39	27	-	-	64	-	-	57
1962	-	-	13	295	336	85	263	3	-	-	-	-	59
1963	-	-	-	-	134	117	257	-	-	-	-	-	30
1964	-	-	-	-	20	243	310	213	400	310	-	-	90
1965	-	-	39	26	400	289	-	-	-	400	4	-	69
1966	-	-	-	-	-	192	400	168	213	-	-	-	59
1967	-	-	9	400	400	110	17	-	10	-	-	-	56
1968	-	-	-	18	259	397	67	-	147	-	-	-	53
1969	-	-	-	-	-	-	125	400	236	37	-	-	48
1970	-	-	-	-	143	195	157	-	-	-	-	-	29
1971	-	-	-	-	-	-	-	366	168	388	128	38	67
1972	-	220	264	48	83	103	0	-	-	343	63	60	72
1973	-	38	250	267	33	-	-	-	64	-	-	-	40
1974	-	-	-	154	372	258	400	39	-	400	167	-	107
1975	-	-	49	308	91	57	129	6	-	310	13	-	58
1976	39	389	88	14	-	-	-	-	-	396	227	-	70
1977	-	-	-	-	-	176	57	-	-	-	-	-	14
1978	-	-	209	283	138	226	249	9	-	-	-	-	67
1979	-	-	-	-	-	-	-	229	-	-	-	-	14
1980	-	-	-	-	-	-	224	295	-	-	-	-	31
1981	-	-	-	-	186	360	233	26	-	-	-	-	48
1982	-	-	-	-	171	400	262	400	400	230	-	-	112
1983	-	-	-	295	315	155	-	-	6	239	-	-	60
1984	-	-	-	201	295	299	46	28	93	16	-	-	59
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	28	118	82	-	-	-	-	14
1987	-	-	-	-	48	359	333	53	-	-	-	-	48
1988	-	-	-	-	-	-	-	66	-	-	-	-	4
1989	-	-	-	-	-	-	386	400	172	-	-	-	58
1990	-	-	-	-	-	201	400	346	66	-	-	-	61
1991	-	40	331	209	365	312	50	-	-	375	-	-	101
1992	-	-	-	79	400	380	-	-	-	-	-	-	51
1993	-	-	-	-	-	-	-	194	-	-	-	-	12
1994	-	-	-	-	-	-	-	34	-	-	-	-	2
1995	-	-	-	-	86	317	132	-	-	-	-	-	32
1996	-	-	301	358	239	90	365	400	43	-	-	-	109
1997	-	-	-	-	-	214	400	90	-	331	51	25	68
1998	37	329	336	335	70	-	-	-	-	297	-	-	85
1999	-	-	13	399	200	109	77	23	-	400	13	-	74
2000	-	40	391	150	-	-	-	-	-	346	62	-	61
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	2	333	400	400	302	-	-	87
2003	-	-	-	-	-	218	400	13	-	-	-	-	38
2004	-	-	-	-	-	-	97	-	-	-	-	-	6
2005	-	-	-	-	-	152	356	57	-	-	-	-	34
2006	-	-	-	112	138	7	337	390	195	-	-	-	71
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	4	27	68	103	108	117	142	111	49	103	10	6	51

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 CC Adverse (EPOR)

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	35	33	5	18	-	4	-	-	-	7	-	-	6
1927	-	-	-	-	-	-	-	-	-	3	-	-	0
1928	-	-	-	-	12	3	-	-	-	-	221	13	15
1929	-	20	30	30	56	6	-	-	-	54	-	-	12
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	6	157	-	10
1933	-	-	16	12	25	8	-	-	-	11	266	13	21
1934	98	6	245	400	25	149	-	-	-	209	364	13	93
1935	-	7	17	12	0	11	-	-	-	8	248	13	19
1936	9	36	29	9	56	4	-	-	-	92	177	-	25
1937	-	-	-	-	-	-	-	-	-	52	-	-	3
1938	-	-	-	-	-	-	-	-	-	-	195	13	13
1939	-	-	18	0	9	4	-	-	-	76	63	-	10
1940	-	-	-	-	-	-	-	-	-	69	-	-	4
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	190	13	13
1947	-	-	22	17	0	-	-	-	-	47	322	13	26
1948	27	5	1	14	27	15	-	-	-	223	400	13	44
1949	19	16	11	29	27	1	-	-	-	338	400	13	52
1950	90	32	13	40	40	18	-	-	-	190	395	13	51
1951	37	15	-	1	19	84	-	-	-	149	396	13	44
1952	116	25	25	33	32	19	-	-	-	36	259	13	34
1953	-	-	-	-	-	2	-	-	-	47	238	13	18
1954	-	-	-	22	24	1	-	-	-	-	256	13	19
1955	10	33	18	10	29	48	-	-	-	7	263	13	26
1956	5	5	1	69	36	222	-	-	-	48	343	13	45
1957	72	22	106	25	16	-	-	-	-	203	366	13	50
1958	96	20	7	7	-	3	-	-	-	81	211	-	26
1959	-	-	2	1	14	-	-	-	-	49	328	13	25
1960	5	30	8	29	4	9	-	-	-	273	400	13	47
1961	45	6	10	7	0	-	-	-	-	336	400	13	50
1962	54	24	11	11	2	12	-	-	-	23	122	-	16
1963	-	-	-	28	4	6	-	-	-	-	-	-	2
1964	-	-	-	-	-	-	-	-	-	4	231	13	15
1965	17	46	8	47	-	1	-	-	-	-	285	13	26
1966	26	26	23	34	15	6	-	-	-	107	279	-	32
1967	-	-	3	-	-	-	-	-	-	0	234	13	15
1968	-	18	18	11	8	3	-	-	-	27	299	13	24
1969	6	13	7	44	61	14	-	-	-	71	319	13	33
1970	-	-	-	19	0	3	-	-	-	9	272	13	19
1971	-	-	-	-	3	43	-	-	-	12	272	13	21
1972	69	25	6	6	28	-	-	-	-	31	337	13	32
1973	45	30	75	133	20	6	-	-	-	98	161	-	35
1974	-	-	-	16	-	-	-	-	-	-	223	13	15
1975	73	16	9	5	25	7	-	-	-	90	387	13	38
1976	36	11	312	247	16	189	-	-	-	4	173	13	62
1977	77	42	28	40	26	13	-	-	-	-	-	-	14
1978	-	-	11	12	3	2	-	-	-	-	117	-	9
1979	-	-	-	-	-	-	-	-	-	30	-	-	2
1980	-	-	-	-	-	-	-	-	-	2	-	-	0
1981	-	-	-	-	-	-	-	-	-	0	-	-	0
1982	-	-	-	-	-	-	-	-	-	1	240	13	16
1983	7	23	7	10	1	-	-	-	-	-	309	13	23
1984	59	1	27	14	-	-	-	-	-	1	207	13	20
1985	20	6	31	15	34	43	-	-	-	45	46	-	14
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	7	165	-	11
1991	-	-	8	27	4	-	-	-	-	-	337	13	24
1992	29	8	16	4	-	15	-	-	-	5	-	-	5
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	2	-	-	-	-	149	13	10
1997	-	20	48	14	8	0	-	-	-	39	349	13	30
1998	30	16	8	8	-	1	-	-	-	3	321	13	25
1999	56	10	3	1	5	0	-	-	-	-	254	13	21
2000	11	9	9	9	10	-	-	-	-	54	310	13	26
2001	26	40	52	49	24	11	-	-	-	128	-	-	20
2002	-	-	-	-	-	-	-	-	-	30	271	13	19
2003	-	-	-	-	-	5	-	-	-	29	102	-	8
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	8	-	-	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	16	9	16	20	9	12	-	-	-	43	168	7	18

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 CC Adverse (EPOR)

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26	-	-	-	-	-	7,531	35,335	36,514	42,122	41,138	13,483	176,150
1927	26	-	-	-	-	-	10,369	40,766	45,434	57,313	55,243	16,792	225,943
1928	26	-	-	-	-	-	10,377	44,167	45,252	59,317	58,626	17,046	234,811
1929	26	-	-	-	-	-	8,103	37,844	38,345	44,013	42,679	13,872	184,883
1930	26	-	-	-	-	-	3,133	11,523	11,234	12,196	13,031	5,631	56,773
1931	26	-	-	-	-	-	8,027	34,145	32,136	36,009	35,383	12,025	157,750
1932	26	-	-	-	-	-	10,375	44,195	45,254	56,724	54,467	37,181	248,223
1933	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1934	18,446	-	-	-	-	-	10,375	43,391	45,635	59,409	59,589	21,486	258,331
1935	26	-	-	-	-	-	7,622	44,598	45,402	55,134	51,943	35,414	240,138
1936	26	-	-	-	-	-	10,384	44,292	45,402	59,463	59,048	17,132	235,747
1937	26	-	-	-	-	-	10,122	44,301	45,480	57,207	55,462	17,002	229,600
1938	26	-	-	-	-	-	10,375	44,323	44,453	55,448	52,422	35,935	242,982
1939	26	-	-	-	-	-	10,355	43,935	45,402	59,471	59,541	18,172	236,903
1940	26	-	-	-	-	-	10,378	42,228	45,733	55,743	54,414	16,087	224,607
1941	26	-	-	-	-	-	1,938	6,420	7,413	8,418	9,450	4,676	38,341
1942	26	-	-	-	-	-	9,855	35,534	35,757	40,559	39,513	13,092	174,337
1943	26	-	-	-	-	-	10,375	42,981	45,402	54,851	51,524	35,010	240,170
1944	26	-	-	-	-	-	6,744	27,548	28,623	32,195	31,370	10,429	136,935
1945	26	-	-	-	-	-	9,926	44,071	44,982	58,781	57,194	17,330	232,310
1946	26	-	-	-	-	-	10,375	44,288	44,828	55,101	50,637	4,795	210,050
1947	26	-	-	-	-	-	10,377	44,288	45,208	59,229	58,755	17,839	235,722
1948	26	-	-	-	-	-	8,317	44,288	45,402	59,805	59,582	40,363	257,783
1949	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1950	17,339	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	284,135
1951	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1952	18,446	-	-	-	-	-	10,375	43,384	45,154	52,958	49,530	14,844	234,692
1953	26	-	-	-	-	-	7,241	43,403	45,498	58,746	57,223	17,318	229,454
1954	26	-	-	-	-	-	10,375	44,288	45,402	60,029	61,302	41,510	262,932
1955	26	-	-	-	-	-	8,181	44,305	45,402	57,751	55,482	37,647	248,794
1956	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1957	18,446	-	-	-	-	-	10,375	44,288	44,893	56,205	53,112	36,192	263,512
1958	26	-	-	-	-	-	10,122	44,301	45,402	59,534	59,978	18,172	237,535
1959	26	-	-	-	-	-	10,375	43,986	45,402	59,967	62,513	42,769	265,039
1960	26	-	-	-	-	-	10,205	44,335	43,629	59,841	59,769	40,603	258,407
1961	26	-	-	-	-	-	10,245	43,538	45,437	59,587	62,114	44,995	265,941
1962	21,210	-	-	-	-	-	10,382	43,943	45,402	59,531	59,944	18,172	258,584
1963	26	-	-	-	-	-	8,927	37,406	37,451	42,625	41,249	13,462	181,146
1964	26	-	-	-	-	-	10,375	44,288	45,402	59,923	62,723	43,300	266,038
1965	26	-	-	-	-	-	10,377	44,023	45,402	57,469	55,133	37,484	249,914
1966	26	-	-	-	-	-	9,785	43,300	45,402	59,531	59,978	18,172	236,194
1967	26	-	-	-	-	-	7,190	43,426	45,495	57,815	56,241	17,160	227,352
1968	26	-	-	-	-	-	7,320	43,984	45,528	59,215	58,315	16,884	231,273
1969	26	-	-	-	-	-	10,375	44,353	44,451	58,037	59,594	22,391	239,227
1970	26	-	-	-	-	-	6,994	42,514	45,526	56,885	54,951	16,882	223,779
1971	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1972	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1973	18,446	-	-	-	-	-	10,093	44,319	45,419	58,666	57,757	17,537	252,237
1974	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1975	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1976	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1977	18,446	-	-	-	-	-	4,235	18,119	18,795	20,996	22,012	8,017	110,620
1978	26	-	-	-	-	-	10,491	44,141	45,402	59,531	59,978	18,172	237,741
1979	26	-	-	-	-	-	8,667	39,387	37,859	43,305	41,750	13,640	184,635
1980	26	-	-	-	-	-	10,375	44,296	44,424	59,463	59,048	17,132	234,764
1981	26	-	-	-	-	-	10,404	43,925	45,406	58,969	58,209	17,689	234,628
1982	26	-	-	-	-	-	7,791	44,424	45,402	58,576	57,175	38,786	252,179
1983	26	-	-	-	-	-	7,708	44,472	45,402	54,929	51,593	35,143	239,273
1984	26	-	-	-	-	-	9,715	44,340	45,402	56,625	53,830	36,709	246,647
1985	26	-	-	-	-	-	9,201	43,678	41,769	47,981	45,846	14,672	203,173
1986	26	-	-	-	-	-	9,087	43,558	42,342	48,430	46,248	14,731	204,422
1987	26	-	-	-	-	-	10,292	44,255	44,551	51,434	49,496	15,554	215,608
1988	26	-	-	-	-	-	10,368	40,207	39,764	45,048	42,604	13,241	191,259
1989	26	-	-	-	-	-	10,375	44,364	43,743	59,531	59,978	18,172	236,190
1990	26	-	-	-	-	-	10,375	44,398	44,335	59,531	59,978	18,172	236,815
1991	26	-	-	-	-	-	10,375	43,636	44,779	59,096	58,458	39,851	256,221
1992	26	-	-	-	-	-	8,077	34,364	35,244	40,539	39,095	12,420	169,765
1993	26	-	-	-	-	-	8,736	38,967	35,187	40,087	38,656	12,708	174,366
1994	26	-	-	-	-	-	3,311	12,273	12,278	13,434	14,721	4,489	60,532
1995	-	-	-	-	-	-	10,122	44,485	44,196	51,023	48,060	15,232	213,118
1996	26	-	-	-	-	-	10,375	43,831	45,417	51,795	48,052	20,210	219,706
1997	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1998	18,446	-	-	-	-	-	7,573	43,412	45,582	50,427	46,888	27,447	239,776
1999	26	-	-	-	-	-	10,375	44,288	45,402	59,944	62,704	43,096	265,836
2000	26	-	-	-	-	-	10,390	44,313	45,402	55,231	51,900	35,344	242,606
2001	26	-	-	-	-	-	8,297	37,685	35,674	40,675	39,330	12,999	174,685
2002	26	-	-	-	-	-	10,375	43,497	45,402	58,195	57,619	39,358	254,472
2003	26	-	-	-	-	-	10,122	44,301	45,402	59,400	59,309	18,153	236,713
2004	26	-	-	-	-	-	10,325	44,480	45,774	55,482	52,565	15,544	224,196
2005	26	-	-	-	-	-	7,122	30,695	30,792	34,814	34,120	11,578	149,147
2006	26	-	-	-	-	-	10,375	44,360	43,624	58,648	59,978	18,172	235,184
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,775	-	-	-	-	-	9,308	41,200	42,039	52,857	52,350	25,161	225,689

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 CC Adverse (EPOR)

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	1,075	-	-	-	-	9,848	18,842	24,337	30,399	31,840	31,815	20,871	169,026
1927	1,075	-	-	-	-	9,848	33,028	40,442	47,219	45,623	44,104	28,556	249,896
1928	1,075	-	-	-	-	9,848	33,337	46,606	50,338	49,419	48,084	31,563	270,269
1929	1,075	-	-	-	-	9,848	20,555	26,327	32,139	33,458	33,159	21,790	178,351
1930	1,075	-	-	-	-	9,848	13,722	6,332	7,436	7,381	8,236	5,063	59,091
1931	1,075	-	-	-	-	9,848	26,610	23,458	26,243	26,643	26,788	17,472	158,137
1932	1,075	-	-	-	-	9,848	33,741	46,539	52,430	58,809	57,567	36,769	296,778
1933	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1934	20,709	-	-	-	-	9,848	33,741	44,751	49,871	49,437	48,119	31,775	288,250
1935	1,075	-	-	-	-	9,848	31,868	46,204	53,357	56,235	54,649	35,290	288,527
1936	1,075	-	-	-	-	9,848	26,966	39,771	49,757	49,896	48,680	31,821	257,815
1937	1,075	-	-	-	-	9,848	26,884	37,906	46,203	45,516	44,309	29,079	240,821
1938	1,075	-	-	-	-	9,848	33,741	46,699	51,773	56,727	55,203	35,740	290,805
1939	1,075	-	-	-	-	9,848	33,935	40,019	49,756	49,670	48,600	31,821	264,723
1940	1,075	-	-	-	-	9,848	33,608	38,454	41,916	43,882	44,167	29,151	242,100
1941	1,075	-	-	-	-	9,848	13,565	2,508	4,011	4,337	5,294	3,255	43,892
1942	1,075	-	-	-	-	9,848	33,600	24,836	29,680	30,502	30,395	19,973	179,910
1943	1,075	-	-	-	-	9,846	33,741	45,484	52,880	55,922	54,199	34,938	288,085
1944	1,075	-	-	-	-	9,848	14,960	18,091	22,969	23,507	23,707	15,064	129,221
1945	1,075	-	-	-	-	9,848	31,829	46,517	47,800	47,455	45,812	29,792	260,127
1946	1,075	-	-	-	-	9,848	33,820	46,592	52,301	56,269	54,148	34,596	288,649
1947	1,075	-	-	-	-	9,848	33,811	46,592	49,171	48,628	47,206	31,013	267,344
1948	1,075	-	-	-	-	9,848	33,891	46,869	52,490	61,017	60,363	38,687	304,240
1949	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1950	20,709	-	-	-	-	9,845	33,741	46,592	52,490	60,108	59,321	39,294	322,100
1951	20,709	-	-	-	-	9,848	33,743	46,592	52,490	60,108	59,321	39,294	322,105
1952	20,709	-	-	-	-	9,848	33,091	38,883	40,050	41,208	39,796	26,019	249,605
1953	1,075	-	-	-	-	9,848	30,261	43,113	48,791	47,387	45,832	29,788	256,096
1954	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,723	60,077	39,032	303,578
1955	1,075	-	-	-	-	9,848	33,941	47,006	52,543	60,270	58,628	37,098	300,409
1956	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1957	20,709	-	-	-	-	9,848	33,742	46,592	52,356	57,901	56,001	35,965	313,114
1958	1,075	-	-	-	-	9,845	27,896	39,774	49,757	49,856	48,680	31,821	258,704
1959	1,075	-	-	-	-	9,848	33,741	46,563	52,490	60,455	59,779	39,310	303,262
1960	1,075	-	-	-	-	9,848	33,612	46,653	50,938	60,978	60,357	38,775	302,236
1961	1,075	-	-	-	-	9,848	33,728	46,146	52,541	60,108	59,321	39,294	302,061
1962	24,554	-	-	-	-	9,848	33,542	40,123	49,757	49,896	48,680	31,821	288,223
1963	1,075	-	-	-	-	9,845	31,695	25,978	31,289	32,260	31,906	20,838	184,886
1964	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,362	59,641	39,397	303,146
1965	1,075	-	-	-	-	9,848	33,632	46,758	52,676	59,801	58,284	36,981	299,055
1966	1,075	-	-	-	-	9,848	33,241	43,109	49,757	49,896	48,680	31,821	267,428
1967	1,075	-	-	-	-	9,848	30,109	42,989	48,267	46,157	44,987	29,432	252,863
1968	1,075	-	-	-	-	9,848	31,875	43,926	50,031	48,980	47,711	31,154	264,600
1969	1,075	-	-	-	-	9,848	33,741	46,699	50,967	49,805	48,416	31,750	272,301
1970	1,075	-	-	-	-	9,848	31,635	41,746	47,552	45,138	43,865	28,783	249,642
1971	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1972	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1973	20,709	-	-	-	-	9,848	26,393	38,346	47,652	47,205	46,308	30,356	266,817
1974	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1975	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1976	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1977	20,709	-	-	-	-	9,848	12,663	11,231	14,210	14,470	15,627	9,759	108,516
1978	1,075	-	-	-	-	9,848	33,572	40,642	49,757	49,896	48,680	31,821	265,292
1979	1,075	-	-	-	-	9,848	20,908	27,603	31,678	32,853	32,349	21,245	177,559
1980	1,075	-	-	-	-	9,848	33,698	46,659	49,686	49,896	48,680	31,821	271,364
1981	1,075	-	-	-	-	9,848	33,849	40,536	48,347	47,796	46,709	30,666	258,826
1982	1,075	-	-	-	-	9,848	32,630	46,763	52,609	61,088	60,166	37,820	301,999
1983	1,075	-	-	-	-	9,848	32,527	46,730	53,369	55,970	54,245	35,054	288,817
1984	1,075	-	-	-	-	9,848	32,433	47,062	52,600	58,526	56,831	36,400	294,775
1985	1,075	-	-	-	-	9,848	22,758	31,022	35,386	36,838	35,927	23,652	196,507
1986	1,075	-	-	-	-	9,848	27,942	30,865	35,935	37,220	36,272	23,779	202,936
1987	1,075	-	-	-	-	9,848	33,764	42,298	38,714	39,779	39,107	25,705	230,289
1988	1,075	-	-	-	-	9,846	33,732	29,022	33,416	34,343	33,655	21,971	197,061
1989	1,075	-	-	-	-	9,848	33,779	46,708	50,396	49,896	48,680	31,821	272,204
1990	1,075	-	-	-	-	9,848	33,741	46,741	50,674	49,896	48,680	31,821	272,477
1991	1,075	-	-	-	-	9,848	33,759	46,084	51,958	61,308	60,444	38,424	302,900
1992	1,075	-	-	-	-	9,848	17,262	23,336	29,129	30,502	30,540	19,909	161,601
1993	1,075	-	-	-	-	9,848	24,749	27,307	29,138	30,097	29,632	19,052	170,898
1994	1,075	-	-	-	-	9,848	20,057	6,891	8,371	8,377	9,629	6,050	70,298
1995	1,072	-	-	-	-	9,848	28,561	35,879	38,566	39,481	38,169	24,952	216,528
1996	1,075	-	-	-	-	9,848	33,841	44,342	52,853	51,947	50,151	32,693	276,750
1997	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1998	20,709	-	-	-	-	9,848	31,524	43,180	50,911	50,356	48,806	31,846	287,181
1999	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,404	59,692	39,357	303,200
2000	1,075	-	-	-	-	9,848	33,760	46,439	53,270	56,397	54,599	35,220	290,608
2001	1,075	-	-	-	-	9,848	22,190	26,232	29,601	30,600	30,231	19,755	169,533
2002	1,075	-	-	-	-	9,848	33,760	45,947	52,490	60,489	60,406	38,145	302,161
2003	1,075	-	-	-	-	9,848	27,923	39,776	49,281	49,084	48,330	31,780	257,096
2004	1,075	-	-	-	-	9,848	31,308	35,225	43,160	43,590	42,562	27,782	234,551
2005	1,075	-	-	-	-	9,848	24,987	20,676	24,963	25,630	25,673	16,418	149,270
2006	1,075	-	-	-	-	9,848	33,804	46,684	51,022	51,202	48,680	31,821	274,136
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	4,031	-	-	-	-	9,848	30,414	39,307	44,740	47,527	46,633	30,399	252,898

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 CC Adverse (EPOR)

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	23,894	-	-	-	-	6,904	45,177	72,536	69,934	77,004	73,184	50,015	418,648
1927	23,862	-	-	-	-	6,904	53,299	91,742	86,562	92,506	85,548	53,755	494,177
1928	23,894	-	-	-	-	6,904	54,450	108,228	95,226	96,776	89,539	55,213	530,231
1929	23,894	-	-	-	-	6,904	46,057	75,107	71,655	78,825	74,536	50,459	427,438
1930	23,894	-	-	-	-	6,904	39,100	49,355	47,222	49,498	49,481	42,337	307,791
1931	23,894	-	-	-	-	6,904	45,851	71,435	65,822	71,158	68,133	48,363	401,562
1932	23,894	-	-	-	-	6,904	56,318	109,303	117,595	108,290	99,079	58,201	579,583
1933	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1934	27,579	-	-	-	-	6,904	56,318	103,295	89,191	96,796	89,576	55,308	524,965
1935	23,894	-	-	-	-	6,904	51,373	102,841	95,971	104,441	96,148	57,207	538,780
1936	23,894	-	-	-	-	6,904	49,888	92,416	89,080	97,312	90,146	55,333	504,973
1937	23,894	-	-	-	-	6,904	49,157	90,012	85,563	92,386	85,747	54,003	487,665
1938	23,894	-	-	-	-	6,904	56,318	108,799	108,302	105,020	96,696	57,499	563,433
1939	23,894	-	-	-	-	6,904	53,332	91,241	89,078	97,057	90,063	54,070	505,639
1940	23,731	-	-	-	-	6,904	54,767	87,915	81,332	90,546	85,594	54,040	484,827
1941	23,894	-	-	-	-	6,904	37,436	44,420	43,836	46,074	46,520	41,459	290,543
1942	23,894	-	-	-	-	6,904	48,417	72,701	69,223	75,499	71,758	49,576	417,972
1943	23,894	-	-	-	-	6,904	56,318	97,380	99,198	104,101	95,700	56,987	540,483
1944	23,894	-	-	-	-	6,904	43,120	64,490	62,585	67,630	65,043	47,199	380,865
1945	23,894	-	-	-	-	6,904	47,033	107,031	90,491	94,568	87,261	54,358	511,539
1946	23,894	-	-	-	-	6,904	55,741	110,491	109,980	104,493	95,646	56,791	563,940
1947	23,894	-	-	-	-	6,904	55,683	110,491	93,159	95,887	88,658	54,944	529,620
1948	23,894	-	-	-	-	6,904	52,969	108,628	106,450	114,862	105,029	59,985	578,721
1949	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1950	18,939	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	635,757
1951	27,579	-	-	-	-	6,904	56,307	110,491	119,660	123,857	118,505	81,083	644,387
1952	25,793	-	-	-	-	6,904	53,599	91,792	79,488	87,542	81,212	52,517	478,847
1953	23,894	-	-	-	-	6,904	50,492	96,813	88,119	94,491	87,284	54,352	502,349
1954	23,894	-	-	-	-	6,904	56,318	110,491	114,043	117,082	107,090	60,628	596,450
1955	23,894	-	-	-	-	6,904	53,671	107,502	102,305	109,480	100,264	58,461	562,481
1956	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1957	27,579	-	-	-	-	6,904	56,313	110,491	105,798	106,422	97,507	57,644	568,659
1958	23,894	-	-	-	-	6,904	47,304	92,416	89,080	97,267	90,146	51,193	498,203
1959	23,570	-	-	-	-	6,904	56,318	107,857	109,428	119,162	109,070	61,334	593,643
1960	23,894	-	-	-	-	6,904	54,062	109,681	101,103	115,159	105,240	60,121	576,165
1961	23,894	-	-	-	-	6,904	53,209	104,210	119,023	123,857	118,505	77,557	627,159
1962	24,514	-	-	-	-	6,904	54,693	91,856	89,080	97,312	90,146	55,333	509,838
1963	23,894	-	-	-	-	6,904	47,457	74,663	70,814	77,477	73,279	49,917	424,405
1964	23,171	-	-	-	-	6,904	56,318	110,491	117,407	119,948	110,106	61,633	605,977
1965	23,894	-	-	-	-	6,904	52,631	106,473	101,505	108,742	99,856	58,370	558,373
1966	23,894	-	-	-	-	6,904	51,726	96,669	89,080	97,312	90,146	55,333	511,063
1967	23,894	-	-	-	-	6,904	50,636	96,582	87,598	93,107	86,429	54,177	499,327
1968	23,894	-	-	-	-	6,904	49,556	97,882	89,349	96,282	89,168	55,014	508,049
1969	23,894	-	-	-	-	6,904	56,318	109,044	99,599	97,210	89,872	55,308	538,148
1970	23,894	-	-	-	-	6,904	47,250	94,971	86,890	91,961	85,299	53,861	491,030
1971	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1972	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1973	27,579	-	-	-	-	6,904	49,320	90,574	86,996	94,285	87,759	52,311	495,728
1974	23,851	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,668
1975	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1976	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1977	27,579	-	-	-	-	6,904	41,036	55,659	53,922	57,467	56,916	44,615	344,099
1978	23,894	-	-	-	-	6,904	50,516	94,010	89,080	97,312	90,146	55,333	507,195
1979	23,894	-	-	-	-	6,904	47,179	76,772	71,198	78,145	73,721	50,195	428,010
1980	23,894	-	-	-	-	6,904	54,506	109,520	89,529	97,312	90,146	55,333	527,145
1981	23,894	-	-	-	-	6,904	55,156	93,962	87,682	94,950	88,157	54,776	505,482
1982	23,894	-	-	-	-	6,904	51,935	105,042	101,065	111,360	102,231	59,100	561,531
1983	23,894	-	-	-	-	6,904	50,969	104,456	95,898	104,143	95,742	57,057	539,062
1984	23,894	-	-	-	-	6,904	48,385	106,302	101,807	107,180	98,339	57,946	550,758
1985	23,894	-	-	-	-	6,904	48,130	81,183	74,871	82,627	77,316	51,365	446,289
1986	23,894	-	-	-	-	6,904	46,801	80,950	75,410	83,058	77,666	51,429	446,112
1987	23,894	-	-	-	-	6,904	52,367	101,123	78,157	85,934	80,515	52,363	481,257
1988	23,894	-	-	-	-	6,904	54,654	77,627	72,917	79,821	75,037	50,551	441,404
1989	23,894	-	-	-	-	6,904	55,884	109,024	94,072	97,312	90,146	55,333	532,569
1990	23,894	-	-	-	-	6,904	56,318	108,592	99,969	97,312	90,146	55,333	538,468
1991	23,894	-	-	-	-	6,904	56,210	106,864	103,254	112,752	103,717	59,694	573,289
1992	23,894	-	-	-	-	6,904	45,026	71,247	68,678	75,499	71,906	49,547	412,701
1993	23,894	-	-	-	-	6,904	44,792	76,416	68,687	75,044	70,999	49,133	415,870
1994	23,894	-	-	-	-	6,904	38,879	50,073	48,147	50,618	50,880	42,817	312,213
1995	23,777	-	-	-	-	6,904	47,591	87,455	78,019	85,599	79,577	51,997	460,919
1996	23,894	-	-	-	-	6,904	55,703	97,983	93,029	99,619	91,627	55,758	524,517
1997	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1998	27,579	-	-	-	-	6,904	50,862	97,848	90,237	97,829	90,274	55,348	516,881
1999	23,894	-	-	-	-	6,904	56,318	110,491	117,347	119,572	109,716	61,515	605,758
2000	23,894	-	-	-	-	6,904	56,069	104,268	96,518	104,627	96,101	57,166	545,546
2001	23,894	-	-	-	-	6,904	45,820	75,007	69,145	75,610	71,595	49,470	417,447
2002	23,731	-	-	-	-	6,904	56,205	106,010	119,660	111,338	102,739	59,418	586,004
2003	23,894	-	-	-	-	6,904	50,119	92,416	88,608	96,398	89,788	52,564	500,691
2004	23,597	-	-	-	-	6,904	51,167	86,576	82,557	90,220	83,992	53,374	478,387
2005	23,894	-	-	-	-	6,904	42,723	67,829	64,557	70,019	67,020	47,854	390,799
2006	23,894	-	-	-	-	6,904	55,946	109,255	104,619	97,756	90,146	55,333	543,853
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,251	-	-	-	-	6,904	51,754	95,428	92,457	97,576	91,201	57,973	517,545

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 CC Adverse (EPOR)

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26,528	-	-	-	-	11,217	42,759	53,112	52,340	54,597	54,390	47,966	342,909
1927	18,489	-	-	-	-	11,217	43,902	60,117	65,143	65,975	65,029	52,863	382,734
1928	26,528	-	-	-	-	11,217	44,659	63,884	66,636	67,581	66,682	53,688	400,874
1929	26,528	-	-	-	-	11,217	42,892	54,033	53,104	55,211	54,935	48,612	346,530
1930	25,819	-	-	-	-	11,217	42,010	47,096	45,430	46,906	47,349	45,154	310,980
1931	25,535	-	-	-	-	11,217	43,550	54,926	53,105	54,928	54,721	48,478	346,460
1932	21,044	-	-	-	-	11,217	45,989	64,329	72,055	71,622	70,630	55,377	412,261
1933	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1934	34,287	-	-	-	-	11,217	45,989	63,106	66,158	67,588	66,697	53,743	408,785
1935	26,528	-	-	-	-	11,217	44,022	63,127	68,726	70,465	69,416	54,815	408,316
1936	26,528	-	-	-	-	11,217	44,054	60,579	61,019	62,409	61,833	49,701	377,339
1937	19,501	-	-	-	-	11,217	43,310	59,677	59,479	60,752	60,144	50,860	364,941
1938	21,140	-	-	-	-	11,217	45,989	64,143	69,069	70,682	69,645	54,980	406,864
1939	26,524	-	-	-	-	11,217	44,554	59,018	59,993	61,393	60,895	39,686	363,281
1940	16,717	-	-	-	-	11,217	44,997	55,179	56,132	58,252	58,346	50,131	350,971
1941	25,584	-	-	-	-	11,217	42,012	46,673	45,167	46,673	46,673	45,014	309,013
1942	24,575	-	-	-	-	11,217	41,969	53,796	53,022	55,037	54,747	48,528	342,892
1943	26,528	-	-	-	-	11,217	45,989	60,251	69,542	70,337	69,230	54,691	407,785
1944	26,528	-	-	-	-	11,217	42,422	51,297	50,471	52,360	52,220	47,292	333,807
1945	26,318	-	-	-	-	11,217	39,546	63,371	60,277	60,649	59,884	50,677	371,938
1946	25,587	-	-	-	-	11,217	45,511	64,825	68,923	70,484	69,208	54,522	410,277
1947	24,368	-	-	-	-	11,217	45,664	64,825	66,168	67,246	66,317	53,536	399,342
1948	26,338	-	-	-	-	11,217	44,486	63,472	70,459	74,330	73,092	56,385	419,778
1949	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	63,770	435,719
1950	25,223	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	435,433
1951	36,310	-	-	-	-	11,217	45,976	63,966	71,459	76,952	77,292	63,713	446,885
1952	25,735	-	-	-	-	11,217	43,677	61,759	62,278	64,107	63,235	52,164	384,172
1953	26,380	-	-	-	-	11,217	43,784	62,919	65,704	66,721	65,748	53,200	395,672
1954	26,528	-	-	-	-	11,217	45,029	63,472	70,833	74,900	73,944	56,749	422,671
1955	26,528	-	-	-	-	11,217	44,890	63,472	70,103	72,360	71,120	55,524	415,213
1956	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1957	32,181	-	-	-	-	11,217	45,983	64,825	69,469	71,209	69,979	55,062	419,926
1958	26,528	-	-	-	-	11,217	42,163	60,279	60,466	61,913	61,456	31,229	355,250
1959	14,357	-	-	-	-	11,217	45,989	63,157	70,810	75,375	74,612	57,148	412,666
1960	26,528	-	-	-	-	11,217	44,878	64,391	65,347	74,405	73,180	56,462	416,408
1961	26,528	-	-	-	-	11,217	44,579	62,045	72,052	76,952	77,292	56,141	426,807
1962	28,636	-	-	-	-	11,217	44,582	60,585	62,325	63,669	62,920	52,055	385,989
1963	24,959	-	-	-	-	11,217	41,394	53,563	52,357	54,422	54,082	35,192	327,188
1964	13,284	-	-	-	-	11,217	45,029	63,472	71,209	75,305	74,860	57,317	411,691
1965	26,528	-	-	-	-	11,217	43,324	63,114	70,090	72,082	70,951	55,472	412,777
1966	26,528	-	-	-	-	11,217	43,770	60,031	62,395	63,606	62,890	52,062	382,499
1967	19,120	-	-	-	-	11,217	43,998	62,895	65,484	66,201	65,394	53,102	387,409
1968	26,528	-	-	-	-	11,217	43,916	62,957	66,226	67,395	66,528	53,575	398,343
1969	25,917	-	-	-	-	11,217	45,989	64,320	66,167	67,744	66,820	53,741	401,914
1970	26,374	-	-	-	-	11,217	42,643	62,770	65,183	65,770	64,927	52,924	391,807
1971	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1972	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1973	36,441	-	-	-	-	11,217	43,645	59,443	59,544	60,919	60,450	32,644	364,302
1974	15,099	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	425,309
1975	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1976	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1977	35,865	-	-	-	-	11,217	42,215	46,957	45,547	47,261	47,641	37,052	313,754
1978	13,157	-	-	-	-	11,217	42,913	62,254	64,579	65,667	64,937	52,899	377,623
1979	26,528	-	-	-	-	11,217	43,276	54,836	53,114	55,210	54,819	48,558	347,558
1980	16,346	-	-	-	-	11,217	44,634	64,459	59,294	60,974	60,316	50,933	368,173
1981	26,528	-	-	-	-	11,217	45,462	59,199	59,064	60,340	59,820	50,727	372,357
1982	24,231	-	-	-	-	11,217	44,385	63,395	69,987	73,067	71,934	55,885	414,102
1983	26,528	-	-	-	-	11,217	44,237	63,346	68,710	70,352	69,248	54,730	408,369
1984	26,528	-	-	-	-	11,217	41,089	63,471	70,012	71,495	70,324	55,233	409,368
1985	26,528	-	-	-	-	11,217	43,533	56,205	54,683	56,547	56,142	46,078	350,934
1986	14,580	-	-	-	-	11,217	43,464	56,160	54,849	56,712	56,266	49,175	342,422
1987	20,653	-	-	-	-	11,217	43,717	61,108	54,340	56,433	55,987	49,074	352,529
1988	23,148	-	-	-	-	11,217	45,064	55,500	54,975	57,038	56,480	49,241	352,662
1989	25,704	-	-	-	-	11,217	45,641	64,279	61,512	62,183	61,454	51,403	383,393
1990	26,027	-	-	-	-	11,217	45,989	64,174	66,110	67,611	66,623	53,609	401,360
1991	26,304	-	-	-	-	11,217	45,865	63,110	68,888	73,591	72,550	56,221	417,746
1992	26,528	-	-	-	-	11,217	42,752	52,669	51,838	54,066	53,888	47,667	340,624
1993	9,083	-	-	-	-	11,217	41,994	56,008	53,655	55,704	55,265	48,636	331,562
1994	24,426	-	-	-	-	11,217	40,885	48,070	46,619	48,105	48,674	45,758	313,753
1995	22,749	-	-	-	-	11,217	42,780	59,340	57,806	59,479	58,817	50,256	362,444
1996	25,888	-	-	-	-	11,217	45,560	61,866	67,641	68,650	67,545	53,996	402,363
1997	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1998	36,441	-	-	-	-	11,217	43,670	62,889	66,604	67,977	66,985	53,764	409,548
1999	26,451	-	-	-	-	11,217	45,029	63,472	71,205	75,008	74,770	57,251	424,403
2000	26,528	-	-	-	-	11,217	45,914	62,919	68,885	70,534	69,396	54,792	410,186
2001	26,448	-	-	-	-	11,217	42,650	53,951	51,948	54,020	53,674	44,437	338,344
2002	9,865	-	-	-	-	11,217	45,871	62,751	72,982	72,562	72,145	56,065	403,459
2003	25,938	-	-	-	-	11,217	44,423	59,927	60,127	61,609	61,191	38,025	362,456
2004	10,708	-	-	-	-	11,217	44,817	57,628	57,592	59,081	58,595	50,150	349,790
2005	19,319	-	-	-	-	11,217	41,609	52,181	50,941	52,863	52,684	47,509	328,323
2006	21,100	-	-	-	-	11,217	45,740	64,318	65,894	67,081	66,520	53,517	395,388
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,961	-	-	-	-	11,217	44,160	60,314	63,159	65,534	65,029	52,614	386,988

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 CC Adverse (EPOR)

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	869	-	-	-	-	458	1,882	14,179	16,362	16,944	16,943	15,353	82,989
1927	744	-	-	-	-	458	4,907	13,488	17,395	18,447	18,447	16,500	90,386
1928	869	-	-	-	-	458	5,006	13,955	17,169	18,447	18,447	16,544	90,894
1929	869	-	-	-	-	458	2,117	14,209	16,503	17,065	17,054	15,422	83,697
1930	869	-	-	-	-	458	1,626	13,837	14,933	15,418	15,509	14,328	76,977
1931	869	-	-	-	-	458	3,538	14,218	16,502	17,009	17,011	15,384	84,988
1932	869	-	-	-	-	458	5,193	14,079	17,595	18,264	18,447	16,572	91,476
1933	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1934	3,562	-	-	-	-	458	5,193	13,901	17,395	18,447	18,447	16,547	93,948
1935	869	-	-	-	-	458	4,270	14,249	17,395	18,447	18,447	16,565	90,699
1936	869	-	-	-	-	458	3,532	14,249	17,395	18,447	18,420	16,147	89,516
1937	776	-	-	-	-	458	3,144	14,249	17,389	18,165	18,115	16,046	88,341
1938	869	-	-	-	-	458	5,193	14,046	16,852	18,447	18,447	16,567	90,877
1939	869	-	-	-	-	458	4,960	14,021	17,395	18,291	18,268	14,899	89,161
1940	720	-	-	-	-	458	5,045	12,987	17,029	17,669	17,750	15,848	87,505
1941	869	-	-	-	-	458	1,730	13,818	14,876	15,372	15,372	14,280	76,775
1942	869	-	-	-	-	458	4,519	14,147	16,487	17,031	17,016	15,398	85,924
1943	869	-	-	-	-	458	5,193	13,325	17,395	18,447	18,447	16,564	90,696
1944	869	-	-	-	-	458	1,590	14,105	15,990	16,500	16,501	15,037	81,049
1945	869	-	-	-	-	458	4,418	13,816	16,808	18,144	18,062	15,998	88,573
1946	869	-	-	-	-	458	5,135	14,249	16,576	18,447	18,447	16,562	90,741
1947	869	-	-	-	-	458	5,138	14,249	17,177	18,447	18,447	16,541	91,324
1948	869	-	-	-	-	458	4,573	14,249	17,395	18,447	18,447	16,584	91,021
1949	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1950	2,868	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	99,756
1951	3,968	-	-	-	-	458	5,192	14,249	17,887	20,637	21,193	17,272	100,856
1952	3,872	-	-	-	-	458	4,927	14,140	17,395	18,447	18,446	16,366	94,051
1953	869	-	-	-	-	458	4,080	14,249	17,395	18,447	18,447	16,534	90,477
1954	869	-	-	-	-	458	5,193	14,249	17,435	18,447	18,447	16,589	91,685
1955	869	-	-	-	-	458	4,654	14,249	17,395	18,447	18,447	16,574	91,092
1956	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1957	3,329	-	-	-	-	458	5,192	14,249	16,985	18,447	18,447	16,568	93,674
1958	869	-	-	-	-	458	3,420	14,249	17,395	18,394	18,382	13,582	86,749
1959	710	-	-	-	-	458	5,193	14,051	17,395	18,447	18,447	16,594	91,294
1960	869	-	-	-	-	458	5,027	14,151	15,488	18,447	18,447	16,585	89,471
1961	869	-	-	-	-	458	4,896	13,485	17,791	20,637	21,193	16,596	95,925
1962	3,423	-	-	-	-	458	5,089	14,031	17,395	18,447	18,443	16,340	93,627
1963	869	-	-	-	-	458	4,490	14,190	16,364	16,909	16,881	13,313	83,475
1964	772	-	-	-	-	458	5,193	14,249	17,709	18,447	18,447	16,596	91,869
1965	869	-	-	-	-	458	4,872	14,051	17,395	18,447	18,447	16,573	91,111
1966	869	-	-	-	-	458	4,751	13,449	17,395	18,447	18,444	16,342	90,155
1967	869	-	-	-	-	458	4,067	14,249	17,395	18,447	18,447	16,532	90,462
1968	869	-	-	-	-	458	4,306	14,249	17,395	18,447	18,447	16,542	90,711
1969	869	-	-	-	-	458	5,193	14,059	16,377	18,447	18,447	16,545	90,393
1970	869	-	-	-	-	458	4,047	14,249	17,395	18,447	18,447	16,510	90,420
1971	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1972	3,843	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,731
1973	3,968	-	-	-	-	458	2,980	14,249	17,390	18,197	18,177	14,206	89,626
1974	758	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,646
1975	3,963	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,851
1976	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1977	3,937	-	-	-	-	458	1,029	13,838	14,957	15,489	15,569	13,301	78,579
1978	765	-	-	-	-	458	4,647	14,097	17,395	18,447	18,447	16,506	90,762
1979	869	-	-	-	-	458	2,280	14,215	16,504	17,065	17,031	15,407	83,828
1980	869	-	-	-	-	458	5,005	14,110	16,634	18,208	18,150	16,067	89,501
1981	869	-	-	-	-	458	5,112	14,011	17,375	18,083	18,049	16,010	89,967
1982	869	-	-	-	-	458	4,398	14,249	17,395	18,447	18,447	16,578	90,840
1983	869	-	-	-	-	458	4,380	14,249	17,395	18,447	18,447	16,564	90,808
1984	869	-	-	-	-	458	4,409	14,249	17,395	18,447	18,447	16,570	90,843
1985	869	-	-	-	-	458	2,539	14,242	16,800	17,330	17,300	15,136	84,674
1986	698	-	-	-	-	458	3,496	14,248	16,815	17,363	17,325	15,582	85,986
1987	869	-	-	-	-	458	4,839	14,064	16,730	17,308	17,269	15,553	87,089
1988	869	-	-	-	-	458	5,055	14,113	16,834	17,428	17,369	15,601	87,726
1989	869	-	-	-	-	458	5,152	14,041	15,658	18,440	18,382	16,189	89,188
1990	869	-	-	-	-	458	5,193	14,007	16,337	18,447	18,447	16,542	90,299
1991	869	-	-	-	-	458	5,187	13,811	16,890	18,447	18,447	16,583	90,690
1992	869	-	-	-	-	458	1,765	14,160	16,266	16,838	16,841	15,237	82,434
1993	777	-	-	-	-	458	2,954	14,233	16,604	17,163	17,121	15,429	84,739
1994	869	-	-	-	-	458	2,648	13,905	15,187	15,656	15,779	14,537	79,038
1995	869	-	-	-	-	458	3,467	14,249	17,249	17,912	17,844	15,881	87,929
1996	869	-	-	-	-	458	5,155	13,836	17,395	18,447	18,447	16,552	91,158
1997	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1998	3,968	-	-	-	-	458	4,220	14,249	17,395	18,447	18,447	16,547	93,729
1999	869	-	-	-	-	458	5,193	14,249	17,709	18,447	18,447	16,595	91,965
2000	869	-	-	-	-	458	5,172	14,191	17,395	18,447	18,447	16,565	91,543
2001	869	-	-	-	-	458	2,378	14,189	16,288	16,829	16,797	14,542	82,350
2002	758	-	-	-	-	458	5,186	13,699	17,887	18,228	18,447	16,581	91,244
2003	869	-	-	-	-	458	3,424	14,249	17,395	18,334	18,328	14,548	87,605
2004	715	-	-	-	-	458	4,272	14,249	17,209	17,833	17,799	15,854	88,388
2005	869	-	-	-	-	458	3,109	14,128	16,087	16,600	16,595	15,102	82,948
2006	869	-	-	-	-	458	5,172	14,101	15,676	17,900	18,447	16,540	89,162
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,275	-	-	-	-	458	4,314	14,095	17,043	18,304	18,393	16,097	89,979

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP3 CC Adverse (EPOR)

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	5,536	-	-	-	-	20	9,967	13,395	13,121	12,450	14,194	12,849	81,532
1927	5,536	-	-	-	-	20	11,174	13,830	14,430	13,127	14,194	12,849	85,159
1928	5,536	-	-	-	-	20	11,409	15,223	14,673	14,065	14,735	13,329	88,990
1929	5,536	-	-	-	-	20	10,502	13,571	14,230	13,127	14,194	12,849	84,028
1930	5,536	-	-	-	-	20	8,312	12,454	11,508	10,903	11,990	11,798	72,522
1931	5,536	-	-	-	-	20	10,698	13,399	13,121	11,427	13,468	12,611	80,280
1932	5,536	-	-	-	-	20	11,828	15,386	15,979	14,237	14,735	13,329	91,050
1933	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1934	7,393	-	-	-	-	20	11,828	14,966	14,527	14,065	14,735	13,329	90,862
1935	5,536	-	-	-	-	20	10,642	13,791	14,527	14,065	14,735	13,329	86,646
1936	5,536	-	-	-	-	20	10,781	13,791	14,527	14,065	14,735	13,329	86,784
1937	5,536	-	-	-	-	20	10,583	13,783	14,315	13,127	14,194	12,849	84,407
1938	5,536	-	-	-	-	20	11,828	15,310	14,955	14,065	14,735	13,329	89,778
1939	5,536	-	-	-	-	20	11,243	13,741	14,527	14,065	14,735	13,329	87,196
1940	5,536	-	-	-	-	20	11,488	13,494	14,230	13,127	14,194	12,849	84,938
1941	5,536	-	-	-	-	20	8,526	12,454	11,508	10,903	11,990	11,798	72,736
1942	5,536	-	-	-	-	20	10,352	13,359	13,121	11,427	13,468	12,611	79,894
1943	5,536	-	-	-	-	20	11,828	13,565	14,527	14,065	14,735	13,329	87,605
1944	5,536	-	-	-	-	20	8,279	12,833	12,155	11,120	12,579	12,125	74,647
1945	5,536	-	-	-	-	20	9,807	15,062	14,219	14,065	14,735	13,307	86,751
1946	5,536	-	-	-	-	20	11,684	15,543	14,977	14,065	14,735	13,329	89,889
1947	5,536	-	-	-	-	20	11,696	15,543	14,634	14,065	14,735	13,329	89,558
1948	5,536	-	-	-	-	20	11,167	14,763	15,134	14,065	14,735	13,329	88,750
1949	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,825	15,543	16,253	17,629	17,780	15,757	102,200
1952	7,393	-	-	-	-	20	11,128	14,100	14,230	13,127	14,194	12,849	87,040
1953	5,536	-	-	-	-	20	10,620	13,791	14,527	14,065	14,735	13,329	86,624
1954	5,536	-	-	-	-	20	11,828	15,543	15,949	17,070	17,346	15,376	98,667
1955	5,536	-	-	-	-	20	11,401	14,674	14,527	14,065	14,735	13,329	88,288
1956	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1957	7,393	-	-	-	-	20	11,827	15,543	14,842	14,065	14,735	13,329	91,754
1958	5,536	-	-	-	-	20	10,051	13,791	14,527	14,065	14,735	13,329	86,055
1959	5,536	-	-	-	-	20	11,828	14,967	15,644	17,070	17,346	15,376	97,786
1960	5,536	-	-	-	-	20	11,435	15,430	13,903	14,065	14,735	13,329	88,454
1961	5,536	-	-	-	-	20	11,324	14,687	16,169	17,629	17,780	15,757	98,901
1962	7,393	-	-	-	-	20	11,391	13,851	14,527	14,065	14,735	13,329	89,311
1963	5,536	-	-	-	-	20	10,371	13,545	13,121	12,284	14,194	12,849	81,919
1964	5,536	-	-	-	-	20	11,828	15,543	16,134	17,070	17,346	15,376	98,852
1965	5,536	-	-	-	-	20	10,919	14,916	14,593	14,065	14,735	13,329	88,113
1966	5,536	-	-	-	-	20	11,094	14,184	14,527	14,065	14,735	13,329	87,491
1967	5,536	-	-	-	-	20	10,695	13,791	14,527	13,127	14,194	12,849	84,739
1968	5,536	-	-	-	-	20	10,800	13,791	14,527	14,065	14,735	13,329	86,803
1969	5,536	-	-	-	-	20	11,828	15,338	14,348	14,065	14,735	13,329	89,199
1970	5,536	-	-	-	-	20	10,228	13,791	14,444	13,127	14,194	12,849	84,188
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,733	13,791	14,527	14,065	14,735	13,329	88,594
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	7,668	12,454	11,508	10,903	11,990	11,798	73,734
1978	5,536	-	-	-	-	20	10,682	14,195	14,527	14,065	14,735	13,329	87,090
1979	5,536	-	-	-	-	20	10,560	13,553	13,121	12,605	14,194	12,849	82,438
1980	5,536	-	-	-	-	20	11,375	15,414	14,082	14,065	14,735	13,329	88,557
1981	5,536	-	-	-	-	20	11,619	14,234	14,527	14,065	14,735	13,329	88,065
1982	5,536	-	-	-	-	20	10,679	13,791	14,527	14,065	14,735	13,329	86,683
1983	5,536	-	-	-	-	20	10,634	13,791	14,527	14,065	14,735	13,329	86,638
1984	5,536	-	-	-	-	20	10,247	13,982	14,527	14,065	14,735	13,329	86,441
1985	5,536	-	-	-	-	20	10,573	13,571	14,230	13,127	14,194	12,849	84,100
1986	5,536	-	-	-	-	20	10,654	13,571	14,230	13,127	14,194	12,849	84,180
1987	5,536	-	-	-	-	20	11,038	15,043	14,230	13,127	14,194	12,849	86,036
1988	5,536	-	-	-	-	20	11,485	13,584	14,230	13,127	14,194	12,849	85,025
1989	5,536	-	-	-	-	20	11,714	15,346	13,653	14,065	14,735	13,329	88,398
1990	5,536	-	-	-	-	20	11,828	15,293	14,365	14,065	14,735	13,329	89,171
1991	5,536	-	-	-	-	20	11,799	15,032	14,364	14,065	14,735	13,329	88,881
1992	5,536	-	-	-	-	20	9,856	13,395	13,121	11,427	13,468	12,611	79,433
1993	5,536	-	-	-	-	20	10,047	13,535	13,121	11,427	13,468	12,611	79,765
1994	5,536	-	-	-	-	20	9,223	12,454	11,508	10,903	11,990	11,798	73,433
1995	5,536	-	-	-	-	20	10,181	13,635	14,230	13,127	14,194	12,849	83,771
1996	5,536	-	-	-	-	20	11,655	14,047	14,527	14,065	14,735	13,329	87,914
1997	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1998	7,393	-	-	-	-	20	10,529	13,791	14,527	14,065	14,735	13,329	88,389
1999	5,536	-	-	-	-	20	11,828	15,543	16,134	17,070	17,346	15,376	98,852
2000	5,536	-	-	-	-	20	11,791	13,764	14,527	14,065	14,735	13,329	87,767
2001	5,536	-	-	-	-	20	10,409	13,543	13,121	11,427	13,468	12,611	80,135
2002	5,536	-	-	-	-	20	11,801	14,939	16,253	14,248	14,735	13,329	90,863
2003	5,536	-	-	-	-	20	10,810	13,791	14,527	14,065	14,735	13,329	86,814
2004	5,536	-	-	-	-	20	11,279	13,571	14,230	13,127	14,194	12,849	84,806
2005	5,536	-	-	-	-	20	10,108	13,395	12,930	11,427	13,468	12,611	79,495
2006	5,536	-	-	-	-	20	11,729	15,378	14,256	13,958	14,735	13,329	88,940
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,811	-	-	-	-	20	10,998	14,357	14,506	14,146	14,952	13,551	88,342

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	29,950	33,706	73,281
1926	79,987	84,652	80,343	73,584	48,435	18,235	9,626	8,462	6,165	14,487	22,776	33,666
1927	52,325	68,406	75,052	81,958	77,536	77,474	54,662	24,441	21,109	26,481	54,638	69,025
1928	79,942	78,038	99,691	90,272	81,524	69,445	48,079	17,108	11,574	16,493	21,507	24,463
1929	23,062	15,278	27,833	26,718	42,580	34,778	10,616	6,609	3,096	4,360	4,895	15,259
1930	16,877	37,484	51,218	64,703	67,128	54,642	32,291	11,406	7,677	13,809	16,713	18,559
1931	38,839	47,948	79,481	75,472	68,250	57,151	35,455	12,142	10,465	18,942	35,392	43,379
1932	53,196	57,846	93,991	113,012	107,360	85,307	62,092	34,527	30,608	32,998	95,298	103,230
1933	101,447	79,449	80,582	92,807	103,178	115,834	78,099	47,145	45,544	58,101	81,752	129,905
1934	121,981	134,073	152,860	157,084	151,985	115,303	67,049	28,910	23,884	41,400	58,806	82,267
1935	93,882	87,107	83,459	97,064	98,218	98,572	63,913	33,231	27,935	27,710	29,786	38,433
1936	72,587	65,266	68,656	84,271	79,654	68,747	36,824	10,956	8,839	7,263	6,783	33,927
1937	32,059	30,515	42,533	79,661	79,525	74,289	41,766	11,455	8,806	10,465	53,892	81,996
1938	79,740	80,246	81,335	92,116	83,280	78,657	59,690	31,312	25,362	27,877	35,637	63,865
1939	80,068	76,135	80,458	78,395	70,370	54,573	25,043	9,066	5,933	11,211	18,044	79,839
1940	80,362	86,135	88,348	80,129	61,466	27,415	10,329	6,991	3,281	8,547	13,450	41,808
1941	51,260	56,408	61,428	52,304	48,846	30,133	11,333	8,218	8,911	12,860	29,538	79,818
1942	81,528	78,687	79,473	75,073	54,428	53,509	33,774	11,625	8,164	7,365	33,735	52,909
1943	53,501	59,335	72,990	93,479	80,492	77,765	60,013	33,269	27,854	35,363	39,354	55,005
1944	62,329	64,974	66,488	73,128	79,825	51,814	15,631	7,985	6,372	6,769	13,354	17,803
1945	41,474	51,724	56,441	74,417	85,912	73,736	44,487	12,184	13,420	26,853	43,433	62,156
1946	80,059	81,193	84,624	83,358	95,896	79,238	63,438	35,531	31,087	35,421	47,611	97,185
1947	86,973	80,871	86,682	106,561	101,551	93,144	58,303	22,817	19,062	39,106	69,532	82,137
1948	78,494	77,468	78,315	83,178	117,841	147,007	100,442	61,221	57,770	60,249	77,849	78,380
1949	76,005	70,490	80,143	95,940	152,519	150,305	103,452	62,571	56,878	57,113	69,573	88,322
1950	76,402	73,545	73,827	79,470	117,966	158,154	141,698	104,322	80,087	85,442	96,267	111,784
1951	114,954	128,577	120,542	126,944	156,823	154,924	109,315	67,266	61,187	62,219	70,928	79,160
1952	76,632	75,932	79,767	87,446	86,534	73,659	49,364	16,976	11,439	8,170	8,709	10,603
1953	43,296	68,288	77,960	80,273	79,894	76,825	54,051	24,566	19,340	19,485	39,472	92,582
1954	88,708	95,105	80,162	92,973	109,182	110,806	74,593	43,910	39,685	37,949	50,692	58,208
1955	72,855	70,427	63,383	66,827	88,642	110,976	76,192	45,165	40,900	60,150	88,313	110,818
1956	117,901	112,246	98,157	105,832	140,073	157,770	116,334	74,469	68,705	74,067	79,434	114,794
1957	89,830	79,451	89,103	116,415	138,624	127,719	77,071	38,861	34,516	31,651	41,632	72,531
1958	83,434	97,874	79,996	94,050	82,196	69,201	39,390	10,814	7,199	15,765	41,506	85,920
1959	98,402	80,906	81,152	110,545	124,453	127,430	80,073	44,103	47,614	69,094	97,249	103,013
1960	82,563	98,387	104,667	122,263	137,079	134,873	84,381	46,145	42,713	47,319	79,980	79,767
1961	91,100	111,760	133,913	138,110	147,162	148,273	97,625	56,806	52,320	56,384	61,335	81,237
1962	81,819	79,892	80,288	80,173	64,616	54,355	30,684	10,874	8,603	13,020	34,068	54,255
1963	63,024	82,013	81,243	73,790	49,247	32,108	12,213	9,803	6,728	15,275	39,409	55,555
1964	75,617	80,028	80,613	80,021	88,861	107,231	74,461	46,525	43,312	48,265	60,090	79,465
1965	93,914	100,579	89,322	117,222	122,544	122,182	80,255	48,079	44,053	50,307	58,467	65,852
1966	73,065	75,162	82,419	88,394	96,471	75,581	44,562	11,577	8,304	16,085	24,745	81,825
1967	88,035	81,149	80,013	68,766	78,261	78,560	56,576	25,516	19,625	22,201	27,746	57,215
1968	79,944	100,107	103,735	106,583	90,682	73,116	47,420	16,178	12,640	19,492	37,933	58,464
1969	56,388	49,214	57,359	84,459	98,000	82,756	51,531	15,949	14,263	12,396	18,917	45,157
1970	70,745	81,628	80,254	75,321	72,380	71,609	49,272	17,152	13,689	15,069	18,324	17,146
1971	40,627	61,128	55,268	77,146	125,012	151,399	121,309	82,211	76,731	79,945	82,412	79,144
1972	79,438	80,920	108,206	110,212	144,327	157,770	124,848	84,580	79,741	74,897	84,293	118,796
1973	111,694	114,493	120,562	113,268	86,952	68,751	35,316	10,077	6,672	7,963	23,726	68,858
1974	91,351	80,178	81,918	84,925	101,375	126,076	96,703	60,525	54,821	47,202	51,586	81,290
1975	85,155	79,494	79,121	80,387	127,516	152,792	114,222	76,293	71,312	89,746	108,133	118,796
1976	118,796	122,985	112,640	112,582	143,245	145,908	108,588	73,005	68,349	62,441	62,772	66,968
1977	72,674	77,189	81,410	66,426	40,545	19,613	9,661	10,132	9,657	9,795	34,521	89,100
1978	79,998	80,355	82,814	80,402	67,894	55,355	31,533	10,976	13,756	12,340	23,137	35,540
1979	31,490	31,813	50,778	64,367	79,522	64,874	38,000	10,919	7,352	9,565	8,338	45,217
1980	45,074	53,519	72,273	87,892	79,194	70,608	42,059	11,853	10,176	8,333	23,213	69,829
1981	77,758	98,583	80,429	80,714	55,216	48,212	23,045	8,899	7,408	16,239	31,105	56,466
1982	74,548	97,174	85,675	81,601	84,469	98,021	69,018	37,858	34,050	38,748	52,738	76,296
1983	84,363	87,835	107,398	116,213	109,831	103,688	71,749	37,495	34,837	30,419	70,070	72,962
1984	89,279	80,083	85,022	81,734	81,683	79,910	59,391	29,600	25,454	24,321	34,100	34,160
1985	32,991	27,150	27,541	46,231	61,555	57,940	29,751	10,147	6,565	15,912	30,261	27,492
1986	43,655	53,685	81,400	79,768	79,095	61,558	32,963	10,128	8,447	9,947	46,970	53,169
1987	61,948	79,783	88,954	80,231	65,098	48,828	24,814	9,294	5,409	3,137	8,350	23,070
1988	28,183	42,329	63,911	75,289	77,826	66,938	42,777	15,615	12,087	20,522	40,984	51,084
1989	68,688	64,306	79,807	95,769	89,481	74,283	48,575	16,995	12,526	13,961	27,816	44,208
1990	70,401	72,467	81,031	93,129	78,946	76,366	53,315	23,793	18,378	27,342	87,501	78,968
1991	81,008	93,604	80,045	107,023	120,710	116,819	79,157	43,207	38,943	36,523	48,134	73,838
1992	93,753	98,022	79,388	71,992	46,545	17,234	10,261	7,575	5,909	6,155	13,315	17,531
1993	17,418	19,141	39,494	64,341	79,993	58,857	18,394	9,529	6,166	8,149	12,145	26,067
1994	44,533	44,985	64,784	76,831	79,128	62,713	38,254	13,481	9,158	18,627	24,216	49,650
1995	55,351	83,233	82,465	72,686	67,777	52,400	27,107	10,901	7,454	16,858	53,619	80,667
1996	78,933	79,576	79,802	101,405	82,109	74,868	55,993	32,320	28,849	32,007	39,031	46,282
1997	63,988	76,420	89,678	98,842	136,022	157,770	123,370	82,674	77,566	83,266	85,336	83,922
1998	82,193	97,797	119,254	117,442	127,874	118,252	72,480	35,459	30,778	29,820	50,779	85,338
1999	85,276	80,518	80,092	80,543	89,957	119,942	81,198	49,419	44,123	48,301	86,594	97,907
2000	89,948	95,198	105,528	127,605	141,104	139,903	89,290	49,109	45,082	48,036	50,146	49,929
2001	51,028	51,675	58,615	58,717	76,410	60,753	15,510	9,914	6,663	10,888	33,423	54,769
2002	74,194	79,604	78,958	84,899	99,309	110,069	70,641	36,537	30,998	24,008	25,883	31,793
2003	52,154	70,351	85,905	80,962	61,233	55,669	29,561	9,964	7,583	23,836	33,708	44,605
2004	54,240	62,415	74,467	73,378	68,418	54,552	22,356	12,384	11,826	13,935	31,456	53,569
2005	73,947	76,951	87,374	80,393	70,794	41,058	11,745	7,555	4,461	6,551	22,327	43,911
2006	81,380	76,781	80,443	82,211	88,396	78,496	58,551	26,488	21,350	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	9,389	16,733	48,623
1926	68,226	118,099	147,953	152,631	131,725	63,858	-1,707	-60,687	-107,417	-110,602	-102,227	-90,563
1927	-69,236	-51,675	-41,983	-13,841	31,016	24,248	-13,291	-48,100	-94,190	-90,604	-68,951	-45,460
1928	-7,984	6,934	67,180	113,142	162,683	135,291	94,917	48,140	-4,998	-5,255	2,947	9,171
1929	12,837	10,681	28,392	33,234	49,292	21,423	-36,328	-96,428	-144,487	-160,439	-158,621	-147,362
1930	-139,702	-117,400	-101,435	-84,526	-71,383	-89,871	-118,201	-141,900	-181,713	-191,716	-185,092	-179,736
1931	-165,366	-152,569	-124,497	-87,608	-77,806	-91,340	-120,004	-148,619	-191,728	-190,943	-176,909	-165,800
1932	-146,957	-135,450	-81,895	-22,581	38,178	57,394	32,068	-3,775	-60,594	-68,502	1,284	65,614
1933	120,060	138,996	149,686	186,347	194,873	193,213	177,182	132,902	59,150	40,088	86,592	202,810
1934	203,025	221,860	236,137	238,287	233,290	194,268	141,305	75,333	10,146	12,850	30,710	70,167
1935	127,603	166,563	179,032	198,359	197,202	177,284	136,053	83,644	18,396	8,860	15,300	22,795
1936	58,529	58,105	71,185	107,204	147,002	116,767	56,487	-4,701	-53,206	-69,321	-72,883	-51,233
1937	-47,834	-44,722	-27,771	10,544	45,595	31,774	-17,522	-69,032	-117,855	-132,429	-101,624	-71,828
1938	-22,060	-11,849	24,446	75,572	128,825	119,034	84,122	43,599	-16,564	-22,780	-7,264	14,666
1939	56,058	63,826	80,557	115,053	111,074	79,384	28,401	-30,153	-80,553	-91,574	-84,124	-46,379
1940	-29,830	15,883	79,277	112,927	114,323	45,853	-17,536	-77,859	-126,310	-134,832	-126,420	-101,926
1941	-88,619	-79,090	-69,921	-67,723	-63,955	-87,634	-115,447	-142,670	-173,337	-177,803	-161,447	-117,973
1942	-107,238	-78,138	-63,451	-44,977	-42,637	-50,573	-75,419	-108,765	-155,264	-173,882	-145,491	-128,371
1943	-121,460	-112,464	-97,744	-38,415	13,301	17,747	-3,545	-32,408	-90,118	-93,808	-84,687	-70,992
1944	-61,534	-52,236	-45,447	-32,522	-19,027	-56,706	-104,793	-149,834	-190,332	-199,654	-192,117	-185,456
1945	-163,016	-144,470	-135,290	-115,183	-56,699	-64,014	-100,814	-139,850	-184,110	-188,728	-174,543	-155,434
1946	-132,091	-125,341	-78,491	-37,285	39,833	63,818	35,472	8,156	1,908	-6,104	2,584	66,494
1947	106,743	142,299	177,255	204,028	199,082	171,203	119,526	60,101	1,692	16,984	43,808	82,143
1948	111,994	119,538	125,736	158,190	206,039	221,667	191,870	127,091	62,723	60,734	79,271	118,712
1949	121,799	122,363	145,534	185,414	236,354	221,770	166,545	107,023	24,472	15,230	28,994	60,205
1950	74,939	77,911	84,720	121,786	197,841	238,980	218,154	161,376	95,849	101,015	150,188	203,025
1951	202,943	217,527	204,637	210,546	238,127	232,645	188,718	130,109	40,636	23,204	34,276	49,230
1952	52,205	65,739	73,607	123,593	167,152	146,847	93,883	42,893	-7,481	-27,461	-25,966	-22,377
1953	4,642	35,854	49,388	67,705	112,682	96,024	54,113	13,576	-35,156	-42,712	-25,702	51,050
1954	100,483	141,034	168,264	187,284	205,008	193,493	180,127	124,216	55,681	45,233	59,332	66,975
1955	86,773	92,594	93,635	105,425	142,515	181,888	168,774	125,437	57,611	66,920	113,192	181,868
1956	198,146	198,698	183,974	191,086	231,506	238,980	202,649	155,426	69,843	40,250	60,785	118,494
1957	144,898	158,068	182,542	212,529	234,349	200,639	142,394	83,181	19,271	6,394	19,302	44,775
1958	78,924	134,905	166,687	187,030	176,077	143,964	84,142	11,640	-38,241	-36,696	-7,720	33,615
1959	94,047	120,037	159,574	196,982	214,994	200,444	160,165	94,361	32,050	42,902	84,211	140,026
1960	169,751	192,503	203,503	220,891	232,001	211,136	159,413	95,681	27,373	17,958	40,447	59,636
1961	105,505	165,588	194,224	214,502	236,237	221,218	172,709	103,833	20,809	-3,290	5,613	24,678
1962	61,330	96,198	111,246	151,984	142,277	115,988	69,520	11,853	-37,681	-44,381	-25,228	-5,248
1963	8,350	43,049	61,001	91,046	81,408	49,861	10,011	-48,103	-95,155	-104,218	-84,704	-67,336
1964	-45,688	-34,618	-4,339	35,504	79,180	137,558	134,876	93,829	27,438	30,562	41,908	67,327
1965	88,666	143,704	172,629	205,379	215,836	203,616	171,200	109,913	42,292	30,618	41,014	47,955
1966	55,503	60,076	87,460	141,965	177,507	154,526	87,477	19,274	-30,773	-38,374	-26,197	10,649
1967	71,891	119,708	137,828	135,348	150,549	141,694	106,259	60,054	1,280	-7,155	3,301	28,447
1968	56,187	104,933	162,292	177,974	172,285	158,572	111,583	56,025	2,108	494	17,234	43,334
1969	47,331	45,380	61,849	106,604	171,535	165,153	102,634	42,560	-5,233	-14,822	-7,481	10,856
1970	35,601	61,913	87,739	106,979	127,806	117,618	85,708	36,344	-12,137	-26,047	-19,735	-16,207
1971	7,694	29,546	30,125	59,366	149,542	186,765	195,717	168,140	90,675	60,058	86,799	121,147
1972	142,559	155,330	197,390	195,102	230,227	238,980	212,721	164,293	87,996	51,169	65,760	129,291
1973	170,105	180,674	191,559	192,202	173,386	139,665	76,077	7,117	-42,726	-57,411	-42,178	6,458
1974	49,334	88,498	123,896	168,144	188,546	202,169	207,744	163,713	84,610	45,017	53,634	82,237
1975	127,232	137,431	149,264	171,433	222,981	230,577	201,777	151,117	67,041	56,317	110,637	182,076
1976	203,025	211,395	197,343	197,289	230,104	225,027	218,677	183,419	106,960	66,048	69,529	76,465
1977	83,476	92,491	118,311	119,556	101,364	57,890	4,008	-45,260	-79,754	-95,367	-73,852	5,111
1978	32,933	52,086	87,001	120,652	118,915	95,259	55,700	3,583	-40,110	-56,233	-45,435	-32,975
1979	-33,101	-28,661	-6,832	10,339	57,206	34,762	-7,955	-55,745	-103,589	-119,254	-118,877	-92,240
1980	-88,447	-79,995	-58,658	-13,107	30,252	13,762	-27,280	-73,401	-120,704	-135,992	-119,741	-91,525
1981	-75,927	-32,682	-1,035	34,449	32,480	19,677	-18,355	-73,398	-120,938	-117,120	-101,097	-73,932
1982	-47,086	-3,605	40,236	70,409	125,655	161,777	132,547	81,439	17,022	12,886	28,964	58,232
1983	107,585	151,809	189,614	201,130	197,734	170,998	144,106	90,566	26,441	8,475	40,287	49,814
1984	94,000	122,595	167,953	173,502	173,521	164,434	131,814	96,858	30,630	20,652	33,954	38,421
1985	42,162	42,268	47,579	65,531	87,493	68,769	16,618	-38,558	-86,450	-93,475	-79,780	-77,699
1986	-69,405	-57,828	-23,318	-651	22,716	-5,339	-49,906	-99,578	-143,912	-159,727	-130,156	-121,295
1987	-109,773	-88,749	-36,495	5,197	18,461	-5,457	-39,305	-86,470	-135,410	-154,770	-152,969	-138,133
1988	-128,625	-110,571	-84,746	-61,548	-41,929	-61,706	-93,038	-124,281	-170,430	-177,788	-160,192	-147,704
1989	-126,128	-122,698	-103,709	-43,984	7,242	4,395	-32,168	-71,599	-121,100	-134,236	-117,198	-99,418
1990	-69,300	-61,342	-23,113	38,922	74,991	69,205	31,464	-5,796	-55,186	-55,192	12,167	50,712
1991	81,402	136,814	164,773	197,899	209,344	190,024	167,166	112,625	44,358	16,243	33,298	54,104
1992	84,154	134,623	169,171	165,074	139,250	70,023	2,570	-56,974	-101,106	-117,462	-109,775	-105,197
1993	-101,412	-97,945	-79,258	-53,844	1,025	-31,162	-90,696	-146,955	-193,250	-196,973	-192,818	-179,444
1994	-165,552	-161,116	-137,197	-117,155	-101,076	-121,119	-150,629	-174,251	-199,853	-194,217	-185,640	-163,049
1995	-153,797	-118,260	-81,437	-62,563	-44,324	-66,246	-101,549	-138,884	-187,045	-188,570	-154,677	-87,613
1996	-39,410	-10,089	4,847	65,779	106,184	93,981	60,855	30,675	5,459	-2,971	3,378	10,425
1997	26,886	42,830	95,700	153,181	222,973	238,980	202,448	148,629	68,568	47,791	87,408	126,974
1998	165,947	192,218	216,309	217,645	227,024	193,722	146,075	89,731	23,063	9,944	30,737	64,897
1999	118,170	141,152	159,013	172,343	179,937	193,651	192,249	138,707	69,194	62,834	95,901	156,789
2000	175,243	184,774	202,728	226,223	228,740	207,624	156,340	91,227	24,778	9,688	13,400	16,097
2001	19,610	23,610	31,821	38,509	65,738	28,727	-30,227	-89,114	-136,270	-146,390	-128,726	-106,521
2002	-85,524	-75,505	-68,862	-18,736	45,917	91,910	72,815	26,397	-31,684	-48,263	-40,878	-33,377
2003	-19,223	6,259	51,650	95,982	96,677	80,679	38,368	-18,331	-68,644	-72,174	-58,700	-48,647
2004	-36,030	-25,709	-4,865	18,219	25,290	426	-50,022	-99,472	-144,004	-157,378	-140,256	-120,393
2005	-103,683	-95,930	-63,189	-19,100	-7,492	-51,411	-102,849	-152,585	-198,023	-198,907	-181,847	-161,187
2006	-118,027	-100,351	-95,527	-51,194	19,739	29,352	-2,335	-37,694	-87,048	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP3 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	31,347	41,046	109,359
1926	134,384	196,197	240,808	286,115	315,300	242,697	127,805	23,780	9,421	31,273	49,184	74,824
1927	104,953	132,777	144,214	194,876	281,574	397,331	282,835	104,001	72,503	95,254	146,844	182,384
1928	227,331	235,670	325,995	378,025	451,166	408,024	237,401	66,596	29,791	49,774	64,650	75,103
1929	76,087	68,145	86,013	106,185	204,894	213,674	124,347	23,769	9,022	10,312	12,487	34,305
1930	44,020	81,563	113,168	176,022	230,023	206,259	147,044	54,696	27,892	35,025	42,760	49,217
1931	73,012	89,007	135,102	187,122	311,438	295,122	139,914	23,807	10,711	24,823	51,422	61,874
1932	84,871	92,345	183,838	279,997	448,209	451,480	298,313	115,855	91,678	95,119	267,205	327,116
1933	345,506	342,395	347,191	370,123	432,948	386,891	280,241	107,164	83,390	94,462	194,370	415,899
1934	388,433	411,061	445,777	451,362	448,499	328,658	167,400	32,645	10,440	55,481	96,361	176,295
1935	251,371	284,249	292,427	337,558	444,046	406,391	247,059	81,165	54,892	51,757	59,433	75,911
1936	148,713	141,556	150,049	230,241	362,078	307,358	137,120	22,799	10,086	8,608	10,400	63,096
1937	61,743	61,799	72,686	141,677	264,809	292,643	146,064	26,670	10,643	15,435	88,781	138,340
1938	184,210	190,541	223,437	304,481	449,566	441,864	275,475	91,098	63,766	70,530	107,898	159,917
1939	229,828	235,493	271,525	347,199	385,037	258,170	111,051	19,060	8,380	17,125	34,397	153,314
1940	175,388	229,680	321,419	384,771	428,557	335,815	192,891	49,591	17,857	25,393	40,507	94,801
1941	123,762	136,646	175,136	194,353	227,658	186,298	109,319	26,260	12,893	21,686	62,922	154,108
1942	166,529	198,018	211,015	254,948	269,198	238,776	116,990	19,703	8,429	8,277	70,939	98,915
1943	104,757	112,254	137,526	226,704	329,599	398,332	309,335	140,002	113,838	120,356	136,244	172,706
1944	195,764	204,935	210,751	243,907	311,864	264,153	169,474	54,546	30,247	29,202	46,458	65,212
1945	116,246	167,674	180,832	214,497	366,870	329,567	175,714	38,176	17,215	42,835	70,921	109,166
1946	140,648	145,479	190,058	246,967	448,182	440,607	295,154	114,652	88,883	108,320	117,722	228,031
1947	259,328	291,150	355,712	437,074	451,480	365,623	188,130	43,927	16,140	80,333	148,049	203,080
1948	225,032	228,150	230,425	260,346	413,122	390,245	236,807	81,000	56,649	62,613	95,817	130,742
1949	126,991	124,547	147,421	223,963	418,875	419,184	288,996	108,725	76,753	67,853	112,600	189,644
1950	197,207	196,429	201,354	235,513	331,445	451,480	404,969	239,936	218,861	260,021	313,812	327,862
1951	326,422	362,910	351,059	351,917	448,450	423,577	272,898	97,760	66,771	58,560	83,908	108,258
1952	104,322	107,274	113,545	191,460	315,659	301,283	177,211	44,560	13,768	8,200	10,224	18,421
1953	72,530	130,677	156,010	184,668	301,061	335,438	230,216	83,493	48,511	52,938	105,302	238,115
1954	292,286	334,716	345,353	376,181	428,924	387,565	265,064	94,159	72,357	69,160	105,874	114,359
1955	142,828	148,382	140,707	139,461	234,138	342,859	240,760	85,466	61,282	117,790	208,712	259,747
1956	285,202	281,735	281,108	283,807	425,277	451,480	345,555	154,563	122,126	114,799	139,434	237,752
1957	233,817	233,706	255,042	336,380	450,934	383,823	214,912	63,037	38,199	40,905	68,574	119,609
1958	167,569	247,376	266,280	311,204	404,542	274,079	93,627	15,039	7,759	22,500	108,067	202,205
1959	274,637	280,969	317,246	400,788	451,019	441,416	278,300	97,354	77,537	119,533	192,783	258,882
1960	263,862	297,526	329,807	385,558	451,480	405,857	241,370	73,215	49,423	56,871	113,222	131,914
1961	180,735	260,431	309,683	364,267	451,232	433,812	256,466	80,911	51,813	49,112	65,677	100,233
1962	135,465	174,119	187,991	276,511	316,082	276,222	134,380	24,865	9,652	18,108	73,382	111,750
1963	144,092	201,962	237,194	260,899	286,329	199,947	64,081	12,156	7,044	26,275	70,486	97,971
1964	129,945	139,918	164,796	218,678	319,285	394,321	293,257	126,849	111,435	122,318	137,968	173,692
1965	204,190	262,504	297,368	387,278	434,259	370,462	219,158	68,224	44,254	47,016	75,756	91,190
1966	100,167	102,777	121,715	203,839	335,542	283,210	138,905	24,927	9,400	26,403	48,717	141,502
1967	222,112	282,981	309,790	287,124	381,857	380,520	218,516	58,181	22,734	35,216	63,362	130,937
1968	183,140	260,844	360,515	381,697	435,584	348,862	156,348	31,077	11,940	22,422	55,149	97,637
1969	97,883	89,552	101,358	179,546	350,094	361,609	191,936	43,151	20,596	22,871	35,903	69,168
1970	97,759	129,582	151,656	165,272	256,594	332,169	177,838	38,471	14,287	17,228	29,546	29,791
1971	58,814	87,249	78,579	125,052	371,371	451,480	380,826	185,344	164,780	155,566	178,594	204,173
1972	229,137	235,531	312,291	312,017	424,584	451,480	372,330	183,052	154,517	132,123	158,840	282,184
1973	325,304	340,299	365,190	377,202	372,413	240,782	86,040	14,153	7,555	13,194	43,630	121,165
1974	204,666	249,484	290,865	325,075	389,927	422,014	356,442	183,361	171,136	137,159	158,997	214,090
1975	261,804	262,082	268,169	294,716	438,088	443,717	329,421	155,145	128,942	179,759	263,481	355,322
1976	349,012	360,533	347,623	341,751	440,792	428,950	346,542	158,785	135,913	104,868	110,342	119,197
1977	128,235	139,843	163,961	179,601	185,769	146,119	60,855	13,958	9,731	12,991	71,365	217,398
1978	231,048	258,650	333,296	381,609	412,148	347,843	173,964	35,727	19,455	14,659	44,887	64,809
1979	62,719	65,107	94,621	131,516	276,077	230,214	95,612	15,342	7,682	13,562	10,693	86,133
1980	89,577	96,717	124,387	210,310	344,837	314,434	165,701	33,334	13,478	10,115	53,532	104,628
1981	136,725	202,370	238,278	302,927	337,301	299,139	135,731	24,008	11,380	25,268	65,552	115,050
1982	164,424	248,119	285,688	335,337	447,399	451,480	310,019	128,854	104,262	115,514	141,101	238,251
1983	290,762	346,965	417,276	449,845	451,480	388,560	220,068	61,341	41,355	38,649	111,125	124,345
1984	190,014	217,925	283,471	293,277	328,579	359,285	261,389	85,653	60,455	56,469	77,593	78,946
1985	77,655	72,490	75,003	117,411	226,357	224,150	93,358	15,075	7,743	32,164	74,293	71,280
1986	82,225	102,774	197,895	237,634	305,057	270,453	110,235	17,413	10,978	14,541	90,175	107,392
1987	125,531	159,408	222,741	280,820	375,177	303,767	138,406	23,101	8,898	5,939	23,567	62,489
1988	72,696	114,547	163,307	227,316	306,671	281,621	146,477	29,152	10,244	36,087	85,475	113,575
1989	146,717	147,939	172,841	286,821	430,087	403,488	225,987	61,339	27,675	29,889	74,517	121,985
1990	198,292	207,289	255,372	398,896	451,279	437,335	271,976	89,696	53,771	79,842	270,553	305,724
1991	324,027	392,560	392,056	440,023	451,366	392,096	236,734	73,694	48,822	43,596	82,154	128,516
1992	175,738	231,418	267,781	297,166	317,771	247,352	130,478	24,969	11,155	10,553	31,917	35,299
1993	36,529	36,862	60,412	117,358	302,664	286,507	178,849	50,987	19,961	18,678	27,529	65,836
1994	95,042	98,874	143,637	200,946	261,177	225,930	144,617	49,554	23,145	28,379	44,683	89,323
1995	110,782	167,541	205,345	226,482	355,970	327,283	176,222	37,029	12,130	35,568	133,453	254,153
1996	301,621	310,039	328,608	406,191	450,734	427,814	279,003	101,660	78,714	86,662	101,954	108,964
1997	136,265	159,979	209,968	270,614	417,697	451,480	369,473	182,532	154,379	158,331	199,329	223,555
1998	247,105	294,867	340,429	367,857	451,480	377,359	211,365	57,899	33,671	34,040	82,833	144,136
1999	199,106	220,155	245,242	282,044	356,223	402,056	286,995	114,533	93,238	96,682	188,615	294,128
2000	306,487	310,771	342,868	414,414	421,545	353,063	198,062	51,147	27,767	34,469	42,264	41,341
2001	44,047	44,491	56,912	89,823	222,910	199,470	113,297	21,328	8,876	20,279	73,714	110,237
2002	140,120	158,114	163,156	240,704	410,374	451,480	295,912	106,055	77,812	68,281	84,407	100,701
2003	130,276	179,260	231,463	293,759	354,152	306,600	128,966	20,915	8,775	38,112	66,615	85,861
2004	96,990	104,408	151,384	209,698	312,448	269,000	102,380	20,943	10,312	15,655	49,757	85,235
2005	113,950	122,669	172,490	232,384	333,910	280,009	182,440	63,269	33,541	32,803	72,016	110,631
2006	167,261	179,035	184,507	252,832	408,490	451,336	302,105	114,907	77,852	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP3 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,387	3,332	12,924
1926	15,000	32,359	33,970	33,970	33,970	29,879	22,870	16,598	8,629	4,726	5,859	13,422
1927	15,000	16,990	14,103	20,272	33,657	33,970	30,431	20,388	14,203	11,452	15,000	15,000
1928	15,000	14,535	16,797	21,369	45,148	33,970	29,848	20,335	14,014	12,484	12,938	13,258
1929	11,069	5,705	2,593	4,446	29,963	33,970	29,848	20,335	14,308	8,703	2,969	2,357
1930	1,783	7,816	9,968	18,359	33,970	33,005	28,793	19,661	13,520	8,168	4,357	1,962
1931	3,617	3,182	4,316	12,706	33,970	33,303	27,731	19,144	12,896	11,297	13,434	15,000
1932	15,000	15,598	16,447	15,525	32,936	33,970	30,039	20,382	14,572	9,450	16,830	17,944
1933	15,166	14,828	11,200	15,000	32,163	33,970	29,848	20,335	15,253	14,006	14,985	58,367
1934	18,428	22,518	31,574	33,912	33,970	32,190	24,968	19,065	12,758	12,942	15,206	19,406
1935	16,468	20,828	26,829	33,789	33,970	33,970	29,848	20,335	14,012	8,084	6,209	5,213
1936	15,000	12,184	10,647	25,226	33,970	33,813	28,598	20,335	8,974	1,404	1,494	15,000
1937	10,440	5,549	2,244	10,394	33,929	33,970	28,662	20,346	13,894	2,595	15,665	24,135
1938	15,250	14,262	14,913	15,000	38,791	33,970	29,848	20,335	13,956	8,981	14,240	15,000
1939	15,328	16,749	19,147	33,964	33,970	33,970	29,848	15,329	3,728	1,942	1,977	15,590
1940	15,042	26,901	33,543	33,955	33,970	32,982	25,850	19,762	13,336	2,866	5,310	14,840
1941	15,000	17,760	22,495	28,683	33,970	31,981	25,218	14,435	8,762	3,907	6,620	15,518
1942	15,000	16,848	18,016	25,454	33,970	33,970	29,152	20,335	13,955	5,740	15,007	15,000
1943	13,254	11,851	15,000	15,630	36,289	33,970	29,848	20,386	14,977	13,168	12,240	14,996
1944	15,000	17,318	20,639	24,209	33,970	32,785	26,093	20,243	13,800	7,529	10,668	10,760
1945	15,000	25,039	16,077	23,991	33,956	33,970	29,540	20,331	13,278	8,081	11,160	15,551
1946	15,205	16,219	15,071	15,000	33,294	33,970	29,848	20,340	13,898	12,312	12,252	15,801
1947	15,029	18,664	19,952	33,556	34,290	33,829	28,653	20,341	14,074	15,317	15,109	15,000
1948	15,109	15,970	12,403	15,000	33,929	33,970	29,848	20,361	14,767	12,377	15,000	14,803
1949	12,491	5,622	5,007	15,000	34,628	33,970	29,848	20,342	14,018	9,472	15,221	17,380
1950	15,139	15,000	14,638	15,000	20,896	37,065	33,079	20,853	14,931	13,210	15,026	21,268
1951	15,218	18,602	14,958	15,000	33,010	33,970	29,650	20,348	13,962	15,106	15,000	15,000
1952	14,347	13,757	10,990	26,223	33,906	33,970	29,403	20,335	14,015	7,547	3,412	2,214
1953	15,000	20,419	15,201	21,576	33,920	33,970	29,848	20,381	14,746	9,872	13,965	16,930
1954	15,074	16,184	13,344	18,216	34,911	33,970	29,848	20,416	15,203	10,904	15,000	15,000
1955	15,154	18,898	13,431	15,000	32,014	36,085	29,848	20,402	14,975	15,033	17,005	18,073
1956	15,118	13,865	10,606	15,091	28,874	33,970	30,431	20,420	14,069	12,251	14,578	15,790
1957	15,000	14,182	15,000	18,617	33,779	33,735	28,530	20,335	14,073	9,201	12,576	15,000
1958	15,000	31,011	31,520	33,965	33,970	32,683	25,673	8,889	1,842	2,423	15,503	16,435
1959	16,565	16,314	15,000	22,996	33,806	33,970	29,848	20,335	15,970	14,851	22,641	15,874
1960	15,020	23,681	19,096	33,306	33,957	33,970	29,331	20,335	14,014	10,399	15,000	14,905
1961	15,000	24,580	15,633	23,464	33,872	33,970	29,771	20,335	10,398	4,677	4,258	10,244
1962	15,000	21,668	23,021	33,947	33,970	33,970	29,848	20,337	14,143	3,141	15,000	15,000
1963	15,000	32,734	33,896	33,968	33,970	33,531	27,061	18,992	3,952	4,474	13,476	15,000
1964	15,000	16,029	15,000	15,000	28,558	33,970	29,848	20,448	15,977	11,215	12,974	15,100
1965	17,485	23,167	15,098	29,609	33,899	33,970	29,848	20,335	14,190	9,612	14,385	12,076
1966	8,238	4,486	7,253	23,498	33,937	33,970	28,243	20,335	13,618	4,724	7,920	15,836
1967	15,426	21,271	23,976	23,560	34,115	33,970	29,526	20,335	13,958	15,200	14,053	15,136
1968	15,079	26,343	32,868	33,930	33,970	33,842	28,354	20,537	13,373	12,319	15,000	15,000
1969	14,955	11,099	8,148	15,277	34,836	33,527	28,001	20,335	13,346	7,770	12,730	14,998
1970	15,000	20,761	15,460	18,733	33,929	33,970	29,811	20,335	14,365	9,943	10,907	8,095
1971	15,000	15,263	12,080	14,222	28,007	36,479	30,632	20,463	15,275	10,988	12,738	13,039
1972	12,978	10,720	15,000	15,000	27,511	46,779	31,041	20,502	16,823	10,428	13,060	18,477
1973	15,093	17,224	21,713	26,711	33,970	33,663	26,838	8,000	1,688	2,460	10,129	17,377
1974	16,327	15,684	15,000	15,000	26,573	39,485	29,848	20,355	14,610	8,420	12,525	15,939
1975	15,335	14,800	11,849	10,956	29,796	33,970	29,848	20,570	15,053	15,000	15,000	16,280
1976	15,566	15,193	13,247	15,000	30,640	33,970	29,848	20,435	15,533	10,685	8,059	6,035
1977	5,653	6,519	10,516	22,952	33,970	32,709	26,130	19,662	2,713	2,571	12,774	15,401
1978	15,000	18,101	31,075	33,925	33,970	33,970	29,679	20,335	13,561	7,174	7,655	7,647
1979	3,009	1,896	5,072	11,558	33,970	33,809	28,793	20,337	14,135	3,736	1,858	16,300
1980	14,982	13,173	12,804	26,288	33,844	33,970	29,848	20,335	14,425	7,209	14,854	27,174
1981	15,305	27,499	33,251	33,954	33,970	33,970	29,208	20,335	12,645	5,667	9,694	15,000
1982	15,000	17,756	15,000	15,000	32,685	38,694	30,431	20,422	14,718	11,504	12,232	14,775
1983	15,000	21,209	22,924	33,534	39,859	33,970	29,848	20,406	15,024	9,565	15,364	14,965
1984	15,091	20,110	15,971	20,589	35,039	33,970	29,848	20,361	14,617	11,373	13,759	7,951
1985	3,294	1,879	1,908	7,406	33,970	33,970	29,355	20,338	8,966	5,676	10,673	5,478
1986	2,857	3,629	26,503	33,914	34,956	33,724	29,399	20,286	13,874	2,729	13,361	12,116
1987	9,859	13,357	21,924	33,739	33,970	33,823	28,512	20,335	13,957	1,410	2,381	13,269
1988	9,996	13,626	24,386	33,896	33,970	33,970	29,848	20,335	14,132	9,839	15,380	14,437
1989	15,000	11,151	8,753	23,782	33,828	33,970	29,848	20,335	14,131	8,686	15,000	15,000
1990	15,422	14,869	15,000	30,971	33,886	33,970	29,697	20,337	14,244	15,487	28,701	15,067
1991	15,000	23,707	15,006	25,586	33,913	33,970	29,848	20,335	14,010	7,154	10,990	15,000
1992	15,450	29,274	33,970	33,970	33,970	29,806	22,858	16,586	6,953	1,741	4,335	1,903
1993	1,835	1,689	4,238	11,557	33,967	33,573	28,406	19,972	13,933	2,905	1,916	2,519
1994	2,319	1,967	5,665	16,971	33,970	33,696	28,668	19,616	13,433	9,785	11,217	15,000
1995	15,000	23,227	30,266	33,770	33,970	33,970	29,209	20,336	14,015	11,907	21,379	15,450
1996	15,401	19,686	15,275	22,043	33,718	33,970	29,848	20,335	14,132	11,869	9,106	3,952
1997	3,992	4,358	15,000	15,000	35,628	50,770	32,293	20,697	15,926	13,717	15,000	15,000
1998	15,000	19,659	28,409	32,277	33,970	33,521	26,576	20,335	14,017	8,404	15,905	18,066
1999	15,435	17,556	15,000	15,005	33,149	33,970	29,848	20,365	14,619	9,284	16,688	15,587
2000	15,000	14,700	15,315	31,738	33,957	33,970	28,820	20,335	14,016	8,701	5,852	2,222
2001	2,211	1,978	6,767	11,289	33,970	33,938	29,330	19,761	6,863	2,916	12,805	14,965
2002	15,287	17,254	13,946	15,000	32,981	33,970	30,192	20,418	14,128	7,604	7,932	9,581
2003	15,000	24,923	31,796	33,900	33,970	33,601	26,472	15,217	3,234	4,219	10,021	15,000
2004	15,000	14,651	25,965	33,812	33,970	33,651	26,920	17,829	11,237	1,956	6,805	9,758
2005	14,750	15,600	28,942	33,965	33,970	28,403	21,701	15,921	9,554	4,257	10,405	11,511
2006	15,276	14,849	11,898	15,000	33,239	33,970	29,780	20,337	14,075	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	26,739	35,096	62,823
1926	78,220	110,402	132,301	166,336	192,124	184,782	142,523	87,874	10,000	22,596	35,565	61,053
1927	88,722	107,549	123,229	149,330	180,155	198,000	182,119	153,197	86,601	104,151	129,025	129,025
1928	129,025	142,384	154,701	170,059	197,792	198,000	182,579	148,938	69,164	66,717	84,868	98,122
1929	108,016	114,140	125,397	138,344	168,635	189,605	169,389	116,663	35,244	19,503	22,355	31,468
1930	34,533	47,029	58,589	76,391	99,512	105,853	97,733	88,262	38,443	21,551	28,380	33,483
1931	40,691	50,697	61,200	94,231	156,912	171,772	159,916	123,096	46,155	30,456	49,299	64,111
1932	79,845	93,195	131,513	141,694	196,173	198,000	184,315	157,914	44,793	28,812	86,041	129,703
1933	132,524	149,685	147,209	153,099	182,364	198,000	180,208	143,269	36,375	32,073	68,252	175,784
1934	145,994	171,945	194,841	197,899	198,000	193,140	174,399	137,107	66,101	51,069	86,448	129,025
1935	130,603	157,157	180,829	197,683	198,000	198,000	185,640	162,363	59,671	36,806	46,937	56,174
1936	88,703	97,201	112,204	151,086	197,828	196,705	178,513	103,694	10,000	11,012	16,664	43,676
1937	50,256	55,072	62,513	88,094	142,616	172,365	164,312	105,465	14,471	13,165	62,761	96,641
1938	129,025	142,625	144,298	148,416	196,916	198,000	183,531	151,443	43,816	42,839	61,745	85,294
1939	118,672	132,890	161,543	192,647	198,000	198,000	176,394	82,456	10,000	12,528	21,156	74,712
1940	98,435	145,553	196,280	197,975	198,000	188,994	150,271	100,192	18,659	17,240	29,137	53,609
1941	69,350	80,791	97,467	113,764	135,698	135,160	117,159	95,706	62,406	62,590	78,187	124,140
1942	129,025	146,733	162,041	179,893	198,000	198,000	174,157	116,352	33,802	12,395	53,003	67,864
1943	79,885	92,548	111,732	150,158	192,757	198,000	183,789	159,830	55,912	42,010	51,803	69,425
1944	85,719	104,290	120,338	133,508	157,547	155,303	139,224	106,357	53,086	46,310	60,178	73,210
1945	106,885	133,376	158,955	185,607	197,977	198,000	173,230	119,687	52,511	33,367	49,540	67,254
1946	94,739	109,234	140,990	141,376	196,158	198,000	178,504	145,531	20,447	20,872	33,288	117,518
1947	129,025	147,722	174,043	197,270	197,998	193,780	178,958	143,228	69,005	92,850	119,260	129,025
1948	129,025	143,458	144,542	139,333	186,397	198,000	183,670	158,517	59,046	57,282	77,280	105,133
1949	116,450	124,188	138,911	139,529	196,212	197,990	176,442	141,244	20,000	27,379	45,510	74,939
1950	90,884	102,817	103,011	94,011	132,230	198,000	194,885	167,216	40,094	28,465	61,655	99,767
1951	129,025	158,754	136,415	143,441	196,304	198,000	180,065	139,926	20,000	38,264	53,442	77,299
1952	86,468	98,208	109,768	146,865	197,096	198,000	180,202	148,136	75,328	54,180	54,537	63,809
1953	97,748	137,068	155,022	177,393	197,913	198,000	183,789	161,523	83,430	77,576	93,472	129,025
1954	129,025	146,679	152,947	163,405	197,499	198,000	187,532	166,495	61,296	47,167	66,525	82,265
1955	112,086	128,581	139,514	145,440	174,479	198,000	180,236	148,235	46,968	54,917	99,295	130,255
1956	130,255	143,418	102,403	106,143	183,614	198,000	186,298	159,587	32,388	31,247	48,520	100,639
1957	111,914	123,132	139,242	160,734	197,665	195,409	178,517	137,691	32,409	25,408	42,480	70,677
1958	96,870	151,019	173,770	197,993	198,000	187,546	164,194	72,396	10,000	20,303	68,852	117,519
1959	129,025	146,375	153,061	172,203	197,711	198,000	186,473	159,579	73,302	80,567	120,532	130,937
1960	130,457	151,257	169,797	196,827	197,979	198,000	176,066	133,584	22,483	20,650	55,106	67,829
1961	95,068	147,606	158,679	176,485	197,828	198,000	175,732	126,152	20,000	19,347	32,187	50,857
1962	72,254	90,970	108,002	140,777	169,642	198,000	178,356	111,321	14,420	18,861	60,512	80,918
1963	107,358	151,662	176,587	197,999	198,000	192,731	173,425	69,442	10,000	19,884	41,028	54,143
1964	76,684	91,090	107,384	135,882	165,717	198,000	187,532	164,690	65,912	59,839	70,333	98,853
1965	127,076	173,227	160,305	181,239	197,748	197,999	178,493	139,438	30,909	24,923	40,323	49,224
1966	59,024	63,547	79,657	120,257	182,127	192,535	178,513	111,423	10,942	21,078	37,151	68,510
1967	102,478	147,741	172,213	190,511	198,000	198,000	183,212	151,170	79,884	85,706	102,377	125,794
1968	129,025	182,641	196,052	197,932	198,000	195,184	179,503	148,326	75,007	72,729	95,366	120,251
1969	129,025	137,251	145,416	152,476	197,374	195,590	180,208	143,153	69,306	70,633	87,812	110,125
1970	129,025	156,196	164,619	180,281	197,930	197,975	180,209	141,116	68,661	52,181	61,239	72,175
1971	127,070	158,663	114,294	103,931	166,332	198,000	189,169	164,768	43,566	27,279	42,348	60,493
1972	86,687	101,037	123,631	118,336	170,371	198,000	190,075	162,345	57,520	22,595	36,270	90,394
1973	120,759	137,198	160,613	179,909	197,904	193,524	171,876	76,237	10,000	14,836	38,528	67,366
1974	129,025	163,563	136,292	129,862	162,646	198,000	188,307	167,485	41,143	23,197	39,673	74,001
1975	115,874	131,036	138,446	129,069	170,687	198,000	186,026	166,967	42,549	36,952	56,528	132,169
1976	132,104	157,259	125,168	120,879	180,426	198,000	187,452	164,936	39,396	24,816	33,604	42,969
1977	53,825	65,175	82,751	105,169	112,681	118,367	88,657	25,258	10,000	14,134	42,297	117,251
1978	129,025	145,224	174,307	197,923	198,000	198,000	178,280	119,811	59,751	42,046	51,689	63,829
1979	68,380	70,423	87,940	112,553	171,256	179,983	169,102	104,049	14,103	18,978	20,978	78,366
1980	89,305	100,308	115,926	158,569	197,778	197,961	178,498	121,546	38,026	22,200	42,818	97,287
1981	124,280	174,152	196,218	197,973	198,000	197,966	175,272	94,050	10,114	22,433	40,997	67,681
1982	85,157	108,649	134,228	142,701	195,729	198,000	188,210	166,964	67,050	50,799	64,368	84,782
1983	110,545	130,816	178,161	197,231	197,992	198,000	178,527	141,024	43,675	33,072	98,636	109,827
1984	129,109	147,782	163,001	183,001	197,897	198,000	178,499	141,032	41,727	29,144	49,500	59,640
1985	65,108	66,617	72,976	101,418	147,028	169,090	159,214	86,723	10,000	20,472	38,481	43,857
1986	50,496	58,305	105,589	131,282	160,369	180,836	166,947	98,358	12,738	15,005	48,234	58,567
1987	68,318	84,479	110,919	139,078	197,669	194,796	175,694	110,343	20,790	11,000	22,535	55,522
1988	66,663	81,402	107,653	139,827	195,312	198,000	175,757	129,745	49,538	28,177	67,146	79,092
1989	93,942	102,620	114,979	158,609	197,751	198,000	178,514	139,016	55,370	37,990	57,811	80,413
1990	114,477	127,084	152,543	184,374	197,854	198,000	180,211	152,165	74,950	92,923	136,055	130,818
1991	130,818	177,803	159,465	185,741	197,901	198,000	178,479	136,907	26,443	20,364	39,982	58,367
1992	84,315	114,826	140,644	169,034	192,458	181,171	139,526	82,975	10,000	11,972	26,529	30,208
1993	30,198	30,255	43,594	65,957	133,124	149,606	139,064	102,147	28,883	15,413	22,437	36,952
1994	48,979	51,596	70,919	94,066	138,992	146,072	132,463	123,470	58,686	23,202	36,386	61,965
1995	73,463	110,007	137,397	161,175	198,000	196,912	174,599	127,087	48,918	42,166	85,306	129,263
1996	129,263	170,747	149,584	165,332	197,556	198,000	178,501	145,633	25,608	22,235	32,619	40,811
1997	56,280	69,998	94,087	98,918	171,757	198,000	192,586	166,024	47,100	24,229	55,283	68,454
1998	82,495	99,933	126,189	143,820	198,000	195,553	178,502	143,469	52,004	46,518	84,209	116,419
1999	129,025	149,445	155,442	152,664	181,912	198,000	187,396	165,979	58,763	42,547	82,534	115,799
2000	129,025	143,198	159,493	195,313	197,978	198,000	178,522	138,171	37,989	33,237	42,213	48,280
2001	50,477	53,538	67,168	82,674	127,835	135,046	125,268	73,681	10,000	16,708	45,981	67,318
2002	97,631	116,958	131,672	133,442	181,737	198,000	186,380	153,098	37,341	30,189	39,382	56,501
2003	82,195	123,578	178,856	197,879	198,000	194,846	174,663	84,118	10,000	20,715	36,644	54,906
2004	70,757	85,718	117,631	150,683	198,000	196,945	173,197	94,527	13,892	17,052	33,034	51,114
2005	69,234	81,786	104,271	133,107	159,059	152,768	136,521	98,431	33,764	27,402	50,554	65,312
2006	107,029	127,244	142,669	144,717	196,708	198,000	180,199	152,813	72,320	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP3 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP3 CC Adverse (EPOR) - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	104,812	129,913	307,009
1926	375,817	541,709	635,376	712,636	721,554	539,451	301,116	76,026	-73,202	-37,520	11,157	92,402
1927	191,765	274,049	314,615	432,595	603,939	731,023	536,756	253,928	100,227	146,734	276,556	349,974
1928	443,314	477,561	664,365	772,868	938,313	844,730	592,824	301,118	119,545	140,213	186,910	220,118
1929	231,072	213,948	270,228	308,926	495,364	493,450	297,874	70,948	-82,818	-117,561	-115,915	-63,972
1930	-42,489	56,493	131,508	250,948	359,251	309,890	187,660	32,125	-94,181	-113,163	-92,883	-76,516
1931	-9,206	38,265	155,602	281,924	492,764	466,008	243,011	29,570	-111,501	-105,424	-27,362	18,565
1932	85,954	123,534	343,894	527,646	822,856	826,151	606,827	324,902	121,058	97,877	466,658	643,606
1933	714,703	725,353	735,868	817,376	945,527	927,908	745,579	450,815	239,713	238,731	445,951	982,765
1934	877,860	961,457	1,061,190	1,078,545	1,065,744	863,558	575,121	293,061	123,329	173,743	287,530	477,159
1935	619,927	715,903	762,577	864,453	971,436	914,217	662,514	380,739	174,906	133,217	157,664	198,527
1936	383,531	374,313	412,741	598,027	820,532	723,391	437,542	153,083	-15,307	-41,034	-37,541	104,466
1937	106,664	108,213	152,204	330,370	566,474	605,042	363,282	94,904	-70,040	-90,770	119,475	269,284
1938	386,165	415,825	488,429	635,585	897,377	871,524	632,666	337,788	130,336	127,447	212,255	338,743
1939	499,954	525,093	613,230	767,258	798,451	624,097	370,738	95,758	-52,512	-48,768	-8,549	277,077
1940	339,398	504,152	718,867	809,756	836,317	631,059	361,804	98,676	-73,178	-80,786	-38,016	103,132
1941	170,753	212,516	286,606	321,381	382,218	295,939	147,581	1,949	-80,365	-76,760	15,819	255,611
1942	284,844	362,148	407,095	490,390	512,959	473,682	278,655	59,251	-90,915	-140,105	27,194	106,318
1943	129,937	163,524	239,504	447,556	652,438	725,814	579,440	321,079	122,463	117,088	154,954	241,139
1944	297,277	339,281	372,769	442,230	564,178	447,348	245,629	39,298	-86,827	-109,845	-61,458	-18,471
1945	116,590	233,343	277,016	383,329	628,016	571,259	322,157	50,527	-87,685	-77,593	511	98,692
1946	198,559	226,784	352,252	449,416	813,363	815,633	602,416	324,210	156,223	170,821	213,457	525,028
1947	597,097	680,707	813,644	978,490	984,403	857,579	573,569	290,415	119,975	244,590	395,758	511,385
1948	559,654	584,584	591,421	656,047	957,328	990,889	742,637	448,189	250,955	253,256	345,218	447,770
1949	453,737	447,210	517,015	659,847	1,038,588	1,023,219	765,284	439,905	192,122	177,047	271,897	430,490
1950	454,571	465,701	477,550	545,781	800,379	1,083,678	992,786	693,703	449,821	488,153	636,949	763,706
1951	788,562	886,371	827,611	847,848	1,072,715	1,043,116	780,646	455,410	202,557	197,353	257,555	328,946
1952	333,974	360,910	387,677	575,588	800,347	753,759	530,063	272,900	107,070	50,637	50,916	72,669
1953	233,215	392,305	453,581	531,615	725,470	740,258	552,017	303,540	130,871	117,160	226,508	527,702
1954	625,576	733,717	760,072	838,059	975,523	923,834	737,165	449,196	244,221	210,412	297,423	336,807
1955	429,696	458,881	450,670	472,153	671,788	869,807	695,811	424,705	221,737	314,810	526,517	700,761
1956	746,623	749,963	676,249	701,959	1,009,344	1,080,200	881,267	564,465	307,131	272,614	342,751	587,470
1957	595,459	608,540	680,929	844,676	1,055,350	941,326	641,424	343,105	138,469	113,559	184,564	322,591
1958	441,797	662,185	718,253	824,241	894,786	707,474	407,026	118,778	-11,440	24,296	226,208	455,694
1959	612,677	644,601	726,034	903,515	1,021,983	1,001,260	734,860	415,733	246,474	326,946	517,416	648,732
1960	661,653	763,355	826,870	958,845	1,052,497	983,836	690,560	368,959	156,007	153,197	303,754	354,051
1961	487,408	709,965	812,131	916,828	1,066,330	1,035,273	732,304	388,038	155,340	126,229	169,069	267,248
1962	365,868	462,847	510,548	683,391	726,586	678,535	442,788	179,249	9,137	8,750	157,734	256,675
1963	337,824	511,420	589,922	657,702	648,954	508,177	286,791	62,290	-67,431	-38,311	79,695	155,332
1964	251,558	292,446	363,455	485,086	681,600	871,080	719,975	452,341	264,074	272,198	323,274	434,437
1965	531,332	703,181	734,721	920,728	1,004,287	928,229	678,954	385,989	175,697	162,477	229,945	266,296
1966	295,997	306,049	378,505	577,953	825,585	739,821	477,700	187,535	11,491	29,916	92,337	318,322
1967	499,942	652,850	723,820	705,309	842,781	832,744	594,090	315,255	137,482	151,169	210,840	357,529
1968	463,374	674,868	855,462	898,117	930,520	809,576	523,210	272,143	115,068	127,455	220,682	334,685
1969	345,581	332,496	374,129	538,363	851,838	838,635	554,310	265,148	112,279	98,849	147,881	250,304
1970	348,129	450,080	499,728	546,585	688,639	753,341	522,838	253,419	98,866	68,373	100,280	111,001
1971	249,205	351,849	290,345	379,716	840,264	1,024,123	917,654	620,926	391,027	333,837	402,891	477,996
1972	550,799	583,539	756,519	750,667	997,019	1,093,009	931,015	614,772	396,598	291,212	358,223	639,142
1973	742,955	789,888	859,637	889,292	864,625	676,384	396,147	115,584	-16,811	-18,958	73,834	281,225
1974	490,702	597,407	647,971	723,005	869,067	987,745	879,045	595,438	366,321	260,994	316,416	467,558
1975	605,401	624,843	646,849	686,561	989,068	1,059,056	861,295	570,091	324,897	377,774	553,778	804,643
1976	818,503	867,365	796,021	787,501	1,025,206	1,031,855	891,108	600,580	366,152	268,858	284,306	311,634
1977	343,864	381,216	456,949	493,705	474,329	374,698	189,311	23,750	-47,653	-55,877	87,105	444,260
1978	488,004	554,415	708,493	814,510	830,926	730,426	469,156	190,433	66,414	19,985	81,932	138,851
1979	132,498	140,578	231,579	330,333	618,031	543,641	323,553	94,902	-60,317	-73,412	-77,011	133,776
1980	150,491	183,722	266,730	469,953	685,905	630,735	388,827	113,667	-44,598	-88,135	14,677	207,393
1981	278,140	469,922	547,142	650,018	656,968	598,964	344,902	73,894	-79,392	-47,513	46,251	180,265
1982	292,042	468,092	560,827	645,047	885,937	947,971	730,226	435,537	237,103	229,452	299,403	472,336
1983	608,255	738,634	915,374	997,953	996,895	895,216	644,297	350,832	161,331	120,180	335,482	371,914
1984	517,494	588,495	715,418	752,103	816,719	835,599	660,941	373,504	172,883	141,960	208,906	219,119
1985	221,209	210,403	225,008	337,998	556,403	553,918	328,296	93,725	-53,175	-19,250	73,928	70,408
1986	109,827	160,565	388,069	481,947	602,193	541,232	289,638	46,608	-97,876	-117,506	68,585	109,949
1987	155,882	248,278	408,042	539,065	690,375	575,757	328,121	76,603	-86,356	-133,285	-96,136	16,217
1988	48,912	141,333	274,511	414,780	571,850	518,823	301,821	70,567	-84,428	-83,163	48,793	110,484
1989	198,219	203,317	272,671	520,997	758,388	714,136	450,757	166,085	-11,397	-43,711	57,946	162,188
1990	329,291	360,367	480,832	746,293	836,956	814,876	566,664	280,195	106,157	160,402	534,976	581,290
1991	632,256	824,488	811,345	956,272	1,013,234	930,909	691,384	386,768	172,576	123,879	214,558	329,825
1992	453,411	608,164	690,954	737,236	729,994	545,586	305,693	75,131	-67,088	-87,040	-33,679	-20,255
1993	-15,433	-9,999	68,479	205,370	550,773	497,381	274,017	35,680	-124,306	-151,828	-128,791	-48,071
1994	25,321	36,305	147,808	271,659	412,192	347,292	193,373	31,870	-95,430	-114,224	-69,138	52,890
1995	100,799	265,748	374,036	431,549	611,394	544,319	305,589	56,469	-104,528	-82,071	139,078	391,920
1996	485,809	569,959	578,117	760,750	870,300	828,632	604,200	330,622	152,762	149,802	186,088	210,435
1997	287,411	353,585	504,433	636,554	984,077	1,097,000	920,169	600,556	363,539	327,332	442,356	517,905
1998	592,740	704,475	830,590	879,040	1,038,348	918,407	634,999	346,893	153,532	128,725	264,463	428,856
1999	547,011	608,825	654,789	702,599	841,178	947,620	777,686	489,003	279,937	259,648	470,332	680,209
2000	715,704	748,642	825,932	995,293	1,023,324	932,560	651,034	349,988	149,632	134,131	153,875	157,869
2001	167,373	175,292	221,283	281,012	526,864	457,935	253,178	35,570	-103,867	-95,599	37,198	140,768
2002	241,708	296,425	318,869	455,308	770,318	885,430	655,941	342,505	128,595	81,820	116,726	165,199
2003	260,402	404,372	579,670	702,483	744,032	671,395	398,031	111,883	-39,052	14,709	88,287	151,724
2004	200,957	241,483	364,582	485,791	638,126	554,575	274,831	46,212	-96,737	-108,779	-19,205	79,283
2005	168,197	201,075	329,889	460,748	590,240	450,827	249,558	32,592	-116,703	-127,894	-26,544	70,177
2006	252,918	297,558	323,989	443,565	746,571	791,154	568,300	276,851	98,549	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D-8

Scenario IP4 (KKC, KDRPP, CEPR, and WDR at 162.5 kaf) under Adverse Climate Change Conditions

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP4 Large 400 cfs WDC1 CC Adverse

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	2,413	502	1,474	1,265	70.5%	141	-33	69.7%	107	-46	4,447	179
Avg. WY 1982 to 2009	2,272	457	1,422	1,191	64.9%	83	-70	64.2%	46	-82	6,297	581
1941 (Dry Year)	1,177	203	745	768	5.8%	-86	-148	5.8%	-86	-152	10,730	0
1994 (Dry Year)	1,445	278	824	791	11.8%	-97	-200	12.8%	-154	-200	4,485	14
2001 (Dry Year)	1,641	249	1,283	1,028	57.4%	-76	-103	56.5%	-91	-118	43,899	10,073
2005 (Dry Year)	1,636	295	1,099	915	35.4%	-118	-185	36.0%	-145	-200	10,781	0

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,588	188	1,305	1,060	57.9%	-77	-108	57.2%	-75	-117	8,787	0
1927	2,378	412	1,441	1,344	63.1%	121	-109	60.6%	159	-107	9,945	0
1928	2,666	641	1,528	1,435	70.0%	176	-16	70.0%	193	-17	168	0
1929	1,661	206	1,275	1,032	53.5%	-103	-147	51.5%	-136	-162	0	0
1930	1,353	223	790	781	9.6%	-96	-184	9.5%	-144	-200	2,342	0
1931	1,874	393	1,121	913	34.7%	-121	-196	35.3%	-162	-200	760	0
1932	2,988	775	1,612	1,227	79.2%	179	-57	78.7%	130	-70	3,104	0
1933	3,070	689	1,711	1,473	100.0%	401	77	98.5%	352	66	901	0
1934	2,552	608	1,510	1,213	71.5%	270	51	68.5%	213	20	368	0
1935	2,427	311	1,568	1,300	79.6%	303	59	78.0%	253	46	0	0
1936	2,079	352	1,461	1,321	70.0%	75	-15	70.0%	31	-31	0	0
1937	1,975	277	1,432	1,157	67.4%	-61	-98	66.0%	-88	-115	6,940	0
1938	2,838	704	1,595	1,243	80.1%	215	0	77.8%	201	-10	14,696	0
1939	1,991	279	1,469	1,271	70.0%	24	-57	70.0%	-12	-71	0	0
1940	1,941	311	1,432	1,130	68.4%	-76	-110	67.9%	-86	-121	8,975	0
1941	1,177	203	745	768	5.8%	-86	-148	5.8%	-86	-152	10,730	0
1942	1,648	231	1,173	957	39.9%	-102	-143	40.8%	-134	-160	0	0
1943	2,849	670	1,545	1,221	77.1%	185	-85	74.5%	144	-96	6,322	0
1944	1,502	207	1,114	963	38.5%	-91	-188	38.6%	-112	-198	159	0
1945	2,154	311	1,473	1,146	69.6%	-94	-198	66.5%	-149	-200	0	0
1946	2,758	568	1,564	1,209	76.3%	203	-53	71.6%	157	-62	152	0
1947	2,409	491	1,531	1,430	70.0%	170	-14	70.0%	171	-16	288	0
1948	3,018	744	1,651	1,407	90.8%	308	93	88.7%	316	93	16	0
1949	2,980	647	1,756	1,431	100.0%	293	54	100.0%	241	26	3,255	0
1950	3,860	1,250	1,758	1,859	100.0%	605	121	100.0%	584	104	2,198	0
1951	3,439	1,088	1,759	1,456	100.0%	350	71	100.0%	273	32	3,212	0
1952	2,216	391	1,483	1,365	70.0%	112	-7	70.0%	59	-24	2,071	0
1953	2,290	317	1,456	1,400	65.3%	165	-38	63.0%	142	-47	0	0
1954	2,948	635	1,686	1,435	95.0%	316	86	92.8%	281	76	0	0
1955	2,609	379	1,605	1,365	83.9%	325	78	81.5%	350	79	0	0
1956	4,072	1,603	1,758	1,581	100.0%	460	97	100.0%	365	57	0	0
1957	2,868	716	1,622	1,302	84.1%	286	64	81.6%	245	37	5,342	0
1958	1,977	304	1,464	1,287	70.0%	47	-12	70.0%	50	-13	55	0
1959	2,921	576	1,759	1,454	100.0%	273	71	100.0%	255	49	813	0
1960	2,496	341	1,594	1,320	86.2%	303	68	83.8%	266	61	3,219	0
1961	2,774	500	1,752	1,387	100.0%	286	55	100.0%	224	24	3,124	0
1962	2,042	310	1,477	1,312	70.0%	66	-25	70.0%	56	-32	1,596	0
1963	1,634	236	1,219	1,001	47.1%	-69	-96	48.0%	-90	-113	22,540	0
1964	2,919	581	1,689	1,428	94.8%	295	32	92.9%	300	36	17,046	0
1965	2,645	506	1,589	1,284	80.7%	294	71	79.4%	262	64	0	0
1966	2,203	433	1,490	1,327	70.0%	77	-8	70.0%	28	-24	0	0
1967	2,277	325	1,451	1,434	64.4%	210	9	62.8%	175	-6	0	0
1968	2,367	379	1,496	1,218	73.1%	197	36	70.4%	180	21	10	0
1969	2,690	654	1,542	1,494	70.0%	227	11	70.0%	221	3	0	0
1970	2,366	412	1,465	1,397	66.0%	157	6	64.0%	108	-11	0	0
1971	3,572	997	1,758	1,662	100.0%	454	89	100.0%	357	53	0	0
1972	3,743	1,191	1,758	1,667	100.0%	548	110	100.0%	454	76	2,516	0
1973	1,889	199	1,457	1,281	70.0%	41	-3	70.0%	13	-19	489	0
1974	3,436	858	1,758	1,695	100.0%	505	106	100.0%	416	73	4,973	0
1975	3,275	806	1,758	1,595	100.0%	471	100	100.0%	409	68	669	0
1976	3,810	1,293	1,758	1,661	100.0%	523	128	100.0%	431	93	9	0
1977	1,307	180	1,031	933	34.6%	-47	-79	35.8%	-65	-95	23,113	0
1978	2,147	278	1,490	1,341	70.0%	80	-50	70.0%	33	-66	15,511	0
1979	1,680	261	1,206	1,011	44.1%	-73	-110	44.7%	-104	-128	440	0
1980	2,278	448	1,491	1,189	70.0%	-52	-137	70.0%	-94	-152	15,810	0
1981	2,020	322	1,453	1,130	67.8%	-94	-149	65.7%	-73	-146	83	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP4 Large 400 cfs WDC1 CC Adverse

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	2,817	624	1,600	1,341	84.0%	281	16	82.3%	246	7	93	89
1983	2,578	508	1,543	1,263	75.9%	295	45	73.9%	247	17	47	0
1984	2,509	424	1,556	1,263	77.4%	306	33	75.0%	260	22	1,351	0
1985	1,779	280	1,374	1,117	63.3%	-55	-86	62.1%	-77	-102	11,507	1,069
1986	1,732	293	1,276	1,007	48.8%	-104	-144	49.3%	-132	-160	14,907	587
1987	1,993	382	1,362	1,044	53.9%	-98	-145	54.4%	-138	-162	10,909	38
1988	1,847	313	1,257	1,009	45.8%	-98	-183	45.6%	-154	-200	4,229	0
1989	2,445	543	1,491	1,245	70.0%	-2	-149	70.0%	-51	-165	0	0
1990	2,551	496	1,534	1,381	70.0%	133	-104	70.0%	122	-115	0	0
1991	2,718	559	1,595	1,300	82.1%	243	36	80.3%	190	12	112	0
1992	1,499	185	1,217	1,011	47.7%	-77	-110	48.9%	-101	-127	5,885	1,907
1993	1,811	331	1,179	946	40.4%	-129	-200	40.8%	-164	-200	20,270	0
1994	1,445	278	824	791	11.8%	-97	-200	12.8%	-154	-200	4,485	14
1995	1,957	332	1,346	1,054	57.5%	-113	-200	55.5%	-119	-196	501	0
1996	2,803	746	1,507	1,196	70.9%	208	-35	67.8%	156	-51	151	0
1997	3,885	1,451	1,758	1,596	100.0%	419	74	100.0%	380	51	0	0
1998	2,298	352	1,442	1,509	64.5%	282	25	63.0%	248	10	0	0
1999	2,802	463	1,697	1,480	96.6%	349	90	95.2%	322	84	0	0
2000	2,572	464	1,559	1,259	76.5%	290	67	74.8%	253	59	0	0
2001	1,641	249	1,283	1,028	57.4%	-76	-103	56.5%	-91	-118	43,899	10,073
2002	2,956	732	1,665	1,295	88.8%	198	5	88.7%	161	-10	21,670	746
2003	1,951	266	1,461	1,240	70.0%	-2	-53	70.0%	-35	-69	32	0
2004	1,904	311	1,397	1,095	63.4%	-93	-135	61.4%	-116	-151	6,517	0
2005	1,636	295	1,099	915	35.4%	-118	-185	36.0%	-145	-200	10,781	0
2006	2,664	551	1,538	1,395	70.0%	143	-113	70.0%	NA	NA	89	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,413	502	1,474	1,265	70.5%	141	-33	69.7%	107	-46	4,447	179

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.
5) Climate Change inflow dataset provided only extended to the end of Water Year 2006.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP4 Large 400 cfs WDC1 CC Adverse

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	94.2%	89.2%	5.6%	14.7%	43.4%
	0 -10% Above Target[1]	0.9%	6.9%	2.3%	2.2%	13.0%
	0-10% Below Target	0.5%	0.0%	8.2%	49.9%	5.7%
	> 10% Below Target	4.4%	3.9%	83.9%	33.1%	37.9%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	47.6%	61.2%	49.8%	22.3%
	0 -10% Above Target	48.6%	23.2%	28.7%	38.8%
	0-10% Below Target	1.4%	1.1%	5.7%	14.8%
	> 10% Below Target	2.4%	14.5%	15.8%	24.1%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			10.7%	
	0 -10% Above Target			6.3%	
	0-10% Below Target			14.7%	
	> 10% Below Target			68.3%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				41.3%	
	0 -10% Above Target				18.5%	
	0-10% Below Target				15.6%	
	> 10% Below Target				24.6%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				93.6%	
	0 -10% Above Target				2.8%	
	0-10% Below Target				0.2%	
	> 10% Below Target				3.4%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	15.3%	19.3%		7.8%
	0 -10% Above Target	1.2%	2.6%		1.6%
	0-10% Below Target	6.2%	30.7%		10.4%
	> 10% Below Target	77.3%	47.4%		80.2%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			15.8%	9.3%	8.4%
	0 -10% Above Target			9.4%	0.9%	0.5%
	0-10% Below Target			22.7%	1.7%	1.1%
	> 10% Below Target			52.1%	88.1%	90.0%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			94.3%	80.1%	63.7%
	0 -10% Above Target			0.6%	8.2%	13.7%
	0-10% Below Target			0.5%	4.1%	9.5%
	> 10% Below Target			4.6%	7.6%	13.1%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			19.5%	
	0 -10% Above Target			8.7%	
	0-10% Below Target			18.3%	
	> 10% Below Target			53.5%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			94.2%	90.1%	79.8%
	0 -10% Above Target			0.6%	2.1%	9.1%
	0-10% Below Target			0.6%	1.1%	2.9%
	> 10% Below Target			4.6%	6.7%	8.2%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP4 Large 400 cfs WDC1 CC Adverse

R12: Kachess River *(Kachess River Below Kachess Dam)*

	Flow Season (Date)	Winter	Spring	Summer	Fall
	Target Flow	NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

	Flow Season (Date)	Winter	Spring	Summer		Fall
					August	
	Target Flow	>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	84.9%	85.7%	95.0%		55.0%
	0 -10% Above Target	3.6%	5.2%	1.4%		12.8%
	0-10% Below Target	0.1%	0.2%	0.0%		1.1%
	> 10% Below Target	11.4%	8.9%	3.6%		31.1%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

	Flow Season (Date)	Winter	Spring	Summer	Fall
		November 1 to April 1			
	Target Flow	>= 125 cfs		NA	NA
Flow %	> 10% Above Target	13.9%			
	0 -10% Above Target	81.2%			
	0-10% Below Target	0.0%			
	> 10% Below Target	4.9%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

	Flow Season (Date)	Winter	Spring	Summer	Fall
				August 1 to October 31	
	Target Flow	NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

	Flow Season (Date)	Winter	Spring	Summer	Fall
				August 1 to October 31	
	Target Flow	NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

	Flow Season (Date)	Winter	Spring	Summer	Fall
		June 1 to November 1			
	Target Flow	>= 550 cfs		NA	NA
Flow %	> 10% Above Target	48.6%			
	0 -10% Above Target	2.6%			
	0-10% Below Target	3.4%			
	> 10% Below Target	45.4%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP4 (Adverse Climate Change)

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	34.1	6.2	2.0	3.0	0.8	1.3	8.7	28.1	65.1	65.1	60.8	48.8	323.9
1927	14.6	2.1	1.8	1.4	1.2	1.0	1.8	9.9	27.4	38.1	33.6	48.0	180.7
1928	7.5	1.1	1.3	1.5	1.3	1.0	2.0	12.8	32.8	41.7	50.3	50.6	203.7
1929	11.0	2.2	2.3	4.3	6.4	1.4	8.3	16.9	36.7	58.0	60.6	48.7	256.8
1930	19.0	11.2	4.5	2.1	0.9	1.5	2.5	6.3	17.8	26.8	24.1	40.0	156.7
1931	18.4	3.4	3.3	1.6	1.4	1.0	4.3	10.4	21.6	25.5	24.9	44.3	160.0
1932	5.8	1.3	1.5	1.3	1.6	0.9	1.1	9.3	10.6	33.7	51.5	58.8	177.3
1933	14.5	0.9	2.3	2.1	3.4	2.0	1.0	19.0	15.8	39.1	56.2	69.9	226.2
1934	12.7	1.5	45.2	77.5	2.7	44.2	19.8	15.9	26.9	70.7	73.4	69.2	459.7
1935	34.5	1.8	2.7	2.2	0.9	2.6	2.5	24.6	18.8	55.6	62.2	68.7	277.0
1936	16.1	6.4	4.2	1.8	6.4	1.4	4.0	17.8	43.8	54.5	62.3	50.6	269.4
1937	19.1	8.3	3.3	2.2	2.5	1.4	2.9	11.4	31.9	59.9	56.6	50.3	249.7
1938	19.2	2.4	1.2	1.0	1.2	0.9	1.2	10.6	13.8	37.9	54.4	64.0	207.8
1939	15.9	2.6	3.0	1.0	1.8	1.4	5.4	22.2	36.9	43.0	56.8	50.5	240.5
1940	17.5	2.4	2.1	1.3	0.9	0.9	3.5	18.7	59.6	73.6	61.1	49.2	290.9
1941	15.7	6.5	1.5	1.6	1.3	1.6	5.5	4.6	18.1	23.7	29.9	34.7	144.7
1942	11.1	1.6	1.7	1.9	1.1	1.2	4.0	12.4	22.3	26.4	37.2	46.8	167.8
1943	20.2	1.5	1.1	1.8	1.5	1.3	1.7	10.2	9.8	32.5	48.7	59.0	189.4
1944	14.2	2.2	2.0	1.9	1.6	1.5	5.3	13.8	39.5	46.7	51.7	43.3	223.9
1945	15.3	4.3	2.2	1.4	1.0	1.1	2.0	8.5	29.0	38.3	39.8	48.2	191.1
1946	2.4	1.1	1.5	1.1	1.4	0.9	1.3	6.7	9.9	30.5	46.1	58.9	161.8
1947	11.6	2.1	2.7	3.0	1.0	0.9	3.0	20.7	35.8	44.5	51.5	49.8	226.7
1948	9.2	1.4	1.1	2.5	3.7	2.8	2.1	6.9	8.1	41.5	73.9	67.2	220.4
1949	9.2	2.7	2.1	4.2	3.8	1.1	3.4	10.6	24.1	67.4	75.6	89.4	293.6
1950	41.3	4.0	2.3	4.9	4.7	4.8	1.4	2.0	3.1	53.7	71.0	86.3	279.4
1951	34.1	2.5	21.7	17.3	3.6	19.3	31.8	22.2	20.4	52.3	80.3	91.5	397.1
1952	48.0	3.4	3.4	4.3	4.1	3.0	1.5	16.9	44.4	62.3	68.1	53.3	312.6
1953	21.1	7.6	6.7	2.1	0.8	1.1	4.6	10.8	33.7	43.4	50.5	49.3	231.7
1954	13.5	1.3	0.9	3.0	3.2	1.0	3.5	18.4	16.9	37.6	63.4	70.5	233.2
1955	15.1	5.7	3.1	2.1	3.8	5.2	11.5	9.3	9.7	34.3	57.6	68.4	225.6
1956	8.7	1.5	1.2	2.3	5.8	24.4	27.9	25.1	22.1	43.7	70.8	85.2	318.8
1957	47.3	3.2	7.3	3.6	2.6	0.9	6.3	23.7	23.6	66.9	76.1	69.1	330.5
1958	29.3	3.4	1.9	1.8	0.8	1.6	6.0	28.5	40.8	48.8	78.9	52.1	293.9
1959	10.9	1.3	1.4	1.1	2.7	0.9	1.4	19.3	20.2	56.2	77.3	78.2	270.9
1960	32.0	3.9	1.8	4.3	1.4	2.2	5.6	17.7	18.8	57.7	76.3	69.8	291.5
1961	11.2	1.7	2.4	1.9	0.9	0.9	7.8	22.0	24.0	56.2	82.1	92.0	303.2
1962	41.4	4.9	2.3	2.2	1.2	2.3	4.1	24.1	38.5	49.4	61.2	50.5	282.2
1963	14.0	3.2	1.7	4.2	1.4	1.8	6.3	20.5	34.5	43.1	60.2	48.0	238.9
1964	20.2	1.1	1.4	1.0	1.1	1.0	3.6	7.2	6.5	37.7	53.8	69.4	204.1
1965	4.4	5.6	1.7	5.6	0.8	1.2	1.2	20.8	20.6	35.2	65.5	68.2	230.8
1966	11.8	4.3	3.8	4.8	2.8	1.9	4.7	15.1	42.2	61.3	71.8	53.6	278.0
1967	19.1	1.6	3.2	0.9	0.8	0.9	12.2	17.9	30.1	41.0	52.6	67.0	247.3
1968	18.9	4.9	3.1	2.1	1.7	1.3	5.6	22.0	17.8	41.9	57.7	64.4	241.5
1969	20.9	2.4	1.8	5.4	6.8	2.5	1.7	8.6	33.3	59.9	65.0	63.2	271.4
1970	17.3	4.9	2.3	2.9	0.9	1.3	7.4	12.4	27.6	40.2	61.9	58.4	237.4
1971	19.3	2.0	4.6	2.2	1.2	5.4	0.9	1.0	8.0	39.4	71.9	81.1	237.1
1972	44.5	3.5	1.7	1.7	4.2	0.9	18.6	28.5	29.7	36.8	67.9	83.0	320.8
1973	42.5	3.8	6.5	10.2	3.0	1.4	10.1	30.0	36.3	51.3	91.2	58.0	344.3
1974	18.7	1.9	0.9	2.7	0.8	0.9	1.8	15.6	19.8	32.3	82.2	76.4	254.0
1975	42.2	2.8	2.0	1.6	3.6	2.5	2.6	2.8	23.3	41.3	72.9	84.1	281.6
1976	39.2	2.0	31.5	44.5	3.4	32.3	27.6	25.2	18.1	34.1	60.5	74.8	393.2
1977	44.9	5.3	4.3	5.2	3.4	1.6	12.4	28.5	48.0	57.6	58.6	41.7	311.5
1978	19.3	1.4	2.1	2.3	1.4	1.3	3.1	19.2	32.1	41.1	54.1	48.6	226.0
1979	18.4	1.8	1.5	3.1	1.8	1.1	4.3	8.1	31.1	39.9	44.7	48.0	203.9
1980	20.0	7.6	2.2	2.0	2.0	0.9	1.1	10.1	29.4	39.6	43.5	48.9	207.3
1981	16.6	1.5	1.5	1.5	1.1	1.0	3.0	16.8	26.9	39.1	55.3	49.5	213.7
1982	7.1	1.5	1.0	1.5	1.1	0.9	1.8	9.3	12.0	37.1	50.7	65.8	189.8
1983	13.8	3.3	1.7	2.0	0.9	0.9	5.0	23.4	18.6	35.5	49.4	66.5	220.8
1984	30.2	1.1	4.1	2.6	0.9	0.9	9.7	19.5	15.2	33.3	49.1	67.3	233.9
1985	15.0	2.3	4.8	3.8	6.4	4.5	6.3	14.2	32.7	44.1	57.6	49.5	241.1
1986	19.2	1.6	2.6	2.9	1.9	0.9	4.2	11.3	30.5	40.3	47.3	46.4	209.1
1987	20.6	2.7	1.7	1.4	0.9	0.9	3.9	14.2	32.4	34.4	45.7	48.9	207.8
1988	20.7	10.8	2.1	1.8	1.1	0.9	4.0	11.2	28.6	31.0	29.4	46.5	188.1
1989	17.9	1.0	1.5	1.1	1.7	1.4	1.7	9.6	26.1	38.3	36.7	49.7	186.8
1990	17.7	1.4	1.8	1.1	1.1	0.9	1.2	11.6	26.6	38.9	36.5	49.8	188.8
1991	14.4	0.9	1.1	2.4	1.3	0.9	2.2	17.5	16.8	38.6	58.0	69.8	224.1
1992	27.0	2.9	3.0	1.5	0.9	2.4	11.6	25.5	58.2	62.6	60.6	46.3	302.6
1993	19.0	4.6	2.1	5.9	1.9	1.4	2.8	5.3	34.4	58.8	55.8	42.1	234.2
1994	2.0	6.1	1.7	1.5	1.5	0.9	1.4	3.5	20.2	27.8	25.3	28.0	119.8
1995	1.7	2.2	1.5	1.4	0.9	1.2	4.1	12.1	30.8	35.6	40.4	45.2	177.0
1996	3.5	1.3	1.2	1.2	1.3	1.2	1.8	13.3	12.1	31.8	59.5	48.9	176.9
1997	18.8	2.4	3.0	1.5	1.2	1.0	0.9	2.1	7.7	40.1	74.9	83.0	236.3
1998	34.2	2.5	1.9	2.0	0.8	1.1	7.4	23.7	36.6	44.6	55.1	85.8	295.8
1999	22.6	2.3	1.4	1.1	1.5	1.0	2.6	22.1	15.3	37.4	67.4	70.8	245.4
2000	12.4	2.0	1.8	2.2	2.2	0.9	8.4	29.5	24.3	50.1	82.4	67.2	283.6
2001	12.0	5.4	7.1	6.6	3.8	2.6	9.9	21.3	50.9	67.4	61.5	49.4	297.8
2002	16.6	2.9	1.3	1.2	1.2	1.0	1.4	6.5	10.3	40.4	59.1	65.5	207.2
2003	19.0	6.7	4.7	1.8	0.9	1.5	4.5	23.5	31.1	42.7	59.8	50.6	246.8
2004	17.1	1.7	1.2	2.0	1.5	0.9	5.5	16.9	34.6	50.4	55.6	47.6	235.1
2005	18.2	1.9	1.4	1.8	1.2	1.0	2.6	10.7	37.4	49.3	49.7	46.0	221.1
2006	18.4	1.6	2.2	1.0	1.7	0.9	1.2	5.2	25.3	37.1	36.8	49.9	181.4
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	19.0	3.0	3.4	4.0	2.0	2.8	5.3	14.8	25.7	42.8	55.4	57.1	235.3

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1 CC Adverse

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	989	820	110
1927	237	35	29	22	21	16	31	82	-	536	546	807	143
1928	122	15	17	24	22	7	-	-	-	-	-	255	28
1929	178	36	37	1	44	13	-	-	-	613	986	818	166
1930	309	189	74	34	16	25	42	102	299	436	392	672	157
1931	299	56	53	26	25	16	72	169	363	415	406	744	160
1932	92	22	23	21	28	15	18	45	-	-	-	967	74
1933	235	8	1	-	-	-	-	-	-	-	-	-	15
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	255	15
1937	311	139	52	35	44	9	-	-	-	-	818	845	136
1938	312	39	17	17	22	4	-	-	-	-	-	-	25
1939	238	20	-	-	-	-	-	-	-	-	113	849	73
1940	285	40	34	21	6	-	-	-	-	-	995	827	134
1941	255	110	23	27	24	26	93	75	304	385	486	583	145
1942	181	26	27	30	20	20	67	201	375	430	604	787	168
1943	329	22	18	30	27	21	28	148	-	-	431	992	124
1944	231	37	30	31	28	25	90	225	663	760	842	728	224
1945	250	72	35	22	18	18	34	139	488	622	647	810	191
1946	38	18	21	18	25	15	22	66	-	-	-	899	67
1947	187	35	13	-	-	-	-	-	-	-	-	208	27
1948	144	-	-	-	-	-	-	-	-	-	-	-	9
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	93	6
1953	343	128	109	35	1	-	-	-	-	-	-	606	74
1954	220	21	2	-	-	-	-	-	-	-	-	-	15
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	199	12
1959	177	11	-	-	-	-	-	-	-	-	-	-	11
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	420	25
1963	228	52	12	-	-	-	-	-	-	-	772	806	113
1964	327	19	23	17	20	16	6	-	-	-	-	-	26
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	124	7
1967	309	26	4	-	-	-	-	-	-	-	-	-	21
1968	122	-	-	-	-	-	-	-	-	-	-	-	8
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	218	34	16	-	-	-	-	-	-	-	-	-	16
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	46	3
1974	304	32	2	-	-	-	-	-	-	-	-	-	21
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	702	701	85
1978	314	24	5	-	-	-	-	-	-	-	85	816	75
1979	300	30	25	51	32	18	72	-	-	300	728	806	143
1980	325	127	35	32	34	15	19	55	220	645	707	823	184
1981	270	24	22	25	20	17	37	-	360	636	899	832	191
1982	116	25	13	24	20	13	-	-	-	-	-	-	13
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	574	833	85
1986	312	27	43	47	34	15	71	88	259	655	769	780	188
1987	335	43	28	23	15	15	66	42	417	560	742	822	188
1988	337	182	31	30	18	15	67	182	480	504	479	782	188
1989	290	17	24	18	31	22	29	155	439	623	597	835	187
1990	288	24	28	18	20	15	20	11	-	316	594	837	132
1991	235	12	15	14	-	-	-	-	-	-	-	-	17
1992	-	-	-	-	-	-	-	-	-	65	986	778	111
1993	309	78	35	97	34	22	47	87	579	956	908	708	234
1994	32	103	27	24	26	15	23	57	339	453	411	471	120
1995	28	37	22	22	17	19	69	197	517	579	657	759	177
1996	56	18	14	20	23	19	5	-	-	-	-	570	43
1997	305	40	48	24	20	-	-	-	-	-	-	-	27
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	903	830	105
2002	269	48	18	19	21	17	24	-	-	-	-	-	25
2003	221	113	77	27	-	-	-	-	-	-	30	850	79
2004	278	28	20	33	26	9	-	-	-	627	904	800	166
2005	295	32	21	29	21	16	44	174	628	801	809	773	221
2006	300	27	32	17	31	15	20	85	18	462	598	838	148
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	143	29	17	15	13	9	13	28	80	147	263	374	70

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1 CC Adverse

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	3	8	21	-	111	45	-	-	10	-	-	12
1927	-	-	-	-	-	-	-	143	-	-	-	-	9
1928	-	-	-	147	74	297	400	326	-	0	174	13	87
1929	-	-	-	35	37	0	-	-	-	13	-	-	5
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	25	-	-	-	-	-	2
1932	-	-	-	-	-	46	400	400	133	306	104	-	84
1933	-	30	366	400	115	11	234	51	-	282	343	1	111
1934	-	6	284	400	23	138	-	-	-	400	375	13	101
1935	13	10	57	315	229	13	-	-	-	396	233	-	76
1936	-	2	21	9	56	4	-	210	48	27	239	2	38
1937	-	-	-	-	-	5	-	75	-	116	18	-	13
1938	-	-	-	272	4	239	262	351	-	289	26	-	88
1939	-	11	20	0	11	5	182	-	-	9	118	-	21
1940	-	-	-	17	295	400	205	56	-	80	-	-	63
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	13	-	182	33	79	-	-	-	-	-	18
1943	-	-	-	-	-	-	200	249	9	297	64	-	50
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	166	44	-	-	-	13
1946	-	-	-	-	-	260	279	400	120	272	117	-	88
1947	-	-	104	78	238	269	285	-	-	-	148	1	67
1948	1	6	46	196	32	19	168	254	-	400	400	13	94
1949	18	16	11	29	28	1	-	-	-	400	400	19	56
1950	82	34	15	43	45	42	-	230	13	331	400	319	95
1951	266	354	258	34	22	67	1	-	-	360	400	20	109
1952	81	28	28	37	36	22	274	327	141	49	276	13	80
1953	-	-	-	-	-	2	-	216	-	16	202	12	28
1954	-	-	245	400	325	272	50	-	-	299	358	1	118
1955	-	3	19	10	28	36	-	-	21	236	326	13	42
1956	7	6	268	11	40	55	-	-	-	375	400	18	72
1957	65	26	272	400	142	0	-	-	-	400	400	13	105
1958	4	26	10	8	309	221	-	-	13	21	241	-	51
1959	-	1	42	400	255	240	-	-	-	400	400	15	106
1960	31	30	197	170	118	10	-	-	-	400	399	13	84
1961	-	8	14	30	301	-	-	-	-	400	400	21	70
1962	80	43	14	15	215	58	243	3	-	23	127	-	49
1963	-	-	8	36	7	37	243	-	-	-	-	-	20
1964	-	-	-	-	-	50	245	155	400	387	386	13	99
1965	17	47	8	47	143	153	132	-	-	118	345	13	62
1966	13	32	25	36	19	9	-	189	59	47	286	13	44
1967	-	-	26	361	303	56	6	-	22	-	184	13	58
1968	13	43	21	17	256	400	23	-	-	289	38	1	67
1969	6	15	9	46	64	15	-	271	81	150	242	13	55
1970	51	47	12	22	235	203	150	-	-	0	234	13	58
1971	-	-	32	13	4	48	-	323	53	400	400	17	79
1972	64	43	238	32	95	201	-	-	-	319	400	18	86
1973	57	41	276	299	24	4	-	-	153	38	354	13	77
1974	-	-	-	142	286	217	160	-	-	400	400	15	97
1975	60	19	10	134	37	38	39	21	-	331	400	18	68
1976	35	387	382	250	17	155	-	-	-	377	390	14	123
1977	66	43	29	39	26	6	-	-	-	-	-	-	13
1978	-	-	206	185	101	196	218	7	-	1	58	-	59
1979	-	-	-	-	-	-	-	22	-	9	-	-	2
1980	-	-	-	-	-	-	120	197	-	-	-	-	19
1981	-	-	-	-	143	189	207	21	-	-	-	-	33
1982	-	-	-	-	143	302	110	374	279	307	232	-	106
1983	-	25	8	11	130	400	-	-	-	212	79	-	52
1984	-	-	32	18	0	215	181	-	-	202	38	-	42
1985	-	3	37	0	-	-	-	-	-	4	1	-	3
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	323	252	1	-	-	-	-	35
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	230	382	14	-	-	-	38
1990	-	-	-	-	-	-	376	229	11	3	-	-	37
1991	-	27	281	196	348	271	372	103	-	266	99	-	118
1992	-	1	21	6	69	117	-	-	-	13	-	-	14
1993	-	-	-	-	-	-	-	56	-	-	-	-	3
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	185	87	-	-	-	-	-	17
1996	-	-	226	320	185	48	356	308	-	253	-	-	103
1997	-	-	-	-	-	1	173	387	-	400	400	17	84
1998	34	18	178	313	276	2	-	-	-	192	182	13	73
1999	71	15	5	373	79	69	33	71	-	363	393	13	91
2000	10	10	181	58	11	-	-	-	-	339	396	13	63
2001	13	43	54	52	28	1	-	-	-	29	-	-	13
2002	-	-	-	-	-	-	139	375	400	371	257	-	94
2003	-	-	-	-	1	6	327	-	-	8	117	-	28
2004	-	-	-	-	-	-	-	-	-	1	-	-	0
2005	-	-	-	-	-	13	282	45	-	-	-	-	20
2006	-	-	-	-	113	-	192	346	160	-	-	-	48
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	14	18	55	77	75	81	95	87	26	148	160	9	53

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1 CC Adverse

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	108	45	-	-	-	-	-	9
1927	-	-	-	-	-	-	-	143	-	-	-	-	9
1928	-	-	-	147	74	297	400	326	-	-	-	-	75
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	25	-	-	-	-	-	2
1932	-	-	-	-	-	46	400	400	133	-	-	-	59
1933	-	30	349	386	87	-	234	51	-	39	-	-	71
1934	-	-	129	-	-	-	-	-	-	24	-	-	9
1935	-	-	38	301	228	-	-	-	-	34	-	-	36
1936	-	-	-	-	-	-	-	210	48	-	-	-	16
1937	-	-	-	-	-	-	-	75	-	-	-	-	5
1938	-	-	-	272	4	239	262	351	-	-	-	-	69
1939	-	-	-	-	-	-	182	-	-	-	-	-	11
1940	-	-	-	17	295	400	205	56	-	-	-	-	58
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	13	-	182	33	79	-	-	-	-	-	18
1943	-	-	-	-	-	-	200	249	9	-	-	-	28
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	166	44	-	-	-	13
1946	-	-	-	-	-	260	279	400	120	-	-	-	64
1947	-	-	89	53	236	269	285	-	-	-	-	-	55
1948	-	-	44	179	-	-	168	254	-	60	-	-	43
1949	-	-	-	-	-	-	-	-	-	7	0	-	0
1950	-	-	-	-	-	-	-	230	13	32	0	300	35
1951	230	338	258	-	-	-	1	-	-	35	0	-	52
1952	-	-	-	-	-	-	274	327	141	-	-	-	45
1953	-	-	-	-	-	-	-	216	-	-	-	-	13
1954	-	-	245	375	297	271	50	-	-	65	-	-	78
1955	-	-	-	-	-	-	-	-	21	94	-	-	7
1956	-	-	265	-	-	-	-	-	-	240	1	-	31
1957	-	-	178	373	126	-	-	-	-	53	-	-	44
1958	-	-	-	-	309	216	-	-	13	-	-	-	31
1959	-	-	39	398	237	240	-	-	-	115	-	-	62
1960	-	-	187	138	114	-	-	-	-	96	-	-	32
1961	-	-	-	20	300	-	-	-	-	222	0	-	32
1962	-	-	-	-	211	44	243	3	-	-	-	-	29
1963	-	-	-	-	-	27	243	-	-	-	-	-	16
1964	-	-	-	-	-	50	245	155	400	11	-	-	52
1965	-	-	-	-	143	150	132	-	-	51	-	-	28
1966	-	-	-	-	-	-	-	189	59	-	-	-	15
1967	-	-	-	361	303	56	6	-	22	-	-	-	44
1968	-	-	-	4	247	397	23	-	-	-	-	-	40
1969	-	-	-	-	-	-	-	271	81	129	-	-	29
1970	-	-	-	-	234	199	150	-	-	-	-	-	34
1971	-	-	-	-	-	-	-	323	53	93	0	-	29
1972	-	13	230	25	61	201	-	-	-	226	37	-	48
1973	-	8	199	152	-	-	-	-	153	-	-	-	31
1974	-	-	-	123	286	217	160	-	-	353	17	-	69
1975	-	-	-	127	8	23	39	21	-	230	0	-	27
1976	-	374	173	-	-	-	-	-	-	328	65	-	57
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	193	168	93	192	218	7	-	-	-	-	53
1979	-	-	-	-	-	-	-	22	-	-	-	-	1
1980	-	-	-	-	-	-	120	197	-	-	-	-	19
1981	-	-	-	-	143	189	207	21	-	-	-	-	33
1982	-	-	-	-	143	302	110	374	279	-	-	-	73
1983	-	-	-	-	129	400	-	-	-	-	-	-	32
1984	-	-	-	-	-	215	181	-	-	-	-	-	24
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	323	252	1	-	-	-	-	35
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	230	382	14	-	-	-	38
1990	-	-	-	-	-	-	376	229	11	-	-	-	37
1991	-	27	281	184	343	271	372	103	-	-	-	-	94
1992	-	-	-	-	69	103	-	-	-	-	-	-	10
1993	-	-	-	-	-	-	-	56	-	-	-	-	3
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	185	87	-	-	-	-	-	17
1996	-	-	226	320	185	48	356	308	-	-	-	-	87
1997	-	-	-	-	-	-	173	387	-	152	5	-	44
1998	-	-	167	302	276	-	-	-	-	192	-	-	56
1999	-	-	-	371	73	68	33	71	-	110	-	-	44
2000	-	-	173	48	-	-	-	-	-	186	-	-	25
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	139	375	400	52	-	-	58
2003	-	-	-	-	-	-	327	-	-	-	-	-	19
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	13	282	45	-	-	-	-	20
2006	-	-	-	-	113	-	192	346	160	-	-	-	48
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	3	9	41	58	66	72	95	87	26	38	1	4	31

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1 CC Adverse

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	3	8	21	-	3	-	-	-	10	-	-	3
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	0	174	13	11
1929	-	-	-	35	37	0	-	-	-	13	-	-	5
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	306	104	-	25
1933	-	-	17	14	28	11	-	-	-	243	343	1	40
1934	-	6	155	400	23	138	-	-	-	376	375	13	91
1935	13	10	19	13	1	13	-	-	-	362	233	-	41
1936	-	2	21	9	56	4	-	-	-	27	239	2	22
1937	-	-	-	-	-	5	-	-	-	116	18	-	9
1938	-	-	-	-	-	-	-	-	-	289	26	-	19
1939	-	11	20	0	11	5	-	-	-	9	118	-	11
1940	-	-	-	-	-	-	-	-	-	80	-	-	5
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	297	64	-	22
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	272	117	-	24
1947	-	-	16	24	2	-	-	-	-	-	148	1	12
1948	1	6	2	17	32	19	-	-	-	340	400	13	51
1949	18	16	11	29	28	1	-	-	-	393	400	19	56
1950	82	34	15	43	45	42	-	-	-	298	400	19	60
1951	35	16	-	34	22	67	-	-	-	324	400	20	56
1952	81	28	28	37	36	22	-	-	-	49	276	13	35
1953	-	-	-	-	-	2	-	-	-	16	202	12	14
1954	-	-	-	25	28	1	-	-	-	234	358	1	40
1955	-	3	19	10	28	36	-	-	-	142	326	13	35
1956	7	6	3	11	40	55	-	-	-	134	399	18	41
1957	65	26	93	27	16	0	-	-	-	347	400	13	61
1958	4	26	10	8	-	6	-	-	-	21	241	-	19
1959	-	1	4	2	19	-	-	-	-	285	400	15	44
1960	31	30	9	32	5	10	-	-	-	304	399	13	51
1961	-	8	14	10	1	-	-	-	-	178	400	21	39
1962	80	43	14	15	4	14	-	-	-	23	127	-	19
1963	-	-	8	36	7	9	-	-	-	-	-	-	4
1964	-	-	-	-	-	-	-	-	-	376	386	13	48
1965	17	47	8	47	-	3	-	-	-	68	345	13	34
1966	13	32	25	36	19	9	-	-	-	47	286	13	29
1967	-	-	26	0	-	0	-	-	-	-	184	13	14
1968	13	43	21	13	10	3	-	-	-	289	38	1	26
1969	6	15	9	46	64	15	-	-	-	21	242	13	26
1970	51	47	12	22	1	3	-	-	-	0	234	13	23
1971	-	-	32	13	4	48	-	-	-	307	400	17	50
1972	64	30	8	8	34	-	-	-	-	93	363	18	38
1973	57	33	78	147	24	4	-	-	-	38	354	13	46
1974	-	-	-	19	-	-	-	-	-	47	382	15	28
1975	60	19	10	6	29	14	-	-	-	102	400	18	40
1976	35	13	209	250	17	155	-	-	-	49	325	14	66
1977	66	43	29	39	26	6	-	-	-	-	-	-	13
1978	-	-	14	17	7	4	-	-	-	1	58	-	6
1979	-	-	-	-	-	-	-	-	-	9	-	-	1
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	307	232	-	33
1983	-	25	8	11	1	-	-	-	-	212	79	-	21
1984	-	-	32	18	0	-	-	-	-	202	38	-	18
1985	-	3	37	0	-	-	-	-	-	4	1	-	3
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	3	-	-	0
1991	-	-	-	12	5	-	-	-	-	266	99	-	24
1992	-	1	21	6	-	14	-	-	-	13	-	-	3
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	253	-	-	16
1997	-	-	-	-	-	1	-	-	-	248	395	17	41
1998	34	18	11	11	-	2	-	-	-	-	182	13	17
1999	71	15	5	2	7	1	-	-	-	253	393	13	47
2000	10	10	8	10	11	-	-	-	-	153	396	13	38
2001	13	43	54	52	28	1	-	-	-	29	-	-	13
2002	-	-	-	-	-	-	-	-	-	320	257	-	35
2003	-	-	-	-	1	6	-	-	-	8	117	-	8
2004	-	-	-	-	-	-	-	-	-	1	-	-	0
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	11	8	14	20	9	9	-	-	-	110	158	5	22

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1 CC Adverse

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26	-	-	-	-	-	9,117	44,239	45,042	52,837	50,521	15,677	217,459
1927	26	-	-	-	-	-	10,372	40,777	45,457	56,443	54,080	16,461	223,616
1928	26	-	-	-	-	-	10,375	44,262	44,307	59,463	59,048	17,132	234,613
1929	26	-	-	-	-	-	8,834	42,070	42,876	49,097	46,456	14,653	204,013
1930	26	-	-	-	-	-	3,063	11,107	10,722	11,581	12,370	5,386	54,254
1931	26	-	-	-	-	-	8,012	33,216	30,858	34,333	33,826	11,531	151,803
1932	26	-	-	-	-	-	10,375	44,236	44,723	55,508	52,814	35,663	243,344
1933	26	-	-	-	-	-	10,375	44,288	45,402	59,846	61,787	43,382	265,107
1934	26	-	-	-	-	-	10,375	43,726	44,955	50,642	50,087	17,966	217,778
1935	26	-	-	-	-	-	7,735	44,585	45,402	55,342	52,088	35,299	240,477
1936	26	-	-	-	-	-	10,384	44,292	45,402	59,463	59,048	17,132	235,747
1937	26	-	-	-	-	-	10,122	44,301	45,406	58,934	57,700	17,418	233,907
1938	26	-	-	-	-	-	10,375	44,339	43,843	55,458	51,194	35,231	240,466
1939	26	-	-	-	-	-	10,392	43,270	45,402	59,531	59,978	18,172	236,772
1940	26	-	-	-	-	-	10,376	42,037	45,403	57,927	56,130	16,749	228,647
1941	26	-	-	-	-	-	1,971	6,489	7,315	8,265	9,265	4,534	37,864
1942	26	-	-	-	-	-	10,260	34,889	34,594	38,939	37,970	12,578	169,256
1943	26	-	-	-	-	-	10,375	42,306	45,403	54,085	50,313	33,945	236,453
1944	26	-	-	-	-	-	7,709	32,303	33,497	37,970	36,158	11,604	159,267
1945	26	-	-	-	-	-	10,077	43,938	44,631	59,350	58,974	17,684	234,679
1946	26	-	-	-	-	-	10,375	44,288	43,735	53,331	48,989	32,929	233,674
1947	26	-	-	-	-	-	10,376	44,288	45,035	59,531	59,730	18,141	237,126
1948	26	-	-	-	-	-	10,123	44,288	45,402	59,359	58,513	39,543	257,255
1949	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1950	20,824	-	-	-	-	-	10,375	44,288	45,400	59,587	62,114	45,029	287,617
1951	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1952	18,446	-	-	-	-	-	10,375	44,011	45,402	59,463	59,048	17,132	253,879
1953	26	-	-	-	-	-	7,209	42,757	45,422	57,808	55,830	16,917	225,969
1954	26	-	-	-	-	-	10,375	44,288	45,402	60,020	60,973	41,159	262,244
1955	26	-	-	-	-	-	8,167	44,333	45,402	56,990	54,217	36,721	245,857
1956	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1957	18,446	-	-	-	-	-	10,375	44,288	44,613	57,063	54,267	36,769	265,822
1958	26	-	-	-	-	-	10,196	44,181	45,402	59,531	59,978	18,172	237,487
1959	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1960	18,446	-	-	-	-	-	10,283	44,574	41,944	57,899	55,649	37,651	266,446
1961	26	-	-	-	-	-	10,375	44,006	45,402	59,587	62,114	45,029	266,539
1962	21,210	-	-	-	-	-	10,375	43,892	45,402	59,531	59,978	18,172	258,561
1963	26	-	-	-	-	-	9,488	39,740	39,752	45,284	43,231	13,843	191,365
1964	26	-	-	-	-	-	10,375	44,288	45,384	59,986	60,932	41,210	262,201
1965	26	-	-	-	-	-	10,377	44,130	45,402	55,924	52,845	35,888	244,592
1966	26	-	-	-	-	-	10,429	43,136	45,099	59,531	59,978	18,172	236,372
1967	26	-	-	-	-	-	7,128	43,007	45,435	57,347	55,452	16,857	225,252
1968	26	-	-	-	-	-	8,622	42,751	45,453	51,603	47,805	32,407	228,667
1969	26	-	-	-	-	-	10,375	44,356	44,443	59,531	59,978	18,172	236,883
1970	26	-	-	-	-	-	9,130	43,425	45,485	58,252	56,558	17,120	229,997
1971	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1972	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1973	18,446	-	-	-	-	-	10,122	44,301	45,402	59,531	59,978	18,172	255,953
1974	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1975	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1976	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,105	45,029	285,233
1977	18,446	-	-	-	-	-	6,384	29,319	30,403	34,560	33,786	11,430	164,328
1978	26	-	-	-	-	-	10,438	44,087	45,402	59,531	59,948	18,172	237,605
1979	26	-	-	-	-	-	8,698	39,390	37,646	43,006	41,111	13,339	183,216
1980	26	-	-	-	-	-	10,375	44,072	44,204	59,463	59,048	17,132	234,321
1981	26	-	-	-	-	-	10,321	44,100	45,403	59,080	57,951	17,460	234,340
1982	26	-	-	-	-	-	7,803	44,509	45,402	57,169	54,673	37,023	246,605
1983	26	-	-	-	-	-	7,623	44,544	45,406	53,316	49,623	33,747	234,286
1984	26	-	-	-	-	-	9,851	44,538	45,402	53,995	48,960	34,033	236,805
1985	26	-	-	-	-	-	10,122	44,301	45,554	56,605	53,668	16,634	226,911
1986	26	-	-	-	-	-	9,784	43,287	41,455	47,016	44,931	14,260	200,758
1987	26	-	-	-	-	-	10,395	44,076	44,403	51,030	48,826	15,248	214,004
1988	26	-	-	-	-	-	10,377	39,684	39,180	43,942	41,552	12,859	187,620
1989	26	-	-	-	-	-	10,375	43,619	42,412	59,531	59,978	18,172	234,113
1990	26	-	-	-	-	-	10,375	44,397	44,495	59,531	59,978	18,172	236,975
1991	26	-	-	-	-	-	10,375	43,422	44,628	56,352	53,218	36,217	244,240
1992	26	-	-	-	-	-	9,066	39,272	40,292	46,442	43,570	13,347	192,015
1993	26	-	-	-	-	-	8,711	38,821	34,845	39,606	38,206	11,862	172,077
1994	-	-	-	-	-	-	3,351	12,514	12,425	13,546	14,791	4,681	61,309
1995	-	-	-	-	-	-	10,106	44,455	45,021	52,366	49,681	14,993	216,622
1996	-	-	-	-	-	-	10,375	43,907	45,457	50,334	56,913	16,843	223,830
1997	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1998	18,446	-	-	-	-	-	7,265	43,951	45,475	57,410	55,530	16,892	244,970
1999	26	-	-	-	-	-	10,375	44,288	45,402	60,017	61,992	42,073	264,173
2000	26	-	-	-	-	-	10,375	44,294	45,405	53,696	50,042	34,043	237,881
2001	26	-	-	-	-	-	9,878	44,705	44,849	52,261	49,579	15,432	216,730
2002	26	-	-	-	-	-	10,375	43,735	45,403	58,750	58,347	39,511	256,147
2003	26	-	-	-	-	-	10,122	44,301	45,402	59,531	59,947	18,172	237,501
2004	26	-	-	-	-	-	9,650	43,944	45,694	56,773	53,417	15,699	225,203
2005	26	-	-	-	-	-	7,496	31,138	31,119	35,130	34,392	11,635	150,936
2006	26	-	-	-	-	-	10,375	44,320	44,368	59,531	59,978	18,172	236,771
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,817	-	-	-	-	-	9,510	41,693	42,507	53,421	52,750	25,320	228,018

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1 CC Adverse

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	1,075	-	-	-	-	9,848	22,930	31,568	40,237	41,124	39,989	25,979	212,750
1927	1,075	-	-	-	-	9,848	33,224	40,552	46,462	44,665	43,085	27,780	246,691
1928	1,075	-	-	-	-	9,848	33,352	46,665	49,693	49,896	48,680	31,821	271,030
1929	1,075	-	-	-	-	9,848	22,370	29,679	36,559	37,788	36,440	23,584	197,343
1930	1,075	-	-	-	-	9,848	13,693	6,022	6,977	6,886	7,687	4,591	56,778
1931	1,075	-	-	-	-	9,848	27,304	22,725	25,030	25,237	25,422	16,293	152,935
1932	1,075	-	-	-	-	9,848	33,740	46,585	52,231	57,499	55,840	35,554	292,373
1933	1,075	-	-	-	-	9,848	33,738	46,592	52,490	60,244	59,581	39,408	302,977
1934	1,075	-	-	-	-	9,848	33,741	46,288	51,088	50,604	48,661	31,313	272,617
1935	1,075	-	-	-	-	9,848	32,336	46,013	53,347	56,545	54,817	35,189	289,171
1936	1,075	-	-	-	-	9,848	26,937	39,771	49,757	49,896	48,680	31,821	257,786
1937	1,075	-	-	-	-	9,848	26,951	39,718	48,468	47,746	46,249	30,033	250,089
1938	1,075	-	-	-	-	9,848	33,741	46,655	51,137	56,750	54,706	35,130	289,042
1939	1,075	-	-	-	-	9,848	33,953	39,760	49,757	49,896	48,680	31,821	264,791
1940	1,075	-	-	-	-	9,848	33,283	40,626	48,432	48,656	47,491	30,834	260,244
1941	1,075	-	-	-	-	9,848	13,682	2,561	3,923	4,214	5,139	2,965	43,406
1942	1,075	-	-	-	-	9,848	33,980	25,019	28,576	29,131	29,038	18,746	175,413
1943	1,075	-	-	-	-	9,846	33,740	43,903	53,352	54,772	52,812	33,905	283,406
1944	1,075	-	-	-	-	9,848	17,001	21,709	27,474	28,315	27,917	17,814	151,152
1945	1,075	-	-	-	-	9,848	32,729	46,663	50,012	49,265	47,472	30,602	267,665
1946	1,075	-	-	-	-	9,848	33,917	46,592	51,299	53,850	51,385	32,830	280,796
1947	1,075	-	-	-	-	9,848	33,768	46,591	50,361	49,896	48,680	31,821	272,042
1948	1,075	-	-	-	-	9,848	33,818	46,840	52,490	61,199	60,392	38,269	303,932
1949	1,075	-	-	-	-	9,848	33,739	46,592	52,490	60,108	59,321	39,294	302,467
1950	24,043	-	-	-	-	9,848	33,740	46,592	52,490	60,108	59,321	39,294	325,435
1951	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1952	20,709	-	-	-	-	9,848	33,531	40,546	49,756	49,896	48,680	31,821	284,789
1953	1,075	-	-	-	-	9,848	29,814	42,258	47,677	46,216	44,612	28,850	250,349
1954	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,754	60,143	38,952	303,596
1955	1,075	-	-	-	-	9,846	33,926	47,013	52,675	59,083	57,277	36,406	297,301
1956	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1957	20,709	-	-	-	-	9,848	33,741	46,591	51,912	59,207	57,335	36,446	315,789
1958	1,075	-	-	-	-	9,848	32,526	40,107	49,757	49,896	48,680	31,821	263,711
1959	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1960	20,709	-	-	-	-	9,848	33,710	47,050	49,264	60,462	58,792	37,116	316,952
1961	1,075	-	-	-	-	9,848	33,741	46,522	52,489	60,108	59,321	39,294	302,397
1962	24,560	-	-	-	-	9,848	33,729	40,215	49,757	49,896	48,680	31,821	288,507
1963	1,075	-	-	-	-	9,844	32,839	28,132	33,475	34,530	33,624	21,721	195,240
1964	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,768	60,130	38,966	303,609
1965	1,075	-	-	-	-	9,847	33,812	46,906	52,938	57,413	55,692	35,710	293,392
1966	1,075	-	-	-	-	9,848	33,902	45,832	50,184	49,896	48,680	31,821	271,239
1967	1,075	-	-	-	-	9,848	29,361	42,547	47,186	45,629	44,287	28,720	248,653
1968	1,075	-	-	-	-	9,848	31,855	43,570	52,536	51,725	49,877	32,201	272,687
1969	1,075	-	-	-	-	9,848	33,741	46,675	50,753	49,896	48,680	31,821	272,490
1970	1,075	-	-	-	-	9,848	32,615	43,276	49,367	46,721	45,253	29,317	257,473
1971	1,075	-	-	-	-	9,848	33,739	46,592	52,490	60,108	59,321	39,294	302,467
1972	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1973	20,709	-	-	-	-	9,848	26,882	39,776	49,757	49,896	48,680	31,821	277,370
1974	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1975	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1976	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1977	20,709	-	-	-	-	9,848	17,515	19,572	24,611	25,418	25,380	16,125	159,178
1978	1,075	-	-	-	-	9,848	33,760	40,615	49,757	49,896	48,680	31,821	265,453
1979	1,075	-	-	-	-	9,848	21,020	27,606	31,476	32,598	31,779	20,518	175,919
1980	1,075	-	-	-	-	9,848	33,865	46,500	49,228	49,896	48,680	31,821	270,913
1981	1,075	-	-	-	-	9,848	33,814	40,885	48,809	48,087	46,536	30,108	259,162
1982	1,075	-	-	-	-	9,848	32,817	46,451	52,786	59,316	57,809	36,645	296,747
1983	1,075	-	-	-	-	9,848	32,361	46,488	53,482	53,798	52,022	33,700	282,774
1984	1,075	-	-	-	-	9,848	33,246	46,302	53,088	54,691	52,672	34,065	284,988
1985	1,075	-	-	-	-	9,848	26,774	38,976	45,157	44,834	43,448	28,212	238,324
1986	1,075	-	-	-	-	9,848	32,934	31,944	35,092	36,008	35,111	22,650	204,662
1987	1,075	-	-	-	-	9,848	33,756	42,760	38,466	39,421	38,594	24,957	228,877
1988	1,075	-	-	-	-	9,843	33,851	29,687	32,864	33,398	32,705	20,978	194,400
1989	1,075	-	-	-	-	9,848	33,789	46,075	48,049	49,896	48,680	31,821	269,234
1990	1,075	-	-	-	-	9,848	33,740	46,888	50,829	49,896	48,680	31,821	272,778
1991	1,075	-	-	-	-	9,848	33,777	45,910	52,199	58,114	56,249	35,980	293,152
1992	1,075	-	-	-	-	9,848	19,613	27,191	33,914	35,548	34,499	22,237	183,926
1993	1,075	-	-	-	-	9,848	25,698	27,192	28,813	29,688	29,237	18,738	170,290
1994	1,075	-	-	-	-	9,848	20,286	7,069	8,503	8,468	9,687	6,069	71,004
1995	1,072	-	-	-	-	9,848	29,833	36,175	39,990	40,701	39,275	25,419	222,314
1996	1,075	-	-	-	-	9,848	33,826	44,275	51,909	50,254	48,222	31,045	270,453
1997	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1998	20,709	-	-	-	-	9,848	30,003	38,930	46,319	45,729	44,357	28,808	264,702
1999	1,075	-	-	-	-	9,848	33,737	46,592	52,490	60,578	59,919	39,156	303,397
2000	1,075	-	-	-	-	9,848	33,741	45,849	53,481	54,278	52,452	33,995	284,720
2001	1,075	-	-	-	-	9,848	25,634	33,802	39,863	40,606	39,160	25,469	215,457
2002	1,075	-	-	-	-	9,848	33,767	46,196	52,495	60,634	60,407	38,240	302,662
2003	1,075	-	-	-	-	9,848	28,037	39,768	49,754	49,896	48,680	31,821	258,880
2004	1,075	-	-	-	-	9,848	33,120	39,338	44,211	44,938	43,523	28,142	244,196
2005	1,075	-	-	-	-	9,848	26,942	21,030	25,273	25,900	25,910	16,548	152,525
2006	1,075	-	-	-	-	9,848	33,825	46,632	50,882	49,896	48,680	31,821	272,659
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	4,072	-	-	-	-	9,848	30,955	39,982	45,615	48,144	47,047	30,539	256,202

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1 CC Adverse

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	23,894	-	-	-	-	6,904	47,279	81,851	79,668	87,446	81,409	52,498	460,949
1927	23,300	-	-	-	-	6,904	53,685	91,754	85,813	91,430	84,526	53,378	490,789
1928	23,894	-	-	-	-	6,904	54,526	108,631	95,016	97,312	90,146	55,333	531,763
1929	23,894	-	-	-	-	6,904	47,265	79,422	76,035	83,696	77,842	51,336	446,394
1930	23,894	-	-	-	-	6,904	39,126	48,958	46,768	48,941	48,931	42,109	305,633
1931	23,894	-	-	-	-	6,904	45,302	70,493	64,624	69,576	66,765	47,795	395,352
1932	23,894	-	-	-	-	6,904	56,318	109,517	111,308	106,462	97,359	57,369	569,130
1933	23,894	-	-	-	-	6,904	56,318	110,491	119,328	122,092	110,556	61,677	611,261
1934	23,894	-	-	-	-	6,904	56,318	104,488	91,840	98,109	90,139	55,091	526,783
1935	23,894	-	-	-	-	6,904	51,343	102,815	96,034	104,800	96,324	57,143	539,258
1936	23,894	-	-	-	-	6,904	49,605	92,416	89,080	97,312	90,146	55,333	504,690
1937	23,894	-	-	-	-	6,904	49,221	92,353	87,803	94,894	87,704	54,469	497,242
1938	23,894	-	-	-	-	6,904	56,318	109,625	105,864	105,047	96,213	57,105	560,969
1939	23,894	-	-	-	-	6,904	53,919	89,906	89,080	97,312	90,146	55,333	506,494
1940	23,894	-	-	-	-	6,904	54,081	90,734	87,769	95,917	88,953	54,856	503,108
1941	23,894	-	-	-	-	6,904	37,630	44,491	43,749	45,936	46,366	41,322	290,292
1942	23,894	-	-	-	-	6,904	50,952	71,874	68,130	73,957	70,400	48,985	415,096
1943	23,894	-	-	-	-	6,904	56,318	93,308	95,983	102,796	94,316	56,385	529,903
1944	23,894	-	-	-	-	6,904	44,374	69,150	67,040	73,040	69,276	48,535	402,213
1945	23,894	-	-	-	-	6,904	48,652	103,772	90,523	96,602	88,936	54,755	514,039
1946	23,894	-	-	-	-	6,904	54,418	110,491	105,561	101,760	92,884	55,833	551,745
1947	23,894	-	-	-	-	6,904	56,049	110,491	94,897	97,312	90,146	55,333	535,025
1948	23,894	-	-	-	-	6,904	55,114	108,885	105,481	113,539	103,791	59,525	577,134
1949	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1950	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1951	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1952	27,579	-	-	-	-	6,904	54,584	93,621	89,080	97,312	90,146	55,333	514,560
1953	23,894	-	-	-	-	6,904	50,410	95,668	87,018	93,173	86,061	53,897	497,026
1954	23,894	-	-	-	-	6,904	56,318	110,491	113,606	116,847	106,674	60,432	595,166
1955	23,894	-	-	-	-	6,904	53,646	106,566	100,640	107,882	98,796	57,943	556,271
1956	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1957	27,579	-	-	-	-	6,904	56,318	110,491	106,352	108,050	98,854	57,969	572,517
1958	23,894	-	-	-	-	6,904	49,577	92,539	89,080	97,312	90,146	55,333	504,784
1959	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1960	27,579	-	-	-	-	6,904	54,452	103,251	94,157	109,865	100,460	58,466	555,134
1961	23,894	-	-	-	-	6,904	56,318	105,925	119,659	123,857	118,505	81,083	636,146
1962	27,579	-	-	-	-	6,904	55,327	91,935	89,080	97,312	90,146	55,333	513,616
1963	23,894	-	-	-	-	6,904	48,938	76,855	72,977	80,031	75,012	49,122	433,733
1964	23,229	-	-	-	-	6,904	56,318	110,491	114,879	116,738	106,760	60,461	595,780
1965	23,894	-	-	-	-	6,904	53,082	105,543	98,941	105,810	97,200	57,475	548,849
1966	23,894	-	-	-	-	6,904	54,273	100,769	90,839	97,312	90,146	55,333	519,471
1967	23,894	-	-	-	-	6,904	50,154	96,034	86,534	92,514	85,732	53,832	495,598
1968	23,894	-	-	-	-	6,904	47,277	93,242	92,022	99,370	91,356	55,524	509,589
1969	23,894	-	-	-	-	6,904	56,318	109,350	99,419	97,312	90,146	55,333	538,676
1970	23,894	-	-	-	-	6,904	46,187	96,562	88,685	93,742	86,702	54,125	496,801
1971	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1972	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1973	27,579	-	-	-	-	6,904	49,745	92,416	89,080	97,312	90,146	55,333	508,515
1974	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1975	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1976	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1977	27,579	-	-	-	-	6,904	43,773	66,400	64,209	69,780	66,726	45,931	391,302
1978	23,894	-	-	-	-	6,904	52,536	93,750	89,080	97,312	90,146	55,333	508,955
1979	23,894	-	-	-	-	6,904	47,231	76,781	70,998	77,859	73,155	49,847	426,669
1980	23,894	-	-	-	-	6,904	55,041	107,855	88,488	97,312	90,146	55,333	524,973
1981	23,894	-	-	-	-	6,904	54,267	94,653	88,143	95,278	87,993	54,510	505,643
1982	23,894	-	-	-	-	6,904	52,181	104,044	99,721	108,158	99,331	58,111	552,345
1983	23,894	-	-	-	-	6,904	50,565	103,533	93,945	101,701	93,510	56,275	530,327
1984	23,894	-	-	-	-	6,904	50,920	103,715	97,693	102,706	94,167	56,476	536,475
1985	23,894	-	-	-	-	6,904	49,618	91,444	84,527	91,619	84,887	53,583	486,476
1986	23,404	-	-	-	-	6,904	50,695	80,848	74,576	81,694	76,505	50,885	445,512
1987	23,894	-	-	-	-	6,904	54,656	101,558	77,912	85,532	80,007	52,006	482,467
1988	23,894	-	-	-	-	6,904	55,199	77,452	72,370	78,757	74,089	50,073	438,739
1989	23,894	-	-	-	-	6,904	55,981	106,105	88,542	97,312	90,146	55,333	524,217
1990	23,894	-	-	-	-	6,904	56,318	106,360	100,480	97,312	90,146	55,333	536,746
1991	23,894	-	-	-	-	6,904	56,099	105,931	99,135	106,673	97,762	57,657	554,055
1992	23,894	-	-	-	-	6,904	46,374	76,213	73,410	81,178	75,892	50,681	434,545
1993	23,894	-	-	-	-	6,904	43,241	76,272	68,365	74,584	70,603	48,982	412,845
1994	23,894	-	-	-	-	6,904	39,235	50,305	48,277	50,720	50,938	42,827	313,101
1995	23,894	-	-	-	-	6,904	44,172	87,833	79,426	86,971	80,694	52,228	462,121
1996	23,894	-	-	-	-	6,904	55,780	98,166	91,728	97,715	89,696	54,963	518,847
1997	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1998	27,579	-	-	-	-	6,904	49,937	91,385	85,678	92,626	85,801	53,874	493,783
1999	23,894	-	-	-	-	6,904	56,318	110,491	116,440	118,198	108,105	60,942	601,291
2000	23,894	-	-	-	-	6,904	56,318	102,406	94,524	102,241	93,944	56,437	536,667
2001	23,894	-	-	-	-	6,904	48,196	84,756	79,299	86,864	80,579	49,159	459,652
2002	23,741	-	-	-	-	6,904	56,166	106,830	119,588	112,584	103,596	59,506	588,915
2003	23,894	-	-	-	-	6,904	49,787	92,416	89,080	97,312	90,146	55,333	504,872
2004	23,894	-	-	-	-	6,904	51,845	90,949	83,599	91,736	84,964	53,555	487,445
2005	23,894	-	-	-	-	6,904	42,896	68,287	64,864	70,322	67,258	47,917	392,342
2006	23,894	-	-	-	-	6,904	55,770	109,947	99,491	97,312	90,146	55,333	538,798
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,417	-	-	-	-	6,904	52,148	95,923	92,831	98,134	91,492	58,076	519,924

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1 CC Adverse

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26,528	-	-	-	-	11,217	42,568	52,998	52,710	54,370	54,005	40,564	334,961
1927	18,247	-	-	-	-	11,217	44,229	59,983	64,902	65,570	64,605	52,650	381,402
1928	26,528	-	-	-	-	11,217	44,715	64,059	65,112	66,795	65,840	53,221	397,487
1929	26,528	-	-	-	-	11,217	43,037	53,955	53,272	55,033	54,520	48,338	345,900
1930	24,186	-	-	-	-	11,217	42,032	46,673	45,259	47,083	46,697	45,014	308,161
1931	26,528	-	-	-	-	11,217	42,903	54,389	52,361	54,101	53,924	48,057	343,480
1932	23,678	-	-	-	-	11,217	45,989	64,439	69,338	70,660	69,916	54,906	410,142
1933	26,528	-	-	-	-	11,217	45,029	63,472	71,354	76,018	74,949	57,342	425,908
1934	26,528	-	-	-	-	11,217	45,989	62,155	65,651	68,082	66,927	53,619	400,168
1935	26,528	-	-	-	-	11,217	43,791	63,103	68,825	70,599	69,488	54,779	408,330
1936	26,528	-	-	-	-	11,217	43,761	59,873	59,725	61,083	60,429	50,921	373,538
1937	26,528	-	-	-	-	11,217	43,358	59,316	58,932	60,184	59,501	44,439	363,475
1938	13,181	-	-	-	-	11,217	45,989	64,541	67,726	70,692	69,442	54,757	397,545
1939	26,528	-	-	-	-	11,217	44,871	57,403	59,250	60,619	59,944	50,687	370,518
1940	26,528	-	-	-	-	11,217	44,465	55,303	56,205	57,626	57,194	45,154	353,693
1941	16,159	-	-	-	-	11,217	42,142	46,673	45,167	46,673	46,673	45,014	299,718
1942	26,528	-	-	-	-	11,217	43,346	51,456	50,698	52,566	52,384	47,416	335,611
1943	20,248	-	-	-	-	11,217	45,989	58,570	68,660	69,846	68,656	54,350	397,535
1944	26,528	-	-	-	-	11,217	42,305	50,261	49,305	51,272	51,019	46,773	328,680
1945	26,528	-	-	-	-	11,217	40,869	62,005	58,916	59,794	59,021	50,229	368,579
1946	26,528	-	-	-	-	11,217	44,715	64,825	66,341	69,455	68,063	54,037	405,180
1947	26,528	-	-	-	-	11,217	45,819	64,825	64,216	64,416	63,515	52,183	392,720
1948	26,528	-	-	-	-	11,217	44,598	63,472	70,419	73,883	72,579	56,125	418,821
1949	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	63,437	435,386
1950	36,805	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	447,015
1951	36,441	-	-	-	-	11,217	45,654	63,472	71,459	76,952	77,292	64,789	447,276
1952	36,472	-	-	-	-	11,217	44,586	60,987	61,111	62,365	61,564	51,364	389,665
1953	26,528	-	-	-	-	11,217	43,763	62,762	65,236	66,225	65,241	52,943	393,914
1954	26,528	-	-	-	-	11,217	45,029	63,472	70,784	74,838	73,772	56,638	422,278
1955	26,528	-	-	-	-	11,217	44,888	63,471	69,949	71,759	70,512	55,231	413,554
1956	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1957	36,441	-	-	-	-	11,217	45,915	64,825	69,197	71,822	70,536	55,246	425,199
1958	26,528	-	-	-	-	11,217	41,411	59,229	59,116	60,509	59,910	50,674	368,595
1959	25,782	-	-	-	-	11,217	45,068	63,472	71,459	76,952	77,292	64,789	436,031
1960	34,475	-	-	-	-	11,217	45,117	62,133	63,597	72,504	71,201	55,526	415,770
1961	26,528	-	-	-	-	11,217	45,805	62,934	72,313	76,952	77,292	63,842	436,884
1962	37,028	-	-	-	-	11,217	45,162	59,031	59,629	60,891	60,113	50,749	383,821
1963	26,528	-	-	-	-	11,217	42,118	52,348	51,288	53,372	52,879	29,480	319,230
1964	13,455	-	-	-	-	11,217	45,029	63,472	70,926	74,815	73,808	56,654	409,376
1965	26,528	-	-	-	-	11,217	43,631	63,235	69,390	70,979	69,851	54,966	409,797
1966	26,528	-	-	-	-	11,217	45,200	60,445	59,757	60,348	59,619	50,513	373,627
1967	26,528	-	-	-	-	11,217	43,677	62,829	65,030	65,977	65,105	52,907	393,269
1968	26,528	-	-	-	-	11,217	41,125	59,728	67,326	68,556	67,432	53,863	395,775
1969	26,528	-	-	-	-	11,217	45,989	64,441	65,963	67,118	66,131	53,308	400,696
1970	26,528	-	-	-	-	11,217	40,462	62,386	65,947	66,439	65,507	53,072	391,557
1971	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1972	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1973	36,441	-	-	-	-	11,217	43,683	58,845	58,726	60,064	59,458	50,493	378,925
1974	21,555	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	431,765
1975	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1976	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1977	36,441	-	-	-	-	11,217	42,113	46,690	45,224	47,180	47,175	27,395	303,436
1978	14,718	-	-	-	-	11,217	43,861	61,458	63,155	64,262	63,415	52,153	374,239
1979	26,528	-	-	-	-	11,217	43,168	53,800	51,867	53,932	53,459	47,435	341,406
1980	10,889	-	-	-	-	11,217	45,109	63,689	57,035	58,826	58,145	49,876	354,786
1981	26,528	-	-	-	-	11,217	44,996	58,337	57,083	58,319	57,693	49,687	363,859
1982	26,528	-	-	-	-	11,217	44,568	63,254	69,815	71,863	70,733	55,326	413,303
1983	26,528	-	-	-	-	11,217	44,069	63,219	68,015	69,433	68,324	54,288	405,093
1984	26,528	-	-	-	-	11,217	42,892	63,209	69,141	69,811	68,595	54,402	405,795
1985	26,528	-	-	-	-	11,217	43,183	55,916	53,990	55,300	54,831	40,059	341,023
1986	14,932	-	-	-	-	11,217	42,868	53,557	52,135	54,141	53,661	47,554	330,065
1987	15,910	-	-	-	-	11,217	44,798	60,792	51,986	54,017	53,599	47,932	340,251
1988	22,299	-	-	-	-	11,217	45,447	54,010	54,015	55,911	55,382	48,665	346,946
1989	26,528	-	-	-	-	11,217	45,747	62,780	57,689	60,526	59,782	50,592	374,861
1990	26,528	-	-	-	-	11,217	45,989	63,269	65,634	65,438	64,465	52,586	395,126
1991	26,528	-	-	-	-	11,217	45,824	62,621	68,002	71,304	70,084	55,070	410,649
1992	26,528	-	-	-	-	11,217	42,588	50,883	49,969	51,989	51,653	43,390	328,218
1993	9,802	-	-	-	-	11,217	41,041	55,631	53,110	55,121	54,706	48,380	329,007
1994	23,568	-	-	-	-	11,217	41,062	47,480	45,920	47,408	47,969	45,449	310,073
1995	26,528	-	-	-	-	11,217	40,661	58,551	57,055	58,640	57,979	49,825	360,455
1996	26,528	-	-	-	-	11,217	45,599	62,087	67,133	67,934	66,744	53,546	400,788
1997	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1998	36,441	-	-	-	-	11,217	43,392	62,306	64,664	66,019	65,134	52,930	402,103
1999	26,528	-	-	-	-	11,217	45,029	63,472	71,138	75,178	74,328	56,927	423,815
2000	26,528	-	-	-	-	11,217	45,989	62,648	68,242	69,636	68,503	54,380	407,143
2001	26,528	-	-	-	-	11,217	42,795	53,330	51,779	53,341	52,884	22,991	314,865
2002	10,563	-	-	-	-	11,217	45,844	63,137	72,937	73,085	72,498	56,115	405,395
2003	26,528	-	-	-	-	11,217	44,105	59,093	58,938	60,375	59,786	50,640	370,680
2004	21,336	-	-	-	-	11,217	43,783	56,580	55,244	56,851	56,308	48,088	349,407
2005	16,027	-	-	-	-	11,217	40,998	50,760	49,298	51,190	51,067	46,805	317,363
2006	26,528	-	-	-	-	11,217	45,562	64,631	65,307	65,764	64,761	52,706	396,475
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	25,917	-	-	-	-	11,217	44,125	59,824	62,360	64,706	64,112	52,279	384,540

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1 CC Adverse

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	869	-	-	-	-	458	1,892	14,174	16,443	16,899	16,865	14,188	81,788
1927	744	-	-	-	-	458	4,946	13,437	17,395	18,447	18,447	16,465	90,338
1928	869	-	-	-	-	458	5,013	14,006	16,710	18,447	18,447	16,534	90,483
1929	869	-	-	-	-	458	2,113	14,207	16,541	17,030	16,969	15,344	83,531
1930	869	-	-	-	-	458	1,565	13,818	14,896	15,453	15,377	14,280	76,715
1931	869	-	-	-	-	458	3,633	14,196	16,364	16,845	16,848	15,265	84,477
1932	869	-	-	-	-	458	5,193	14,109	16,738	18,143	18,447	16,566	90,522
1933	869	-	-	-	-	458	5,193	14,249	17,845	19,107	18,447	16,596	92,763
1934	869	-	-	-	-	458	5,193	13,408	16,812	18,447	18,447	16,543	90,176
1935	869	-	-	-	-	458	4,314	14,249	17,395	18,447	18,447	16,565	90,743
1936	869	-	-	-	-	458	3,380	14,249	17,393	18,230	18,173	16,063	88,814
1937	869	-	-	-	-	458	3,097	14,249	17,360	18,052	17,984	15,092	87,159
1938	774	-	-	-	-	458	5,193	14,145	16,487	18,447	18,447	16,564	90,514
1939	869	-	-	-	-	458	5,007	13,703	17,385	18,138	18,074	15,999	89,633
1940	869	-	-	-	-	458	4,979	12,949	17,020	17,544	17,514	14,297	85,629
1941	776	-	-	-	-	458	1,745	13,818	14,876	15,372	15,372	14,280	76,697
1942	869	-	-	-	-	458	4,747	13,909	16,037	16,541	16,534	15,074	84,170
1943	869	-	-	-	-	458	5,193	12,919	17,395	18,447	18,447	16,559	90,286
1944	869	-	-	-	-	458	1,421	14,051	15,749	16,284	16,256	14,875	79,964
1945	869	-	-	-	-	458	4,554	13,340	16,561	17,975	17,886	15,877	87,519
1946	869	-	-	-	-	458	5,007	14,249	15,894	18,447	18,447	16,552	89,921
1947	869	-	-	-	-	458	5,169	14,249	17,109	18,447	18,447	16,372	91,119
1948	869	-	-	-	-	458	5,071	14,249	17,395	18,447	18,447	16,581	91,515
1949	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	16,411	96,897
1950	2,868	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	99,756
1951	3,337	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	16,836	99,789
1952	3,872	-	-	-	-	458	5,021	14,046	17,395	18,447	18,399	16,179	93,817
1953	869	-	-	-	-	458	4,032	14,249	17,395	18,447	18,447	16,512	90,408
1954	869	-	-	-	-	458	5,193	14,249	17,416	18,447	18,447	16,587	91,664
1955	869	-	-	-	-	458	4,652	14,249	17,395	18,447	18,447	16,570	91,086
1956	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1957	2,643	-	-	-	-	458	5,193	14,249	16,826	18,447	18,447	16,570	92,832
1958	869	-	-	-	-	458	4,644	14,179	17,382	18,116	18,067	15,996	89,711
1959	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1960	3,854	-	-	-	-	458	5,057	13,288	15,359	18,447	18,447	16,574	91,482
1961	869	-	-	-	-	458	5,193	13,695	17,887	20,637	21,193	16,359	96,291
1962	2,738	-	-	-	-	458	5,133	13,984	17,390	18,192	18,108	16,016	92,020
1963	869	-	-	-	-	458	4,547	14,061	16,157	16,701	16,635	12,196	81,624
1964	772	-	-	-	-	458	5,193	14,249	17,570	18,447	18,447	16,588	91,723
1965	869	-	-	-	-	458	4,913	14,077	17,395	18,447	18,447	16,567	91,172
1966	869	-	-	-	-	458	4,997	12,979	16,960	18,084	18,007	15,953	88,308
1967	869	-	-	-	-	458	3,976	14,249	17,395	18,447	18,447	16,507	90,347
1968	869	-	-	-	-	458	4,373	13,355	17,395	18,447	18,447	16,548	89,891
1969	869	-	-	-	-	458	5,193	14,099	16,387	18,447	18,447	16,535	90,433
1970	869	-	-	-	-	458	4,294	14,155	17,395	18,447	18,447	16,529	90,593
1971	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1972	3,701	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,589
1973	3,968	-	-	-	-	458	2,928	14,249	17,336	18,028	17,975	15,946	90,887
1974	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1975	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1976	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1977	3,937	-	-	-	-	458	1,097	13,820	14,888	15,473	15,474	12,487	77,634
1978	765	-	-	-	-	458	4,840	14,064	17,395	18,447	18,446	16,366	90,780
1979	869	-	-	-	-	458	2,119	14,174	16,272	16,812	16,753	15,210	82,666
1980	731	-	-	-	-	458	5,058	13,875	16,438	17,783	17,707	15,780	87,829
1981	869	-	-	-	-	458	5,046	14,075	17,121	17,682	17,615	15,728	88,594
1982	869	-	-	-	-	458	4,435	14,249	17,395	18,447	18,447	16,571	90,869
1983	869	-	-	-	-	458	4,343	14,249	17,395	18,447	18,447	16,558	90,765
1984	869	-	-	-	-	458	4,644	14,249	17,395	18,447	18,447	16,560	91,067
1985	869	-	-	-	-	458	2,474	14,239	16,665	17,083	17,033	14,253	83,073
1986	698	-	-	-	-	458	4,733	13,973	16,324	16,853	16,795	15,162	84,996
1987	855	-	-	-	-	458	5,069	13,905	16,295	16,829	16,782	15,228	85,420
1988	869	-	-	-	-	458	5,099	13,820	16,670	17,204	17,145	15,438	86,703
1989	869	-	-	-	-	458	5,161	13,627	15,488	18,120	18,041	15,974	87,737
1990	869	-	-	-	-	458	5,193	13,692	16,412	18,447	18,447	16,454	89,971
1991	869	-	-	-	-	458	5,181	13,682	16,774	18,447	18,447	16,568	90,424
1992	869	-	-	-	-	458	1,472	14,080	15,887	16,426	16,385	14,793	80,371
1993	777	-	-	-	-	458	3,083	14,220	16,503	17,048	17,007	15,357	84,453
1994	869	-	-	-	-	458	2,632	13,866	15,037	15,518	15,635	14,430	78,446
1995	869	-	-	-	-	458	3,636	14,249	17,156	17,746	17,673	15,765	87,552
1996	869	-	-	-	-	458	5,160	13,902	17,395	18,447	18,447	16,541	91,218
1997	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1998	3,968	-	-	-	-	458	3,995	14,249	17,395	18,447	18,447	16,510	93,468
1999	869	-	-	-	-	458	5,193	14,249	17,654	18,447	18,447	16,591	91,906
2000	869	-	-	-	-	458	5,193	14,145	17,395	18,447	18,447	16,560	91,512
2001	869	-	-	-	-	458	2,309	14,165	16,261	16,695	16,636	10,974	78,367
2002	758	-	-	-	-	458	5,184	13,799	17,876	18,282	18,447	16,581	91,386
2003	869	-	-	-	-	458	3,329	14,249	17,367	18,090	18,042	15,986	88,389
2004	869	-	-	-	-	458	4,744	13,704	16,898	17,391	17,334	15,560	86,957
2005	767	-	-	-	-	458	3,340	14,058	15,748	16,268	16,266	14,885	81,790
2006	869	-	-	-	-	458	5,162	14,184	16,155	18,447	18,447	16,475	90,196
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,255	-	-	-	-	458	4,373	14,014	16,946	18,222	18,282	15,967	89,516

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP4 Large 400 cfs WDC1 CC Adverse

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	5,536	-	-	-	-	20	10,440	13,571	14,230	13,127	14,194	12,849	83,966
1927	5,536	-	-	-	-	20	11,258	13,817	14,339	13,127	14,194	12,849	85,140
1928	5,536	-	-	-	-	20	11,423	15,280	14,365	14,065	14,735	13,329	88,753
1929	5,536	-	-	-	-	20	10,540	13,571	14,230	13,127	14,194	12,849	84,067
1930	5,536	-	-	-	-	20	8,342	12,454	11,508	10,903	11,990	11,798	72,551
1931	5,536	-	-	-	-	20	10,597	13,397	12,805	11,195	13,468	12,611	79,628
1932	5,536	-	-	-	-	20	11,828	15,414	15,153	14,175	14,735	13,329	90,190
1933	5,536	-	-	-	-	20	11,828	15,543	16,223	17,239	17,346	15,376	99,110
1934	5,536	-	-	-	-	20	11,828	14,735	14,246	14,065	14,735	13,329	88,494
1935	5,536	-	-	-	-	20	10,550	13,791	14,527	14,065	14,735	13,329	86,553
1936	5,536	-	-	-	-	20	10,707	13,791	14,527	14,065	14,735	13,329	86,711
1937	5,536	-	-	-	-	20	10,602	13,791	14,527	14,065	14,735	13,329	86,606
1938	5,536	-	-	-	-	20	11,828	15,424	14,642	14,065	14,735	13,329	89,579
1939	5,536	-	-	-	-	20	11,359	13,598	14,527	14,065	14,735	13,329	87,169
1940	5,536	-	-	-	-	20	11,337	13,576	14,527	14,065	14,735	13,329	87,125
1941	5,536	-	-	-	-	20	8,562	12,454	11,508	10,903	11,990	11,798	72,772
1942	5,536	-	-	-	-	20	10,816	13,281	13,121	11,427	13,468	12,611	80,279
1943	5,536	-	-	-	-	20	11,828	13,331	14,527	14,065	14,735	13,329	87,371
1944	5,536	-	-	-	-	20	9,894	13,395	13,121	11,427	13,468	12,611	79,471
1945	5,536	-	-	-	-	20	10,153	14,629	14,129	14,065	14,735	13,329	86,597
1946	5,536	-	-	-	-	20	11,354	15,543	14,392	14,065	14,735	13,329	88,974
1947	5,536	-	-	-	-	20	11,773	15,543	14,615	14,065	14,735	13,329	89,616
1948	5,536	-	-	-	-	20	11,348	14,763	15,001	14,065	14,735	13,329	88,798
1949	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,380	14,140	14,527	14,065	14,735	13,329	89,589
1953	5,536	-	-	-	-	20	10,615	13,791	14,527	13,351	14,194	12,849	84,883
1954	5,536	-	-	-	-	20	11,828	15,543	15,928	17,070	17,346	14,638	97,908
1955	5,536	-	-	-	-	20	11,401	14,172	14,527	14,065	14,735	13,329	87,786
1956	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1957	7,393	-	-	-	-	20	11,828	15,543	14,740	14,065	14,735	13,329	91,653
1958	5,536	-	-	-	-	20	10,344	13,904	14,527	14,065	14,735	13,329	86,460
1959	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1960	7,393	-	-	-	-	20	11,503	14,554	13,190	14,065	14,735	13,329	88,789
1961	5,536	-	-	-	-	20	11,828	14,921	16,253	17,629	17,780	15,757	99,723
1962	7,393	-	-	-	-	20	11,551	13,876	14,527	14,065	14,735	13,329	89,496
1963	5,536	-	-	-	-	20	10,556	13,491	14,230	13,127	14,194	12,849	84,003
1964	5,536	-	-	-	-	20	11,828	15,543	16,021	17,070	17,346	15,049	98,411
1965	5,536	-	-	-	-	20	11,026	14,439	14,527	14,065	14,735	13,329	87,678
1966	5,536	-	-	-	-	20	11,498	14,222	14,347	14,065	14,735	13,329	87,752
1967	5,536	-	-	-	-	20	10,593	13,791	14,430	13,127	14,194	12,849	84,540
1968	5,536	-	-	-	-	20	10,325	13,377	14,527	14,065	14,735	13,329	85,914
1969	5,536	-	-	-	-	20	11,828	15,382	14,356	14,065	14,735	13,329	89,251
1970	5,536	-	-	-	-	20	9,972	13,704	14,527	14,065	14,632	12,849	85,305
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,743	13,791	14,527	14,065	14,735	13,329	88,604
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	8,770	12,833	12,155	11,221	13,468	12,611	78,471
1978	5,536	-	-	-	-	20	11,055	14,158	14,527	14,065	14,735	13,329	87,425
1979	5,536	-	-	-	-	20	10,563	13,553	13,121	12,605	14,194	12,764	82,355
1980	5,536	-	-	-	-	20	11,509	15,189	14,036	14,065	14,735	13,329	88,419
1981	5,536	-	-	-	-	20	11,457	14,303	14,527	14,065	14,735	13,329	87,972
1982	5,536	-	-	-	-	20	10,732	13,791	14,527	14,065	14,735	13,329	86,736
1983	5,536	-	-	-	-	20	10,613	13,791	14,527	14,065	14,735	13,329	86,617
1984	5,536	-	-	-	-	20	10,760	13,791	14,527	14,065	14,735	13,329	86,764
1985	5,536	-	-	-	-	20	10,709	13,769	14,230	13,127	14,194	12,849	84,434
1986	5,536	-	-	-	-	20	10,803	13,513	14,230	13,127	14,194	12,849	84,271
1987	5,536	-	-	-	-	20	11,429	15,013	14,230	13,127	14,194	12,849	86,398
1988	5,536	-	-	-	-	20	11,598	13,464	14,230	13,127	14,194	12,849	85,018
1989	5,536	-	-	-	-	20	11,739	14,952	13,329	14,065	14,735	13,329	87,706
1990	5,536	-	-	-	-	20	11,828	14,993	14,433	14,065	14,735	13,329	88,939
1991	5,536	-	-	-	-	20	11,770	14,900	14,298	14,065	14,735	13,329	88,653
1992	5,536	-	-	-	-	20	10,544	13,571	14,230	13,127	14,194	12,849	84,071
1993	5,536	-	-	-	-	20	9,826	13,535	13,121	11,427	13,468	12,611	79,544
1994	5,536	-	-	-	-	20	9,294	12,454	11,508	10,903	11,990	11,798	73,504
1995	5,536	-	-	-	-	20	9,783	13,637	14,230	13,127	14,194	12,849	83,375
1996	5,536	-	-	-	-	20	11,677	14,118	14,527	14,065	14,735	13,329	88,008
1997	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1998	7,393	-	-	-	-	20	10,434	13,710	14,357	13,127	14,194	12,849	86,083
1999	5,536	-	-	-	-	20	11,828	15,543	16,092	17,070	17,346	15,376	98,810
2000	5,536	-	-	-	-	20	11,828	13,759	14,527	14,065	14,735	13,329	87,799
2001	5,536	-	-	-	-	20	10,478	13,571	14,230	13,127	14,194	12,849	84,005
2002	5,536	-	-	-	-	20	11,791	15,050	16,243	14,294	14,735	13,329	90,998
2003	5,536	-	-	-	-	20	10,720	13,791	14,527	14,065	14,735	13,329	86,724
2004	5,536	-	-	-	-	20	11,125	13,982	14,230	13,127	14,194	12,849	85,062
2005	5,536	-	-	-	-	20	10,099	13,395	13,121	11,427	13,468	12,611	79,676
2006	5,536	-	-	-	-	20	11,679	15,471	14,233	14,065	14,735	13,329	89,068
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,811	-	-	-	-	20	11,079	14,339	14,542	14,241	15,012	13,565	88,608

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 CC Adverse - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,662	12,464	49,364
1926	56,776	76,714	80,262	73,596	51,638	21,965	10,003	8,694	6,387	14,685	20,043	27,970
1927	43,782	57,407	61,539	74,716	77,735	76,128	53,623	24,471	21,159	26,515	53,415	66,453
1928	78,745	77,314	98,297	85,908	79,571	67,598	45,472	17,375	11,872	16,614	20,205	21,630
1929	18,689	10,753	22,689	25,420	40,931	35,399	10,807	6,750	3,183	4,369	4,904	14,033
1930	12,548	30,880	41,721	55,107	58,511	49,830	28,884	10,946	7,218	13,492	14,400	13,754
1931	31,056	37,582	66,564	75,167	66,996	55,591	35,496	13,330	11,118	19,290	33,125	38,259
1932	45,264	47,181	85,935	101,268	92,737	66,899	26,434	10,457	7,753	11,555	80,362	89,152
1933	86,139	74,199	77,359	82,997	89,823	87,828	48,188	11,973	11,213	29,494	62,593	129,845
1934	121,920	133,056	152,345	156,967	152,973	115,925	64,461	25,668	20,670	40,794	56,918	80,651
1935	93,344	94,979	95,504	105,117	105,438	87,861	38,917	10,670	6,867	8,395	12,740	20,626
1936	53,542	45,103	47,245	72,262	79,622	70,369	43,277	12,432	9,276	7,469	6,973	32,504
1937	27,616	23,392	33,400	73,693	79,300	74,407	41,408	11,457	8,627	10,307	51,878	77,326
1938	79,220	80,167	80,277	88,541	79,844	60,071	17,358	8,529	4,547	11,878	18,395	45,296
1939	71,093	65,995	71,488	78,487	71,444	58,637	34,175	10,675	7,599	12,713	16,886	75,647
1940	78,960	84,168	83,922	80,273	61,739	32,590	10,940	7,423	3,621	8,668	13,367	38,968
1941	45,431	47,951	50,578	44,628	44,033	29,920	11,889	8,532	9,214	13,059	27,041	79,529
1942	79,630	77,478	79,466	75,066	60,446	58,453	37,214	11,786	8,292	7,447	31,124	47,601
1943	45,143	48,315	59,178	85,448	80,384	62,106	22,583	9,773	6,085	14,042	16,623	30,873
1944	36,799	38,094	38,703	47,807	54,771	31,763	10,481	6,500	4,893	5,324	11,839	13,174
1945	34,099	41,965	44,044	61,374	82,032	71,984	42,857	11,677	13,004	26,561	40,642	56,487
1946	73,529	72,557	82,076	80,844	90,164	67,122	28,577	9,478	6,163	14,521	23,779	78,575
1947	82,352	80,126	80,649	79,702	68,936	58,626	36,529	11,894	8,964	30,754	59,942	80,451
1948	77,550	75,106	74,490	79,304	104,437	120,260	73,099	33,879	29,277	30,571	46,966	61,802
1949	58,222	51,579	63,971	86,938	143,123	133,704	86,851	45,970	39,115	38,815	49,966	71,592
1950	67,760	63,562	61,191	76,010	111,450	158,154	140,945	103,569	79,614	84,784	95,910	116,505
1951	116,419	128,755	120,542	126,944	156,796	147,239	103,303	61,254	53,996	56,132	63,472	73,826
1952	69,806	73,847	76,257	87,315	86,643	74,219	49,372	15,952	10,418	7,415	8,213	10,314
1953	42,248	66,129	74,532	77,867	79,888	76,778	56,734	29,425	24,263	24,405	43,073	94,159
1954	89,055	94,616	80,123	88,920	104,335	89,356	49,244	12,027	8,594	8,275	22,999	29,227
1955	42,615	39,095	31,550	36,851	70,355	93,822	59,049	23,416	16,851	33,616	72,224	100,391
1956	109,347	101,172	98,157	105,772	139,318	157,428	111,664	69,800	62,925	67,694	78,143	114,541
1957	88,347	78,829	92,478	116,839	140,522	116,860	65,642	25,315	18,690	21,869	29,234	57,530
1958	75,333	92,600	81,327	95,984	83,866	68,882	42,866	11,524	8,087	16,654	39,999	83,911
1959	93,933	80,246	81,678	109,836	121,944	108,892	58,596	18,269	20,517	39,158	71,572	88,602
1960	80,186	89,357	94,331	109,430	120,960	104,811	54,269	16,064	10,624	16,942	47,133	52,549
1961	78,983	102,946	125,020	134,812	146,321	136,842	87,041	46,222	39,455	40,574	43,009	61,021
1962	77,030	79,698	80,092	80,123	67,644	56,949	32,079	11,179	8,203	11,773	31,580	49,024
1963	54,872	78,945	80,988	73,791	52,784	34,724	12,343	9,853	6,722	15,269	36,880	50,168
1964	67,590	70,529	80,534	76,674	88,508	94,156	54,995	17,467	13,103	16,834	27,439	47,960
1965	62,778	82,612	78,565	94,754	99,386	84,799	55,764	19,804	13,477	18,653	24,064	28,828
1966	33,469	33,111	49,553	78,469	85,156	75,586	48,681	15,257	10,138	16,998	22,966	77,652
1967	83,783	80,084	79,847	68,632	79,408	78,475	56,790	28,920	23,029	25,529	29,627	57,653
1968	79,890	99,516	101,914	106,756	91,959	63,951	18,605	12,196	9,289	16,882	34,067	53,277
1969	49,830	41,406	48,218	79,654	100,293	92,340	59,223	28,364	26,678	24,706	29,367	54,207
1970	78,390	83,075	80,214	76,069	76,491	72,539	51,956	22,207	18,755	18,687	20,535	17,818
1971	39,964	59,283	51,876	69,518	118,789	140,531	109,050	69,952	65,667	68,062	81,372	78,856
1972	79,197	80,485	100,503	110,212	143,795	157,770	120,685	80,377	77,958	71,197	81,026	118,796
1973	117,390	120,706	125,672	119,838	100,739	79,470	52,799	13,689	9,558	10,485	24,156	66,828
1974	88,531	79,947	81,760	94,580	111,136	119,793	84,385	47,015	40,249	32,297	35,353	66,788
1975	80,451	78,070	78,030	80,034	124,953	139,076	101,338	63,409	57,332	77,098	95,088	118,796
1976	118,796	121,796	112,640	112,582	142,461	134,019	92,091	55,005	49,278	42,917	42,042	44,963
1977	49,493	52,900	67,180	58,524	39,255	19,904	9,741	10,191	9,574	9,729	31,850	84,682
1978	79,868	80,275	82,259	80,340	66,575	52,229	26,802	10,866	13,660	12,268	20,361	29,908
1979	22,605	20,314	36,696	52,752	79,511	66,062	40,189	11,281	7,713	9,924	8,516	43,194
1980	39,874	45,336	61,630	81,594	77,213	67,663	40,087	11,684	10,050	8,225	21,073	64,819
1981	69,850	90,601	80,350	80,523	56,594	47,485	20,319	8,537	7,079	15,925	28,095	50,899
1982	66,131	87,918	79,993	80,409	80,636	79,854	39,779	10,511	7,967	13,558	26,249	48,504
1983	73,424	86,108	89,367	95,140	87,602	62,856	25,406	9,991	7,586	7,094	44,742	44,840
1984	70,810	76,277	83,903	70,465	73,947	57,439	19,806	8,484	5,151	5,582	14,376	11,553
1985	9,828	5,644	8,531	27,854	43,840	39,781	15,356	9,186	5,648	14,994	26,692	20,695
1986	33,672	40,918	67,911	72,566	78,105	61,063	34,591	10,432	8,715	10,174	45,613	48,810
1987	54,685	72,885	81,822	77,637	65,269	47,705	22,867	8,973	5,115	2,999	8,305	20,438
1988	22,608	34,321	53,444	64,706	71,271	60,096	36,957	12,088	9,313	17,902	35,994	43,190
1989	58,115	50,884	63,686	86,356	79,891	72,925	45,969	15,409	10,946	12,436	24,020	37,349
1990	60,928	60,452	78,899	87,131	77,070	75,185	50,004	21,116	15,806	24,650	84,452	77,615
1991	79,650	92,297	79,976	84,247	89,318	67,604	26,147	10,208	6,362	6,027	17,189	40,114
1992	62,302	83,310	79,315	72,985	51,055	22,167	10,406	7,668	6,001	6,247	12,554	13,628
1993	13,868	12,796	30,694	56,921	79,820	62,306	23,375	9,848	6,481	8,443	11,943	22,950
1994	38,422	36,232	53,571	64,462	67,402	54,680	31,851	11,195	7,704	17,280	19,875	42,537
1995	45,372	75,662	80,284	74,857	68,026	50,932	25,020	10,770	7,339	16,749	51,038	80,050
1996	77,905	79,034	79,160	95,970	79,077	54,286	13,114	9,009	6,652	13,966	17,942	21,975
1997	36,955	46,997	70,947	88,196	126,314	140,286	93,986	53,290	48,577	55,116	75,476	83,053
1998	81,940	85,021	105,216	100,803	108,402	100,773	66,978	38,733	32,902	30,181	48,504	81,288
1999	80,452	80,438	80,013	78,484	88,068	99,914	60,557	20,712	14,266	17,254	56,688	80,260
2000	77,294	81,309	90,409	110,218	124,505	112,177	64,851	23,157	16,830	18,409	17,929	15,116
2001	13,565	11,787	17,097	20,167	35,944	27,282	10,620	8,734	5,522	9,766	31,022	49,702
2002	66,415	69,297	66,181	80,581	93,734	87,352	42,392	10,433	6,448	4,480	9,688	16,672
2003	35,686	52,724	80,395	79,652	63,086	57,419	32,772	10,559	8,408	24,640	31,813	39,914
2004	46,602	52,052	61,644	67,072	61,630	48,166	16,862	12,257	11,644	13,753	28,576	47,772
2005	65,229	65,727	82,419	80,220	72,669	48,615	16,727	8,278	5,173	7,263	20,366	38,853
2006	80,633	74,642	76,298	81,158	86,991	77,161	55,776	24,546	19,431	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 CC Adverse - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	28,570	31,851	63,519
1926	79,402	111,780	131,363	137,989	123,740	62,932	-338	-60,405	-108,488	-111,673	-103,596	-92,171
1927	-71,019	-53,580	-43,914	-24,609	10,582	3,930	-30,204	-63,464	-109,375	-105,812	-84,202	-60,750
1928	-26,187	-13,181	46,411	93,127	138,477	112,209	72,601	33,689	-15,775	-16,036	-7,958	-1,880
1929	1,620	-1,978	15,452	23,125	39,355	16,601	-38,655	-98,523	-146,903	-163,245	-169,821	-161,386
1930	-153,996	-131,719	-115,963	-98,610	-84,662	-95,872	-120,845	-144,151	-183,767	-193,068	-187,801	-183,693
1931	-169,548	-156,918	-128,886	-103,300	-93,190	-105,116	-129,458	-154,035	-196,484	-190,943	-177,032	-166,078
1932	-147,373	-136,068	-87,639	-27,977	31,610	51,547	44,522	86	-57,421	-65,974	-3,968	58,095
1933	112,283	119,682	126,913	167,065	180,681	191,887	177,091	143,437	76,830	84,252	119,999	202,542
1934	203,025	221,860	236,137	238,226	234,301	212,573	167,960	118,450	50,647	40,245	58,005	95,742
1935	150,692	180,105	186,912	206,462	204,580	200,360	174,523	127,065	58,822	46,814	49,076	55,764
1936	91,387	90,395	103,412	131,693	159,741	132,099	80,843	33,838	-15,209	-32,728	-37,412	-16,443
1937	-13,434	-10,736	6,415	41,026	68,800	55,629	5,120	-49,393	-98,473	-113,362	-83,379	-53,664
1938	-10,696	-3,544	31,247	80,246	129,663	132,052	116,003	63,808	89	-6,551	8,704	30,434
1939	60,980	68,584	82,796	108,393	105,843	81,510	41,566	-7,135	-57,078	-67,984	-60,217	-22,779
1940	-11,986	31,927	95,321	122,808	124,133	66,659	-586	-61,123	-109,991	-118,968	-114,728	-90,375
1941	-77,309	-67,987	-58,839	-54,987	-49,507	-65,405	-88,080	-117,099	-147,723	-152,278	-136,158	-98,036
1942	-89,140	-63,279	-51,755	-33,820	-28,244	-35,948	-60,717	-97,254	-143,468	-162,663	-134,447	-117,423
1943	-110,780	-102,004	-87,440	-37,341	6,036	22,129	17,029	-26,707	-85,280	-89,316	-80,471	-67,011
1944	-57,782	-48,689	-41,842	-28,503	-16,811	-50,281	-95,966	-146,847	-188,444	-199,796	-194,252	-187,932
1945	-165,614	-147,138	-138,038	-117,786	-70,082	-80,120	-114,879	-153,931	-198,303	-188,728	-174,618	-155,667
1946	-134,269	-128,320	-90,094	-53,731	22,914	50,663	43,929	5,471	-53,341	-53,947	-45,566	10,063
1947	33,254	62,590	100,353	145,415	143,488	119,153	76,250	34,417	-13,716	1,489	28,265	57,385
1948	85,047	92,561	98,695	128,059	187,974	215,161	204,417	157,246	93,081	91,362	109,617	133,376
1949	135,911	136,128	155,289	183,755	233,673	228,336	192,193	141,529	53,749	26,838	40,344	67,170
1950	72,131	74,876	80,911	106,313	183,920	234,613	230,579	187,780	120,737	124,404	171,868	203,025
1951	202,927	217,359	204,637	210,546	238,101	238,670	216,458	161,429	71,444	39,920	50,814	62,002
1952	64,744	71,993	79,722	125,976	171,619	150,324	95,906	45,071	-6,990	-27,530	-30,281	-30,333
1953	-4,068	27,144	40,659	55,364	97,340	82,453	47,201	10,783	-37,671	-45,243	-28,306	49,240
1954	98,435	138,373	163,869	185,541	203,463	206,768	195,465	155,471	86,103	74,303	84,946	92,257
1955	111,849	117,236	118,076	127,928	154,199	192,598	181,732	145,139	77,730	87,830	121,079	181,499
1956	196,601	196,334	183,974	191,047	231,506	238,766	226,486	180,645	96,945	66,415	80,230	138,008
1957	164,015	174,986	194,231	221,223	235,739	223,238	182,376	131,909	64,099	41,048	53,596	78,911
1958	103,444	154,376	176,753	195,002	183,239	149,166	102,971	39,541	-12,086	-10,546	18,359	57,508
1959	117,861	137,226	173,083	208,241	222,390	220,340	192,904	140,768	70,644	60,569	96,066	139,166
1960	155,192	183,368	194,305	212,720	222,426	217,417	186,655	137,084	68,199	66,055	88,378	98,940
1961	126,838	181,358	207,613	223,784	238,587	230,916	201,872	145,013	54,630	27,596	35,744	53,804
1962	72,200	100,093	112,502	152,180	146,207	121,718	76,123	25,047	-24,597	-31,658	-14,021	5,838
1963	19,144	46,343	58,719	88,352	82,329	51,904	10,909	-48,281	-95,599	-104,721	-85,334	-68,142
1964	-46,563	-36,772	-18,376	16,206	57,536	125,085	124,977	98,594	32,334	36,377	47,278	70,210
1965	89,415	130,172	150,521	191,502	201,727	202,259	181,017	138,040	71,130	66,193	75,909	82,263
1966	89,072	93,200	108,566	138,982	176,145	152,391	97,451	43,710	-8,456	-16,318	-4,372	31,776
1967	90,636	133,045	147,818	145,410	162,526	153,160	116,056	75,321	9,442	1,007	11,286	36,300
1968	63,086	111,039	168,309	182,436	177,592	172,566	149,781	98,470	36,144	26,265	42,887	68,899
1969	72,561	70,195	86,508	123,591	179,839	168,037	118,899	69,395	10,579	737	8,200	26,450
1970	51,122	82,493	108,514	127,788	150,713	143,318	108,443	61,286	5,500	-8,253	-2,120	1,161
1971	24,981	46,786	47,086	76,312	163,813	203,944	211,884	167,065	89,338	60,105	74,437	106,677
1972	126,613	138,031	186,818	195,102	230,065	238,980	231,137	188,743	110,388	73,713	86,285	146,523
1973	180,227	188,898	199,878	201,440	188,854	170,400	122,621	53,966	-2,690	-17,478	-2,662	45,975
1974	86,778	121,129	153,949	184,480	201,257	227,321	233,237	181,135	106,071	69,027	77,406	102,819
1975	136,663	142,042	151,446	167,943	220,342	237,595	226,294	181,892	99,972	85,347	138,658	203,025
1976	203,025	211,260	197,343	197,289	229,876	234,939	233,576	200,921	128,173	90,269	93,231	99,697
1977	106,178	114,881	130,144	128,879	113,617	70,108	13,695	-40,956	-78,927	-94,646	-73,318	4,589
1978	25,218	41,784	74,557	106,445	105,762	82,140	42,568	-6,137	-49,591	-65,762	-55,210	-42,943
1979	-43,505	-39,306	-17,552	1,431	35,669	18,730	-18,690	-62,749	-110,371	-126,178	-130,172	-104,289
1980	-100,784	-92,650	-71,313	-31,970	5,400	-9,917	-47,162	-90,035	-137,142	-152,569	-136,695	-108,644
1981	-93,205	-52,432	-31,386	2,553	3,119	-9,454	-46,959	-101,813	-149,038	-145,305	-129,434	-102,306
1982	-75,606	-33,794	4,014	25,074	79,209	125,952	115,776	79,739	15,626	10,604	26,473	55,640
1983	86,749	120,626	173,505	186,093	181,798	172,496	153,274	109,900	45,153	17,666	49,334	58,392
1984	89,990	101,613	141,825	156,553	160,559	162,655	146,125	99,933	33,207	22,335	34,653	38,654
1985	40,051	35,899	39,502	57,940	80,300	62,847	20,590	-36,530	-85,604	-92,664	-79,138	-77,458
1986	-69,589	-58,338	-25,565	-9,819	9,612	-15,016	-53,501	-100,010	-144,007	-160,213	-131,817	-123,168
1987	-111,820	-93,464	-43,441	-6,145	4,801	-18,922	-51,819	-96,795	-145,426	-165,617	-167,184	-152,942
1988	-143,636	-125,640	-99,815	-76,293	-60,495	-79,350	-108,243	-137,136	-182,944	-189,191	-171,624	-159,307
1989	-137,812	-134,667	-115,796	-65,227	-15,458	-27,184	-63,707	-100,132	-149,402	-162,603	-145,895	-128,345
1990	-98,285	-90,459	-64,572	-3,925	25,427	17,067	-19,615	-54,926	-104,218	-104,326	-37,760	-2,307
1991	26,773	80,963	106,439	159,903	178,287	175,426	157,016	105,613	36,191	11,696	27,084	47,538
1992	72,583	104,011	121,803	124,223	110,291	54,263	-5,769	-65,583	-110,215	-126,863	-121,546	-117,273
1993	-117,253	-114,070	-95,588	-68,984	-22,428	-46,338	-103,504	-158,333	-199,844	-197,225	-196,150	-182,959
1994	-169,276	-165,025	-141,106	-121,066	-107,340	-121,196	-147,794	-172,251	-199,853	-194,674	-186,388	-163,931
1995	-154,841	-124,119	-95,456	-77,998	-59,648	-81,893	-115,912	-155,081	-199,833	-192,113	-158,288	-95,952
1996	-50,165	-24,068	-11,827	48,594	83,089	85,021	72,449	13,720	-34,727	-43,718	-37,806	-31,229
1997	-14,941	893	40,601	84,595	175,365	211,544	203,701	153,981	73,961	51,313	71,181	100,311
1998	137,279	174,962	199,026	203,647	213,259	185,200	153,370	110,179	25,451	11,516	32,137	65,450
1999	116,958	132,757	148,082	159,875	177,626	206,558	201,768	159,692	90,291	84,981	115,474	162,747
2000	174,716	184,066	202,021	226,537	228,001	218,060	190,621	132,913	67,019	61,856	64,781	66,385
2001	68,857	72,236	79,207	85,420	105,299	68,999	5,281	-54,669	-103,437	-113,730	-97,614	-75,512
2002	-54,629	-44,760	-38,293	500	62,999	122,491	112,304	69,705	4,598	-13,457	-10,678	-5,860
2003	8,093	33,545	65,490	105,119	105,795	89,049	48,569	-3,353	-53,464	-56,999	-43,741	-33,853
2004	-21,526	-11,460	9,384	27,361	33,724	10,051	-39,321	-90,611	-135,252	-148,734	-131,801	-112,132
2005	-95,636	-88,016	-63,776	-23,422	-11,284	-43,070	-90,493	-139,736	-185,216	-199,393	-182,531	-162,146
2006	-125,904	-109,850	-105,486	-69,777	-1,755	5,010	-28,031	-64,077	-113,455	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 CC Adverse - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	32,840	42,539	107,044
1926	124,691	179,839	217,224	258,425	297,951	248,045	148,070	29,384	10,233	31,165	49,076	74,716
1927	104,845	132,670	144,106	195,134	283,792	399,121	319,214	138,989	107,638	130,325	177,313	207,934
1928	247,962	251,699	337,105	384,993	451,166	426,976	308,997	123,636	85,650	105,501	114,933	118,778
1929	112,323	96,947	105,941	122,956	219,139	241,489	154,307	35,598	11,520	11,282	12,579	34,352
1930	44,067	81,610	113,215	177,090	233,744	227,049	168,748	76,318	49,593	35,926	43,577	50,033
1931	73,829	89,824	135,939	192,199	317,726	320,336	165,327	32,494	13,549	25,330	49,548	52,622
1932	68,240	68,811	152,926	241,945	406,105	451,480	322,967	132,747	105,176	104,613	271,096	326,919
1933	342,063	331,681	327,456	370,123	435,907	394,164	318,914	136,359	111,457	144,590	239,737	414,277
1934	387,160	410,872	445,795	451,362	449,042	351,301	197,170	54,541	24,908	64,190	99,624	172,950
1935	240,587	266,031	265,188	297,717	399,976	409,870	261,149	95,484	65,589	57,337	60,252	71,812
1936	139,694	127,936	131,564	209,499	339,660	320,446	193,425	56,550	24,547	15,123	11,468	61,780
1937	57,967	55,802	65,059	133,085	254,442	302,940	157,308	29,863	11,017	15,545	85,319	127,499
1938	165,990	165,657	191,174	265,079	410,804	451,480	313,225	118,852	87,991	94,046	125,970	171,380
1939	233,852	232,083	259,094	333,619	381,236	299,637	190,392	47,614	16,683	22,256	39,929	154,562
1940	169,257	216,646	301,007	362,027	407,788	345,131	198,411	52,378	14,945	22,787	37,791	89,943
1941	111,525	117,745	149,334	167,113	198,671	173,747	107,500	26,444	12,827	21,142	59,284	143,092
1942	148,134	172,959	179,951	220,231	251,423	234,455	107,170	17,195	8,026	8,046	65,014	85,613
1943	84,076	84,909	102,801	186,273	288,318	392,493	332,788	160,166	130,419	132,017	143,145	174,688
1944	192,827	197,396	198,748	229,810	295,910	269,039	197,943	78,646	53,773	52,352	62,597	73,973
1945	117,629	162,392	168,172	196,238	342,676	338,170	198,029	49,437	23,823	48,863	70,284	101,151
1946	125,254	123,421	160,621	210,273	415,457	445,630	325,413	137,694	107,519	120,669	122,089	223,334
1947	244,739	266,915	320,007	386,677	451,480	408,368	270,044	118,054	84,008	147,748	210,019	258,442
1948	272,954	268,360	261,587	279,489	421,915	396,976	246,961	82,216	54,145	55,191	83,634	113,640
1949	104,970	98,083	116,038	187,859	378,025	414,679	276,703	99,747	53,319	36,089	76,076	148,201
1950	150,845	145,624	143,039	172,069	331,445	451,480	423,195	276,079	250,208	274,048	322,237	327,473
1951	323,250	352,304	335,112	351,917	448,450	427,589	300,474	125,205	77,620	59,396	79,145	96,893
1952	85,528	80,781	78,021	149,332	273,319	264,403	172,014	51,290	17,431	9,392	10,338	18,486
1953	72,595	130,742	156,075	186,056	302,624	350,333	266,002	113,284	78,577	82,791	130,553	258,448
1954	307,699	345,687	351,405	375,183	432,098	397,046	294,039	115,934	90,053	81,867	113,380	116,062
1955	138,293	137,839	124,177	118,528	211,308	343,315	241,510	82,521	52,359	101,487	185,269	228,925
1956	247,003	236,633	235,219	283,807	425,277	451,480	373,349	187,953	149,972	125,575	144,606	236,317
1957	224,942	217,397	229,713	298,984	450,934	411,888	234,987	71,118	40,884	43,220	63,619	105,586
1958	143,648	213,800	221,257	257,486	357,222	290,870	148,622	28,863	9,981	24,235	105,756	192,515
1959	257,569	257,235	286,135	357,622	451,019	446,760	289,888	102,952	74,872	102,438	170,084	229,575
1960	227,116	253,068	276,301	319,769	418,545	416,513	259,506	82,735	53,782	54,897	103,373	113,217
1961	152,467	222,896	261,201	302,363	431,562	436,323	275,408	91,793	45,061	28,561	37,298	62,787
1962	88,120	117,119	119,719	199,414	247,663	256,547	156,402	42,885	13,352	18,155	70,002	100,992
1963	125,956	177,161	205,015	224,628	262,876	204,910	67,910	12,496	7,152	26,345	68,368	88,475
1964	113,070	116,140	133,787	181,233	281,825	392,755	305,490	135,840	116,516	122,480	133,369	164,174
1965	189,753	243,624	273,569	353,165	433,009	382,596	233,827	70,214	40,299	40,293	61,893	69,948
1966	71,546	67,492	79,052	155,022	281,719	273,428	174,864	48,327	15,384	26,971	46,905	134,691
1967	207,923	262,127	281,558	259,395	358,423	385,615	278,452	101,614	65,544	77,951	101,495	164,151
1968	211,435	284,537	379,290	402,034	451,480	399,526	201,012	55,223	30,307	39,294	68,481	104,361
1969	97,167	81,403	84,187	155,332	321,226	357,597	232,962	92,870	58,246	60,332	68,762	97,108
1970	120,781	148,160	165,315	178,298	274,689	348,443	225,590	63,773	32,804	33,419	45,736	45,982
1971	75,004	103,439	94,770	141,242	386,451	451,480	395,256	220,248	194,335	177,116	194,540	213,511
1972	231,036	229,719	311,079	308,502	424,584	451,480	399,848	217,683	183,802	149,068	170,182	286,918
1973	324,327	331,889	348,176	365,121	391,281	298,777	157,474	27,818	9,814	14,042	44,568	118,772
1974	194,893	233,047	267,050	317,252	387,890	451,480	407,818	247,315	229,200	191,753	207,987	256,472
1975	296,747	289,591	285,691	297,150	438,088	444,836	357,684	184,390	152,193	192,958	271,077	354,930
1976	345,481	349,651	338,031	332,645	440,792	434,814	377,953	206,204	177,069	139,816	139,709	141,997
1977	143,660	147,909	163,495	174,903	188,940	159,592	86,017	19,147	10,279	13,256	68,773	207,428
1978	213,699	234,637	301,904	349,038	395,648	355,097	213,877	54,098	32,392	27,428	53,133	65,677
1979	56,208	51,932	74,067	110,688	249,390	235,770	110,681	17,566	8,101	13,794	10,813	84,077
1980	80,141	80,379	100,670	179,454	306,874	313,486	189,017	43,381	17,488	11,220	52,499	96,216
1981	120,934	179,915	208,445	265,502	310,746	301,514	163,329	31,698	13,388	26,989	64,417	106,536
1982	148,532	225,562	255,753	298,269	426,155	451,480	333,415	146,255	118,148	124,349	144,333	234,875
1983	279,946	328,716	413,238	444,128	451,480	422,566	270,576	90,581	64,773	61,122	125,852	130,004
1984	185,774	203,673	257,711	258,824	301,707	350,878	294,021	111,674	81,535	74,525	88,509	82,483
1985	73,813	61,984	58,339	96,780	201,808	228,280	119,249	21,026	8,720	32,660	68,838	58,447
1986	62,013	75,897	163,640	198,624	266,139	263,839	126,270	20,309	11,205	14,608	89,052	98,890
1987	109,650	136,863	192,817	247,154	347,661	315,004	159,517	28,319	9,755	6,429	23,906	62,828
1988	73,035	114,886	163,646	229,896	312,923	302,241	161,481	35,238	11,845	36,882	81,034	101,755
1989	127,518	122,076	139,600	246,919	384,365	401,976	274,879	94,734	59,970	61,841	99,566	139,656
1990	208,584	210,917	251,621	382,451	451,279	449,588	340,036	157,632	121,646	147,389	325,551	321,944
1991	322,060	383,159	381,610	427,466	451,366	423,818	269,976	91,905	61,844	53,533	84,266	121,560
1992	158,884	204,552	229,902	255,180	284,164	235,662	143,850	29,812	12,002	10,713	32,061	35,442
1993	36,672	37,005	60,555	119,846	305,459	304,129	194,957	66,311	34,209	20,053	28,075	66,382
1994	95,589	99,421	144,184	201,584	262,017	243,849	164,550	68,824	42,315	33,997	50,301	93,037
1995	107,117	157,212	187,648	209,644	332,234	330,730	196,263	47,621	17,087	39,660	132,784	246,106
1996	286,196	287,711	298,902	395,499	450,734	448,513	308,883	165,468	134,915	146,492	153,959	151,901
1997	169,303	183,362	221,871	270,614	414,803	451,480	383,338	194,640	161,573	157,443	192,838	210,456
1998	226,566	266,894	303,435	322,182	446,281	410,449	278,402	136,050	100,169	97,720	138,688	190,923
1999	235,994	247,388	260,994	284,006	363,881	411,847	300,303	126,597	101,324	99,848	187,022	287,615
2000	295,055	294,738	321,915	387,489	425,422	370,554	208,188	58,144	29,006	28,297	28,741	20,019
2001	14,727	11,385	22,274	50,706	176,272	169,585	104,056	24,140	9,209	20,432	71,011	100,156
2002	122,660	133,990	131,653	202,980	366,877	451,480	313,288	116,048	84,301	74,000	84,680	94,366
2003	116,503	158,053	201,235	256,090	322,610	311,780	183,457	38,051	12,704	40,020	66,142	78,009
2004	81,760	82,275	121,873	177,440	275,318	260,298	108,706	21,974	10,522	15,729	49,829	81,499
2005	102,835	104,890	147,530	202,262	301,931	276,128	185,609	67,909	38,205	30,576	63,600	94,836
2006	144,088	149,197	147,291	208,011	357,111	447,654	357,985	177,849	140,654	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP4 Large 400 cfs WDC1 CC Adverse - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,387	3,459	13,051
1926	15,000	32,359	33,970	33,970	33,970	31,306	24,297	18,025	4,448	4,032	5,280	12,843
1927	15,000	16,990	14,103	20,272	33,657	33,970	30,431	20,388	14,202	11,451	15,000	15,000
1928	15,000	14,535	16,797	21,369	45,148	33,970	29,848	20,335	14,014	12,484	14,296	15,000
1929	13,448	10,394	7,196	6,958	32,475	33,970	29,848	20,335	14,308	1,916	1,666	2,352
1930	1,783	7,816	9,968	18,359	33,970	33,003	28,790	19,399	13,250	7,445	3,749	1,947
1931	3,617	3,183	4,316	12,706	33,970	33,297	27,720	18,542	12,294	5,925	10,905	14,580
1932	15,000	15,598	16,447	15,525	32,936	33,970	30,039	20,382	14,572	10,145	16,830	17,944
1933	15,166	14,828	11,200	15,000	32,163	33,970	29,848	20,335	15,253	14,023	14,985	58,367
1934	18,428	22,518	31,574	33,912	33,970	32,046	24,828	18,925	12,618	12,802	15,206	19,406
1935	16,468	20,828	26,829	33,789	33,970	33,970	29,848	20,335	14,012	8,701	7,061	6,385
1936	15,000	12,354	10,817	25,395	33,970	33,813	28,599	20,335	14,069	7,416	1,912	15,000
1937	12,471	8,917	5,099	12,894	33,929	33,970	28,665	20,346	7,131	2,526	15,665	24,135
1938	15,250	14,262	14,913	15,000	38,791	33,970	29,848	20,335	13,956	8,983	14,614	15,000
1939	15,328	16,749	19,147	33,964	33,970	33,970	29,848	20,335	14,145	8,061	4,312	15,696
1940	15,043	26,901	33,543	33,955	33,970	32,982	25,850	19,762	5,637	2,695	5,210	14,740
1941	15,000	17,760	22,495	28,683	33,970	31,981	25,218	14,434	8,761	3,906	7,457	15,518
1942	15,000	16,848	18,016	25,454	33,970	33,970	28,601	20,335	13,955	2,001	15,000	15,000
1943	14,388	13,333	15,000	15,630	36,289	33,970	32,086	20,664	15,019	13,851	12,610	14,996
1944	15,000	17,318	20,639	24,209	33,970	32,791	26,104	20,208	13,805	7,533	10,817	12,661
1945	15,000	25,039	16,077	23,991	33,956	33,970	29,540	20,333	13,281	8,083	11,874	16,436
1946	15,214	16,219	15,071	15,000	33,294	33,970	29,848	20,340	13,898	12,484	12,838	15,801
1947	15,029	18,664	19,952	33,556	34,290	33,830	28,654	20,341	14,074	15,317	15,109	15,000
1948	15,109	15,970	12,403	15,000	33,929	33,970	29,848	20,361	14,569	12,478	15,000	14,803
1949	13,697	10,206	9,591	15,000	34,628	33,970	29,848	20,342	14,018	9,171	15,289	17,380
1950	15,139	15,000	14,638	15,000	20,896	37,065	33,198	22,531	16,830	15,000	15,026	21,268
1951	15,218	18,602	14,958	15,000	33,010	33,970	28,362	20,348	13,962	15,252	15,000	15,000
1952	14,368	13,757	10,990	26,223	33,906	33,970	28,849	20,335	14,015	7,547	3,525	2,244
1953	15,000	20,419	15,201	21,576	33,920	33,970	29,848	20,381	14,746	9,871	14,905	16,930
1954	15,074	16,184	13,344	18,216	34,911	33,970	29,848	20,416	15,203	11,349	15,000	15,000
1955	15,154	18,898	13,445	15,000	32,014	36,085	29,848	20,402	14,975	15,033	17,005	18,073
1956	15,118	13,865	10,606	15,091	28,874	33,970	30,431	20,420	14,069	12,358	14,776	15,790
1957	15,000	14,222	15,000	18,617	33,779	33,657	27,781	20,335	14,073	9,092	13,328	15,000
1958	15,000	31,011	31,520	33,965	33,970	32,682	25,673	19,647	13,221	8,312	15,911	16,451
1959	16,566	16,314	15,000	22,996	33,806	33,970	29,848	20,335	15,970	14,851	23,241	15,876
1960	15,020	23,681	19,096	33,306	33,957	33,970	29,062	20,335	14,014	10,856	15,000	14,957
1961	15,000	24,580	15,633	23,464	33,872	33,970	29,020	20,335	13,952	5,539	5,301	11,388
1962	15,000	21,668	23,021	33,947	33,970	33,970	29,848	20,337	14,335	10,320	15,705	15,000
1963	15,000	32,734	33,896	33,968	33,970	33,531	27,079	18,150	2,804	4,448	13,462	15,000
1964	15,000	16,029	15,000	15,000	28,558	33,970	29,848	20,448	15,977	11,746	13,998	15,100
1965	17,485	23,167	15,098	29,609	33,899	33,970	29,848	20,335	14,190	10,009	14,917	13,873
1966	13,059	10,766	13,533	28,888	33,937	33,970	28,254	20,335	14,133	11,965	15,000	15,842
1967	15,427	21,271	23,977	23,560	34,115	33,970	29,428	20,335	13,958	15,200	14,808	15,136
1968	15,079	26,343	32,868	33,930	33,970	33,662	27,835	20,547	14,834	13,503	15,052	15,000
1969	14,955	12,622	9,671	15,277	34,836	33,527	28,000	20,335	13,347	7,770	14,208	14,998
1970	15,000	20,761	15,460	18,733	33,929	33,970	29,811	20,335	14,365	9,943	11,371	9,342
1971	15,000	15,263	12,080	14,222	28,007	36,479	31,335	23,290	18,052	13,932	15,000	14,728
1972	14,667	12,409	15,000	15,000	27,511	46,779	31,041	20,502	16,823	10,428	13,617	18,736
1973	15,095	17,224	21,713	26,711	33,970	33,663	26,838	20,335	13,731	2,540	10,178	17,377
1974	16,327	15,684	15,000	15,000	26,573	39,485	31,773	24,284	18,570	12,483	14,893	15,939
1975	15,335	14,800	11,849	10,956	29,796	33,970	29,848	20,483	15,053	15,000	15,000	16,280
1976	15,566	15,193	13,247	15,000	30,640	33,970	29,848	20,434	15,533	10,843	9,064	7,524
1977	7,826	8,992	12,988	25,425	33,970	32,722	26,142	18,021	1,956	2,562	13,273	15,401
1978	15,000	18,101	31,075	33,925	33,970	33,970	29,596	20,335	13,562	7,174	8,174	8,973
1979	5,346	2,038	5,082	11,568	33,970	33,809	28,795	20,337	11,623	3,691	1,857	16,300
1980	14,997	13,629	13,260	26,288	33,844	33,970	29,848	20,335	14,425	7,209	15,000	27,174
1981	15,305	27,499	33,251	33,954	33,970	33,970	29,256	20,335	13,645	10,651	14,797	15,000
1982	15,000	17,756	15,000	15,000	32,685	38,694	30,431	20,422	14,718	11,915	13,874	14,775
1983	15,000	21,209	22,924	33,534	39,859	33,970	29,848	20,406	15,024	9,565	15,364	14,965
1984	15,091	20,110	15,971	20,589	35,039	33,970	29,848	20,361	14,617	11,665	14,731	11,796
1985	8,476	4,477	1,928	7,409	33,970	33,970	29,363	20,338	6,002	5,633	12,149	8,951
1986	6,796	5,797	28,670	33,914	34,956	33,725	29,400	20,048	9,986	2,674	13,358	13,235
1987	12,313	15,811	22,423	33,739	33,970	33,825	28,514	20,335	13,957	1,397	2,381	13,667
1988	12,192	15,821	26,582	33,896	33,970	33,970	28,714	20,335	14,132	9,839	15,408	14,979
1989	15,000	12,936	10,538	23,782	33,828	33,970	29,848	20,335	14,131	8,685	15,000	15,000
1990	15,422	14,869	15,000	30,971	33,886	33,970	29,697	20,337	14,244	15,487	28,701	15,067
1991	15,000	23,707	15,006	25,586	33,913	33,970	29,848	20,335	14,010	7,154	11,189	15,000
1992	15,450	29,274	33,970	33,970	33,970	29,806	22,858	16,586	4,794	1,722	4,553	1,912
1993	1,835	1,689	4,238	11,557	33,967	33,573	28,406	19,496	13,440	1,926	1,911	2,557
1994	2,322	1,967	5,665	16,971	33,970	33,698	28,671	19,511	13,327	4,989	7,369	15,000
1995	15,000	23,227	30,266	33,770	33,970	33,970	29,211	20,336	14,015	11,649	21,379	15,450
1996	15,401	19,686	15,275	22,043	33,718	33,970	29,848	20,335	14,132	11,868	11,025	7,727
1997	7,973	8,362	15,000	15,000	35,628	50,770	32,272	22,462	17,836	14,761	15,000	15,000
1998	15,000	19,659	28,409	32,277	33,970	33,520	26,573	20,335	14,017	8,403	15,949	18,066
1999	15,435	17,556	15,000	15,005	33,149	33,970	29,848	20,365	14,619	9,595	16,688	15,587
2000	15,000	14,700	15,315	31,738	33,957	33,970	27,930	20,335	14,016	10,206	7,630	3,986
2001	2,281	1,978	6,767	11,289	33,970	33,945	29,449	19,761	2,218	2,843	13,114	14,973
2002	15,287	17,254	13,946	15,000	32,981	33,970	29,820	20,418	14,128	7,602	8,138	10,782
2003	15,000	24,923	31,796	33,900	33,970	33,602	26,473	20,335	13,844	5,594	11,506	15,000
2004	15,000	14,651	25,965	33,812	33,970	33,653	26,923	18,605	9,682	1,934	6,878	10,567
2005	15,000	15,600	28,942	33,965	33,970	28,409	21,707	15,927	9,560	4,262	11,658	14,208
2006	15,276	14,849	11,898	15,000	33,239	33,970	29,780	20,337	14,075	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 CC Adverse - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	74,260	76,589	99,401
1926	109,915	137,684	154,814	184,429	198,000	187,022	143,313	72,280	10,000	21,311	30,354	50,953
1927	73,703	88,087	98,848	122,397	153,275	198,000	182,111	153,201	87,218	103,152	129,025	129,025
1928	129,025	138,113	153,908	169,328	197,792	198,000	185,630	163,777	80,372	77,707	91,373	99,736
1929	104,716	106,302	112,473	121,773	152,067	173,000	148,823	93,643	14,894	13,583	19,355	25,856
1930	27,591	35,644	42,285	55,824	78,964	85,342	77,193	66,708	17,067	15,191	21,391	23,006
1931	28,938	35,699	41,294	71,156	133,859	148,860	137,176	112,090	38,351	21,212	35,283	45,244
1932	56,127	64,876	108,778	141,694	196,173	198,000	187,131	160,917	53,638	33,700	86,183	129,025
1933	131,830	144,908	146,632	153,099	182,364	198,000	187,224	155,305	73,972	56,720	88,139	175,784
1934	144,825	171,700	194,850	197,899	198,000	193,120	166,912	138,178	105,088	110,202	129,025	129,402
1935	131,014	153,544	172,298	196,712	198,000	198,000	182,757	143,144	45,178	21,851	26,477	31,053
1936	58,969	63,053	73,137	108,456	155,196	167,534	153,972	128,408	42,379	23,445	20,000	42,061
1937	44,029	45,195	49,366	71,184	125,706	155,485	147,391	83,982	10,000	12,019	58,284	87,244
1938	119,033	128,641	143,411	148,416	196,916	198,000	185,198	145,331	43,955	42,520	56,804	75,434
1939	104,026	113,801	137,535	166,142	198,000	198,000	179,005	126,715	42,378	26,724	30,552	79,250
1940	98,065	140,581	186,389	197,975	197,999	189,018	141,972	68,776	10,000	15,687	24,605	44,158
1941	55,103	62,379	74,225	87,016	107,729	107,191	90,503	67,820	31,134	24,645	36,599	77,673
1942	87,880	101,598	111,960	127,773	152,336	164,633	156,252	97,803	11,445	10,947	47,146	57,107
1943	64,239	72,459	86,724	130,743	173,743	198,000	192,105	168,285	69,388	53,385	58,443	71,232
1944	82,607	96,577	107,706	117,136	141,201	139,191	115,791	80,441	24,950	14,439	27,404	35,547
1945	64,323	86,371	107,031	130,875	191,906	198,000	173,087	120,509	54,393	15,584	28,977	41,889
1946	64,455	74,507	102,423	129,721	196,158	198,000	186,378	160,973	63,012	44,059	51,735	129,025
1947	129,025	143,572	165,954	197,270	197,998	193,781	178,955	159,261	76,609	97,894	119,712	129,025
1948	129,025	139,107	143,658	139,333	186,398	198,000	184,761	149,599	55,621	51,349	66,701	89,636
1949	96,153	100,708	114,050	139,529	196,212	197,990	176,018	123,204	20,000	26,219	39,783	64,378
1950	75,631	83,128	93,016	91,442	132,230	198,000	193,469	149,253	25,455	26,734	55,177	88,380
1951	115,865	141,579	135,740	143,441	196,304	198,000	180,638	125,120	20,000	36,042	46,634	65,572
1952	69,877	77,015	83,656	118,272	168,600	181,691	170,798	152,834	76,685	54,501	49,649	53,643
1953	82,317	117,194	130,230	150,036	194,917	198,000	184,061	161,977	84,515	76,913	88,525	129,025
1954	129,025	142,478	151,565	163,324	197,499	198,000	187,334	161,054	59,966	43,218	56,464	67,285
1955	92,188	104,240	109,937	123,662	155,301	198,000	183,789	155,018	63,098	69,472	109,102	130,255
1956	130,255	139,087	101,455	106,143	183,614	198,000	187,233	148,331	23,609	29,507	42,062	89,284
1957	95,679	102,455	113,645	150,586	197,665	195,017	176,510	131,879	35,661	39,827	52,397	75,701
1958	96,976	146,682	164,513	191,565	198,000	187,566	167,319	122,052	27,129	20,941	65,070	108,849
1959	129,025	142,360	152,547	171,706	197,711	198,000	180,847	130,895	27,651	36,740	71,967	99,575
1960	110,089	126,946	150,373	178,841	197,979	198,000	182,132	141,078	43,406	27,613	57,365	65,235
1961	87,555	135,650	158,258	175,005	197,828	198,000	180,684	122,654	20,000	27,049	35,558	49,577
1962	66,056	80,329	92,442	122,953	151,866	181,905	178,024	138,130	54,665	45,478	80,996	96,490
1963	118,011	158,109	178,125	197,999	198,000	192,823	172,820	62,204	10,000	19,745	36,594	44,957
1964	62,665	72,469	83,845	110,791	144,857	198,000	185,126	158,692	68,390	59,317	65,208	88,819
1965	112,123	153,831	159,918	180,290	197,748	197,999	178,068	143,220	45,411	25,672	36,496	40,677
1966	45,965	48,020	59,211	97,239	159,581	170,432	158,887	128,107	45,199	31,558	43,319	69,759
1967	98,966	139,785	159,338	174,836	198,000	198,000	183,369	161,138	97,557	102,830	115,009	129,025
1968	129,025	179,622	196,052	197,932	198,000	195,184	179,317	133,582	50,162	60,579	78,698	98,681
1969	108,335	112,278	121,870	152,476	197,374	195,590	183,634	166,244	117,832	118,007	129,025	129,025
1970	129,025	152,144	164,271	177,356	197,930	197,975	183,789	149,187	85,674	69,535	74,150	80,237
1971	129,025	157,949	113,472	102,943	166,332	198,000	195,167	158,497	38,865	25,542	36,014	49,296
1972	70,570	80,319	121,712	117,467	170,371	198,000	190,075	149,647	46,082	21,103	30,208	79,459
1973	104,915	116,911	135,461	151,645	170,865	167,464	148,169	100,070	10,202	15,115	35,307	59,349
1974	116,163	158,659	135,667	129,145	162,643	198,000	196,990	168,454	42,765	21,770	33,671	63,124
1975	100,078	110,796	121,864	127,427	170,687	198,000	185,716	155,913	33,828	35,077	49,953	130,293
1976	130,293	151,758	124,433	120,075	180,408	198,000	187,452	164,257	40,176	23,373	27,538	32,824
1977	40,196	47,805	60,471	78,560	86,092	91,791	64,500	10,382	10,000	13,811	37,881	107,915
1978	127,345	139,452	163,617	185,971	198,000	198,000	180,045	126,575	69,576	50,402	55,779	63,342
1979	65,248	66,803	80,023	100,446	159,190	168,148	157,448	96,279	10,000	18,532	20,000	72,942
1980	78,968	85,385	96,084	136,294	197,778	197,976	178,305	124,032	43,299	26,328	42,382	91,941
1981	114,015	159,444	176,836	197,973	198,000	197,980	174,952	101,682	20,501	21,180	35,490	57,257
1982	69,862	88,911	109,571	139,898	195,729	198,000	188,195	161,121	66,572	48,674	57,659	73,154
1983	93,999	109,827	152,253	181,794	197,992	198,000	180,053	138,048	49,764	51,026	112,097	118,368
1984	129,171	143,605	163,001	180,495	197,897	198,000	180,434	147,622	58,836	39,072	54,397	59,808
1985	61,876	61,744	64,694	89,023	134,637	156,835	147,192	79,057	10,000	19,840	33,533	35,070
1986	39,435	45,766	88,131	110,344	139,713	160,669	147,295	87,804	10,000	14,731	44,798	50,332
1987	55,251	66,969	88,490	114,316	173,066	177,861	163,074	106,687	18,854	10,660	21,218	49,357
1988	55,751	65,889	87,225	117,056	172,844	190,518	175,039	128,835	49,708	23,837	58,316	65,510
1989	75,594	79,871	87,311	128,651	194,449	198,000	178,321	145,281	62,463	40,966	56,081	73,789
1990	102,934	111,098	132,066	179,238	197,854	198,000	183,789	161,848	84,979	101,633	136,235	130,101
1991	130,101	174,947	159,066	184,436	197,901	198,000	185,408	147,084	50,357	46,137	60,425	73,891
1992	94,920	120,830	141,956	166,265	189,687	178,756	138,658	75,319	10,000	11,467	24,388	26,111
1993	24,329	24,184	33,443	51,829	119,008	135,591	125,163	93,090	16,801	14,057	20,944	31,421
1994	38,861	41,124	55,573	75,977	120,852	128,079	114,600	103,332	39,658	17,103	26,048	46,708
1995	53,287	85,388	107,892	128,785	183,026	194,886	174,288	128,204	48,239	29,666	68,205	129,025
1996	129,025	169,484	149,094	165,184	197,556	198,000	186,242	168,656	87,206	69,398	75,329	81,204
1997	92,826	102,211	104,098	98,918	171,757	198,000	191,877	156,599	39,586	22,833	49,134	57,435
1998	66,597	79,592	100,929	116,096	171,752	182,043	169,512	152,611	108,871	104,791	129,025	131,811
1999	131,442	147,822	154,999	152,155	181,403	198,000	185,246	159,112	58,308	40,577	75,803	104,149
2000	119,767	129,627	141,002	174,373	197,978	198,000	179,958	141,022	50,969	33,063	37,659	40,292
2001	43,203	45,559	54,998	66,560	111,722	118,968	90,301	35,816	10,000	16,175	41,639	58,056
2002	83,450	98,334	108,664	133,442	181,635	198,000	184,206	144,066	36,092	27,732	30,078	41,060
2003	61,904	98,947	149,306	175,468	198,000	194,870	177,280	112,901	16,512	20,548	32,372	45,715
2004	56,660	67,019	94,013	124,243	187,925	197,038	172,336	87,802	10,000	16,470	28,905	42,494
2005	55,775	63,883	81,715	106,857	132,880	126,917	113,557	78,635	14,122	12,672	32,170	42,438
2006	79,453	95,226	106,232	133,828	196,708	197,996	183,705	161,747	81,802	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 CC Adverse - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	84,887	94,547	103,836
1926	111,678	125,242	135,444	132,921	101,676	48,272	630	210	210	5,967	18,023	22,930
1927	28,799	34,137	36,451	37,998	37,398	36,150	411	210	210	6,175	24,959	37,338
1928	45,943	52,888	72,493	81,402	95,820	74,450	17,359	215	210	6,579	24,530	33,205
1929	43,202	51,323	63,389	60,577	54,039	21,972	229	210	210	5,390	16,337	17,994
1930	21,551	27,832	33,899	35,555	32,221	4,952	211	210	210	6,046	13,722	15,499
1931	17,388	20,089	23,472	21,527	20,219	1,496	210	210	210	4,208	18,949	25,873
1932	34,666	40,959	59,803	74,178	80,287	80,287	55,648	55,648	55,648	63,582	85,569	100,850
1933	118,985	128,787	140,081	153,419	148,390	148,390	112,500	112,500	112,500	120,434	138,169	157,978
1934	162,500	162,500	162,500	162,500	154,560	112,500	112,500	87,868	56,209	54,682	72,331	87,027
1935	104,354	120,943	132,771	142,909	149,018	123,233	112,500	112,500	112,500	120,240	137,402	143,803
1936	161,413	162,500	162,500	161,971	161,231	108,410	46,923	536	210	6,922	15,728	21,667
1937	23,268	25,841	32,418	33,271	32,672	6,212	211	210	210	6,922	28,416	38,039
1938	51,253	57,347	73,487	83,117	92,450	89,983	64,069	64,069	64,069	66,098	85,290	95,357
1939	110,798	121,356	137,041	139,495	123,891	67,983	8,957	211	210	6,871	19,343	25,677
1940	34,799	48,954	73,549	75,109	67,435	7,946	211	210	210	7,882	21,659	28,183
1941	36,059	43,165	52,375	51,412	47,176	18,306	299	210	210	3,588	13,649	24,793
1942	31,912	45,223	51,946	50,652	24,334	2,156	210	210	210	3,198	20,508	28,161
1943	35,487	41,302	49,620	64,582	71,182	71,182	49,344	49,344	49,344	57,278	73,828	82,183
1944	90,581	97,376	102,747	101,829	94,853	51,330	3,024	210	210	2,915	15,696	23,163
1945	34,303	44,952	51,677	54,532	58,218	20,202	218	210	210	6,583	24,325	32,869
1946	46,247	53,191	69,768	80,882	94,272	90,305	65,330	65,330	65,330	73,154	89,631	103,238
1947	115,902	130,145	143,696	154,488	157,760	109,371	47,883	643	210	8,144	26,903	38,146
1948	52,919	66,058	76,914	88,705	83,938	83,938	61,476	61,476	61,476	69,264	86,865	98,935
1949	104,948	110,400	122,335	131,259	141,926	124,074	112,500	112,500	112,500	120,434	138,850	152,086
1950	160,305	162,500	162,500	162,500	162,500	162,500	132,748	112,500	112,500	120,031	140,957	159,661
1951	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,541	149,848
1952	158,442	162,500	162,500	162,500	160,756	124,216	62,728	4,293	211	4,932	14,397	15,877
1953	23,661	34,013	40,100	41,822	43,131	27,506	321	210	210	7,103	21,657	38,671
1954	51,996	61,688	71,339	80,484	77,122	77,022	55,785	55,785	55,785	63,718	81,430	89,604
1955	101,081	108,763	116,232	120,113	113,137	103,708	100,319	100,319	100,319	107,925	125,728	137,053
1956	149,173	154,394	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	139,465	154,407
1957	162,500	162,500	162,500	162,500	162,500	124,844	112,500	112,500	112,500	113,366	129,993	144,557
1958	159,308	162,500	162,500	158,718	149,391	89,887	28,399	233	210	6,600	27,208	35,677
1959	48,641	56,045	70,668	83,467	90,743	82,809	62,886	62,886	62,886	70,820	92,344	104,403
1960	113,065	130,559	144,399	154,517	159,753	137,935	112,500	112,500	112,500	120,434	142,557	151,333
1961	162,500	162,500	162,500	162,500	162,500	154,665	112,500	112,500	112,500	120,434	138,145	147,402
1962	160,687	162,500	162,500	162,500	144,085	93,444	35,029	337	210	6,242	23,153	30,289
1963	40,181	54,812	64,182	63,590	36,613	2,216	210	210	210	5,451	21,965	28,349
1964	38,197	48,753	59,379	69,365	59,915	59,915	48,389	48,389	48,389	56,178	74,932	84,368
1965	91,449	111,898	125,935	135,701	132,433	128,068	109,289	109,289	109,289	117,223	133,508	139,946
1966	146,439	152,079	159,127	160,290	160,508	106,544	45,056	454	210	7,597	19,875	27,600
1967	47,936	67,606	80,926	82,453	62,419	62,419	8,106	211	210	7,246	24,352	32,556
1968	42,727	55,754	68,534	74,398	81,153	56,247	56,247	56,247	56,247	57,413	73,742	86,705
1969	96,199	104,163	119,550	131,495	141,407	114,951	53,463	1,048	210	6,592	22,561	29,683
1970	39,367	49,497	58,296	61,568	44,954	40,737	684	210	210	7,414	20,629	22,325
1971	31,447	41,771	43,423	50,141	68,226	68,226	47,298	47,298	47,298	55,232	73,239	82,222
1972	94,866	104,962	126,454	141,818	159,461	159,461	116,521	112,500	112,500	120,434	138,957	152,520
1973	162,500	162,500	162,500	155,411	106,189	49,454	688	210	210	7,603	23,115	33,859
1974	49,747	67,441	80,825	90,866	98,835	98,835	68,489	68,489	68,489	76,423	98,602	115,805
1975	131,580	140,919	150,838	162,500	162,500	160,517	112,500	112,500	112,500	120,434	140,611	161,709
1976	162,500	162,500	162,500	162,500	162,500	158,954	132,026	112,500	112,500	120,434	137,451	145,566
1977	156,093	162,500	162,500	153,280	108,166	64,622	17,533	218	210	5,493	21,660	39,666
1978	51,475	60,011	75,326	75,126	47,490	34,129	342	210	210	7,048	18,891	27,513
1979	33,610	39,711	51,365	49,990	53,857	15,205	215	210	210	7,847	19,421	30,578
1980	37,070	43,155	52,413	57,976	61,694	27,406	257	210	210	7,460	19,946	32,155
1981	44,912	58,239	67,669	70,907	51,129	24,331	238	210	210	3,810	16,473	25,634
1982	36,862	51,838	70,390	78,174	83,916	83,916	58,160	58,160	58,160	66,094	83,659	96,451
1983	110,916	125,771	147,968	155,893	162,500	126,782	112,500	112,500	112,500	112,749	135,387	143,320
1984	156,187	162,500	162,500	162,500	142,529	142,529	112,500	112,500	112,500	120,434	138,001	143,402
1985	149,582	155,733	160,985	157,727	146,432	91,981	30,880	254	210	6,905	22,888	29,018
1986	35,758	42,038	63,393	63,312	60,925	25,911	233	210	210	3,939	22,330	29,444
1987	35,835	45,855	62,915	63,466	54,117	11,094	212	210	210	2,956	13,298	20,253
1988	22,651	32,277	38,120	35,232	32,626	2,567	210	210	210	6,675	24,082	30,513
1989	41,405	47,662	57,823	72,707	78,157	48,471	612	210	210	6,872	24,091	33,940
1990	43,393	53,043	70,271	80,408	83,245	70,581	13,322	213	210	7,581	26,644	42,080
1991	55,057	74,709	87,211	100,425	106,883	74,061	74,061	74,061	74,061	74,047	91,735	103,207
1992	113,751	129,459	140,762	134,451	99,254	50,846	966	210	210	6,372	19,996	21,673
1993	23,387	24,910	27,752	27,533	27,303	1,231	210	210	210	6,697	16,652	21,166
1994	22,763	24,983	29,456	33,177	34,772	6,830	211	210	210	3,140	17,606	24,442
1995	31,169	43,693	55,163	55,798	60,241	22,687	222	210	210	7,842	24,621	39,340
1996	51,811	62,391	77,096	87,317	95,572	76,358	66,230	9,848	213	8,144	23,062	30,532
1997	42,359	54,427	74,026	91,250	112,086	112,086	77,663	77,663	77,663	85,527	106,906	116,235
1998	127,433	143,874	159,843	162,500	160,257	113,299	51,812	873	210	7,382	29,375	43,757
1999	58,880	76,055	91,995	101,333	81,396	72,306	70,370	70,370	70,370	78,254	99,739	111,182
2000	118,669	124,522	144,471	155,886	138,490	127,344	112,500	112,500	112,500	120,137	137,894	143,796
2001	150,862	155,180	160,322	157,837	160,476	105,954	47,874	896	210	8,144	20,328	29,493
2002	38,501	47,618	54,974	66,881	76,073	76,073	52,731	52,731	52,731	54,648	72,057	81,301
2003	94,589	109,638	126,924	131,088	103,131	66,394	5,271	211	210	8,144	21,732	28,585
2004	34,402	42,497	59,695	59,535	61,453	19,826	217	210	210	7,421	19,973	25,011
2005	33,606	40,546	56,207	59,892	56,799	10,936	213	210	210	6,127	22,856	32,419
2006	45,931	55,474	63,252	74,254	84,041	76,498	15,051	214	210	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP4 Large 400 cfs WDC1 CC Adverse - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	235,605	261,449	436,215
1926	497,462	663,618	753,077	821,330	806,975	599,543	325,974	68,188	-77,209	-34,512	19,181	97,240
1927	195,111	275,711	311,133	425,908	596,439	747,300	555,587	273,795	121,051	171,804	315,510	395,000
1928	490,488	521,368	725,012	836,127	1,007,974	913,203	659,907	359,027	176,343	202,850	257,379	286,469
1929	293,998	273,741	327,140	360,810	538,006	522,431	305,359	58,013	-102,788	-126,706	-114,981	-66,799
1930	-46,456	52,063	125,126	243,324	352,749	304,305	182,982	29,431	-96,430	-114,967	-90,962	-79,453
1931	-14,720	29,458	142,700	269,455	479,579	454,465	236,471	22,629	-120,962	-114,978	-29,222	10,500
1932	71,924	101,357	336,250	546,631	839,848	882,184	666,741	380,236	179,366	157,621	536,071	721,984
1933	806,466	814,086	829,641	941,703	1,069,328	1,054,239	873,765	579,909	401,225	449,513	663,621	1,138,793
1934	1,037,858	1,122,505	1,223,201	1,240,866	1,222,845	1,017,465	733,831	443,629	270,140	322,916	431,108	585,177
1935	736,458	836,431	879,502	982,706	1,090,982	1,053,295	799,695	509,198	302,968	263,337	293,008	329,443
1936	520,005	501,341	528,674	709,277	929,420	832,671	547,038	252,099	75,273	27,646	18,669	156,569
1937	151,918	148,410	191,756	365,153	594,848	628,642	380,103	96,465	-61,487	-66,042	156,181	300,580
1938	420,052	442,531	534,510	680,399	948,468	965,556	725,702	420,924	214,606	216,975	309,776	432,901
1939	596,077	618,568	707,101	860,099	914,385	739,738	483,943	198,415	23,936	8,642	50,805	328,053
1940	384,138	549,178	773,731	872,146	893,064	674,327	376,798	87,426	-75,577	-61,249	-12,095	125,618
1941	185,808	221,012	290,167	323,866	382,072	295,740	147,329	342	-85,577	-85,938	7,873	242,568
1942	273,415	350,825	389,585	465,356	494,265	457,719	268,731	50,075	-101,540	-131,024	44,345	116,058
1943	132,553	158,313	225,883	445,334	655,951	779,879	645,935	381,525	184,975	181,257	224,178	306,961
1944	360,033	398,072	426,701	492,288	603,895	473,831	257,377	39,158	-90,814	-117,233	-65,900	-29,414
1945	99,739	213,582	248,963	349,224	638,706	582,206	328,853	48,236	-93,592	-83,054	1,484	93,165
1946	190,431	211,576	339,864	462,990	852,261	885,690	679,475	399,286	202,582	210,939	254,505	560,036
1947	620,301	702,012	830,611	997,107	1,053,954	923,128	638,316	344,611	170,150	301,346	459,950	578,449
1948	632,604	657,162	667,747	729,890	1,018,590	1,048,304	800,562	504,776	308,169	310,214	408,782	512,192
1949	513,901	507,104	581,274	744,341	1,127,587	1,132,754	874,113	543,292	292,701	257,566	360,308	520,808
1950	541,810	544,691	555,296	623,335	942,442	1,241,811	1,154,133	851,711	605,345	645,001	801,175	916,311
1951	936,178	1,021,099	973,489	1,010,348	1,235,161	1,207,968	941,736	605,857	349,522	327,176	393,606	463,141
1952	462,764	479,892	491,145	669,619	894,843	828,823	579,667	289,776	111,770	56,257	55,841	70,231
1953	231,753	395,642	456,796	532,720	751,819	769,040	584,166	336,061	164,640	155,842	270,407	586,473
1954	691,284	799,026	831,645	911,670	1,049,429	1,002,162	811,715	520,687	315,703	282,730	374,219	409,435
1955	501,180	526,069	513,418	542,082	736,314	967,528	796,248	526,816	325,332	415,364	630,407	796,196
1956	847,496	841,485	791,912	864,360	1,171,089	1,242,144	1,041,664	719,648	460,020	421,982	499,282	748,348
1957	750,484	750,390	807,568	968,748	1,221,139	1,105,504	799,796	493,055	285,908	268,422	342,168	477,286
1958	593,709	800,969	837,870	932,720	1,005,689	819,053	515,849	221,860	46,542	66,196	272,303	494,910
1959	663,594	689,427	779,110	953,866	1,117,613	1,090,772	814,970	476,105	272,540	324,576	525,274	677,196
1960	700,668	806,980	878,805	1,008,584	1,153,621	1,108,646	824,125	509,796	302,525	296,796	453,807	496,231
1961	623,344	829,930	930,224	1,021,928	1,210,670	1,190,716	886,525	538,517	285,598	249,753	295,055	385,979
1962	479,093	561,407	590,276	751,117	791,436	744,533	507,504	237,915	66,167	60,309	207,414	297,634
1963	373,164	548,105	620,927	682,329	666,572	520,108	291,273	54,632	-68,710	-33,462	91,936	158,807
1964	249,958	287,149	354,169	469,269	661,198	903,881	748,825	479,429	294,709	302,932	362,223	470,631
1965	563,003	745,305	803,606	985,022	1,098,203	1,029,690	787,814	500,903	293,796	278,043	346,787	375,534
1966	399,551	404,668	469,042	658,891	897,046	812,352	553,194	256,190	76,607	78,772	143,693	357,321
1967	544,671	703,918	773,464	754,286	894,891	911,640	672,202	387,539	209,740	229,762	296,578	434,821
1968	541,242	756,811	946,967	997,486	1,034,154	921,137	632,798	376,266	196,983	213,936	312,925	426,923
1969	439,048	422,067	470,005	657,825	974,974	962,042	676,182	378,257	226,893	218,144	272,123	351,472
1970	433,685	536,131	592,070	639,812	778,707	836,982	600,272	316,998	157,308	130,745	170,301	176,866
1971	315,421	424,491	362,706	454,377	931,619	1,098,660	989,990	686,350	453,556	399,989	474,602	545,289
1972	616,949	645,926	861,566	888,101	1,155,786	1,252,470	1,089,306	769,452	547,553	445,944	520,274	802,953
1973	904,455	938,128	993,400	1,020,167	991,899	799,228	508,589	216,089	40,825	32,307	134,663	342,160
1974	552,439	675,907	734,251	831,322	988,334	1,134,915	1,022,694	736,692	505,344	403,752	467,913	620,946
1975	760,854	776,219	799,717	846,009	1,146,366	1,213,994	1,013,380	718,586	470,876	525,914	710,387	985,033
1976	975,661	1,012,158	948,194	940,090	1,186,677	1,194,695	1,052,947	759,321	522,728	427,654	449,035	472,571
1977	503,446	534,988	596,779	619,570	570,040	438,739	217,629	17,002	-46,909	-49,795	100,120	459,681
1978	512,605	574,261	728,738	830,845	847,446	755,565	493,229	205,948	79,809	38,558	101,129	152,470
1979	139,511	141,492	229,681	326,876	611,587	537,725	318,637	82,925	-72,724	-72,390	-69,566	142,802
1980	150,267	175,234	252,744	449,634	682,803	630,584	390,352	109,606	-51,669	-92,126	14,204	203,660
1981	271,812	463,266	535,164	651,412	653,558	595,826	341,134	60,649	-94,214	-66,750	29,838	153,020
1982	260,781	438,190	534,720	636,824	898,330	977,896	765,756	476,208	281,192	275,194	352,246	523,399
1983	660,034	792,257	999,256	1,096,583	1,121,230	1,016,670	771,657	481,425	294,800	259,222	482,777	509,890
1984	647,024	707,778	824,910	849,426	911,678	945,471	782,734	500,574	305,845	273,613	344,666	347,696
1985	343,626	325,481	333,979	436,733	640,988	613,693	362,629	93,332	-55,024	-12,632	84,962	74,723
1986	108,085	152,078	386,180	468,941	589,451	530,191	284,289	38,793	-103,890	-114,086	83,333	117,542
1987	155,913	244,920	405,025	530,168	678,884	566,567	322,367	67,729	-97,535	-141,175	-98,076	13,600
1988	42,600	137,554	269,201	404,494	563,139	510,042	294,159	59,570	-97,737	-94,057	43,210	96,640
1989	179,819	178,761	243,161	493,188	755,232	728,158	465,922	175,838	-1,681	-31,804	72,864	171,391
1990	332,976	359,921	483,285	756,275	868,760	844,391	597,232	306,221	132,667	192,415	563,822	584,500
1991	628,640	829,782	829,308	982,063	1,057,668	972,879	742,456	449,207	242,825	198,594	291,889	401,311
1992	517,891	671,436	747,707	787,074	768,422	571,500	310,968	64,013	-77,208	-90,343	-27,994	-18,507
1993	-17,163	-13,485	61,095	198,702	543,130	490,492	268,608	30,623	-128,704	-146,049	-116,624	-38,483
1994	28,680	38,701	147,343	271,105	411,674	345,941	192,089	30,821	-96,638	-118,165	-65,190	57,793
1995	97,104	261,063	365,798	424,855	617,849	551,313	309,091	52,060	-112,943	-86,547	139,739	414,019
1996	510,171	594,237	607,700	814,606	939,746	896,148	676,766	387,035	208,391	206,151	243,511	262,111
1997	334,475	396,254	526,543	648,572	1,035,954	1,164,165	982,836	658,636	419,196	386,993	510,534	582,489
1998	654,815	770,003	896,858	937,505	1,133,921	1,025,285	746,647	458,781	281,620	259,992	393,679	531,294
1999	639,160	702,016	751,083	790,859	925,524	1,022,595	848,093	556,848	349,178	330,510	551,414	761,540
2000	800,501	828,962	915,133	1,086,242	1,148,353	1,060,105	784,048	488,071	290,340	271,968	294,633	289,594
2001	293,495	298,126	340,665	391,979	623,683	524,734	287,582	34,677	-76,277	-56,370	79,500	176,868
2002	271,686	321,734	337,125	499,385	814,299	969,367	734,739	413,401	198,298	155,005	193,963	238,322
2003	331,776	477,831	655,146	781,317	826,593	753,114	473,821	178,703	-1,786	41,946	119,825	173,371
2004	212,898	247,035	372,575	489,463	654,021	569,030	285,723	50,236	-93,193	-93,427	2,361	95,211
2005	176,810	202,630	333,037	459,774	586,964	447,934	247,319	31,223	-117,946	-138,493	-31,881	60,607
2006	239,477	279,538	299,486	442,475	756,335	838,289	614,265	320,616	142,717	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D-9

Scenario IP5.2 (KKC, KDRPP, CEPR, and BRE) under Adverse Climate Change Conditions

(Uses BRE operational assumption 2)

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP5.2 CC3 Adverse

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
Avg. WY 1926 to 2009	2,431	493	1,480	1,278	71.5%	159	-40	70.8%	125	-54	6,412	247
Avg. WY 1982 to 2009	2,300	438	1,436	1,190	66.7%	98	-68	65.9%	57	-83	7,299	801
1941 (Dry Year)	1,278	202	781	788	9.6%	-82	-176	9.2%	-82	-181	1,011	0
1994 (Dry Year)	1,455	278	797	778	9.1%	-86	-200	10.1%	-148	-200	3,325	0
2001 (Dry Year)	1,633	237	1,254	1,005	53.7%	-73	-130	53.1%	-92	-144	37,449	11,256
2005 (Dry Year)	1,681	281	1,088	914	34.1%	-106	-181	34.7%	-133	-195	1,716	0

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
1926	1,542	194	1,261	1,025	54.4%	-65	-120	54.1%	-68	-128	15,270	0
1927	2,410	367	1,483	1,367	67.6%	123	-110	65.0%	161	-108	7,463	0
1928	2,722	661	1,533	1,407	70.0%	158	-36	70.0%	175	-35	0	0
1929	1,583	205	1,216	998	46.2%	-93	-140	46.9%	-126	-155	0	0
1930	1,344	227	751	759	6.0%	-91	-165	5.6%	-139	-181	3,203	0
1931	1,875	366	1,136	932	36.7%	-109	-164	37.1%	-153	-179	1,219	0
1932	3,043	738	1,649	1,274	85.9%	200	-25	85.4%	152	-37	818	0
1933	3,137	714	1,758	1,521	100.0%	387	72	100.0%	292	37	0	0
1934	2,540	604	1,517	1,509	69.7%	262	8	68.0%	205	-4	263	0
1935	2,437	317	1,573	1,288	80.1%	315	49	78.6%	265	20	0	0
1936	2,099	339	1,456	1,312	70.0%	86	-61	70.0%	64	-76	8,123	0
1937	1,970	254	1,452	1,185	70.0%	-37	-125	69.2%	-85	-142	16,405	0
1938	2,887	715	1,601	1,229	79.5%	228	-2	77.6%	213	-5	1,023	0
1939	2,001	271	1,464	1,255	70.0%	30	-87	70.0%	16	-100	8,000	0
1940	1,921	290	1,436	1,193	70.0%	-7	-135	70.0%	-37	-147	23,602	0
1941	1,278	202	781	788	9.6%	-82	-176	9.2%	-82	-181	1,011	0
1942	1,737	224	1,189	971	40.9%	-94	-150	41.7%	-143	-167	20	0
1943	2,910	610	1,617	1,300	87.8%	176	-69	86.0%	136	-80	403	0
1944	1,514	207	1,075	944	34.8%	-80	-163	35.0%	-102	-172	426	0
1945	2,212	290	1,472	1,209	70.0%	-38	-158	70.0%	-92	-175	0	0
1946	2,859	616	1,612	1,255	83.0%	173	-20	79.7%	129	-29	118	0
1947	2,471	481	1,534	1,427	70.0%	171	-25	70.0%	172	-24	8	0
1948	2,988	700	1,660	1,417	92.4%	376	87	90.3%	385	86	4	0
1949	3,008	664	1,758	1,443	100.0%	324	49	100.0%	274	23	0	0
1950	3,890	1,270	1,758	1,857	100.0%	599	102	100.0%	576	84	2,225	0
1951	3,441	1,080	1,759	1,478	100.0%	357	56	100.0%	280	21	843	0
1952	2,249	382	1,489	1,364	70.0%	125	-37	70.0%	99	-55	1,464	0
1953	2,228	316	1,416	1,449	61.7%	243	-63	59.0%	220	-68	12,782	0
1954	2,961	649	1,692	1,427	96.0%	376	70	94.0%	342	59	0	0
1955	2,607	357	1,622	1,369	86.0%	363	72	83.9%	393	73	0	0
1956	4,106	1,639	1,758	1,579	100.0%	444	74	100.0%	346	34	0	0
1957	2,853	707	1,607	1,258	81.5%	280	56	78.7%	238	26	2,268	0
1958	1,971	294	1,438	1,266	70.0%	71	-51	70.0%	94	-52	27,046	0
1959	2,939	623	1,759	1,431	100.0%	312	50	100.0%	288	28	14,726	0
1960	2,503	365	1,598	1,297	87.3%	281	54	84.9%	246	30	0	0
1961	2,766	518	1,680	1,366	95.1%	324	68	93.3%	299	61	0	0
1962	2,135	300	1,486	1,369	70.0%	132	-34	70.0%	141	-40	1,095	0
1963	1,611	238	1,299	1,046	57.5%	-74	-128	55.6%	-99	-145	24,560	0
1964	2,960	558	1,706	1,426	99.2%	287	24	97.7%	295	27	13,530	0
1965	2,681	504	1,611	1,291	84.5%	293	64	83.5%	264	39	0	0
1966	2,217	425	1,466	1,313	70.0%	96	-51	70.0%	75	-67	17,922	0
1967	2,240	295	1,445	1,486	63.9%	274	-13	62.5%	240	-21	14,157	0
1968	2,347	403	1,483	1,500	68.3%	252	-2	65.7%	235	-6	0	0
1969	2,713	676	1,543	1,495	70.0%	237	-11	70.0%	232	-12	0	0
1970	2,338	380	1,474	1,474	66.7%	238	-18	64.8%	189	-29	0	0
1971	3,561	999	1,758	1,650	100.0%	523	65	100.0%	425	30	0	0
1972	3,722	1,224	1,758	1,649	100.0%	523	88	100.0%	430	54	575	0
1973	1,845	182	1,403	1,225	70.0%	67	-53	70.0%	47	-69	50,123	0
1974	3,438	909	1,758	1,634	100.0%	506	88	100.0%	416	56	11,745	0
1975	3,225	787	1,758	1,579	100.0%	445	78	100.0%	383	50	0	0
1976	3,818	1,297	1,758	1,659	100.0%	516	112	100.0%	424	76	0	0
1977	1,289	177	993	912	31.3%	-34	-96	32.8%	-57	-111	25,306	0
1978	2,170	243	1,485	1,390	70.0%	136	-65	70.0%	89	-77	13,035	0
1979	1,697	239	1,249	1,038	48.0%	-61	-108	48.7%	-95	-126	1,370	0
1980	2,331	411	1,493	1,229	70.0%	-7	-123	70.0%	-52	-138	13,666	0
1981	2,086	297	1,476	1,219	70.0%	-19	-130	70.0%	2	-127	1,110	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP5.2 CC3 Adverse

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	2,956	649	1,657	1,385	92.8%	269	32	91.6%	233	23	99	89
1983	2,602	469	1,582	1,247	80.6%	255	35	78.8%	207	12	0	0
1984	2,510	380	1,584	1,271	80.9%	299	26	78.9%	256	9	33	0
1985	1,784	278	1,338	1,101	60.8%	-35	-114	59.7%	-58	-130	23,379	1,873
1986	1,781	257	1,310	1,042	55.2%	-97	-138	53.1%	-134	-154	14,504	837
1987	2,026	335	1,382	1,063	56.5%	-90	-137	56.9%	-137	-154	6,424	38
1988	1,842	277	1,254	1,016	45.7%	-87	-162	45.2%	-143	-179	1,387	0
1989	2,510	514	1,502	1,280	70.0%	35	-119	70.0%	-14	-135	867	0
1990	2,613	504	1,539	1,410	70.0%	158	-67	70.0%	149	-70	0	0
1991	2,802	569	1,639	1,329	88.9%	307	60	87.3%	255	28	0	0
1992	1,522	180	1,245	1,015	53.5%	-60	-119	53.4%	-91	-135	21,463	4,187
1993	1,825	305	1,176	955	40.3%	-117	-187	40.5%	-162	-200	12,861	0
1994	1,455	278	797	778	9.1%	-86	-200	10.1%	-148	-200	3,325	0
1995	1,990	283	1,379	1,089	60.1%	-92	-183	58.1%	-98	-188	1,151	0
1996	2,876	760	1,555	1,209	76.3%	238	-16	74.2%	188	-27	163	0
1997	3,876	1,421	1,758	1,603	100.0%	483	83	100.0%	443	60	0	0
1998	2,322	354	1,467	1,506	66.4%	274	11	64.9%	242	0	0	0
1999	2,751	395	1,758	1,464	100.0%	348	64	100.0%	278	32	0	0
2000	2,476	420	1,530	1,202	73.1%	278	56	71.6%	241	27	0	0
2001	1,633	237	1,254	1,005	53.7%	-73	-130	53.1%	-92	-144	37,449	11,256
2002	3,017	724	1,661	1,291	88.3%	217	-1	88.1%	179	-8	16,269	640
2003	1,969	240	1,446	1,255	70.0%	46	-78	70.0%	28	-92	19,951	1,099
2004	1,937	282	1,455	1,159	70.0%	-68	-149	69.6%	-110	-164	21,132	0
2005	1,681	281	1,088	914	34.1%	-106	-181	34.7%	-133	-195	1,716	0
2006	2,734	561	1,542	1,160	70.3%	143	-77	67.7%	NA	NA	303	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,431	493	1,480	1,278	71.5%	159	-40	70.8%	125	-54	6,412	247

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.
5) Climate Change inflow dataset provided only extended to the end of Water Year 2006.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP5.2 CC3 Adverse

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	18.1%	45.5%	6.5%	15.1%	8.1%
	0 -10% Above Target[1]	55.5%	33.0%	1.8%	1.1%	42.7%
	0-10% Below Target	2.0%	0.7%	8.7%	51.1%	6.2%
	> 10% Below Target	24.4%	20.8%	83.0%	32.7%	43.0%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	44.7%	60.1%	61.3%	17.1%
	0 -10% Above Target	4.0%	3.7%	3.9%	46.5%
	0-10% Below Target	5.0%	3.3%	5.3%	15.5%
	> 10% Below Target	46.3%	32.9%	29.5%	20.9%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			8.0%	
	0 -10% Above Target			3.2%	
	0-10% Below Target			12.3%	
	> 10% Below Target			76.5%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				31.9%	
	0 -10% Above Target				13.4%	
	0-10% Below Target				10.2%	
	> 10% Below Target				44.5%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				98.3%	
	0 -10% Above Target				1.7%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	17.5%	21.6%		10.8%
	0 -10% Above Target	1.5%	2.4%		1.8%
	0-10% Below Target	6.7%	2.4%		14.6%
	> 10% Below Target	74.3%	73.6%		72.8%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			14.6%	8.6%	7.9%
	0 -10% Above Target			9.8%	0.7%	0.4%
	0-10% Below Target			25.9%	1.4%	0.8%
	> 10% Below Target			49.7%	89.3%	90.9%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			96.8%	82.6%	66.9%
	0 -10% Above Target			0.6%	7.3%	13.1%
	0-10% Below Target			0.6%	4.8%	8.9%
	> 10% Below Target			2.0%	5.3%	11.1%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			20.3%	
	0 -10% Above Target			8.9%	
	0-10% Below Target			16.5%	
	> 10% Below Target			54.3%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			97.0%	92.5%	82.5%
	0 -10% Above Target			0.7%	2.2%	8.5%
	0-10% Below Target			0.7%	1.5%	3.4%
	> 10% Below Target			1.6%	3.8%	5.6%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP5.2 CC3 Adverse

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	37.3%	44.5%	97.0%		20.9%
	0 -10% Above Target	24.6%	25.2%	1.6%		45.2%
	0-10% Below Target	0.9%	0.3%	0.0%		0.8%
	> 10% Below Target	37.2%	30.0%	1.4%		33.1%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	9.0%			
	0 -10% Above Target	90.4%			
	0-10% Below Target	0.0%			
	> 10% Below Target	0.6%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		>=130 cfs	>=130 cfs	>=130 cfs	>=130 cfs
Flow %	> 10% Above Target	15.4%	46.9%	85.7%	14.4%
	0 -10% Above Target	82.2%	52.8%	13.3%	75.9%
	0-10% Below Target	0.4%	0.1%	0.1%	0.3%
	> 10% Below Target	2.0%	0.2%	0.9%	9.4%

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	57.0%			
	0 -10% Above Target	2.7%			
	0-10% Below Target	3.3%			
	> 10% Below Target	37.0%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP5 (Adverse Climate Change)

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	35.4	4.9	1.8	2.7	0.8	1.3	11.1	39.6	82.4	61.0	51.8	47.1	339.9
1927	14.6	1.8	1.5	1.2	1.0	0.9	1.7	10.1	21.4	43.0	40.7	48.9	186.7
1928	7.5	1.0	1.2	1.4	1.2	1.0	2.5	12.1	34.7	48.9	67.8	49.9	229.2
1929	8.4	2.0	2.1	1.9	2.8	1.1	8.2	16.7	42.1	37.1	53.9	48.0	224.3
1930	18.7	3.5	2.5	1.8	0.9	1.3	2.5	5.7	22.1	26.5	21.0	38.9	145.3
1931	19.1	2.0	2.0	1.4	1.2	0.9	5.0	10.6	22.8	27.8	25.3	44.5	162.5
1932	19.3	1.2	1.3	1.1	1.4	0.9	1.4	8.2	10.3	36.8	55.6	59.5	197.3
1933	14.3	1.0	2.1	1.9	3.1	1.8	1.0	20.2	16.0	37.6	77.3	80.3	256.6
1934	44.4	1.4	16.3	77.7	2.8	44.8	19.7	17.4	41.2	77.5	89.0	66.3	498.4
1935	14.8	1.6	2.4	2.0	0.9	2.3	2.6	23.2	17.8	58.3	63.8	68.9	258.6
1936	31.7	4.6	3.9	1.7	5.9	1.2	4.1	16.8	47.6	72.0	68.2	49.8	307.5
1937	19.3	5.6	2.2	1.9	2.2	1.1	2.2	11.0	34.7	49.9	48.1	49.8	228.0
1938	18.8	1.3	1.1	1.0	1.1	0.9	1.4	9.6	13.3	34.5	56.0	63.7	202.7
1939	8.9	3.0	2.8	0.9	1.6	1.3	6.0	26.7	48.6	65.1	60.4	50.1	275.3
1940	17.2	2.1	1.8	1.2	0.9	0.9	4.4	18.7	74.7	66.1	58.9	49.2	296.1
1941	15.6	3.4	1.3	1.4	1.1	1.5	1.9	5.7	26.6	26.5	27.1	35.8	147.8
1942	11.2	1.4	1.5	1.6	1.0	1.3	3.3	13.7	21.7	25.6	31.9	46.6	160.8
1943	20.3	1.3	1.0	1.6	1.3	1.1	1.9	8.7	9.7	33.5	52.3	59.2	191.9
1944	14.3	2.1	1.9	1.8	1.5	1.6	2.1	11.2	36.9	50.7	48.2	42.7	214.9
1945	16.4	4.3	1.8	1.2	0.9	1.0	1.6	7.8	30.3	38.2	40.3	48.4	192.5
1946	19.5	1.0	1.3	1.0	1.2	0.9	1.5	6.5	10.5	36.2	53.1	60.6	193.5
1947	11.6	2.0	2.5	2.7	0.9	0.9	4.3	23.0	41.2	64.6	77.4	49.7	280.9
1948	5.4	1.2	1.1	2.3	3.4	2.5	2.4	7.0	7.5	46.5	75.6	67.8	222.7
1949	9.5	2.4	1.9	3.7	3.4	1.1	2.2	9.4	24.9	70.4	76.2	92.7	297.7
1950	38.1	3.6	2.1	4.4	4.3	4.8	1.8	2.0	11.4	63.7	78.6	92.4	307.3
1951	35.0	2.2	8.9	15.3	3.3	22.1	31.8	22.2	21.2	71.6	75.7	93.5	402.8
1952	43.2	3.0	3.0	3.8	3.7	2.7	1.3	18.1	49.2	75.4	82.1	50.5	336.1
1953	21.3	7.9	5.7	1.7	0.8	1.0	3.5	9.8	34.6	49.8	46.7	47.3	230.0
1954	9.5	1.2	0.9	2.8	2.9	1.0	4.4	17.1	15.8	36.9	68.8	70.6	231.8
1955	15.1	4.6	2.7	1.8	3.4	5.2	9.4	8.6	9.5	33.3	62.8	69.7	226.2
1956	9.8	1.4	1.1	2.1	5.3	21.4	27.9	25.1	22.0	61.0	70.5	91.2	338.8
1957	47.4	2.8	8.0	3.2	2.4	0.9	3.0	16.3	27.1	71.2	75.1	69.1	326.5
1958	32.7	3.1	1.8	1.6	0.8	1.4	7.1	28.9	46.4	72.2	74.5	50.1	320.6
1959	10.9	1.1	1.3	1.0	2.1	0.9	2.1	14.8	17.2	61.0	78.3	81.2	271.9
1960	32.9	3.5	1.6	3.9	1.3	2.1	5.8	15.6	17.4	62.0	79.1	70.6	295.8
1961	27.9	1.6	2.1	1.7	0.9	0.9	5.8	15.0	20.2	62.2	78.9	71.2	288.2
1962	11.5	4.4	2.2	2.1	1.1	2.2	4.6	31.4	45.1	64.2	77.8	50.9	297.3
1963	13.4	2.4	1.2	3.8	1.3	1.6	7.2	31.5	44.8	57.2	55.4	47.4	267.1
1964	19.8	1.0	1.3	1.0	1.0	1.0	2.0	7.3	5.8	33.9	57.3	69.0	200.3
1965	5.3	5.1	1.6	5.1	0.8	1.1	1.5	19.1	20.2	43.1	78.4	69.9	251.2
1966	29.6	3.7	3.5	4.3	2.4	1.7	4.6	15.1	48.5	77.6	77.2	50.9	319.0
1967	19.2	1.5	1.6	0.9	0.8	0.9	8.8	15.9	28.1	39.5	64.7	51.9	233.9
1968	10.7	2.2	2.5	1.9	1.5	1.2	5.8	22.0	31.3	55.7	78.2	52.7	265.8
1969	9.0	1.8	1.6	5.0	6.2	2.3	1.5	7.6	35.1	74.5	86.7	46.0	277.1
1970	6.3	2.6	1.5	2.7	0.8	1.2	7.0	12.3	28.0	44.0	76.5	50.5	233.4
1971	14.0	1.8	2.4	1.3	1.1	4.9	0.9	0.9	7.1	47.4	74.1	86.3	242.3
1972	42.5	3.1	1.5	1.5	3.8	0.9	11.2	28.3	29.9	57.6	71.2	85.5	336.9
1973	41.2	3.4	6.2	9.3	2.6	1.5	11.3	38.0	50.7	75.7	73.8	50.7	364.5
1974	18.3	1.3	0.9	1.3	0.8	0.9	2.2	13.5	16.6	29.6	81.0	80.9	247.5
1975	40.6	2.4	1.8	1.4	3.2	2.5	2.6	2.5	18.9	56.3	74.5	88.8	295.5
1976	35.2	1.8	17.4	35.7	3.2	34.5	27.6	25.0	18.0	33.4	72.3	80.2	384.2
1977	44.8	4.8	3.8	4.7	3.1	1.9	13.8	36.1	59.2	53.8	45.6	40.9	312.4
1978	18.9	1.2	1.1	1.2	1.1	1.1	3.2	23.6	32.2	45.2	60.4	47.1	236.4
1979	13.7	1.8	1.4	2.9	1.7	1.1	1.8	8.8	37.2	40.0	35.4	47.8	193.5
1980	20.0	3.7	1.7	1.7	1.6	0.9	1.1	9.8	32.6	43.3	42.4	48.9	207.6
1981	16.7	1.2	1.3	1.4	1.0	0.9	3.4	20.2	27.1	43.1	56.8	49.5	222.6
1982	7.7	1.3	0.9	1.3	1.0	0.9	1.7	9.3	13.4	46.2	64.8	70.7	219.4
1983	13.8	3.0	1.5	1.8	0.9	0.9	6.0	21.9	18.3	49.1	68.4	68.1	253.7
1984	26.1	1.0	3.7	2.4	0.9	0.9	9.5	22.6	15.0	33.2	54.7	68.3	238.4
1985	19.9	1.8	4.4	2.8	4.8	3.8	7.1	16.0	38.1	62.0	57.0	48.4	266.1
1986	18.9	1.4	2.2	2.4	1.6	0.9	2.3	10.0	32.1	38.7	38.6	46.5	195.6
1987	20.6	1.3	1.5	1.3	0.8	0.9	4.4	15.8	35.1	40.4	47.7	48.9	218.8
1988	21.2	4.6	1.6	1.6	1.0	0.9	3.5	10.5	28.6	32.3	31.1	46.4	183.1
1989	19.0	1.0	1.3	1.1	1.5	1.2	1.9	9.2	28.3	43.9	38.9	49.9	197.2
1990	17.9	1.6	1.6	1.1	1.0	0.9	1.3	12.0	23.6	47.7	49.1	49.8	207.5
1991	7.1	0.9	1.6	3.2	1.2	0.9	3.3	17.9	17.3	50.4	71.4	70.7	245.9
1992	35.0	2.1	2.7	1.4	0.9	2.4	16.0	41.3	81.0	60.7	51.5	46.0	340.9
1993	18.6	1.7	1.8	2.2	1.6	1.2	2.8	4.9	28.5	59.7	54.5	46.8	224.2
1994	14.7	2.6	1.5	1.3	1.3	0.9	1.3	2.3	22.6	27.8	21.9	38.7	136.9
1995	1.2	1.9	1.3	1.2	0.9	1.1	3.4	12.0	31.6	36.0	40.3	48.8	179.8
1996	12.7	1.2	1.1	1.2	1.2	1.2	1.8	13.0	12.6	37.7	54.5	61.4	199.6
1997	13.8	2.2	2.8	2.4	1.6	0.9	0.9	2.1	7.6	50.6	73.1	86.7	244.8
1998	32.9	2.2	1.7	1.8	0.8	1.1	8.4	24.5	43.7	72.9	83.2	68.9	342.0
1999	16.9	2.0	1.3	1.1	1.4	1.0	3.0	23.8	16.0	37.7	73.0	84.5	261.5
2000	42.7	1.8	1.7	2.0	2.0	0.9	6.6	22.3	17.9	37.9	70.8	67.2	273.8
2001	33.8	4.9	6.5	6.0	3.4	2.2	10.8	19.9	62.4	61.0	51.6	47.8	310.2
2002	15.8	1.8	1.2	1.1	1.0	1.0	1.7	5.8	9.2	40.6	60.6	64.2	203.9
2003	11.0	5.2	3.7	3.0	0.9	1.4	5.2	30.9	35.1	62.0	60.8	50.7	269.9
2004	16.8	1.5	1.1	1.7	1.2	0.9	6.3	17.8	35.6	45.3	53.8	47.8	229.8
2005	17.6	1.3	1.2	1.5	1.0	1.0	1.3	10.4	43.7	50.0	48.7	45.8	223.7
2006	18.8	1.4	1.9	1.0	1.5	0.9	1.3	5.0	9.4	36.1	42.8	49.7	169.8
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	19.6	2.3	2.5	3.5	1.8	2.8	5.2	15.3	28.0	48.0	58.3	57.1	244.2

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 CC3 Adverse

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	347	843	792	120
1927	237	30	25	19	19	15	28	66	-	370	661	821	139
1928	122	15	17	23	21	7	-	-	-	-	-	580	47
1929	137	33	34	32	50	18	2	-	63	603	876	807	161
1930	303	58	40	29	15	21	42	93	372	431	342	654	145
1931	311	34	33	22	22	15	83	172	383	452	411	747	163
1932	312	20	20	19	25	15	24	4	-	-	-	400	51
1933	233	5	-	-	-	-	-	-	-	-	-	-	15
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	81	-	-	-	-	-	-	-	-	-	-	-	5
1936	-	-	-	-	-	-	-	-	-	-	176	838	61
1937	313	94	34	31	40	18	29	-	-	481	782	837	161
1938	306	20	16	16	20	10	-	-	-	-	-	33	26
1939	144	5	-	-	-	-	-	-	-	-	609	842	97
1940	279	35	29	19	13	-	-	-	-	450	957	828	159
1941	254	57	21	22	20	24	32	92	446	431	441	602	148
1942	183	22	24	26	18	21	56	223	365	416	518	784	161
1943	330	19	17	26	23	19	32	97	-	-	145	994	102
1944	232	35	28	29	26	25	35	83	487	824	784	718	201
1945	268	73	30	20	17	17	27	127	509	622	656	813	193
1946	318	17	19	17	22	15	25	17	-	-	-	333	47
1947	188	34	12	-	-	-	-	-	-	-	-	422	39
1948	85	5	-	-	-	-	-	-	-	-	-	-	6
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	617	37
1953	346	133	93	28	15	7	-	-	-	-	246	795	100
1954	155	19	3	-	-	-	-	-	-	-	-	-	11
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	841	50
1959	176	14	8	-	-	-	-	-	-	-	-	-	12
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	555	33
1963	218	39	19	0	-	-	-	-	-	434	901	796	146
1964	320	17	20	16	18	15	22	-	-	-	-	-	26
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	855	51
1967	311	24	25	3	-	-	-	-	-	-	-	204	34
1968	173	36	12	-	-	-	-	-	-	-	-	20	15
1969	146	5	-	-	-	-	-	-	-	-	-	233	23
1970	103	44	19	-	-	-	-	-	-	-	-	298	28
1971	228	31	40	19	-	-	-	-	-	-	-	-	19
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	32	852	53
1974	298	21	9	14	-	-	-	-	-	-	-	-	21
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	252	742	687	102
1978	307	20	11	9	-	-	-	-	-	-	386	791	92
1979	223	31	23	47	30	18	31	6	-	416	576	803	134
1980	325	62	26	27	29	15	18	24	-	561	689	822	158
1981	272	19	19	22	18	15	1	-	-	422	924	831	155
1982	125	22	12	21	18	5	-	-	-	-	-	-	12
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	158	927	813	115
1986	307	24	36	39	28	15	38	97	340	630	627	781	180
1987	335	19	25	21	15	15	15	-	44	657	776	822	167
1988	344	77	24	26	17	15	59	170	480	525	506	780	183
1989	308	16	21	17	26	20	31	67	-	517	633	839	152
1990	292	26	25	17	18	15	7	-	-	-	296	837	92
1991	115	12	-	-	-	-	-	-	-	-	-	-	8
1992	-	-	-	-	-	-	-	-	-	385	837	774	121
1993	303	29	29	35	28	19	46	80	480	970	886	786	224
1994	239	43	24	21	23	15	22	37	380	452	357	651	137
1995	20	32	20	19	16	18	58	196	532	585	656	821	180
1996	207	17	12	19	21	8	-	-	-	-	-	267	33
1997	224	37	46	2	-	-	-	-	-	-	-	-	19
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	9	-	-	-	-	-	-	-	-	-	-	-	1
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	519	839	803	131
2002	256	30	16	18	19	16	29	5	-	-	-	-	24
2003	179	88	60	1	-	-	-	-	-	-	430	852	97
2004	273	24	17	28	21	15	8	-	209	737	875	804	183
2005	287	22	18	25	18	16	22	101	734	813	792	770	219
2006	305	23	28	16	27	15	21	53	-	-	449	836	107
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	153	21	14	11	9	6	10	22	72	179	279	433	73

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 CC3 Adverse

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	6	6	19	3	197	28	-	-	-	-	-	16
1927	-	-	-	-	-	-	137	288	-	0	-	-	26
1928	-	-	-	71	81	307	400	400	12	31	222	-	93
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	43	246	-	-	-	-	-	17
1932	-	-	-	-	-	129	400	400	296	302	202	-	105
1933	-	56	382	400	132	8	61	-	-	308	358	13	105
1934	60	13	338	400	25	149	-	-	-	317	342	13	102
1935	-	8	94	383	386	11	-	-	-	400	229	-	91
1936	-	2	25	8	53	3	-	257	26	134	151	-	40
1937	-	-	-	-	-	-	-	142	-	24	-	-	10
1938	-	-	-	377	57	263	301	400	35	261	67	-	107
1939	-	21	17	0	8	3	296	-	-	111	22	-	29
1940	-	-	-	98	326	400	275	47	-	66	-	-	73
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	103	26	239	87	104	-	-	-	-	-	33
1943	-	-	-	-	-	-	360	400	80	295	110	-	76
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	348	122	-	-	-	29
1946	-	-	-	27	11	400	362	400	193	302	159	-	113
1947	-	-	147	85	279	292	218	-	-	50	215	-	77
1948	-	3	81	202	29	16	228	285	-	400	400	13	101
1949	18	14	10	27	26	1	105	-	-	400	400	13	62
1950	73	31	31	147	40	44	158	205	-	330	400	324	108
1951	278	379	335	2	20	108	1	-	-	393	400	13	118
1952	85	24	24	33	136	19	341	310	139	109	249	-	89
1953	-	-	-	-	-	-	85	285	-	40	97	-	31
1954	-	-	232	400	345	299	200	-	-	279	319	-	125
1955	-	2	16	9	26	38	-	-	149	274	354	13	54
1956	7	5	263	11	41	104	-	-	-	385	400	13	75
1957	69	49	281	400	178	95	-	-	-	400	400	13	115
1958	4	22	8	7	260	275	30	-	-	115	77	-	47
1959	-	-	54	400	363	299	147	-	-	400	400	13	125
1960	19	28	208	206	270	9	-	-	-	400	400	13	94
1961	-	7	12	71	373	99	-	-	-	400	400	13	82
1962	6	35	11	12	222	80	104	-	-	75	160	-	42
1963	-	-	-	32	40	96	243	-	-	-	-	-	25
1964	-	-	-	-	2	244	313	221	400	383	392	13	120
1965	17	43	7	44	325	181	122	-	-	238	399	13	83
1966	12	28	24	34	17	7	100	257	-	147	188	-	50
1967	-	-	-	365	348	75	12	9	7	6	262	13	65
1968	-	-	13	11	262	400	135	20	56	38	287	13	75
1969	-	7	7	44	61	13	116	400	210	85	328	13	78
1970	-	-	-	19	143	197	161	-	-	25	303	13	52
1971	-	-	-	-	3	43	-	361	147	400	400	13	84
1972	52	113	271	53	112	284	13	-	-	384	400	13	103
1973	42	41	282	400	130	5	-	-	14	145	87	-	70
1974	-	-	-	142	368	258	400	116	-	364	400	13	124
1975	41	15	8	77	26	67	106	115	-	400	400	13	78
1976	16	284	400	261	16	189	-	-	-	370	400	13	119
1977	53	40	26	38	24	10	24	-	-	-	-	-	13
1978	-	-	216	262	142	228	244	9	-	14	48	-	70
1979	-	-	-	-	-	-	-	152	-	4	-	-	10
1980	-	-	-	-	-	-	227	293	-	-	-	-	31
1981	-	-	-	-	186	359	222	23	-	-	-	-	47
1982	-	-	-	-	171	400	255	400	391	312	257	-	132
1983	-	21	6	9	199	209	-	-	-	352	189	-	59
1984	-	-	29	16	25	289	201	-	-	201	40	-	49
1985	-	2	34	16	-	-	-	-	-	57	-	-	7
1986	-	-	-	-	-	2	176	168	-	-	-	-	21
1987	-	-	-	-	58	359	332	51	-	-	-	-	48
1988	-	-	-	-	-	-	-	123	-	-	-	-	8
1989	-	-	-	-	-	-	382	400	173	1	-	-	58
1990	-	-	-	-	-	149	400	346	11	34	99	-	63
1991	-	40	330	236	366	312	69	-	-	400	349	1	127
1992	-	0	18	5	112	182	3	-	-	-	-	-	19
1993	-	-	-	-	-	-	-	240	0	-	-	-	15
1994	-	-	-	-	-	-	-	72	-	-	-	-	4
1995	-	-	-	-	100	371	137	-	-	-	-	-	37
1996	-	-	302	358	239	93	365	400	27	296	19	-	127
1997	-	-	-	16	9	0	282	233	-	400	400	13	83
1998	21	122	317	343	86	1	-	-	-	327	333	13	95
1999	62	12	4	325	99	89	85	106	13	355	400	13	95
2000	40	9	161	65	52	171	83	-	-	205	322	-	68
2001	2	10	51	49	26	5	-	-	-	22	-	-	10
2002	-	-	-	-	-	-	312	400	400	400	330	-	112
2003	-	-	-	21	0	78	322	-	-	89	19	-	32
2004	-	-	-	-	-	-	83	-	-	-	-	-	5
2005	-	-	-	-	-	160	400	122	-	-	-	-	41
2006	-	-	-	120	138	7	333	393	133	4	29	-	69
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	12	18	64	89	96	115	139	118	37	166	173	8	63

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 CC3 Adverse

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	3	193	28	-	-	-	-	-	14
1927	-	-	-	-	-	-	137	288	-	-	-	-	26
1928	-	-	-	71	81	307	400	400	12	-	-	-	77
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	43	246	-	-	-	-	-	17
1932	-	-	-	-	-	129	400	400	296	-	-	-	74
1933	-	55	368	390	111	-	61	-	-	251	-	-	75
1934	-	8	92	-	-	-	-	-	-	184	-	-	17
1935	-	-	77	371	385	-	-	-	-	14	-	-	50
1936	-	-	-	-	-	-	-	257	26	-	-	-	17
1937	-	-	-	-	-	-	-	142	-	-	-	-	9
1938	-	-	-	377	57	263	301	400	35	-	-	-	87
1939	-	-	-	-	-	-	296	-	-	-	-	-	18
1940	-	-	-	98	326	400	275	47	-	-	-	-	69
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	103	26	239	87	104	-	-	-	-	-	33
1943	-	-	-	-	-	-	360	400	80	-	-	-	51
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	348	122	-	-	-	29
1946	-	-	-	27	11	400	362	400	193	-	-	-	85
1947	-	-	134	65	277	292	218	-	-	-	-	-	59
1948	-	-	80	187	-	-	228	285	-	45	-	-	50
1949	-	-	-	-	-	-	105	-	-	-	-	-	6
1950	-	-	18	108	-	-	158	205	-	16	-	311	49
1951	243	364	335	-	-	-	1	-	-	50	-	-	60
1952	-	-	-	-	105	-	341	310	139	-	-	-	54
1953	-	-	-	-	-	-	85	285	-	-	-	-	23
1954	-	-	232	378	320	298	200	-	-	37	-	-	88
1955	-	-	-	-	-	-	-	-	149	83	-	-	14
1956	-	-	262	-	-	-	-	-	-	60	-	-	20
1957	-	27	175	375	162	95	-	-	-	1	-	-	50
1958	-	-	-	-	260	271	30	-	-	-	-	-	33
1959	-	-	52	399	349	299	147	-	-	56	-	-	78
1960	-	-	200	176	266	-	-	-	-	54	-	-	42
1961	-	-	-	63	373	99	-	-	-	119	-	-	38
1962	-	-	-	-	219	68	104	-	-	-	-	-	23
1963	-	-	-	-	35	89	243	-	-	-	-	-	22
1964	-	-	-	-	2	244	313	221	400	38	-	-	73
1965	-	-	-	-	325	180	122	-	-	147	-	-	45
1966	-	-	-	-	-	-	100	257	-	-	-	-	22
1967	-	-	-	365	348	75	12	9	7	-	-	-	48
1968	-	-	-	-	254	397	135	20	56	-	-	-	52
1969	-	-	-	-	-	-	116	400	210	1	-	-	44
1970	-	-	-	-	143	194	161	-	-	-	-	-	29
1971	-	-	-	-	-	-	-	361	147	25	-	-	32
1972	-	87	264	47	81	284	13	-	-	72	-	-	52
1973	-	11	207	267	110	-	-	-	14	-	-	-	37
1974	-	-	-	142	368	258	400	116	-	265	-	-	92
1975	-	-	-	72	-	51	106	115	-	179	-	-	32
1976	-	274	149	11	-	-	-	-	-	351	61	-	51
1977	-	-	-	-	-	-	24	-	-	-	-	-	1
1978	-	-	216	261	138	226	244	9	-	-	-	-	66
1979	-	-	-	-	-	-	-	152	-	-	-	-	9
1980	-	-	-	-	-	-	227	293	-	-	-	-	31
1981	-	-	-	-	186	359	222	23	-	-	-	-	47
1982	-	-	-	-	171	400	255	400	391	18	-	-	98
1983	-	-	-	-	198	209	-	-	-	6	-	-	24
1984	-	-	-	-	25	289	201	-	-	-	-	-	31
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	2	176	168	-	-	-	-	21
1987	-	-	-	-	58	359	332	51	-	-	-	-	48
1988	-	-	-	-	-	-	-	123	-	-	-	-	8
1989	-	-	-	-	-	-	382	400	173	-	-	-	58
1990	-	-	-	-	-	149	400	346	11	-	-	-	55
1991	-	40	322	209	362	312	69	-	-	83	-	-	84
1992	-	-	-	-	112	168	3	-	-	-	-	-	17
1993	-	-	-	-	-	-	-	240	0	-	-	-	15
1994	-	-	-	-	-	-	-	72	-	-	-	-	4
1995	-	-	-	-	100	371	137	-	-	-	-	-	37
1996	-	-	302	358	239	90	365	400	27	-	-	-	108
1997	-	-	-	-	-	-	282	233	-	198	1	-	43
1998	-	107	309	335	86	-	-	-	-	233	-	-	65
1999	-	-	-	324	93	88	85	106	13	108	-	-	50
2000	-	-	153	54	40	171	83	-	-	58	-	-	34
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	312	400	400	91	-	-	73
2003	-	-	-	-	-	73	322	-	-	-	-	-	24
2004	-	-	-	-	-	-	83	-	-	-	-	-	5
2005	-	-	-	-	-	160	400	122	-	-	-	-	41
2006	-	-	-	120	138	7	333	393	133	-	-	-	67
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	3	12	50	70	88	104	139	118	37	35	1	4	40

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 CC3 Adverse

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	6	6	19	-	3	-	-	-	-	-	-	2
1927	-	-	-	-	-	-	-	-	-	0	-	-	0
1928	-	-	-	-	-	-	-	-	-	31	222	-	16
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	302	202	-	31
1933	-	1	14	10	21	8	-	-	-	57	358	13	30
1934	60	5	245	400	25	149	-	-	-	134	342	13	84
1935	-	8	17	12	0	11	-	-	-	386	229	-	41
1936	-	2	25	8	53	3	-	-	-	134	151	-	23
1937	-	-	-	-	-	-	-	-	-	24	-	-	1
1938	-	-	-	-	-	-	-	-	-	261	67	-	20
1939	-	21	17	0	8	3	-	-	-	111	22	-	11
1940	-	-	-	-	-	-	-	-	-	66	-	-	4
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	295	110	-	25
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	302	159	-	28
1947	-	-	13	20	1	-	-	-	-	50	215	-	18
1948	-	3	1	15	29	16	-	-	-	355	400	13	51
1949	18	14	10	27	26	1	-	-	-	400	400	13	56
1950	73	31	13	39	40	44	-	-	-	314	400	13	59
1951	35	15	-	2	20	108	-	-	-	343	400	13	57
1952	85	24	24	33	32	19	-	-	-	109	249	-	35
1953	-	-	-	-	-	-	-	-	-	40	97	-	8
1954	-	-	-	22	25	1	-	-	-	242	319	-	37
1955	-	2	16	9	26	38	-	-	-	191	354	13	40
1956	7	5	2	11	41	104	-	-	-	324	400	13	56
1957	69	22	106	25	16	-	-	-	-	399	400	13	64
1958	4	22	8	7	-	4	-	-	-	115	77	-	15
1959	-	-	2	1	14	-	-	-	-	344	400	13	48
1960	19	28	8	30	4	9	-	-	-	346	400	13	53
1961	-	7	12	8	0	-	-	-	-	281	400	13	44
1962	6	35	11	12	2	12	-	-	-	75	160	-	19
1963	-	-	-	32	5	8	-	-	-	-	-	-	3
1964	-	-	-	-	-	-	-	-	-	345	392	13	46
1965	17	43	7	44	-	1	-	-	-	90	399	13	38
1966	12	28	24	34	17	7	-	-	-	147	188	-	28
1967	-	-	-	-	-	-	-	-	-	6	262	13	17
1968	-	-	13	11	8	3	-	-	-	38	287	13	23
1969	-	7	7	44	61	13	-	-	-	84	328	13	34
1970	-	-	-	19	0	3	-	-	-	25	303	13	22
1971	-	-	-	-	3	43	-	-	-	375	400	13	51
1972	52	26	7	6	31	-	-	-	-	312	400	13	52
1973	42	30	75	133	20	5	-	-	-	145	87	-	33
1974	-	-	-	-	-	-	-	-	-	98	400	13	31
1975	41	15	8	5	26	16	-	-	-	221	400	13	46
1976	16	10	251	250	16	189	-	-	-	19	339	13	68
1977	53	40	26	38	24	10	-	-	-	-	-	-	11
1978	-	-	-	1	3	2	-	-	-	14	48	-	4
1979	-	-	-	-	-	-	-	-	-	4	-	-	0
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	294	257	-	34
1983	-	21	6	9	1	-	-	-	-	346	189	-	35
1984	-	-	29	16	0	-	-	-	-	201	40	-	18
1985	-	2	34	16	-	-	-	-	-	57	-	-	7
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	1	-	-	0
1990	-	-	-	-	-	-	-	-	-	34	99	-	8
1991	-	-	8	27	4	-	-	-	-	317	349	1	43
1992	-	0	18	5	-	13	-	-	-	-	-	-	2
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	2	-	-	-	296	19	-	20
1997	-	-	-	16	9	0	-	-	-	202	399	13	39
1998	21	15	8	8	-	1	-	-	-	94	333	13	30
1999	62	12	4	2	6	0	-	-	-	246	400	13	46
2000	40	9	9	11	11	-	-	-	-	147	322	-	34
2001	2	10	51	49	26	5	-	-	-	22	-	-	10
2002	-	-	-	-	-	-	-	-	-	309	330	-	39
2003	-	-	-	21	0	5	-	-	-	89	19	-	8
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	4	29	-	2
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	9	6	14	19	8	11	-	-	-	131	172	4	23

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 CC3 Adverse

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26	-	-	-	-	-	8,718	42,130	43,366	50,007	47,639	15,001	206,886
1927	26	-	-	-	-	-	10,372	41,867	45,251	59,010	57,843	17,342	231,711
1928	26	-	-	-	-	-	10,375	44,327	45,313	59,463	59,048	17,132	235,685
1929	26	-	-	-	-	-	8,255	38,683	39,183	44,928	42,869	13,763	187,708
1930	26	-	-	-	-	-	2,559	8,402	7,878	8,327	8,906	4,432	40,530
1931	26	-	-	-	-	-	7,864	33,127	32,158	36,054	35,183	11,870	156,282
1932	26	-	-	-	-	-	10,375	44,144	45,081	57,752	56,529	38,260	252,169
1933	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1934	18,446	-	-	-	-	-	10,375	43,399	45,632	59,345	59,163	17,851	254,211
1935	26	-	-	-	-	-	7,764	44,573	45,402	55,587	52,396	35,566	241,315
1936	26	-	-	-	-	-	10,384	44,292	45,402	59,463	58,320	17,132	235,019
1937	26	-	-	-	-	-	10,122	44,301	45,402	59,468	59,662	18,012	236,993
1938	26	-	-	-	-	-	10,375	44,303	44,726	55,184	51,665	35,169	241,448
1939	26	-	-	-	-	-	10,403	43,815	45,402	59,531	57,708	18,172	235,057
1940	26	-	-	-	-	-	10,435	42,107	45,402	57,889	56,141	17,132	229,132
1941	26	-	-	-	-	-	2,426	9,016	10,245	11,476	12,316	5,362	50,867
1942	26	-	-	-	-	-	9,992	34,933	35,326	39,792	38,612	12,742	171,423
1943	26	-	-	-	-	-	10,375	42,146	45,402	58,626	56,848	38,465	251,889
1944	26	-	-	-	-	-	7,149	29,524	30,761	34,577	33,216	10,950	146,202
1945	26	-	-	-	-	-	10,171	42,608	44,330	59,531	59,978	18,172	234,816
1946	26	-	-	-	-	-	10,375	44,288	44,677	56,601	53,361	36,091	245,420
1947	26	-	-	-	-	-	10,375	44,288	45,243	59,531	59,978	18,172	237,615
1948	26	-	-	-	-	-	10,375	44,288	45,402	59,794	59,473	40,177	259,535
1949	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1950	21,210	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	288,005
1951	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1952	18,446	-	-	-	-	-	10,375	44,198	45,402	59,463	59,048	17,132	254,065
1953	26	-	-	-	-	-	6,948	43,420	45,582	55,401	52,797	16,143	220,315
1954	26	-	-	-	-	-	10,375	44,288	45,402	60,024	61,629	41,641	263,386
1955	26	-	-	-	-	-	8,355	44,296	45,402	57,852	55,632	37,659	249,223
1956	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1957	18,446	-	-	-	-	-	10,375	44,288	44,898	55,911	52,540	35,635	262,094
1958	26	-	-	-	-	-	10,170	44,051	45,402	59,531	58,756	18,172	236,108
1959	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1960	21,210	-	-	-	-	-	10,406	43,870	42,368	58,260	56,320	38,098	270,532
1961	26	-	-	-	-	-	10,409	44,242	44,930	60,024	61,130	41,361	262,122
1962	26	-	-	-	-	-	10,375	44,035	45,402	59,531	59,978	18,172	237,520
1963	26	-	-	-	-	-	8,989	44,476	44,861	52,207	49,497	15,382	215,438
1964	26	-	-	-	-	-	10,375	44,288	45,391	59,866	62,690	43,093	265,731
1965	26	-	-	-	-	-	10,376	43,852	45,402	57,540	55,268	37,497	249,961
1966	26	-	-	-	-	-	10,124	43,607	45,402	59,531	59,628	18,172	236,490
1967	26	-	-	-	-	-	6,963	42,450	45,439	57,141	55,195	16,798	224,012
1968	26	-	-	-	-	-	8,035	43,805	45,486	59,031	57,324	16,494	230,201
1969	26	-	-	-	-	-	10,375	44,298	44,439	59,531	59,978	18,172	236,820
1970	26	-	-	-	-	-	9,593	43,388	45,478	58,699	57,213	17,282	231,679
1971	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1972	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1973	18,446	-	-	-	-	-	10,122	44,301	45,402	59,531	59,103	18,172	255,077
1974	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1975	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1976	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1977	18,446	-	-	-	-	-	5,935	26,903	27,877	31,471	31,199	10,700	152,530
1978	26	-	-	-	-	-	10,305	44,188	45,402	59,531	58,698	18,172	236,323
1979	26	-	-	-	-	-	8,956	41,268	40,627	46,494	44,192	14,101	195,664
1980	26	-	-	-	-	-	10,375	43,233	45,402	59,463	59,048	17,132	234,680
1981	26	-	-	-	-	-	10,044	44,139	45,402	59,531	58,870	18,172	236,185
1982	26	-	-	-	-	-	8,269	44,292	45,393	59,926	60,184	40,689	258,779
1983	26	-	-	-	-	-	8,041	44,346	45,402	55,732	52,590	35,683	241,820
1984	26	-	-	-	-	-	9,985	44,385	45,402	55,711	52,422	35,649	243,579
1985	26	-	-	-	-	-	10,070	44,387	45,779	54,806	52,413	16,131	223,611
1986	26	-	-	-	-	-	9,140	43,799	43,858	50,565	47,857	14,993	210,239
1987	26	-	-	-	-	-	10,334	43,987	45,428	53,396	50,869	15,742	219,781
1988	26	-	-	-	-	-	10,374	38,434	39,039	43,859	41,264	12,794	185,790
1989	26	-	-	-	-	-	10,375	43,120	45,402	59,531	59,978	17,886	236,319
1990	26	-	-	-	-	-	10,375	44,304	43,966	59,531	59,978	18,172	236,353
1991	26	-	-	-	-	-	10,375	44,115	44,642	58,807	57,406	38,952	254,324
1992	26	-	-	-	-	-	9,572	41,800	42,869	49,336	46,313	14,043	203,960
1993	26	-	-	-	-	-	8,372	37,250	34,745	39,451	37,898	12,507	170,248
1994	26	-	-	-	-	-	2,928	10,217	10,424	11,087	12,206	5,483	52,370
1995	-	-	-	-	-	-	10,070	44,395	45,825	54,301	51,692	15,944	222,227
1996	26	-	-	-	-	-	10,375	44,047	45,405	53,570	49,791	33,819	237,033
1997	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1998	18,446	-	-	-	-	-	7,367	43,461	45,419	58,481	56,912	17,256	247,341
1999	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
2000	18,446	-	-	-	-	-	10,375	44,162	45,462	51,806	48,092	32,775	251,118
2001	26	-	-	-	-	-	9,350	43,883	42,983	49,343	46,672	14,744	207,000
2002	26	-	-	-	-	-	10,375	43,993	45,434	58,335	58,001	39,278	255,443
2003	26	-	-	-	-	-	10,122	44,301	45,402	59,531	56,878	18,172	234,432
2004	26	-	-	-	-	-	10,289	44,292	45,402	59,463	55,116	17,126	231,713
2005	26	-	-	-	-	-	6,891	29,931	30,164	33,824	33,217	11,369	145,422
2006	26	-	-	-	-	-	10,375	44,292	43,757	59,197	59,419	17,860	234,927
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	3,050	-	-	-	-	-	9,465	41,585	42,613	53,972	53,299	25,713	229,697

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 CC3 Adverse

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	1,075	-	-	-	-	9,848	23,295	29,727	37,285	38,583	37,477	24,444	201,732
1927	1,075	-	-	-	-	9,848	33,220	44,702	49,011	47,921	46,366	29,826	261,970
1928	1,075	-	-	-	-	9,848	33,616	46,639	50,472	49,896	48,680	31,821	272,048
1929	1,075	-	-	-	-	9,848	21,039	26,993	32,935	34,237	33,311	21,510	180,949
1930	1,075	-	-	-	-	9,848	12,856	4,009	4,429	4,264	4,842	2,785	44,109
1931	1,075	-	-	-	-	9,848	26,763	22,640	26,262	26,683	26,606	17,089	156,965
1932	1,075	-	-	-	-	9,848	33,741	46,501	52,277	60,235	59,603	37,509	300,789
1933	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1934	20,709	-	-	-	-	9,848	33,741	44,760	49,894	49,281	47,657	31,048	286,938
1935	1,075	-	-	-	-	9,848	32,488	46,155	53,269	56,915	55,173	35,425	290,347
1936	1,075	-	-	-	-	9,848	26,936	39,771	49,757	49,896	48,680	31,821	257,785
1937	1,075	-	-	-	-	9,848	26,955	39,776	49,757	49,728	48,281	31,439	256,860
1938	1,075	-	-	-	-	9,848	33,741	46,611	52,128	56,343	54,481	35,074	289,300
1939	1,075	-	-	-	-	9,848	33,942	39,907	49,757	49,896	48,680	31,821	264,927
1940	1,075	-	-	-	-	9,848	33,129	40,959	49,757	49,896	48,680	31,821	265,166
1941	1,075	-	-	-	-	9,848	13,643	4,441	6,548	6,801	7,646	4,526	54,528
1942	1,075	-	-	-	-	9,848	33,703	24,661	29,271	29,853	29,599	19,132	177,142
1943	1,075	-	-	-	-	9,846	33,741	45,183	52,501	61,132	60,101	37,632	301,211
1944	1,075	-	-	-	-	9,848	15,840	19,550	24,881	25,447	25,311	16,162	138,114
1945	1,075	-	-	-	-	9,848	32,733	45,384	49,381	49,896	48,680	31,821	268,819
1946	1,075	-	-	-	-	9,848	33,682	46,592	52,115	58,522	56,425	35,902	294,162
1947	1,075	-	-	-	-	9,848	33,747	46,592	50,393	49,896	48,680	31,821	272,053
1948	1,075	-	-	-	-	9,848	33,589	46,765	52,490	61,017	60,361	38,611	303,756
1949	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1950	24,560	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	325,955
1951	20,709	-	-	-	-	9,848	33,754	46,592	52,490	60,108	59,321	39,294	322,116
1952	20,709	-	-	-	-	9,848	33,794	40,581	49,757	49,896	48,680	31,821	285,087
1953	1,075	-	-	-	-	9,848	28,751	39,106	44,633	43,597	41,963	27,045	236,017
1954	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,633	60,009	39,065	303,454
1955	1,075	-	-	-	-	9,848	33,905	46,940	52,534	60,403	58,775	37,110	300,589
1956	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1957	20,709	-	-	-	-	9,848	33,741	46,592	52,383	57,496	55,340	35,493	311,601
1958	1,075	-	-	-	-	9,848	32,430	39,969	49,757	49,896	48,474	31,821	263,270
1959	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1960	24,560	-	-	-	-	9,848	33,823	46,617	49,657	60,810	59,415	37,423	322,153
1961	1,075	-	-	-	-	9,848	33,796	46,726	52,059	60,719	60,112	38,994	303,330
1962	1,075	-	-	-	-	9,848	33,694	40,222	49,757	49,896	48,680	31,821	264,994
1963	1,075	-	-	-	-	9,847	31,419	31,862	39,636	40,567	39,091	25,289	218,787
1964	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,314	59,645	39,366	303,072
1965	1,075	-	-	-	-	9,848	33,151	46,512	52,681	59,918	58,415	36,994	298,595
1966	1,075	-	-	-	-	9,848	33,619	43,364	49,757	49,896	48,680	31,821	268,061
1967	1,075	-	-	-	-	9,848	28,628	41,562	47,156	45,393	44,063	28,581	246,306
1968	1,075	-	-	-	-	9,848	32,074	43,661	49,435	48,360	46,700	30,144	261,298
1969	1,075	-	-	-	-	9,848	33,741	46,604	50,758	49,896	48,680	31,821	272,423
1970	1,075	-	-	-	-	9,848	33,225	43,331	48,915	47,302	45,824	29,695	259,214
1971	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1972	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1973	20,709	-	-	-	-	9,848	26,887	39,776	49,757	49,896	48,680	31,821	277,375
1974	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1975	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1976	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1977	20,709	-	-	-	-	9,848	16,613	17,773	22,348	22,909	23,191	14,721	148,112
1978	1,075	-	-	-	-	9,848	33,272	40,575	49,757	49,896	48,680	31,821	264,925
1979	1,075	-	-	-	-	9,848	21,723	29,088	34,309	35,574	34,467	22,294	188,377
1980	1,075	-	-	-	-	9,848	33,821	45,770	49,757	49,896	48,680	31,821	270,669
1981	1,075	-	-	-	-	9,848	33,397	40,758	49,756	49,896	48,680	31,821	265,231
1982	1,075	-	-	-	-	9,848	33,974	46,932	52,490	60,945	60,289	38,795	304,348
1983	1,075	-	-	-	-	9,848	33,443	47,029	53,183	57,152	55,397	35,534	292,661
1984	1,075	-	-	-	-	9,848	33,192	46,842	52,772	57,146	55,241	35,493	291,609
1985	1,075	-	-	-	-	9,848	26,032	36,314	42,954	43,020	41,641	27,051	227,935
1986	1,075	-	-	-	-	9,848	28,243	31,109	37,883	39,079	37,664	24,364	209,266
1987	1,075	-	-	-	-	9,848	33,839	42,358	40,306	41,519	40,321	26,112	235,378
1988	1,075	-	-	-	-	9,846	33,836	27,589	32,729	33,329	32,449	20,817	191,671
1989	1,075	-	-	-	-	9,848	33,791	45,376	49,757	49,896	48,680	31,821	270,245
1990	1,075	-	-	-	-	9,848	33,741	46,613	50,084	49,896	48,680	31,821	271,759
1991	1,075	-	-	-	-	9,848	33,760	46,545	51,837	61,220	60,313	37,910	302,507
1992	1,075	-	-	-	-	9,848	22,337	29,179	36,502	38,012	36,937	24,060	197,951
1993	1,075	-	-	-	-	9,848	25,204	25,936	28,718	29,557	28,968	18,580	167,886
1994	1,075	-	-	-	-	9,848	19,793	5,357	6,711	6,488	7,567	4,783	61,623
1995	1,075	-	-	-	-	9,848	28,147	36,287	42,347	42,509	41,010	26,595	227,819
1996	1,075	-	-	-	-	9,848	33,863	45,822	53,352	54,117	52,162	33,773	284,013
1997	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1998	20,709	-	-	-	-	9,848	30,829	41,040	47,665	47,013	45,565	29,656	272,324
1999	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
2000	20,709	-	-	-	-	9,848	33,741	44,396	52,325	51,952	50,197	32,624	295,792
2001	1,075	-	-	-	-	9,848	24,468	31,193	36,702	37,998	36,627	23,879	201,790
2002	1,075	-	-	-	-	9,848	33,768	46,436	52,542	60,398	60,399	38,105	302,571
2003	1,075	-	-	-	-	9,848	28,006	39,776	49,757	49,896	48,680	31,821	258,860
2004	1,075	-	-	-	-	9,848	31,706	39,771	49,757	49,896	48,680	31,782	262,517
2005	1,075	-	-	-	-	9,848	24,299	20,070	24,396	24,819	24,888	15,936	145,331
2006	1,075	-	-	-	-	9,848	33,828	46,597	50,572	49,699	47,989	31,043	270,652
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	4,321	-	-	-	-	9,848	30,761	39,792	45,702	48,597	47,553	30,874	257,448

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 CC3 Adverse

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	23,894	-	-	-	-	6,904	46,917	79,476	76,752	84,589	78,881	51,685	449,098
1927	23,894	-	-	-	-	6,904	53,686	96,866	88,168	95,091	87,826	54,374	506,810
1928	23,894	-	-	-	-	6,904	55,212	109,847	94,185	97,312	90,146	55,333	532,834
1929	23,894	-	-	-	-	6,904	46,466	75,965	72,442	79,702	74,697	50,328	430,398
1930	23,894	-	-	-	-	6,904	38,398	46,365	44,248	45,994	46,068	41,232	293,104
1931	23,894	-	-	-	-	6,904	45,395	70,372	65,842	71,203	67,954	48,181	399,745
1932	23,894	-	-	-	-	6,904	56,318	109,134	116,410	109,382	101,485	58,807	582,333
1933	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1934	27,579	-	-	-	-	6,904	56,318	102,972	89,213	96,621	89,117	54,961	523,686
1935	23,894	-	-	-	-	6,904	51,762	103,178	96,528	105,232	96,679	57,293	541,471
1936	23,894	-	-	-	-	6,904	49,595	92,416	89,080	97,312	90,146	54,538	503,885
1937	23,894	-	-	-	-	6,904	49,222	92,416	89,080	97,124	89,746	55,149	503,534
1938	23,894	-	-	-	-	6,904	56,318	110,233	107,999	104,571	95,983	57,070	562,972
1939	23,894	-	-	-	-	6,904	54,249	90,937	89,080	97,312	90,146	54,562	507,084
1940	23,790	-	-	-	-	6,904	51,595	89,891	89,080	97,312	90,146	55,333	504,051
1941	23,894	-	-	-	-	6,904	38,156	46,908	46,345	48,846	48,888	42,082	302,023
1942	23,894	-	-	-	-	6,904	49,347	71,846	68,818	74,769	70,963	49,172	415,714
1943	23,894	-	-	-	-	6,904	56,318	96,137	103,413	111,470	102,120	58,929	559,184
1944	23,894	-	-	-	-	6,904	43,676	66,366	64,476	69,813	66,654	47,733	389,516
1945	23,894	-	-	-	-	6,904	48,990	98,792	88,778	97,312	90,146	55,333	510,148
1946	23,894	-	-	-	-	6,904	53,984	110,491	109,042	107,184	97,942	57,593	567,034
1947	23,894	-	-	-	-	6,904	56,260	110,491	93,574	97,312	90,146	55,333	533,915
1948	23,894	-	-	-	-	6,904	55,445	109,481	106,422	114,868	104,906	59,881	581,801
1949	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1950	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1951	27,579	-	-	-	-	6,904	56,245	110,491	119,660	123,857	118,505	81,083	644,324
1952	27,579	-	-	-	-	6,904	55,164	94,036	89,080	97,312	90,146	55,333	515,555
1953	23,894	-	-	-	-	6,904	49,527	91,603	84,007	90,228	83,400	53,020	482,582
1954	23,894	-	-	-	-	6,904	56,318	110,491	114,265	117,770	107,531	60,703	597,875
1955	23,894	-	-	-	-	6,904	53,941	108,016	102,530	109,717	100,441	58,469	563,912
1956	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1957	27,579	-	-	-	-	6,904	56,318	110,491	105,679	105,942	96,847	57,333	567,093
1958	23,894	-	-	-	-	6,904	50,399	91,949	89,080	97,312	90,146	51,156	500,840
1959	23,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,397
1960	27,579	-	-	-	-	6,904	55,349	100,234	96,802	110,751	101,239	58,718	557,575
1961	23,894	-	-	-	-	6,904	55,620	106,851	111,727	117,103	106,870	60,544	589,511
1962	23,894	-	-	-	-	6,904	55,219	92,218	89,080	97,312	90,146	55,333	510,106
1963	23,894	-	-	-	-	6,904	47,457	82,232	79,076	86,821	80,508	49,699	456,591
1964	23,355	-	-	-	-	6,904	56,318	110,491	118,206	120,442	110,055	61,517	607,288
1965	23,894	-	-	-	-	6,904	52,044	106,505	101,280	108,890	100,015	58,378	557,909
1966	23,894	-	-	-	-	6,904	52,861	97,846	89,080	97,312	90,146	51,525	509,568
1967	23,547	-	-	-	-	6,904	49,953	94,747	86,501	92,248	85,507	53,765	493,171
1968	23,894	-	-	-	-	6,904	49,202	97,495	88,759	95,585	88,160	54,528	504,527
1969	23,894	-	-	-	-	6,904	56,318	110,331	99,172	97,312	90,146	55,333	539,409
1970	23,894	-	-	-	-	6,904	48,177	96,243	88,244	94,395	87,276	54,308	499,441
1971	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1972	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1973	27,579	-	-	-	-	6,904	49,746	92,416	89,080	97,312	90,146	46,674	499,858
1974	23,869	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,686
1975	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1976	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1977	27,579	-	-	-	-	6,904	43,066	64,083	61,970	66,957	64,525	45,534	380,620
1978	23,894	-	-	-	-	6,904	48,713	93,582	89,080	97,312	90,146	55,333	504,964
1979	23,894	-	-	-	-	6,904	47,657	78,674	73,800	81,206	75,857	50,710	438,702
1980	23,894	-	-	-	-	6,904	54,842	103,604	89,080	97,312	90,146	55,333	521,115
1981	23,894	-	-	-	-	6,904	52,941	94,261	89,080	97,312	90,146	55,333	509,871
1982	23,894	-	-	-	-	6,904	53,830	108,070	105,217	115,396	105,730	60,167	579,210
1983	23,894	-	-	-	-	6,904	51,684	106,181	97,069	105,514	96,903	57,361	545,511
1984	23,894	-	-	-	-	6,904	51,372	105,579	99,941	105,517	96,747	57,339	547,293
1985	23,894	-	-	-	-	6,904	49,051	87,998	82,351	89,580	83,070	49,402	472,250
1986	23,375	-	-	-	-	6,904	46,614	81,257	77,345	85,148	79,072	51,717	451,432
1987	23,894	-	-	-	-	6,904	52,803	100,550	79,732	87,892	81,744	52,566	486,085
1988	23,894	-	-	-	-	6,904	54,854	75,420	72,237	78,680	73,831	49,995	435,816
1989	23,894	-	-	-	-	6,904	55,967	100,933	89,080	97,312	90,146	55,333	519,569
1990	23,894	-	-	-	-	6,904	56,318	110,223	97,399	97,312	90,146	55,333	537,529
1991	23,894	-	-	-	-	6,904	56,204	108,382	102,334	112,070	102,502	59,191	571,480
1992	23,894	-	-	-	-	6,904	45,183	78,771	75,977	83,947	78,341	51,557	444,576
1993	23,894	-	-	-	-	6,904	42,874	74,637	68,271	74,437	70,333	48,905	410,255
1994	23,894	-	-	-	-	6,904	38,750	48,095	46,505	48,494	48,804	42,201	303,646
1995	23,894	-	-	-	-	6,904	48,054	87,957	81,753	89,005	82,436	52,799	472,803
1996	23,894	-	-	-	-	6,904	55,560	100,858	95,357	102,060	93,653	56,313	534,598
1997	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1998	27,579	-	-	-	-	6,904	51,282	94,240	87,009	94,070	87,014	54,286	502,384
1999	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
2000	27,579	-	-	-	-	6,904	56,318	98,212	91,818	99,625	91,676	55,725	527,858
2001	23,894	-	-	-	-	6,904	47,687	81,388	76,176	83,932	78,031	51,376	449,389
2002	23,894	-	-	-	-	6,904	56,159	107,799	119,006	110,782	103,194	59,375	587,113
2003	23,894	-	-	-	-	6,904	49,740	92,416	89,080	97,312	90,146	51,891	501,383
2004	23,580	-	-	-	-	6,904	51,461	92,416	89,080	97,312	90,146	55,317	506,215
2005	23,894	-	-	-	-	6,904	42,969	67,047	63,996	69,106	66,229	47,620	387,766
2006	23,894	-	-	-	-	6,904	55,797	110,425	102,282	97,091	89,455	54,963	540,811
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,459	-	-	-	-	6,904	52,017	95,854	93,311	98,839	92,225	58,251	521,860

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 CC3 Adverse

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26,528	-	-	-	-	11,217	42,825	52,015	51,382	53,161	52,830	37,179	327,136
1927	20,222	-	-	-	-	11,217	44,226	58,392	65,572	66,947	65,971	53,212	385,758
1928	26,528	-	-	-	-	11,217	45,228	64,595	65,639	66,192	65,281	52,987	397,666
1929	26,528	-	-	-	-	11,217	42,875	52,312	51,188	53,223	52,802	47,588	337,732
1930	23,602	-	-	-	-	11,217	42,030	46,673	45,558	46,780	46,673	45,014	307,546
1931	26,528	-	-	-	-	11,217	43,176	54,225	52,739	54,567	54,284	48,218	344,954
1932	26,374	-	-	-	-	11,217	45,989	64,228	71,431	71,803	71,624	55,719	418,386
1933	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1934	36,441	-	-	-	-	11,217	45,989	63,044	66,168	67,523	66,506	53,545	410,433
1935	26,528	-	-	-	-	11,217	44,212	63,120	68,948	70,762	69,636	54,864	409,287
1936	26,528	-	-	-	-	11,217	43,769	60,244	60,421	61,760	61,070	45,057	370,066
1937	18,211	-	-	-	-	11,217	43,338	59,178	59,113	60,385	59,727	50,614	361,783
1938	26,528	-	-	-	-	11,217	45,989	64,673	69,405	70,513	69,348	54,738	412,410
1939	26,528	-	-	-	-	11,217	44,973	58,113	59,106	60,404	59,725	45,787	365,852
1940	17,668	-	-	-	-	11,217	43,252	55,031	56,401	57,753	57,320	45,678	344,317
1941	26,528	-	-	-	-	11,217	42,088	46,924	45,394	46,679	46,673	45,014	310,516
1942	26,528	-	-	-	-	11,217	42,563	53,388	53,099	54,993	54,657	48,402	344,845
1943	26,528	-	-	-	-	11,217	45,561	58,651	70,223	73,108	71,887	55,789	412,964
1944	26,528	-	-	-	-	11,217	42,373	50,390	49,496	51,358	51,169	46,852	329,382
1945	26,528	-	-	-	-	11,217	40,962	59,466	59,523	61,565	60,680	50,953	370,894
1946	26,528	-	-	-	-	11,217	44,290	64,825	68,537	71,496	70,158	55,032	412,083
1947	26,528	-	-	-	-	11,217	45,944	64,825	64,932	65,432	64,455	52,609	395,942
1948	26,528	-	-	-	-	11,217	44,718	63,472	70,461	74,331	73,040	56,326	420,093
1949	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1950	36,716	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,926
1951	36,441	-	-	-	-	11,217	45,305	63,472	71,459	76,952	77,292	64,789	446,927
1952	36,455	-	-	-	-	11,217	45,136	61,747	61,975	63,226	62,417	51,492	393,664
1953	14,234	-	-	-	-	11,217	43,598	62,293	64,054	65,117	64,139	52,447	377,098
1954	26,528	-	-	-	-	11,217	45,029	63,472	70,893	75,065	74,115	56,791	423,109
1955	26,528	-	-	-	-	11,217	44,924	63,472	70,129	72,449	71,193	55,528	415,439
1956	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1957	36,441	-	-	-	-	11,217	45,989	64,825	69,420	71,029	69,705	54,886	423,512
1958	26,528	-	-	-	-	11,217	42,068	58,898	59,072	60,399	59,779	32,399	350,359
1959	14,400	-	-	-	-	11,217	45,395	63,472	71,459	76,952	77,292	64,789	424,975
1960	37,685	-	-	-	-	11,217	45,576	60,633	63,460	72,838	71,523	55,668	418,600
1961	26,528	-	-	-	-	11,217	45,692	63,376	70,302	74,908	73,853	56,701	422,577
1962	26,528	-	-	-	-	11,217	45,075	60,542	61,930	63,195	62,369	50,625	381,481
1963	17,657	-	-	-	-	11,217	41,472	52,590	51,862	53,519	53,042	36,544	317,903
1964	15,328	-	-	-	-	11,217	45,029	63,472	71,251	75,425	74,851	57,251	413,823
1965	26,528	-	-	-	-	11,217	42,704	62,840	70,079	72,138	71,016	55,477	412,000
1966	26,528	-	-	-	-	11,217	44,401	59,955	59,904	61,038	60,290	38,754	362,087
1967	13,528	-	-	-	-	11,217	43,799	62,746	65,016	65,877	65,012	52,869	380,063
1968	26,528	-	-	-	-	11,217	43,044	62,955	65,975	67,133	66,110	53,299	396,261
1969	26,528	-	-	-	-	11,217	45,989	64,728	65,875	67,099	66,107	53,323	400,866
1970	26,528	-	-	-	-	11,217	41,794	61,998	65,757	66,685	65,744	53,176	392,898
1971	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1972	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1973	36,441	-	-	-	-	11,217	43,596	58,023	57,703	58,980	58,390	15,780	340,129
1974	15,850	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	426,060
1975	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1976	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1977	36,441	-	-	-	-	11,217	42,012	46,673	45,477	47,031	46,772	24,567	300,190
1978	15,697	-	-	-	-	11,217	41,761	61,795	64,112	65,364	64,480	52,613	377,038
1979	26,528	-	-	-	-	11,217	43,273	54,415	53,111	54,975	54,495	47,123	345,137
1980	15,029	-	-	-	-	11,217	44,943	61,631	59,418	60,646	59,931	50,646	363,461
1981	26,528	-	-	-	-	11,217	44,162	59,713	59,750	61,030	60,331	50,826	373,555
1982	26,528	-	-	-	-	11,217	44,907	63,472	70,288	74,487	73,382	56,488	420,770
1983	26,528	-	-	-	-	11,217	44,309	63,442	69,088	70,868	69,729	54,902	410,081
1984	26,528	-	-	-	-	11,217	43,087	63,423	69,768	70,869	69,664	54,890	409,446
1985	26,528	-	-	-	-	11,217	43,104	55,850	54,067	55,407	54,918	32,759	333,851
1986	15,323	-	-	-	-	11,217	43,249	55,860	55,209	56,973	56,366	49,130	343,326
1987	22,120	-	-	-	-	11,217	44,096	60,414	53,490	55,535	54,980	48,534	350,386
1988	25,167	-	-	-	-	11,217	45,222	54,750	54,801	56,728	56,091	48,973	352,948
1989	26,528	-	-	-	-	11,217	45,733	60,787	61,980	63,294	62,467	51,762	383,767
1990	26,528	-	-	-	-	11,217	45,989	64,665	65,060	67,342	66,324	53,419	400,545
1991	26,528	-	-	-	-	11,217	45,861	63,954	68,650	73,334	72,046	55,937	417,527
1992	26,528	-	-	-	-	11,217	41,263	51,775	51,076	52,938	52,625	36,145	323,567
1993	15,128	-	-	-	-	11,217	41,099	55,977	54,146	56,151	55,634	48,785	338,138
1994	26,528	-	-	-	-	11,217	41,019	47,556	46,153	47,541	48,066	45,505	313,585
1995	26,528	-	-	-	-	11,217	43,171	59,393	59,071	60,434	59,687	50,574	370,074
1996	26,528	-	-	-	-	11,217	45,446	62,277	68,331	69,568	68,383	54,310	406,059
1997	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1998	36,441	-	-	-	-	11,217	44,503	62,511	65,230	66,563	65,636	53,164	405,264
1999	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
2000	36,441	-	-	-	-	11,217	45,989	62,640	67,274	68,653	67,565	53,978	413,756
2001	26,528	-	-	-	-	11,217	42,869	53,147	51,610	53,411	52,956	28,035	319,775
2002	12,479	-	-	-	-	11,217	45,839	63,630	72,604	72,181	72,332	56,041	406,321
2003	26,528	-	-	-	-	11,217	44,091	59,515	59,771	61,179	60,538	40,123	362,962
2004	11,361	-	-	-	-	11,217	44,777	57,781	57,571	58,951	58,362	49,973	349,992
2005	26,528	-	-	-	-	11,217	41,968	51,955	50,768	52,588	52,419	47,404	334,848
2006	26,528	-	-	-	-	11,217	45,587	64,787	66,103	67,699	66,646	53,546	402,112
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	25,982	-	-	-	-	11,217	44,156	59,942	62,868	65,296	64,726	51,563	385,749

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 CC3 Adverse

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	869	-	-	-	-	458	2,078	14,131	16,180	16,659	16,626	11,723	78,722
1927	771	-	-	-	-	458	4,945	12,474	17,223	18,447	18,447	16,533	89,298
1928	869	-	-	-	-	458	5,077	14,164	17,292	18,447	18,447	16,518	91,270
1929	869	-	-	-	-	458	1,876	14,137	16,137	16,671	16,620	15,125	81,894
1930	869	-	-	-	-	458	1,555	13,818	14,960	15,393	15,372	14,280	76,705
1931	869	-	-	-	-	458	3,553	14,200	16,435	16,938	16,921	15,311	84,684
1932	869	-	-	-	-	458	5,193	14,054	17,429	18,060	18,447	16,576	91,086
1933	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1934	3,968	-	-	-	-	458	5,193	13,865	17,395	18,447	18,447	16,542	94,313
1935	869	-	-	-	-	458	4,357	14,249	17,395	18,447	18,447	16,566	90,787
1936	869	-	-	-	-	458	3,437	14,249	17,395	18,364	18,303	15,798	88,873
1937	794	-	-	-	-	458	3,063	14,249	17,380	18,092	18,030	11,974	84,039
1938	782	-	-	-	-	458	5,193	14,218	17,027	18,447	18,447	16,564	91,135
1939	869	-	-	-	-	458	5,034	13,991	17,381	18,095	18,029	15,822	89,679
1940	738	-	-	-	-	458	4,773	12,849	17,042	17,570	17,540	13,101	84,070
1941	797	-	-	-	-	458	1,767	13,838	14,925	15,373	15,372	14,280	76,810
1942	869	-	-	-	-	458	4,600	14,063	16,501	17,022	16,997	15,363	85,873
1943	869	-	-	-	-	458	5,193	12,792	17,395	18,447	18,447	16,577	90,177
1944	869	-	-	-	-	458	1,446	14,060	15,789	16,301	16,287	14,901	80,110
1945	869	-	-	-	-	458	4,575	12,673	16,683	18,326	18,223	16,073	87,879
1946	869	-	-	-	-	458	4,963	14,249	16,407	18,447	18,447	16,567	90,407
1947	869	-	-	-	-	458	5,188	14,249	17,206	18,447	18,447	16,458	91,321
1948	869	-	-	-	-	458	5,091	14,249	17,395	18,447	18,447	16,584	91,538
1949	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1950	3,335	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,223
1951	3,739	-	-	-	-	458	5,189	14,249	17,887	20,637	21,193	17,272	100,624
1952	3,968	-	-	-	-	458	5,074	14,160	17,395	18,447	18,433	16,277	94,212
1953	728	-	-	-	-	458	3,834	14,249	17,395	18,447	18,447	16,429	89,985
1954	869	-	-	-	-	458	5,193	14,249	17,435	18,447	18,447	16,589	91,686
1955	869	-	-	-	-	458	4,689	14,249	17,395	18,447	18,447	16,574	91,126
1956	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1957	3,612	-	-	-	-	458	5,193	14,249	16,987	18,447	18,447	16,566	93,957
1958	869	-	-	-	-	458	4,706	14,123	17,378	18,094	18,040	13,857	87,524
1959	738	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,626
1960	3,968	-	-	-	-	458	5,123	12,886	15,083	18,447	18,447	16,575	90,988
1961	869	-	-	-	-	458	5,124	13,808	17,103	18,447	18,447	16,588	90,843
1962	869	-	-	-	-	458	5,126	14,069	17,395	18,447	18,431	16,263	91,058
1963	869	-	-	-	-	458	4,478	14,153	16,276	16,730	16,668	13,906	83,537
1964	793	-	-	-	-	458	5,193	14,249	17,790	18,447	18,447	16,595	91,970
1965	869	-	-	-	-	458	4,822	13,968	17,395	18,447	18,447	16,573	90,978
1966	869	-	-	-	-	458	4,859	13,580	17,393	18,221	18,144	14,728	88,251
1967	765	-	-	-	-	458	3,885	14,249	17,395	18,447	18,447	16,501	90,145
1968	869	-	-	-	-	458	4,448	14,249	17,395	18,447	18,447	16,535	90,847
1969	869	-	-	-	-	458	5,193	14,228	16,353	18,447	18,447	16,535	90,529
1970	869	-	-	-	-	458	4,468	14,078	17,395	18,447	18,447	16,533	90,694
1971	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1972	3,871	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,760
1973	3,968	-	-	-	-	458	2,792	14,249	17,204	17,813	17,757	10,829	85,070
1974	775	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,663
1975	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1976	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1977	3,921	-	-	-	-	458	1,086	13,818	14,942	15,443	15,392	12,413	77,473
1978	819	-	-	-	-	458	4,488	14,107	17,395	18,447	18,447	16,459	90,619
1979	869	-	-	-	-	458	2,200	14,209	16,507	17,019	16,964	15,202	83,428
1980	747	-	-	-	-	458	5,038	13,277	17,386	18,143	18,071	15,989	89,110
1981	869	-	-	-	-	458	4,947	14,078	17,392	18,220	18,152	16,038	90,154
1982	869	-	-	-	-	458	4,674	14,249	17,395	18,447	18,447	16,586	91,123
1983	869	-	-	-	-	458	4,484	14,249	17,395	18,447	18,447	16,566	90,913
1984	869	-	-	-	-	458	4,678	14,249	17,395	18,447	18,447	16,566	91,108
1985	869	-	-	-	-	458	2,434	14,230	16,678	17,104	17,051	13,719	82,542
1986	738	-	-	-	-	458	3,551	14,248	16,884	17,415	17,345	15,570	86,208
1987	869	-	-	-	-	458	4,879	13,915	16,574	17,130	17,063	15,401	86,289
1988	869	-	-	-	-	458	5,072	14,059	16,806	17,366	17,289	15,526	87,445
1989	869	-	-	-	-	458	5,159	13,178	17,395	18,447	18,433	16,273	90,211
1990	869	-	-	-	-	458	5,193	14,212	16,221	18,447	18,447	16,538	90,384
1991	869	-	-	-	-	458	5,187	13,992	16,817	18,447	18,447	16,579	90,794
1992	869	-	-	-	-	458	1,929	14,121	16,117	16,615	16,584	11,334	78,026
1993	799	-	-	-	-	458	3,104	14,238	16,695	17,252	17,196	15,472	85,214
1994	869	-	-	-	-	458	2,634	13,875	15,087	15,544	15,655	14,450	78,572
1995	869	-	-	-	-	458	3,373	14,249	17,383	18,101	18,021	15,968	88,422
1996	869	-	-	-	-	458	5,145	13,882	17,395	18,447	18,447	16,559	91,201
1997	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1998	3,968	-	-	-	-	458	4,166	14,249	17,395	18,447	18,447	16,533	93,662
1999	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
2000	3,968	-	-	-	-	458	5,193	14,158	17,395	18,447	18,447	16,551	94,616
2001	869	-	-	-	-	458	2,295	14,160	16,225	16,709	16,651	10,665	78,032
2002	797	-	-	-	-	458	5,184	13,916	17,789	18,038	18,447	16,580	91,209
2003	869	-	-	-	-	458	3,364	14,249	17,393	18,249	18,195	14,949	87,726
2004	743	-	-	-	-	458	4,255	14,249	17,188	17,807	17,752	15,806	88,258
2005	869	-	-	-	-	458	3,017	14,121	16,051	16,545	16,541	15,071	82,673
2006	869	-	-	-	-	458	5,163	14,241	16,237	18,447	18,447	16,541	90,402
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,330	-	-	-	-	458	4,342	14,035	17,052	18,295	18,375	15,804	89,692

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP5.2 CC3 Adverse

Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	5,536	-	-	-	-	20	10,544	13,571	14,230	13,127	14,194	12,849	84,070
1927	5,536	-	-	-	-	20	11,258	13,686	14,401	14,065	14,735	13,329	87,030
1928	5,536	-	-	-	-	20	11,570	15,452	14,696	14,065	14,735	13,329	89,404
1929	5,536	-	-	-	-	20	10,555	13,571	14,230	13,127	14,194	12,849	84,081
1930	5,536	-	-	-	-	20	8,343	12,454	11,508	10,903	11,990	11,798	72,553
1931	5,536	-	-	-	-	20	10,561	13,395	13,121	11,427	13,468	12,611	80,138
1932	5,536	-	-	-	-	20	11,828	15,364	15,823	14,057	14,735	13,329	90,691
1933	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1934	7,393	-	-	-	-	20	11,828	14,926	14,527	14,065	14,735	13,329	90,823
1935	5,536	-	-	-	-	20	10,649	13,791	14,527	14,065	14,735	13,329	86,653
1936	5,536	-	-	-	-	20	10,705	13,791	14,527	14,065	14,735	13,329	86,708
1937	5,536	-	-	-	-	20	10,602	13,791	14,527	14,065	14,735	13,329	86,606
1938	5,536	-	-	-	-	20	11,828	15,507	15,038	14,065	14,735	13,329	90,058
1939	5,536	-	-	-	-	20	11,427	13,697	14,527	14,065	14,735	13,329	87,337
1940	5,536	-	-	-	-	20	10,867	13,402	14,527	14,065	14,735	13,329	86,482
1941	5,536	-	-	-	-	20	8,536	12,454	11,508	10,903	11,990	11,798	72,746
1942	5,536	-	-	-	-	20	10,537	13,291	13,121	11,427	13,468	12,611	80,010
1943	5,536	-	-	-	-	20	11,828	13,693	14,537	14,065	14,735	13,329	87,743
1944	5,536	-	-	-	-	20	9,405	12,855	12,782	11,227	13,468	12,589	77,881
1945	5,536	-	-	-	-	20	10,191	13,962	14,075	14,065	14,735	13,329	85,913
1946	5,536	-	-	-	-	20	11,250	15,543	14,830	14,065	14,735	13,329	89,308
1947	5,536	-	-	-	-	20	11,816	15,543	14,616	14,065	14,735	13,329	89,660
1948	5,536	-	-	-	-	20	11,614	15,328	15,090	14,065	14,735	13,329	89,718
1949	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,812	15,543	16,253	17,629	17,780	15,757	102,186
1952	7,393	-	-	-	-	20	11,534	14,185	14,527	14,065	14,735	13,329	89,788
1953	5,536	-	-	-	-	20	10,498	13,736	14,230	13,127	14,194	12,849	84,189
1954	5,536	-	-	-	-	20	11,828	15,543	15,949	17,070	17,346	15,376	98,667
1955	5,536	-	-	-	-	20	11,546	14,745	14,527	14,065	14,735	13,329	88,504
1956	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1957	7,393	-	-	-	-	20	11,828	15,543	14,844	14,065	14,735	13,329	91,756
1958	5,536	-	-	-	-	20	10,584	13,818	14,527	14,065	14,735	13,329	86,615
1959	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1960	7,393	-	-	-	-	20	11,660	14,157	13,308	14,065	14,735	13,329	88,666
1961	5,536	-	-	-	-	20	11,714	15,049	15,628	17,070	17,346	15,376	97,738
1962	5,536	-	-	-	-	20	11,520	13,902	14,527	14,065	14,735	13,329	87,635
1963	5,536	-	-	-	-	20	10,406	13,571	14,230	13,127	14,194	12,849	83,932
1964	5,536	-	-	-	-	20	11,828	15,543	16,169	17,070	17,346	15,376	98,887
1965	5,536	-	-	-	-	20	10,767	14,856	14,551	14,065	14,735	13,329	87,860
1966	5,536	-	-	-	-	20	11,274	14,350	14,527	14,065	14,735	13,329	87,837
1967	5,536	-	-	-	-	20	10,630	13,791	14,418	13,127	14,194	12,849	84,565
1968	5,536	-	-	-	-	20	10,684	13,791	14,527	14,065	14,735	13,329	86,687
1969	5,536	-	-	-	-	20	11,828	15,520	14,324	14,065	14,735	13,329	89,357
1970	5,536	-	-	-	-	20	10,369	13,647	14,527	14,065	14,735	13,307	86,207
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,744	13,791	14,527	14,065	14,735	13,329	88,604
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	8,739	12,833	12,155	11,120	12,579	12,125	76,964
1978	5,536	-	-	-	-	20	10,365	14,121	14,527	14,065	14,735	13,329	86,698
1979	5,536	-	-	-	-	20	10,575	13,571	14,230	13,127	14,194	12,849	84,102
1980	5,536	-	-	-	-	20	11,458	14,619	14,527	14,065	14,735	13,329	88,290
1981	5,536	-	-	-	-	20	11,216	14,240	14,527	14,065	14,735	13,329	87,668
1982	5,536	-	-	-	-	20	11,437	14,763	15,001	14,065	14,735	13,329	88,887
1983	5,536	-	-	-	-	20	11,127	14,057	14,527	14,065	14,735	13,329	87,396
1984	5,536	-	-	-	-	20	10,862	13,918	14,527	14,065	14,735	13,329	86,993
1985	5,536	-	-	-	-	20	10,708	13,611	14,230	13,127	14,194	12,849	84,274
1986	5,536	-	-	-	-	20	10,641	13,571	14,230	13,127	14,194	12,849	84,167
1987	5,536	-	-	-	-	20	11,134	14,916	14,230	13,127	14,194	12,849	86,006
1988	5,536	-	-	-	-	20	11,527	13,503	14,230	13,127	14,194	12,849	84,984
1989	5,536	-	-	-	-	20	11,736	14,427	14,527	14,065	14,735	13,329	88,376
1990	5,536	-	-	-	-	20	11,828	15,507	14,156	14,065	14,735	13,329	89,176
1991	5,536	-	-	-	-	20	11,798	15,246	14,295	14,065	14,735	13,329	89,025
1992	5,536	-	-	-	-	20	10,118	13,571	14,230	13,127	14,194	12,849	83,644
1993	5,536	-	-	-	-	20	9,840	13,472	13,121	11,427	13,468	12,611	79,494
1994	5,536	-	-	-	-	20	9,276	12,454	11,508	10,903	11,990	11,798	73,486
1995	5,536	-	-	-	-	20	10,304	13,635	14,230	13,127	14,194	12,849	83,894
1996	5,536	-	-	-	-	20	11,615	14,157	14,527	14,065	14,735	13,329	87,985
1997	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1998	7,393	-	-	-	-	20	10,745	13,791	14,527	14,065	14,735	13,311	88,587
1999	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2000	7,393	-	-	-	-	20	11,828	13,780	14,527	14,065	14,735	13,329	89,677
2001	5,536	-	-	-	-	20	10,507	13,571	14,230	13,127	14,194	12,849	84,034
2002	5,536	-	-	-	-	20	11,789	15,180	16,165	14,083	14,735	13,329	90,837
2003	5,536	-	-	-	-	20	10,709	13,791	14,527	14,065	14,735	13,329	86,713
2004	5,536	-	-	-	-	20	11,265	13,791	14,527	14,065	14,735	13,329	87,269
2005	5,536	-	-	-	-	20	10,183	13,121	12,155	11,195	13,468	12,435	78,112
2006	5,536	-	-	-	-	20	11,686	15,534	14,360	14,065	14,735	13,329	89,266
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,834	-	-	-	-	20	11,083	14,363	14,598	14,276	15,027	13,599	88,801

IP5.2 Bumping CC3 Adverse - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,267	12,820	51,083
1926	59,893	80,780	80,304	72,097	38,323	10,826	8,194	7,474	5,213	13,609	21,887	32,770
1927	51,426	67,505	74,150	82,046	78,223	71,873	46,894	15,448	12,139	17,504	45,663	60,062
1928	78,501	78,027	99,691	90,409	80,730	67,289	42,442	11,420	7,196	13,805	18,773	21,679
1929	20,233	12,370	24,992	27,414	41,940	32,773	11,685	7,359	3,670	4,419	4,955	15,318
1930	16,939	37,547	51,282	65,858	71,325	60,929	40,528	18,540	14,023	17,509	20,402	22,252
1931	42,533	51,643	80,567	76,057	69,782	57,080	37,028	14,503	12,288	20,019	36,472	44,465
1932	54,285	58,943	95,088	114,107	108,624	76,099	35,930	11,076	8,205	11,941	80,457	89,469
1933	87,686	75,895	80,466	99,404	111,036	110,984	70,071	32,943	31,311	46,269	80,128	129,905
1934	121,981	134,073	152,860	157,084	151,663	112,236	65,865	29,100	24,084	44,603	62,007	84,668
1935	94,374	88,392	90,284	103,840	104,386	87,566	38,377	10,621	6,832	8,360	12,877	21,791
1936	55,983	48,856	52,291	76,583	79,334	67,586	33,095	10,416	7,783	6,480	6,004	32,297
1937	28,877	25,940	37,135	78,464	78,461	70,323	37,179	11,416	8,386	10,109	53,542	81,645
1938	79,740	80,246	81,335	92,107	83,106	63,373	22,335	8,910	4,880	12,010	19,859	48,179
1939	75,220	71,369	78,164	77,964	66,840	49,407	17,395	8,205	5,160	10,503	17,436	79,227
1940	80,361	86,135	88,348	79,862	60,609	23,368	9,875	6,677	3,082	8,475	13,412	41,765
1941	51,212	56,357	61,624	63,999	61,090	40,811	19,021	9,767	10,388	13,288	29,963	79,845
1942	81,554	78,687	79,694	76,375	59,356	58,444	39,260	13,905	9,727	8,866	35,237	54,410
1943	55,000	60,833	74,487	95,089	85,572	66,503	27,082	10,033	6,283	14,511	18,639	34,408
1944	41,842	44,558	46,321	61,626	72,413	46,785	12,367	7,653	6,045	6,460	13,101	17,571
1945	41,250	51,502	56,222	75,650	88,189	67,957	41,775	11,580	12,925	26,653	43,236	61,968
1946	80,059	81,193	84,624	83,311	96,190	72,179	31,758	9,578	6,243	14,809	25,597	79,102
1947	83,676	80,316	80,688	86,072	78,505	68,462	40,128	11,409	8,599	30,474	60,901	80,491
1948	78,449	77,327	78,110	82,941	106,899	123,957	76,796	37,576	34,125	36,669	54,386	70,508
1949	68,321	62,889	76,528	96,190	152,840	142,066	95,213	54,332	48,560	49,849	62,365	84,241
1950	75,251	72,413	71,105	79,484	117,963	158,154	140,976	103,600	80,029	85,448	96,267	113,331
1951	116,498	130,074	120,542	126,944	156,823	149,748	103,802	61,753	55,594	58,506	67,242	79,065
1952	76,542	75,938	79,776	87,907	86,421	72,239	42,772	11,252	7,062	4,480	5,967	8,601
1953	41,614	66,606	76,274	80,331	79,869	75,407	52,072	24,287	19,335	20,339	40,314	93,424
1954	89,550	95,102	80,162	82,788	99,412	85,119	46,256	11,509	8,309	8,094	23,309	30,942
1955	45,663	43,403	36,944	44,170	78,337	93,617	56,485	19,128	13,713	31,700	71,553	101,224
1956	111,421	104,334	98,157	105,812	139,704	157,611	111,291	69,427	63,563	69,131	79,433	114,794
1957	89,830	79,449	88,465	115,968	138,107	109,719	58,501	18,173	12,699	14,812	23,498	53,118
1958	72,234	93,328	79,974	91,493	76,929	59,220	24,837	9,222	5,862	14,425	40,162	85,877
1959	98,359	80,906	81,152	105,143	118,841	106,241	55,944	15,617	18,964	39,427	73,192	90,778
1960	81,378	82,962	89,215	106,521	118,553	102,251	51,709	13,472	8,969	15,965	47,405	54,194
1961	79,317	100,348	117,543	128,066	136,193	125,076	74,538	33,719	28,542	35,416	39,527	58,974
1962	76,397	79,810	80,083	88,754	73,911	62,240	33,040	10,884	7,999	11,624	32,092	50,931
1963	58,236	81,551	81,164	72,477	36,256	13,825	10,252	8,630	5,698	14,248	38,377	54,511
1964	74,572	80,028	80,613	79,994	89,307	97,806	58,858	20,978	17,765	22,752	34,753	56,572
1965	72,825	83,667	79,117	99,796	106,805	93,574	57,623	18,335	13,158	19,592	26,408	32,520
1966	38,505	39,395	57,155	79,474	79,991	69,993	36,440	10,696	7,064	14,643	21,912	78,113
1967	85,239	80,123	79,945	71,040	80,127	78,096	54,476	21,682	15,791	20,791	26,328	55,792
1968	79,648	100,105	103,733	103,563	87,493	71,421	44,140	13,633	10,105	17,566	36,010	56,543
1969	54,481	47,320	55,468	83,107	96,989	80,067	49,724	13,598	11,969	12,138	18,820	45,062
1970	70,652	81,536	80,254	76,444	76,562	73,038	50,025	15,971	12,513	14,383	17,640	16,466
1971	39,948	60,449	54,594	76,472	124,617	141,642	110,161	71,064	67,807	72,051	82,411	79,118
1972	79,428	80,882	97,061	110,212	144,327	157,770	116,347	76,020	74,713	70,064	81,065	118,796
1973	111,694	110,249	116,394	109,500	82,303	63,250	26,525	9,005	5,665	6,956	22,781	67,913
1974	91,116	80,178	81,918	84,796	96,881	106,072	72,824	35,476	29,771	24,188	28,646	61,436
1975	79,845	79,186	78,581	80,283	120,585	132,110	88,472	50,543	45,506	67,601	92,874	118,796
1976	118,796	122,985	112,640	112,582	143,245	135,946	95,444	57,999	53,310	48,920	49,403	53,724
1977	59,588	64,185	79,460	65,229	32,799	11,104	8,262	9,003	8,531	8,886	33,607	87,724
1978	79,998	80,355	82,814	80,384	61,292	48,071	22,480	10,655	12,321	10,450	20,016	30,994
1979	25,282	24,293	41,963	62,297	79,101	62,005	35,251	11,271	7,724	9,936	8,592	45,455
1980	45,306	53,745	72,499	87,954	79,739	69,611	39,633	11,707	10,076	8,247	23,130	69,745
1981	77,672	98,497	80,429	80,523	54,027	46,908	18,381	8,263	6,825	15,678	30,540	55,902
1982	73,979	96,603	85,105	81,467	84,478	82,157	41,731	10,650	8,059	13,698	27,802	51,404
1983	77,666	87,626	103,858	112,328	105,398	80,545	34,480	10,379	7,835	7,337	45,968	47,525
1984	74,856	80,043	84,339	71,408	73,235	58,291	20,700	8,625	5,274	5,704	14,923	13,561
1985	11,109	6,658	9,377	27,325	40,481	34,612	10,938	7,948	4,491	14,210	28,544	25,740
1986	41,859	51,868	81,174	80,605	78,653	57,411	32,348	10,616	9,005	10,509	47,517	53,718
1987	62,498	79,783	88,954	80,228	64,226	46,583	18,080	8,295	4,476	2,841	8,253	22,975
1988	28,088	42,235	63,817	77,077	78,294	63,879	41,428	15,201	11,753	20,226	40,689	50,792
1989	68,397	64,021	79,526	95,876	89,958	73,927	44,387	12,722	8,864	10,519	24,633	41,036
1990	67,231	69,301	81,031	93,128	78,932	76,092	50,966	20,773	15,532	26,661	86,820	78,813
1991	80,848	93,604	80,045	105,877	118,896	98,357	48,675	11,911	7,587	7,218	18,533	42,924
1992	66,438	86,129	79,395	69,957	34,427	10,322	9,442	7,052	5,386	5,632	12,829	17,028
1993	16,890	18,599	38,947	66,275	80,011	63,170	25,153	10,149	6,778	8,713	12,598	26,519
1994	44,984	45,436	65,235	77,389	79,984	65,982	43,413	20,340	16,034	22,791	28,362	53,790
1995	59,484	86,573	82,471	77,135	72,161	51,443	27,078	10,879	7,447	16,864	53,625	80,667
1996	78,934	79,577	79,803	101,428	82,529	60,094	16,263	9,143	6,760	14,065	19,614	25,341
1997	41,711	52,961	78,154	93,165	134,688	150,401	104,160	63,464	59,825	68,335	83,680	83,921
1998	82,193	96,926	118,383	118,214	128,693	118,271	69,229	31,514	25,682	23,491	43,119	77,191
1999	80,491	80,478	80,052	78,927	84,515	95,234	56,393	16,127	10,621	13,024	53,729	79,729
2000	77,605	80,438	80,277	96,881	104,237	87,287	48,274	11,269	7,366	11,437	14,139	12,719
2001	12,571	12,002	18,065	18,490	32,943	15,290	9,068	7,745	4,588	8,959	32,023	53,372
2002	72,800	78,212	77,685	84,722	99,431	95,506	48,861	11,242	7,055	5,087	10,202	17,783
2003	38,232	56,430	80,889	79,512	54,716	48,080	17,224	8,816	6,706	23,024	32,891	43,787
2004	53,415	61,586	73,638	72,750	64,412	47,893	15,563	12,191	11,735	14,021	31,899	54,010
2005	74,383	77,386	87,374	82,596	72,539	45,169	14,394	8,037	4,935	7,026	22,802	44,387
2006	81,380	76,784	80,443	82,211	88,435	66,806	46,148	15,041	9,983	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.2 Bumping CC3 Adverse - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	28,328	33,167	64,921
1926	80,912	113,452	138,293	141,458	115,690	37,561	-22,263	-73,349	-119,741	-122,947	-114,561	-102,890
1927	-81,560	-63,996	-54,304	-26,699	17,230	16,628	-22,380	-62,746	-109,545	-105,988	-84,337	-60,857
1928	-30,922	-17,433	42,802	89,006	139,594	112,157	67,255	13,792	-35,797	-33,506	-25,259	-18,984
1929	-15,273	-17,351	418	8,225	24,634	-3,485	-38,671	-91,798	-139,504	-155,513	-154,329	-143,827
1930	-136,171	-113,869	-97,905	-80,530	-66,043	-81,544	-106,198	-126,418	-164,967	-174,964	-168,338	-162,985
1931	-148,616	-135,820	-105,126	-67,086	-57,175	-70,259	-96,897	-121,823	-164,431	-172,420	-158,390	-147,286
1932	-128,446	-116,947	-63,392	-4,078	56,548	86,411	76,013	33,462	-24,840	-33,238	30,285	93,535
1933	147,981	156,683	163,934	193,832	203,102	214,149	202,409	148,549	72,278	51,707	88,003	202,721
1934	203,025	221,860	236,137	238,287	232,908	196,929	140,420	73,230	8,421	16,904	34,766	75,023
1935	134,369	172,535	179,491	198,879	198,354	195,110	166,735	117,449	49,049	21,447	25,545	32,776
1936	68,471	67,853	80,940	109,112	141,075	108,333	46,105	-12,223	-60,584	-78,259	-80,305	-58,234
1937	-54,987	-52,029	-34,876	486	32,782	16,779	-29,361	-76,419	-125,048	-139,573	-108,459	-78,663
1938	-29,245	-19,035	17,261	68,394	121,842	126,838	112,452	61,155	-2,231	-1,918	13,510	35,348
1939	65,901	73,588	87,847	119,571	112,585	76,594	20,792	-37,448	-86,939	-97,466	-89,377	-51,628
1940	-35,690	10,022	73,415	104,119	104,888	32,237	-28,286	-86,535	-135,424	-144,333	-136,926	-112,426
1941	-99,114	-89,581	-80,291	-72,816	-68,406	-92,761	-118,255	-144,501	-176,275	-180,922	-164,564	-120,691
1942	-109,954	-80,829	-66,015	-45,978	-41,709	-48,795	-72,700	-103,951	-149,994	-169,245	-140,854	-123,734
1943	-116,821	-107,824	-93,103	-33,730	20,425	40,759	34,544	-9,963	-68,640	-72,763	-63,778	-50,202
1944	-40,854	-31,627	-24,820	-8,226	6,076	-24,839	-74,486	-121,825	-162,842	-175,296	-169,806	-163,166
1945	-140,734	-122,191	-113,013	-92,362	-32,697	-39,368	-74,102	-113,704	-158,284	-165,895	-151,712	-132,613
1946	-109,458	-102,708	-55,858	-14,756	62,020	93,512	82,940	40,088	-20,412	-21,050	-12,574	45,878
1947	69,819	101,445	140,609	180,356	176,123	146,418	86,415	22,824	-25,224	-6,263	20,560	51,910
1948	80,161	87,801	94,063	126,678	188,399	216,135	200,322	151,369	86,643	84,588	103,009	126,887
1949	129,786	130,267	149,452	185,366	236,476	230,401	191,301	140,042	48,628	24,374	38,080	66,165
1950	77,969	80,922	87,041	121,365	197,423	238,980	224,899	174,507	101,628	105,124	154,302	203,025
1951	202,943	217,574	204,637	210,546	238,127	237,954	198,454	148,056	55,674	29,138	40,183	51,545
1952	54,515	67,954	75,819	126,254	169,515	143,313	79,451	12,915	-37,158	-57,886	-60,933	-60,005
1953	-33,314	-2,102	11,436	32,294	79,481	63,725	23,542	-15,565	-62,745	-66,316	-49,295	27,457
1954	76,891	118,286	145,513	175,209	194,450	198,854	187,000	139,212	69,663	57,854	69,550	77,075
1955	96,800	102,453	103,409	115,405	142,319	188,484	180,950	140,862	72,107	81,138	114,431	174,653
1956	190,008	190,326	183,974	191,067	231,506	238,880	209,827	164,320	74,412	44,002	59,601	117,309
1957	143,713	156,885	181,995	212,266	234,154	218,078	172,896	123,391	55,567	29,079	41,772	67,151
1958	91,737	139,954	165,809	184,809	172,609	132,078	68,226	-953	-50,540	-48,993	-20,014	20,021
1959	80,453	106,400	145,937	189,100	207,776	208,768	176,552	123,439	50,143	38,464	74,164	118,158
1960	136,833	173,825	184,851	203,058	214,868	211,192	176,125	123,800	54,169	35,347	57,751	68,494
1961	99,160	157,741	190,105	208,315	230,124	226,248	191,253	137,616	67,597	65,944	74,114	92,186
1962	110,588	138,927	152,809	183,737	170,308	139,260	82,073	16,472	-33,525	-40,000	-21,614	-1,696
1963	11,759	40,927	57,138	85,830	68,887	28,166	-26,896	-81,279	-127,995	-136,704	-117,185	-99,806
1964	-78,156	-68,131	-37,784	2,447	47,722	115,982	119,536	89,994	24,095	27,186	38,357	61,360
1965	80,895	131,754	153,934	193,905	205,804	206,764	184,935	132,441	63,896	41,135	51,168	57,779
1966	64,910	69,254	84,743	121,181	162,526	129,113	64,023	-1,135	-51,415	-59,406	-47,313	-11,127
1967	47,969	92,905	108,833	110,229	129,808	121,556	86,320	38,320	-12,539	-13,509	-3,045	22,106
1968	48,718	97,171	154,530	175,109	171,505	156,330	104,337	47,823	-2,163	-483	16,255	42,353
1969	46,336	44,372	60,838	105,055	170,184	164,241	96,528	30,612	-10,990	-13,032	-6,047	12,288
1970	37,030	63,343	89,076	109,377	132,390	124,548	87,387	29,926	-17,894	-26,302	-19,991	-16,467
1971	7,434	29,286	29,859	59,100	148,997	195,584	195,548	148,487	65,400	37,340	56,203	90,577
1972	111,973	124,772	178,627	195,102	230,227	238,980	214,269	168,610	87,501	51,164	64,150	125,044
1973	165,858	180,708	191,635	191,981	171,443	130,248	64,673	-2,964	-53,126	-67,601	-52,144	-3,508
1974	38,657	77,586	112,984	157,361	183,386	212,651	219,021	168,068	88,439	51,858	60,402	85,919
1975	116,402	121,599	132,794	153,331	211,808	233,383	211,303	165,245	78,316	66,554	113,988	193,632
1976	203,025	211,395	197,343	197,289	230,104	235,283	234,219	190,370	112,142	73,450	76,779	83,590
1977	90,443	99,376	114,524	113,274	90,435	35,800	-16,788	-58,412	-95,554	-110,860	-89,339	-9,915
1978	16,532	35,684	70,599	103,917	98,912	75,207	32,323	-23,298	-65,242	-76,693	-66,193	-53,816
1979	-54,123	-49,783	-27,988	-6,544	35,020	11,933	-25,887	-60,619	-108,038	-123,816	-123,935	-97,514
1980	-93,715	-85,257	-63,921	-18,205	25,288	6,798	-34,088	-75,846	-122,905	-138,488	-122,302	-94,085
1981	-78,486	-35,241	-3,680	30,832	28,187	15,343	-26,171	-82,545	-129,746	-126,572	-110,545	-83,380
1982	-56,531	-13,047	30,793	60,584	116,293	168,297	149,382	100,699	31,754	26,691	42,655	71,879
1983	103,036	140,788	181,923	193,452	190,673	181,674	157,385	101,679	35,334	11,933	43,624	52,861
1984	84,565	97,638	142,409	158,509	159,439	161,685	145,218	93,464	25,805	10,035	22,799	27,029
1985	30,419	27,815	32,164	49,741	70,313	47,445	-9,575	-66,139	-114,033	-120,772	-107,062	-104,945
1986	-96,607	-85,010	-52,091	-23,887	7,046	-19,247	-56,209	-93,992	-138,015	-154,240	-124,429	-115,570
1987	-104,049	-82,476	-30,221	11,376	23,762	-2,637	-41,510	-88,527	-137,146	-157,766	-153,058	-138,331
1988	-128,824	-110,770	-84,945	-60,940	-36,877	-55,748	-85,938	-116,467	-162,154	-169,513	-151,918	-139,434
1989	-117,858	-114,435	-95,450	-35,982	15,269	10,778	-31,263	-69,865	-119,379	-132,822	-116,225	-98,457
1990	-68,341	-60,386	-25,324	36,713	72,912	67,517	23,919	-17,836	-67,130	-59,902	7,456	45,477
1991	76,171	131,423	159,382	193,764	205,459	202,115	180,103	130,690	60,427	27,976	44,094	64,652
1992	89,747	123,644	145,348	143,613	113,886	35,087	-23,795	-74,490	-118,867	-135,173	-126,950	-122,356
1993	-118,546	-115,066	-96,374	-69,737	-11,436	-29,442	-87,502	-140,991	-187,177	-197,247	-192,623	-179,249
1994	-165,357	-160,919	-137,001	-116,917	-97,546	-113,872	-140,407	-161,532	-199,853	-194,174	-185,581	-162,982
1995	-153,725	-117,394	-77,229	-56,102	-37,704	-60,823	-95,197	-134,277	-182,709	-184,234	-150,342	-83,271
1996	-35,069	-5,748	9,188	70,118	110,540	113,513	97,705	45,125	-15,787	-19,762	-13,698	-6,971
1997	9,378	25,254	64,968	115,412	196,712	232,934	214,558	166,559	82,610	60,581	86,924	124,835
1998	163,807	190,949	215,040	218,709	227,494	192,321	140,529	78,529	10,727	1,927	22,631	55,969
1999	104,611	121,637	138,307	152,854	171,083	200,137	194,526	147,221	64,215	30,430	61,085	107,286
2000	119,906	131,853	160,291	191,626	200,253	196,661	173,183	122,511	55,872	28,252	29,727	31,783
2001	34,699	38,390	46,055	51,301	72,630	24,780	-32,971	-83,047	-130,219	-139,706	-122,569	-100,368
2002	-79,373	-69,357	-62,832	-14,042	50,660	111,308	102,668	63,126	-728	-10,808	-6,505	-663
2003	13,403	38,884	75,371	113,890	107,159	86,493	31,654	-27,397	-77,641	-80,815	-67,337	-57,282
2004	-44,657	-34,334	-13,490	8,583	14,127	-10,585	-54,933	-104,452	-149,309	-162,271	-144,741	-124,876
2005	-108,161	-100,407	-67,131	-18,440	-1,256	-39,355	-87,514	-135,693	-180,996	-195,527	-178,468	-157,810
2006	-114,173	-96,500	-91,673	-47,650	23,548	44,660	12,874	-27,456	-76,699	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.2 Bumping CC3 Adverse - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	20,109	26,586	90,753
1926	110,803	167,409	205,547	246,467	271,619	194,376	99,356	46,359	17,615	34,370	52,281	77,921
1927	108,050	135,875	147,311	198,875	285,989	391,279	314,105	156,230	123,411	144,855	196,445	231,985
1928	276,933	285,271	371,002	398,583	451,166	377,324	208,338	49,663	19,415	39,269	53,320	62,121
1929	60,639	49,771	63,697	85,411	183,977	192,150	153,360	55,268	23,929	13,105	13,700	35,405
1930	45,120	82,664	114,268	178,223	234,404	214,560	159,345	73,156	47,088	37,310	45,045	51,501
1931	75,297	91,292	137,407	191,139	315,735	332,402	173,111	35,515	14,658	25,830	52,429	62,882
1932	85,878	93,352	184,845	281,004	448,209	451,480	296,546	112,299	88,056	92,411	263,654	326,919
1933	342,815	336,729	337,423	370,123	438,627	398,938	267,807	94,418	69,854	90,425	190,238	415,808
1934	388,323	410,989	446,066	451,362	451,480	336,854	177,185	37,034	11,356	55,791	95,827	174,072
1935	246,628	276,515	280,591	323,558	430,051	405,896	251,697	88,309	62,295	58,922	65,755	80,544
1936	150,825	140,559	144,977	223,877	355,200	291,540	123,452	22,273	11,559	8,831	10,461	61,225
1937	57,413	55,247	64,412	134,265	253,548	260,191	169,056	94,298	41,802	23,347	96,834	146,393
1938	192,263	198,594	231,490	312,535	449,566	440,262	276,175	93,340	66,664	73,300	109,852	160,235
1939	227,705	230,474	262,533	334,507	360,259	232,844	90,911	17,489	8,536	17,164	34,836	153,753
1940	175,827	230,119	321,859	382,182	423,864	322,046	201,354	125,819	89,829	75,751	90,865	145,159
1941	174,119	187,004	225,711	258,912	293,302	243,874	157,014	62,808	43,242	51,805	93,041	184,227
1942	196,648	228,137	241,570	291,405	312,948	272,442	134,682	22,323	8,819	8,499	71,157	99,134
1943	104,975	112,473	137,744	228,044	343,240	443,219	338,546	150,810	123,701	130,119	145,374	180,569
1944	201,735	208,573	211,486	253,733	327,737	301,560	201,701	83,219	58,611	57,167	74,423	93,177
1945	144,211	195,639	208,797	246,762	401,162	411,636	232,765	65,356	36,802	61,903	89,989	128,234
1946	159,716	164,548	209,126	265,717	448,182	440,745	287,185	105,702	78,858	96,926	103,107	209,272
1947	235,596	262,214	320,225	396,727	451,480	355,934	178,479	38,240	13,846	77,907	144,779	198,121
1948	217,552	217,560	215,706	243,971	400,359	403,189	242,601	80,978	56,723	62,688	95,891	130,816
1949	127,065	124,622	147,495	223,969	419,024	419,180	277,211	102,990	66,272	50,229	94,151	169,542
1950	174,638	170,933	168,515	200,495	331,445	451,480	406,180	259,185	232,201	261,263	314,211	327,473
1951	324,995	358,492	344,967	351,917	448,450	448,910	309,360	131,434	93,590	74,851	99,356	122,016
1952	115,560	115,402	117,545	193,990	318,261	278,422	138,867	25,229	9,638	6,613	10,073	18,331
1953	72,440	130,588	155,921	188,333	307,463	328,037	217,185	122,885	110,428	114,855	167,219	300,032
1954	322,490	364,920	371,600	382,073	433,729	401,987	271,872	101,440	79,666	76,379	112,526	119,874
1955	146,646	150,187	140,218	141,021	237,945	355,815	238,717	77,876	51,470	105,517	194,060	242,635
1956	265,631	259,863	262,523	283,807	425,277	451,480	346,095	165,497	130,026	116,931	140,722	237,352
1957	230,896	227,794	245,029	324,524	450,934	383,984	211,623	56,293	30,272	30,386	54,839	101,737
1958	144,736	219,353	231,760	270,057	366,926	250,412	82,494	13,720	7,440	22,236	107,803	201,940
1959	274,373	280,704	316,982	401,180	451,019	438,060	270,501	90,095	64,890	102,035	174,442	238,852
1960	241,312	271,865	300,017	354,047	451,480	402,663	228,154	63,838	38,983	44,999	98,126	112,670
1961	156,511	230,995	273,685	324,216	451,232	435,988	257,029	81,673	54,987	62,068	75,565	105,973
1962	136,226	169,667	177,113	261,442	301,842	266,066	125,446	22,236	9,219	16,168	69,127	105,035
1963	134,918	190,567	223,339	242,500	250,664	152,925	51,157	13,023	7,309	26,441	70,653	98,138
1964	130,111	140,084	165,058	219,456	322,369	400,049	285,038	116,207	100,752	111,635	127,285	163,009
1965	193,507	251,821	286,684	376,595	435,163	374,695	205,940	56,600	30,269	35,143	61,212	73,603
1966	79,251	78,607	93,670	172,264	301,160	250,424	109,295	18,722	8,557	25,186	45,119	135,445
1967	213,596	272,243	296,592	279,925	377,464	393,968	237,407	70,284	34,507	46,977	75,123	142,698
1968	194,901	272,605	372,277	398,054	439,339	354,075	168,133	35,855	13,491	23,079	55,014	95,917
1969	93,798	82,661	90,617	166,663	338,106	351,260	180,943	36,584	13,785	16,060	29,091	62,356
1970	90,948	122,771	144,845	163,004	261,109	345,929	189,030	43,349	16,441	17,825	30,142	30,388
1971	59,410	87,845	79,176	125,648	371,968	451,480	370,748	203,113	179,974	173,671	195,856	219,746
1972	242,189	245,474	311,079	308,509	424,584	451,480	360,755	178,161	144,751	121,816	147,690	269,345
1973	313,863	325,867	346,836	359,219	358,655	230,000	77,968	13,270	7,325	13,091	43,736	121,272
1974	204,772	249,591	290,972	325,075	392,131	429,505	345,704	186,606	172,186	149,744	171,337	225,938
1975	272,919	272,327	275,692	299,007	438,088	443,444	323,918	152,314	123,748	180,927	263,807	354,187
1976	346,589	355,003	343,383	337,246	440,792	433,901	344,934	169,597	144,147	118,668	123,323	130,535
1977	137,123	145,823	166,133	179,206	183,494	134,250	58,925	20,603	10,514	13,354	71,728	217,761
1978	231,411	259,013	333,659	380,297	383,450	326,260	153,163	46,751	40,717	33,461	61,309	78,772
1979	74,222	74,388	101,443	151,790	293,141	232,172	148,556	53,373	19,337	16,862	13,708	88,723
1980	92,166	99,307	126,976	212,900	346,369	295,268	219,349	72,108	42,255	35,875	78,956	130,052
1981	162,149	227,794	263,702	324,970	351,122	301,396	186,441	76,230	46,799	60,344	100,628	150,126
1982	199,500	283,195	320,764	350,565	447,399	451,455	299,035	117,141	92,263	103,383	128,126	223,587
1983	273,577	326,790	414,358	449,105	451,480	377,158	219,840	59,371	37,361	31,630	100,883	109,954
1984	170,643	193,143	252,100	259,859	298,229	359,011	258,411	82,932	56,810	54,611	73,355	72,248
1985	68,497	61,111	62,212	102,143	205,699	191,224	67,314	17,619	8,529	32,569	74,698	71,685
1986	82,630	103,179	198,300	249,706	330,227	335,466	189,630	39,672	16,452	16,066	91,815	109,032
1987	127,170	161,048	224,380	282,413	370,195	287,663	205,542	47,268	16,512	8,840	25,740	64,662
1988	74,869	116,720	165,480	234,753	317,445	318,804	166,143	34,505	11,576	36,769	86,157	114,257
1989	147,399	148,621	173,523	287,756	427,397	386,281	282,146	111,635	76,391	78,007	121,937	168,005
1990	242,223	248,741	293,425	435,056	451,279	421,124	257,936	129,475	116,164	142,103	325,551	323,372
1991	323,297	388,839	388,682	435,956	451,366	393,523	243,671	76,865	50,300	42,482	77,819	120,035
1992	162,283	212,557	242,667	268,937	283,477	205,827	108,137	51,069	18,329	11,407	32,769	36,151
1993	37,381	37,714	61,264	120,400	305,833	320,911	209,917	79,139	47,941	32,521	41,685	79,992
1994	109,198	113,031	157,793	215,166	276,861	248,782	168,726	75,488	49,319	46,767	63,071	107,711
1995	129,170	185,929	223,744	258,521	388,014	394,580	221,175	55,792	23,398	46,674	144,558	265,258
1996	312,726	321,144	339,713	406,742	450,734	424,735	271,032	93,157	69,197	81,055	93,124	95,985
1997	118,306	136,808	180,235	259,889	417,623	451,480	356,811	170,390	139,533	146,051	186,206	208,744
1998	229,773	274,544	316,004	346,261	451,480	376,547	213,748	55,040	19,623	17,147	62,717	119,872
1999	169,862	185,698	204,224	237,790	321,372	408,061	285,442	111,508	84,071	68,567	160,501	266,014
2000	278,373	282,657	314,754	387,115	426,025	364,140	187,961	42,243	17,465	21,695	27,027	23,480
2001	23,480	21,410	30,970	61,651	191,177	158,887	94,169	43,095	13,474	21,611	75,045	111,569
2002	141,452	159,446	164,488	241,271	413,166	451,480	298,944	107,137	78,998	69,336	84,618	99,223
2003	126,278	172,271	220,372	277,285	319,865	267,382	105,009	16,868	8,173	37,696	66,198	85,444
2004	96,573	103,991	150,968	207,372	297,528	261,816	173,376	64,262	34,161	31,234	65,508	100,987
2005	129,701	138,421	188,306	253,138	357,922	313,792	213,529	90,762	60,913	54,154	93,367	131,981
2006	188,611	200,385	205,857	273,277	429,612	450,692	295,691	157,971	120,575	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.2 Bumping CC3 Adverse - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	145,709	141,782	151,374
1926	155,248	182,850	188,568	180,300	180,300	167,542	118,200	40,517	31,730	29,301	30,511	38,074
1927	48,712	51,544	49,392	47,508	45,354	97,993	62,964	23,303	17,420	15,330	26,735	34,666
1928	42,229	42,360	65,664	68,362	115,119	137,552	136,409	124,398	118,209	117,367	121,134	122,794
1929	121,380	118,325	115,128	109,705	135,222	140,478	60,217	21,626	15,735	8,742	3,030	2,358
1930	1,783	7,816	9,968	18,359	34,038	32,041	20,715	8,692	2,622	2,170	1,865	1,939
1931	3,617	3,183	4,316	12,706	54,935	31,466	14,944	2,998	1,398	4,740	9,813	13,489
1932	21,421	25,773	43,481	51,713	78,150	112,683	105,368	97,607	91,954	86,827	125,922	156,727
1933	169,999	169,827	166,199	156,340	151,173	180,300	189,114	183,417	178,479	172,120	169,984	197,300
1934	170,770	177,828	186,871	179,368	180,300	170,449	149,406	138,557	132,250	132,434	147,608	169,999
1935	169,999	175,186	181,704	175,850	180,300	180,300	168,010	157,746	151,558	145,425	143,763	143,087
1936	157,106	154,460	152,923	167,501	180,300	179,977	163,851	134,661	127,178	118,547	112,656	125,384
1937	122,863	119,308	115,480	119,485	158,099	180,300	123,730	45,186	37,857	29,944	52,556	80,594
1938	93,261	92,483	94,328	98,810	124,018	145,400	137,292	127,247	120,999	116,566	123,290	129,870
1939	149,177	151,176	153,574	170,652	180,300	180,300	167,417	110,342	102,804	95,074	91,325	116,412
1940	126,434	155,445	175,182	180,300	180,300	173,777	120,727	41,960	35,534	31,039	33,523	43,054
1941	46,989	50,932	55,667	32,619	30,652	29,882	9,183	1,694	1,474	1,650	5,884	26,175
1942	27,712	32,821	33,990	32,260	33,427	30,889	17,577	4,566	1,431	1,872	18,478	22,106
1943	22,167	21,112	26,338	41,532	54,442	76,241	77,511	70,994	65,758	64,589	64,113	71,615
1944	74,013	79,753	83,073	64,681	61,693	29,884	9,678	1,709	1,577	1,425	5,357	7,201
1945	21,528	39,300	41,513	37,643	75,610	31,951	17,631	8,818	2,747	2,471	6,391	14,200
1946	28,711	31,043	39,713	41,697	78,956	85,284	79,045	71,199	64,891	63,303	63,565	95,047
1947	103,163	107,051	117,873	125,211	152,251	163,129	148,160	135,945	129,816	140,707	153,025	167,843
1948	169,999	170,969	167,552	155,868	168,717	180,300	169,375	159,516	153,962	151,872	159,330	163,511
1949	162,404	158,914	158,299	160,010	179,308	180,300	171,630	162,470	156,282	154,548	163,527	169,999
1950	169,999	169,999	169,637	155,010	160,335	180,756	189,007	180,218	174,863	171,748	169,999	173,003
1951	170,250	174,506	169,957	159,337	179,360	180,300	166,249	155,598	149,350	158,402	162,677	169,999
1952	169,367	168,856	166,089	167,480	180,256	180,300	167,170	152,993	145,723	137,111	133,060	131,400
1953	148,432	166,371	170,032	160,603	180,270	180,300	169,552	133,132	127,657	123,251	128,263	163,372
1954	169,999	171,183	168,455	158,498	180,035	180,300	182,711	176,233	171,235	167,381	169,999	169,999
1955	169,999	173,897	168,675	152,440	150,655	180,300	178,281	172,217	166,980	172,625	170,479	171,413
1956	170,146	168,864	165,605	160,153	172,188	180,300	175,475	166,288	160,100	158,429	164,348	169,999
1957	169,999	169,221	169,999	159,799	180,129	178,991	162,420	152,554	146,425	141,537	145,758	154,243
1958	164,266	186,459	187,339	180,300	180,300	171,816	149,503	117,704	108,382	105,703	132,956	165,176
1959	169,999	171,072	169,999	160,623	170,090	179,869	169,100	158,903	154,678	156,038	170,419	170,778
1960	170,041	178,703	175,112	173,960	173,159	177,522	165,847	156,321	150,133	146,551	157,142	158,557
1961	169,999	178,594	170,736	160,173	171,977	180,300	167,323	157,713	151,465	149,313	149,075	155,162
1962	163,955	171,619	172,972	180,297	180,300	180,300	167,454	155,111	148,016	142,847	157,247	162,781
1963	169,914	188,750	189,912	180,300	180,300	176,884	128,024	48,809	40,805	36,729	45,708	47,922
1964	55,423	56,498	59,388	58,456	61,651	100,825	104,832	98,804	94,639	90,408	92,659	104,895
1965	113,135	132,906	143,236	152,419	165,268	175,999	167,832	158,520	152,510	147,520	153,467	153,836
1966	153,022	150,730	153,497	169,741	180,287	180,300	165,079	139,803	131,895	127,639	130,803	155,767
1967	169,999	175,924	178,630	168,486	180,300	180,300	169,331	158,264	152,016	158,493	163,849	169,999
1968	169,999	181,455	188,884	174,052	174,911	180,172	164,212	152,324	145,914	145,236	153,932	163,462
1969	164,385	162,052	159,101	159,162	179,965	179,096	168,197	157,187	151,534	146,833	153,176	157,049
1970	164,612	170,610	171,187	160,021	163,954	180,300	169,552	157,502	151,670	147,248	148,676	146,647
1971	155,378	160,988	157,913	150,733	170,441	180,300	189,819	182,970	178,209	171,081	169,999	169,727
1972	169,666	167,408	169,999	154,987	171,973	180,300	189,092	182,454	179,062	170,752	169,999	170,056
1973	169,999	172,223	176,712	180,300	180,300	178,544	157,943	117,544	106,893	100,690	108,307	139,604
1974	156,636	162,356	165,431	158,681	161,997	180,300	188,869	182,189	176,596	170,499	169,892	169,999
1975	169,999	169,799	166,848	151,120	159,419	180,300	179,327	169,347	164,408	167,052	169,999	170,622
1976	170,596	170,360	168,288	154,315	176,340	180,300	186,893	179,744	175,103	170,413	167,682	166,141
1977	166,436	167,602	171,599	180,300	180,300	175,667	128,466	50,966	42,536	35,397	46,107	82,262
1978	85,337	90,279	103,253	119,736	145,745	164,132	160,050	119,620	114,502	108,049	109,001	109,800
1979	106,172	102,284	104,068	87,844	128,856	136,403	78,384	26,008	19,661	13,984	9,857	42,189
1980	43,480	42,111	41,742	49,140	99,437	109,732	47,766	20,063	14,291	7,093	15,211	43,372
1981	54,686	78,789	87,090	100,419	120,648	129,752	81,782	26,840	20,442	17,533	22,202	30,257
1982	32,532	36,086	39,099	36,203	54,278	103,032	99,077	91,295	85,761	82,958	84,917	88,790
1983	91,865	98,640	123,297	129,029	153,499	165,837	156,470	149,211	144,094	138,633	165,277	166,875
1984	169,999	175,031	171,236	161,411	161,286	180,300	178,526	171,671	166,078	162,658	166,537	163,603
1985	160,283	156,284	152,164	156,865	180,300	180,300	154,519	74,020	66,185	62,836	69,328	66,131
1986	63,975	62,975	85,849	79,587	79,562	56,526	19,895	6,694	1,903	2,602	13,312	13,189
1987	12,267	15,766	26,588	44,082	91,919	96,280	27,364	12,005	5,757	1,307	2,380	13,667
1988	12,191	15,821	26,581	35,541	61,679	32,559	19,777	3,738	1,459	1,891	20,789	23,495
1989	25,401	23,346	20,948	30,647	75,848	102,203	46,992	18,714	12,645	7,294	19,730	30,060
1990	45,370	45,370	48,322	65,241	81,840	108,236	105,038	66,609	60,659	71,235	116,101	125,570
1991	130,858	155,072	160,975	162,135	180,263	180,300	170,043	160,318	154,129	147,129	151,151	155,271
1992	163,941	182,954	189,966	180,300	180,300	173,759	122,296	43,922	34,739	26,139	28,546	24,165
1993	19,532	14,867	14,990	22,309	72,114	30,830	13,901	1,893	1,408	1,830	1,911	2,557
1994	2,322	1,967	5,665	16,971	40,532	29,877	11,478	1,757	1,401	4,061	6,441	16,279
1995	18,000	33,273	45,940	37,275	68,489	32,249	17,844	6,071	1,596	2,573	31,029	66,077
1996	88,520	113,531	121,771	134,286	150,947	159,596	151,166	142,334	136,265	134,366	133,523	130,199
1997	130,445	130,834	142,824	149,151	169,842	180,300	182,590	173,444	169,100	167,009	169,999	169,999
1998	169,999	174,832	184,417	170,266	180,300	179,048	164,427	150,243	144,055	139,079	156,217	169,999
1999	170,416	172,581	169,999	158,510	157,525	180,300	177,589	168,627	163,034	158,053	169,999	169,999
2000	169,999	169,702	170,317	175,319	180,300	180,300	168,823	160,561	154,373	149,398	146,664	143,010
2001	140,505	137,672	141,300	145,822	179,763	179,899	126,492	48,298	39,352	33,519	43,625	47,499
2002	62,256	65,421	64,192	64,866	80,912	125,739	113,468	103,538	97,409	91,015	91,550	94,165
2003	100,806	130,185	152,075	161,655	180,300	179,195	162,643	117,593	109,058	106,249	112,104	118,376
2004	120,835	121,466	132,780	150,988	180,300	154,661	67,871	25,117	18,761	13,507	17,784	21,473
2005	27,069	28,013	41,356	40,491	42,269	17,762	2,095	1,461	1,348	1,838	9,335	11,896
2006	28,928	30,205	27,254	30,487	56,371	75,263	72,281	29,949	23,820	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP5.2 Bumping CC3 Adverse - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	35,781	38,848	61,660
1926	72,174	99,943	117,074	146,738	172,575	164,395	106,545	42,299	53	12,505	21,584	42,183
1927	64,933	79,317	90,077	113,627	145,478	198,000	172,427	148,097	79,916	96,209	127,183	129,025
1928	129,025	138,113	153,892	169,328	197,792	198,000	185,698	141,094	48,967	41,389	55,055	63,417
1929	68,398	70,841	77,236	86,396	116,760	138,062	112,429	71,450	3,039	4,556	1,822	6,338
1930	8,074	16,126	22,767	36,306	59,446	66,023	63,140	58,587	10,653	3,585	5,818	7,669
1931	13,597	20,357	25,953	55,820	118,519	129,180	125,328	104,558	27,266	10,911	24,889	34,848
1932	45,732	54,481	98,383	141,451	196,173	198,000	187,629	151,958	36,327	19,595	72,236	126,714
1933	131,815	144,897	146,631	153,099	182,364	198,000	184,729	144,918	35,064	10,227	41,646	175,784
1934	144,529	171,702	195,005	197,899	198,000	194,467	186,599	153,988	85,423	60,714	91,517	129,025
1935	130,581	153,111	171,865	196,278	198,000	198,000	186,016	147,666	45,096	39,082	43,404	48,154
1936	76,069	80,153	90,237	125,559	172,300	184,710	177,200	93,791	52	1,466	10	22,116
1937	24,084	25,250	29,431	51,249	105,772	135,530	109,446	46,601	46	4,911	48,956	77,916
1938	109,705	119,313	141,752	148,416	196,916	198,000	187,532	143,520	37,753	21,935	36,256	54,886
1939	83,478	93,252	116,987	145,594	188,062	192,541	177,713	92,858	42	4,850	8,721	57,419
1940	76,234	118,750	164,558	193,538	198,000	193,135	139,625	66,099	50	7,860	15,964	35,518
1941	46,462	53,738	65,544	78,287	100,106	99,512	94,444	77,870	39,403	29,750	41,603	82,677
1942	92,884	106,601	116,962	132,806	156,009	166,127	163,684	122,762	36,345	6,187	42,038	51,999
1943	59,132	67,351	81,616	125,637	168,780	198,000	191,473	161,778	48,626	31,442	36,500	49,290
1944	60,665	74,634	85,764	94,879	118,714	112,169	105,904	76,158	16,124	979	10,421	18,599
1945	47,375	69,424	90,084	113,765	175,503	180,939	174,676	134,679	67,550	43,129	54,798	67,710
1946	90,276	100,328	128,244	141,376	196,158	198,000	187,404	150,899	42,957	26,288	34,123	113,442
1947	129,025	143,572	165,954	197,270	197,998	194,123	186,527	137,802	44,355	61,220	83,038	103,944
1948	129,025	139,185	143,671	139,333	186,394	198,000	182,711	144,051	44,289	38,689	54,041	76,976
1949	83,493	88,047	101,390	139,529	196,212	197,771	174,408	118,959	3,961	6,275	19,842	44,437
1950	55,689	63,186	73,147	91,058	132,230	198,000	186,882	127,512	9,855	6,852	35,295	68,499
1951	95,984	121,697	131,781	143,441	196,304	198,000	172,281	117,534	2,884	16,218	26,809	45,748
1952	50,052	57,190	63,831	98,448	148,658	161,749	156,298	96,557	0	1,904	18	5,845
1953	34,712	69,589	82,625	102,439	147,358	179,794	187,532	145,335	47,866	33,616	45,249	98,374
1954	122,477	136,028	145,743	163,324	197,499	198,000	187,334	153,937	47,440	29,380	42,933	53,755
1955	78,657	90,709	96,796	110,537	142,177	196,668	187,238	157,002	59,027	64,483	104,113	130,255
1956	130,255	139,087	101,455	106,143	183,614	198,000	183,011	137,949	15,685	9,372	21,927	69,150
1957	75,544	82,320	93,511	130,450	197,665	195,535	179,057	134,022	35,178	35,988	48,573	71,877
1958	93,152	142,858	160,689	187,741	197,999	192,976	176,333	68,267	47	10,390	54,519	98,298
1959	129,025	142,360	152,547	171,706	197,711	198,000	181,776	127,387	23,569	22,738	58,123	85,731
1960	96,245	113,103	136,530	165,022	197,979	198,000	183,399	131,880	28,656	31,353	61,264	69,134
1961	91,454	139,549	158,266	175,061	197,828	198,000	182,623	132,457	21,059	7,597	16,106	30,125
1962	46,604	60,877	72,990	103,501	132,326	162,360	161,490	95,827	130	8,375	44,357	59,852
1963	81,373	121,471	141,487	168,099	195,933	195,021	155,913	77,236	53	10,336	27,096	35,458
1964	53,167	62,971	74,346	101,292	135,358	192,813	183,214	150,056	50,234	40,386	46,277	69,888
1965	93,192	134,900	159,341	180,287	197,748	197,999	183,673	138,598	33,539	33,332	44,315	48,496
1966	53,784	55,839	67,029	105,168	166,903	177,312	170,517	80,180	52	11,344	23,105	49,545
1967	78,751	119,571	139,124	154,627	198,000	198,000	187,532	162,985	84,321	78,085	90,264	108,771
1968	129,025	179,705	196,052	197,932	198,000	195,184	187,165	162,089	84,869	76,073	94,192	114,176
1969	123,829	127,772	137,365	152,476	197,374	195,972	187,532	148,707	70,964	60,426	73,024	90,425
1970	120,431	144,035	164,148	177,257	197,930	197,975	187,532	151,295	75,482	51,972	56,587	62,674
1971	112,664	147,374	113,465	102,942	166,332	198,000	193,099	150,009	31,416	5,697	16,170	29,451
1972	50,726	60,475	114,461	117,212	170,371	198,000	185,183	139,619	37,419	1,148	10,252	59,503
1973	84,959	96,955	115,505	131,702	150,922	148,819	133,098	31,037	45	5,772	23,910	47,952
1974	104,767	148,197	135,665	129,144	162,646	198,000	196,966	165,032	39,063	1,824	13,724	43,177
1975	80,131	90,850	101,917	117,915	165,692	198,000	185,039	155,074	32,729	14,973	29,849	129,025
1976	129,025	150,490	124,433	120,075	180,408	198,000	186,753	154,941	31,544	3,422	7,587	12,875
1977	20,253	27,862	40,528	58,617	66,150	70,628	35,348	254	75	4,899	28,373	98,407
1978	117,837	129,945	154,109	176,632	198,000	198,000	180,397	106,917	33,817	10,622	15,926	23,489
1979	25,395	27,006	40,225	60,449	119,158	128,536	105,210	67,124	42	9,664	9,910	62,993
1980	69,019	75,436	86,134	126,345	189,367	197,964	165,429	127,412	49,237	30,493	46,668	96,227
1981	118,301	163,730	181,122	197,973	198,000	197,961	169,072	112,770	36,740	37,221	51,531	73,298
1982	85,903	104,952	125,612	142,701	195,729	198,000	188,363	152,298	50,735	31,464	40,449	55,944
1983	76,788	92,616	135,042	164,657	197,992	198,000	179,977	126,476	30,782	20,272	81,339	87,611
1984	113,559	128,306	153,885	171,545	195,353	198,000	183,774	141,285	45,333	33,805	49,452	54,863
1985	57,899	58,199	61,420	85,712	131,335	153,520	135,923	63,345	59	11,540	25,256	26,793
1986	31,159	37,490	79,855	102,383	130,364	140,409	123,730	89,464	13,219	4,500	32,842	38,375
1987	43,294	55,013	76,533	102,544	161,286	163,973	130,644	98,399	20,163	534	4,497	32,734
1988	39,129	49,267	70,603	99,673	154,983	165,402	164,435	133,314	50,373	21,820	55,927	63,121
1989	73,205	77,482	84,922	126,263	192,526	198,000	164,849	141,107	56,686	35,153	50,284	67,992
1990	97,137	105,301	126,269	173,442	197,854	198,000	184,589	133,248	32,860	39,631	83,049	100,634
1991	122,462	167,392	159,066	184,437	197,901	198,000	185,264	140,654	35,051	31,039	45,816	59,282
1992	80,311	106,221	127,346	151,649	175,114	155,377	95,972	32,134	57	3,932	13,606	15,696
1993	17,295	17,406	26,937	45,320	112,481	122,332	120,326	92,903	14,252	3,360	4,829	15,306
1994	22,746	25,009	39,458	59,861	104,817	112,172	108,913	103,151	46,967	6,602	15,211	35,871
1995	42,450	74,550	97,055	117,327	171,568	175,294	168,727	137,577	58,211	44,224	82,716	129,263
1996	129,263	169,691	149,094	165,184	197,556	198,000	187,400	148,294	41,426	21,182	27,112	33,015
1997	44,636	54,022	93,376	98,918	172,490	198,000	187,839	148,425	31,832	2,879	29,180	37,481
1998	46,642	59,638	80,974	96,139	151,795	162,398	155,129	137,273	73,886	64,324	97,508	124,808
1999	131,203	147,584	154,998	152,155	181,403	198,000	185,438	149,089	25,852	3,377	38,604	66,949
2000	82,567	92,427	103,802	137,349	184,785	198,000	181,447	135,549	42,740	46,148	49,748	52,392
2001	55,897	58,896	68,977	80,541	125,732	133,179	87,733	25,477	65	8,281	33,151	49,569
2002	74,963	89,847	100,177	129,142	180,326	198,000	188,254	146,399	34,313	10,978	13,844	25,363
2003	46,207	83,250	133,609	159,771	188,012	195,112	178,068	85,197	49	10,785	22,666	36,009
2004	46,954	57,313	84,307	114,577	177,718	182,832	136,740	89,107	16,202	8,147	20,019	33,607
2005	46,889	54,997	72,676	97,799	122,256	117,601	112,232	77,702	7,410	469	19,095	29,352
2006	66,367	82,140	93,146	120,742	188,496	198,000	183,789	144,671	65,031	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP5.2 Bumping CC3 Adverse - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP5.2 Bumping CC3 Adverse - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	238,193	253,203	419,791
1926	479,031	644,434	729,785	787,061	778,507	574,700	310,033	63,300	-65,130	-33,163	11,703	88,058
1927	191,561	270,244	306,626	415,357	572,274	775,774	574,010	280,332	123,342	167,911	311,690	394,882
1928	495,766	526,338	733,051	815,688	984,401	892,322	640,143	340,367	157,991	178,323	223,023	251,027
1929	255,376	233,956	281,470	317,150	502,532	499,977	299,020	63,905	-93,131	-124,691	-130,823	-84,408
1930	-64,255	30,285	100,381	218,216	333,170	292,008	177,530	32,557	-90,581	-114,391	-95,208	-79,625
1931	-13,572	30,655	143,118	268,637	501,795	479,870	253,514	35,751	-108,821	-110,921	-34,788	8,398
1932	78,869	115,601	358,405	584,197	887,704	924,673	701,486	406,401	199,701	177,536	572,554	793,364
1933	880,297	884,031	894,654	972,797	1,086,301	1,102,371	914,130	604,246	386,986	370,749	569,999	1,121,517
1934	1,028,627	1,116,452	1,216,939	1,224,001	1,214,352	1,010,935	719,475	431,910	261,533	310,446	431,726	632,787
1935	775,950	865,740	903,936	998,405	1,111,091	1,066,872	810,835	521,791	314,830	273,236	291,344	326,352
1936	508,455	491,882	521,368	702,633	928,209	832,146	543,703	248,916	85,988	57,065	48,826	182,788
1937	178,249	173,716	211,583	383,949	628,662	663,124	410,049	121,081	-36,956	-71,263	143,428	307,886
1938	445,724	471,602	566,166	720,263	975,448	973,873	735,786	434,172	228,065	221,894	302,767	428,518
1939	601,482	619,860	699,105	848,287	908,047	731,686	474,228	191,446	29,604	30,125	62,941	355,183
1940	423,167	600,470	823,362	940,001	967,661	744,563	443,296	154,020	-6,928	-21,208	16,839	153,069
1941	219,669	258,449	328,255	361,001	416,745	321,318	161,407	7,638	-81,768	-84,430	5,927	252,233
1942	288,842	365,418	406,200	486,869	520,031	479,107	282,503	59,606	-93,672	-143,821	26,056	103,916
1943	124,453	153,945	227,083	456,571	672,461	824,721	669,156	383,652	175,727	167,900	200,849	285,680
1944	337,402	375,892	401,824	466,693	586,634	465,560	255,163	46,915	-80,485	-109,265	-66,504	-26,618
1945	113,630	233,674	283,602	381,457	707,767	653,114	392,745	106,729	-38,260	-31,739	42,702	139,499
1946	249,304	274,405	405,849	517,345	881,506	889,719	668,333	377,465	172,538	180,276	213,818	542,739
1947	621,278	694,598	825,349	985,636	1,056,357	928,066	639,709	346,222	171,393	304,045	462,303	602,309
1948	675,186	692,842	699,102	748,791	1,050,767	1,121,581	871,806	573,490	375,742	374,505	466,657	568,698
1949	571,070	564,739	633,163	805,064	1,183,861	1,169,718	909,764	578,794	323,703	285,274	377,965	534,383
1950	553,546	557,454	569,446	647,412	939,397	1,227,370	1,147,944	845,023	598,577	630,435	770,075	885,330
1951	910,669	1,002,344	971,884	992,186	1,219,065	1,214,912	950,146	614,375	357,092	337,113	396,267	468,372
1952	466,037	485,340	503,059	674,078	903,111	836,023	584,559	298,946	125,265	92,222	88,186	104,172
1953	263,885	431,052	496,288	564,000	794,440	827,264	649,884	410,074	242,540	225,744	331,749	682,659
1954	781,406	885,519	911,474	961,893	1,105,126	1,064,261	875,172	582,331	376,311	339,088	418,317	451,645
1955	537,765	560,648	546,042	563,573	751,433	1,014,884	841,670	567,084	363,297	455,464	654,636	820,180
1956	867,461	862,474	811,715	846,982	1,152,289	1,226,272	1,025,699	703,480	443,786	397,864	466,032	708,604
1957	709,983	715,671	778,999	943,006	1,200,989	1,086,308	784,497	484,433	280,141	251,803	314,439	448,126
1958	566,125	781,951	825,571	914,400	994,763	806,503	501,393	207,960	71,191	103,762	315,426	571,312
1959	752,209	781,442	866,617	1,027,753	1,145,438	1,130,937	853,873	515,442	312,245	358,702	550,340	704,296
1960	725,808	820,457	885,725	1,002,607	1,156,039	1,091,628	805,233	489,311	280,911	274,215	421,689	463,049
1961	596,441	807,227	910,335	995,831	1,187,354	1,165,613	872,766	543,177	323,650	320,337	354,387	442,420
1962	533,770	620,899	655,967	817,730	858,688	810,226	569,503	300,531	131,838	139,014	281,208	376,904
1963	456,200	623,265	693,040	749,206	732,041	566,821	318,450	66,419	-74,130	-48,951	64,649	136,223
1964	235,117	271,449	341,621	461,645	656,408	907,476	751,478	476,040	287,486	292,366	339,330	455,724
1965	553,553	735,048	822,312	1,003,002	1,110,788	1,049,031	800,005	504,494	293,372	276,720	336,570	366,234
1966	389,472	393,826	456,095	647,829	890,867	807,143	545,353	248,266	96,154	119,406	173,626	407,742
1967	595,554	740,766	803,124	784,307	965,700	971,919	735,067	451,535	274,097	290,838	352,519	499,366
1968	622,291	831,042	1,015,475	1,048,709	1,071,248	957,182	667,987	411,724	252,216	261,472	355,404	472,452
1969	482,829	464,178	503,389	666,463	982,618	970,635	682,924	386,688	237,262	222,425	268,064	367,181
1970	483,673	582,294	649,509	686,102	831,946	921,790	683,526	398,043	238,212	205,127	233,055	239,709
1971	374,835	485,942	435,007	514,896	982,356	1,167,006	1,059,375	755,642	522,805	459,841	520,640	588,619
1972	653,982	679,011	871,227	886,022	1,141,482	1,226,530	1,065,647	744,864	523,446	414,944	473,156	742,744
1973	846,373	886,003	947,082	972,702	943,623	750,861	460,207	167,892	66,802	58,908	146,590	373,233
1974	595,948	717,908	786,969	855,057	997,041	1,126,529	1,023,384	737,371	506,054	398,113	444,001	586,469
1975	719,296	733,761	755,832	801,655	1,095,593	1,187,238	988,059	692,522	444,708	497,108	670,516	966,263
1976	968,031	1,010,233	946,086	921,507	1,170,889	1,183,430	1,048,243	752,651	516,246	414,873	424,774	446,865
1977	473,844	504,848	572,244	596,626	553,178	427,449	214,215	22,413	-33,898	-48,324	90,476	476,240
1978	531,115	595,276	744,435	860,966	887,400	811,670	548,413	260,645	136,115	85,889	140,058	189,239
1979	176,947	178,188	259,711	355,836	655,277	571,050	341,515	97,158	-61,274	-73,370	-81,866	141,846
1980	156,256	185,342	263,431	458,135	740,200	679,373	438,089	155,444	-7,047	-56,780	41,663	245,311
1981	334,321	533,570	608,663	734,717	751,985	691,361	429,505	141,558	-18,940	4,203	94,356	226,202
1982	335,383	507,789	601,373	671,521	898,177	1,002,941	777,589	472,084	268,572	258,193	323,948	491,604
1983	622,933	746,461	958,479	1,048,570	1,099,042	1,003,213	748,152	447,115	255,406	209,805	437,090	464,826
1984	613,621	674,162	803,970	822,732	887,542	957,287	786,628	497,978	299,300	266,813	327,066	331,304
1985	328,207	310,067	317,337	421,787	628,129	607,101	359,119	96,793	-34,768	384	90,764	85,404
1986	123,015	170,502	393,088	488,394	625,851	570,565	309,394	52,454	-97,437	-120,563	61,057	98,744
1987	141,181	229,134	386,235	520,644	711,389	591,862	340,121	77,441	-90,239	-144,245	-112,188	-4,293
1988	25,453	113,273	241,536	386,104	575,524	524,897	305,845	70,290	-86,993	-88,807	51,645	112,232
1989	196,544	199,035	263,469	504,560	800,999	771,190	507,112	214,314	35,207	-1,848	100,358	208,637
1990	383,621	408,328	523,722	803,580	882,817	870,969	622,448	332,269	158,085	219,727	618,977	673,866
1991	733,637	936,330	948,150	1,082,169	1,153,885	1,072,295	827,756	520,437	307,494	255,845	337,413	442,164
1992	562,719	711,505	784,723	814,456	787,205	580,373	312,052	59,687	-60,356	-88,063	-39,200	-29,315
1993	-27,448	-26,480	45,764	184,567	559,004	507,801	281,796	43,093	-116,799	-150,822	-131,601	-54,875
1994	13,894	24,522	131,151	252,470	404,647	342,941	192,123	39,204	-86,131	-113,954	-72,496	50,668
1995	95,380	262,932	371,980	434,156	662,528	592,742	339,628	76,041	-92,057	-73,899	161,586	457,994
1996	574,375	678,195	699,569	877,759	992,307	955,938	723,566	438,053	237,862	230,906	259,675	277,569
1997	344,476	399,879	559,558	716,535	1,091,356	1,213,116	1,045,959	722,281	482,899	444,856	555,989	624,979
1998	692,414	796,889	914,819	949,589	1,139,762	1,028,586	743,063	452,599	273,973	245,969	382,192	547,839
1999	656,582	707,979	747,580	780,236	915,898	1,081,733	899,388	592,572	347,793	273,452	483,918	689,977
2000	728,450	757,078	829,441	988,291	1,095,601	1,026,388	759,688	472,134	277,816	256,929	267,306	263,385
2001	267,150	268,370	305,367	357,805	602,245	512,036	284,491	41,567	-72,739	-67,335	61,276	161,640
2002	272,097	323,570	343,709	505,960	824,496	982,033	752,196	431,442	217,047	165,608	193,709	235,871
2003	324,927	481,022	662,315	792,112	850,051	776,261	494,598	201,077	46,345	96,939	166,523	226,334
2004	273,120	310,023	428,202	554,271	734,085	636,617	338,617	86,225	-68,450	-95,362	-9,531	85,201
2005	169,880	198,409	322,581	455,584	593,730	454,969	254,735	42,269	-106,389	-132,041	-33,870	59,806
2006	251,113	293,014	315,027	459,067	786,462	835,422	610,782	320,176	142,710	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D-10

Scenario IP6 (KKC, KDRPP, CEPR, WDR, and BRE) under Adverse Climate Change Conditions

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP6 Full IP CC3 Adverse

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
Avg. WY 1926 to 2009	2,419	495	1,495	1,322	73.0%	252	-47	72.3%	217	-58	5,076	309
Avg. WY 1982 to 2009	2,283	440	1,451	1,237	68.5%	172	-80	67.7%	133	-90	8,184	1,000
1941 (Dry Year)	1,264	205	941	866	24.7%	-89	-189	24.5%	-89	-193	1,065	0
1994 (Dry Year)	1,417	278	809	783	10.6%	-87	-196	11.5%	-151	-200	3,637	0
2001 (Dry Year)	1,664	222	1,347	1,157	70.0%	45	-116	70.0%	28	-129	105,694	19,130
2005 (Dry Year)	1,713	277	1,254	997	49.4%	-113	-200	49.9%	-138	-200	1,747	0

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1926	1,559	186	1,393	1,153	70.0%	-6	-130	70.0%	-10	-139	34,122	0
1927	2,369	371	1,495	1,436	70.0%	177	-138	70.0%	216	-136	4,306	0
1928	2,689	644	1,528	1,467	70.0%	220	-51	70.0%	237	-50	69	0
1929	1,594	207	1,317	1,057	58.3%	-96	-161	56.3%	-135	-177	41	0
1930	1,357	226	771	772	7.9%	-89	-185	7.6%	-139	-200	1,040	0
1931	1,842	375	1,123	924	35.6%	-110	-190	35.9%	-160	-200	1,265	0
1932	3,015	730	1,606	1,228	79.5%	259	-56	79.6%	210	-68	890	0
1933	3,087	681	1,758	1,482	100.0%	513	70	100.0%	420	38	20	0
1934	2,541	611	1,514	1,669	69.4%	421	20	67.6%	365	3	466	0
1935	2,426	336	1,556	1,290	77.7%	468	58	76.1%	417	45	0	0
1936	2,111	354	1,464	1,481	70.0%	239	-35	70.0%	198	-46	0	0
1937	1,966	260	1,453	1,334	70.0%	107	-107	70.0%	55	-122	6,823	0
1938	2,877	716	1,605	1,227	79.3%	394	-5	80.8%	381	-8	2,897	0
1939	1,997	288	1,469	1,426	70.0%	187	-75	70.0%	152	-84	670	0
1940	1,900	311	1,434	1,331	70.0%	129	-124	70.0%	99	-134	12,668	0
1941	1,264	205	941	866	24.7%	-89	-189	24.5%	-89	-193	1,065	0
1942	1,705	229	1,183	966	40.5%	-94	-168	41.2%	-143	-185	20	0
1943	2,879	633	1,578	1,210	81.7%	191	-108	79.4%	150	-119	282	0
1944	1,491	206	1,126	969	39.8%	-82	-195	39.9%	-103	-200	332	0
1945	2,187	292	1,469	1,212	70.0%	-33	-194	70.0%	-87	-200	0	0
1946	2,848	599	1,569	1,205	75.6%	257	-54	70.9%	211	-63	144	0
1947	2,436	473	1,529	1,549	70.0%	297	-36	70.0%	298	-34	47	0
1948	2,965	698	1,652	1,403	91.1%	526	81	88.8%	534	81	8	0
1949	3,010	696	1,758	1,434	100.0%	458	64	100.0%	406	36	0	0
1950	3,872	1,253	1,758	1,857	100.0%	761	118	100.0%	738	103	386	0
1951	3,433	1,073	1,759	1,476	100.0%	516	76	100.0%	440	38	0	0
1952	2,262	404	1,489	1,530	70.0%	280	-18	70.0%	227	-31	957	0
1953	2,250	315	1,433	1,595	63.3%	379	-51	60.8%	357	-56	0	0
1954	2,964	649	1,697	1,441	97.4%	540	72	94.9%	505	61	0	0
1955	2,624	380	1,645	1,373	88.8%	502	74	86.6%	531	75	0	0
1956	4,099	1,632	1,758	1,579	100.0%	606	92	100.0%	509	53	0	0
1957	2,872	724	1,619	1,300	83.9%	433	70	81.1%	391	41	1,580	0
1958	1,985	313	1,466	1,427	70.0%	198	-32	70.0%	216	-33	0	0
1959	2,911	591	1,759	1,431	100.0%	467	65	100.0%	445	47	10,421	0
1960	2,508	374	1,599	1,322	88.8%	440	68	86.2%	403	61	0	0
1961	2,781	509	1,759	1,389	100.0%	426	56	100.0%	360	22	0	0
1962	2,053	314	1,475	1,449	70.0%	212	-43	70.0%	215	-50	2,594	0
1963	1,571	241	1,399	1,123	69.0%	-66	-150	67.3%	-99	-167	19,693	0
1964	2,928	548	1,696	1,372	96.6%	323	-11	94.8%	329	-7	7,170	0
1965	2,607	491	1,575	1,243	78.8%	415	56	77.4%	383	48	274	0
1966	2,197	426	1,482	1,461	70.0%	217	-39	70.0%	186	-55	0	0
1967	2,229	291	1,448	1,651	65.0%	430	-4	63.3%	397	-12	5,906	0
1968	2,359	402	1,488	1,223	70.9%	425	11	67.7%	406	4	79	0
1969	2,732	694	1,543	1,654	70.0%	395	-1	70.0%	389	-1	0	0
1970	2,345	391	1,470	1,615	66.3%	381	-5	64.2%	332	-16	0	0
1971	3,578	995	1,758	1,650	100.0%	685	79	100.0%	588	46	0	0
1972	3,727	1,229	1,758	1,649	100.0%	686	99	100.0%	592	68	248	0
1973	1,857	194	1,435	1,398	70.0%	196	-28	70.0%	175	-43	18,120	0
1974	3,421	884	1,758	1,647	100.0%	677	93	100.0%	588	62	11,332	0
1975	3,246	818	1,758	1,571	100.0%	599	95	100.0%	537	70	0	0
1976	3,813	1,297	1,758	1,660	100.0%	674	120	100.0%	581	88	0	0
1977	1,302	158	1,170	1,012	51.8%	4	-127	52.5%	-26	-143	51,691	0
1978	2,085	247	1,476	1,451	70.0%	204	-102	70.0%	157	-113	6,745	0
1979	1,743	235	1,350	1,103	59.8%	-61	-144	57.8%	-117	-162	291	0
1980	2,314	417	1,487	1,218	70.0%	-17	-164	70.0%	-62	-179	676	0
1981	2,074	315	1,474	1,210	70.0%	-29	-174	70.0%	-8	-171	1,248	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP6 Full IP CC3 Adverse

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	2,913	623	1,679	1,314	91.5%	283	-13	91.4%	251	-22	248	89
1983	2,537	466	1,532	1,231	74.1%	395	23	70.8%	346	5	573	0
1984	2,504	398	1,570	1,262	79.0%	454	21	76.7%	409	11	96	0
1985	1,779	281	1,410	1,247	70.0%	59	-113	70.0%	35	-130	25,879	1,707
1986	1,728	259	1,414	1,118	66.8%	-91	-168	64.5%	-140	-184	13,379	638
1987	2,008	343	1,388	1,069	57.9%	-91	-170	57.9%	-144	-187	454	0
1988	1,852	280	1,265	1,020	46.6%	-87	-198	46.2%	-144	-200	952	0
1989	2,480	511	1,495	1,294	70.0%	53	-156	70.0%	4	-171	241	0
1990	2,635	521	1,533	1,444	70.0%	195	-119	70.0%	185	-130	148	0
1991	2,731	556	1,584	1,279	79.8%	348	26	77.6%	295	7	363	0
1992	1,486	180	1,333	1,082	61.8%	-59	-145	61.1%	-96	-162	9,612	2,557
1993	1,800	309	1,178	956	41.1%	-115	-200	41.2%	-158	-200	10,530	0
1994	1,417	278	809	783	10.6%	-87	-196	11.5%	-151	-200	3,637	0
1995	1,948	292	1,382	1,089	61.0%	-94	-200	59.0%	-100	-196	1,271	0
1996	2,844	738	1,533	1,195	73.9%	316	-38	71.0%	267	-50	631	0
1997	3,842	1,399	1,758	1,573	100.0%	615	87	100.0%	575	66	0	0
1998	2,302	361	1,446	1,656	64.8%	433	19	63.1%	400	5	0	0
1999	2,763	432	1,708	1,481	99.9%	542	80	98.3%	515	74	0	0
2000	2,580	486	1,559	1,254	76.2%	445	78	74.8%	408	70	0	0
2001	1,664	222	1,347	1,157	70.0%	45	-116	70.0%	28	-129	105,694	19,130
2002	2,972	680	1,657	1,281	86.9%	396	0	86.9%	359	-6	16,847	869
2003	1,977	271	1,463	1,436	70.0%	198	-58	70.0%	165	-73	972	0
2004	1,895	308	1,447	1,286	70.0%	63	-138	70.0%	19	-153	11,194	0
2005	1,713	277	1,254	997	49.4%	-113	-200	49.9%	-138	-200	1,747	0
2006	2,694	534	1,533	1,434	70.0%	186	-118	70.0%	NA	NA	129	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,419	495	1,495	1,322	73.0%	252	-47	72.3%	217	-58	5,076	309

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.
5) Climate Change inflow dataset provided only extended to the end of Water Year 2006.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP6 Full IP CC3 Adverse

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	97.4%	92.2%	6.4%	15.4%	41.9%
	0 -10% Above Target[1]	0.8%	7.3%	2.6%	2.4%	14.9%
	0-10% Below Target	0.9%	0.1%	8.2%	46.6%	6.5%
	> 10% Below Target	0.9%	0.4%	82.8%	35.6%	36.7%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	49.4%	60.7%	49.7%	18.5%
	0 -10% Above Target	49.2%	24.9%	27.9%	51.0%
	0-10% Below Target	1.4%	0.9%	4.8%	11.4%
	> 10% Below Target	0.0%	13.5%	17.6%	19.1%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			10.2%	
	0 -10% Above Target			6.0%	
	0-10% Below Target			7.4%	
	> 10% Below Target			76.4%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				41.1%	
	0 -10% Above Target				12.2%	
	0-10% Below Target				15.7%	
	> 10% Below Target				31.0%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				98.6%	
	0 -10% Above Target				1.4%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	16.0%	21.0%		8.2%
	0 -10% Above Target	1.5%	2.6%		1.5%
	0-10% Below Target	6.4%	29.8%		10.8%
	> 10% Below Target	76.1%	46.6%		79.5%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			17.0%	8.8%	7.9%
	0 -10% Above Target			10.6%	1.1%	0.7%
	0-10% Below Target			27.2%	2.5%	1.1%
	> 10% Below Target			45.2%	87.6%	90.3%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			98.0%	85.8%	69.4%
	0 -10% Above Target			0.3%	6.9%	14.0%
	0-10% Below Target			0.3%	3.8%	8.3%
	> 10% Below Target			1.4%	3.5%	8.3%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			20.7%	
	0 -10% Above Target			9.5%	
	0-10% Below Target			18.4%	
	> 10% Below Target			51.4%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			97.9%	94.0%	85.8%
	0 -10% Above Target			0.4%	2.2%	7.2%
	0-10% Below Target			0.5%	1.0%	2.8%
	> 10% Below Target			1.2%	2.8%	4.2%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP6 Full IP CC3 Adverse

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	90.3%	90.2%	97.7%		57.5%
	0 -10% Above Target	4.9%	6.7%	2.2%		19.9%
	0-10% Below Target	0.1%	0.1%	0.1%		0.7%
	> 10% Below Target	4.7%	3.0%	0.0%		21.9%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	13.8%			
	0 -10% Above Target	85.6%			
	0-10% Below Target	0.0%			
	> 10% Below Target	0.6%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		>=130 cfs	>=130 cfs	>=130 cfs	>=130 cfs
Flow %	> 10% Above Target	17.5%	48.6%	85.6%	11.4%
	0 -10% Above Target	80.0%	50.8%	13.4%	77.5%
	0-10% Below Target	0.3%	0.1%	0.1%	0.3%
	> 10% Below Target	2.2%	0.5%	0.9%	10.8%

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	54.1%			
	0 -10% Above Target	2.7%			
	0-10% Below Target	3.1%			
	> 10% Below Target	40.1%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

Run: IP6 (Adverse Climate Change)

Kachess Reservoir Release (kaf)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	35.5	6.5	2.0	3.0	0.8	1.3	12.1	35.5	83.1	64.8	59.4	50.2	354.3
1927	14.7	2.3	1.8	1.3	1.2	1.0	1.5	8.9	26.8	41.1	36.9	48.9	186.2
1928	7.5	1.1	1.3	1.5	1.3	1.0	1.8	11.6	32.5	41.5	55.6	49.5	206.0
1929	8.4	2.1	2.2	2.1	5.6	1.5	2.0	15.1	36.3	47.6	58.7	49.0	230.7
1930	18.9	7.6	4.3	2.1	0.9	1.5	2.4	5.6	16.2	23.8	20.6	39.4	143.3
1931	17.2	2.8	3.0	1.6	1.4	1.0	4.1	10.2	21.9	24.4	21.1	44.0	152.7
1932	12.2	1.3	1.5	1.3	1.6	0.9	1.1	9.2	10.4	33.6	51.9	58.8	183.8
1933	14.5	0.9	2.3	2.1	3.4	2.0	1.0	18.2	15.3	38.8	59.9	76.2	234.8
1934	37.2	1.5	13.6	78.0	2.7	44.2	19.8	16.9	32.7	71.4	82.6	78.1	478.5
1935	23.6	1.8	2.7	2.2	0.9	2.6	2.3	24.5	18.6	50.9	61.7	68.3	260.2
1936	15.8	6.0	4.3	1.8	6.4	1.4	4.1	17.8	43.8	63.7	73.4	50.3	288.9
1937	15.0	9.0	3.1	2.1	2.4	1.1	2.8	11.4	33.0	56.7	47.3	49.9	233.9
1938	16.3	2.1	1.2	1.0	1.2	0.9	1.2	10.4	13.3	36.7	57.3	63.2	204.9
1939	9.0	2.6	3.0	1.0	1.8	1.4	5.4	23.4	39.5	54.8	60.9	50.6	253.4
1940	13.1	3.1	2.1	1.3	0.9	0.9	4.4	18.4	61.9	70.2	59.1	49.2	284.5
1941	14.4	6.4	1.5	1.6	1.3	1.6	2.8	7.3	28.4	32.1	35.7	38.5	171.7
1942	11.0	2.0	1.7	1.8	1.1	1.2	3.0	11.0	20.7	24.7	26.3	46.4	151.0
1943	20.1	1.5	1.1	1.8	1.5	1.3	1.6	8.8	9.5	32.9	49.5	59.1	188.6
1944	14.2	2.2	1.9	1.9	1.6	1.5	2.2	9.4	37.2	43.3	48.8	43.4	207.7
1945	8.8	4.3	2.1	1.4	1.0	1.1	1.6	8.0	29.8	37.8	39.0	48.3	183.2
1946	6.9	1.1	1.5	1.1	1.4	0.9	1.3	6.7	10.1	30.1	45.9	58.9	165.9
1947	11.6	2.1	2.7	3.0	1.0	0.9	3.0	20.7	36.7	51.9	65.4	49.4	248.5
1948	5.4	1.3	1.1	2.5	3.7	2.8	1.9	6.4	9.2	40.6	71.4	67.3	213.6
1949	9.2	2.7	2.1	4.2	3.8	1.1	3.2	9.4	18.7	56.1	76.6	85.4	272.5
1950	41.6	4.0	2.3	4.9	4.7	4.7	1.3	2.1	2.7	58.6	73.9	86.4	287.3
1951	31.2	2.5	21.6	17.2	3.6	19.3	31.8	22.2	21.4	59.2	73.2	87.6	390.7
1952	45.2	3.4	3.4	4.3	4.1	3.0	1.6	17.8	44.0	67.6	82.9	51.1	328.5
1953	16.0	8.6	7.3	2.4	0.8	1.1	3.6	10.3	34.6	48.1	55.5	47.6	236.1
1954	9.2	1.3	0.9	3.0	3.2	1.0	3.3	17.6	16.9	37.8	67.1	70.8	232.1
1955	15.2	5.8	3.1	2.1	3.8	5.1	10.0	8.2	9.1	36.0	57.3	70.1	225.7
1956	9.2	1.5	1.2	2.3	5.8	15.3	27.9	25.1	22.1	45.9	72.6	86.0	314.9
1957	45.3	3.2	7.3	3.6	2.6	0.9	5.3	21.5	23.5	63.7	73.9	69.0	319.7
1958	32.1	3.4	1.9	1.8	0.8	1.6	7.1	28.2	42.0	64.6	81.9	50.8	316.2
1959	11.3	1.2	1.4	1.1	2.7	0.9	1.3	16.5	18.3	49.5	75.1	77.5	256.8
1960	26.4	3.9	1.8	4.3	1.4	2.2	5.0	17.4	17.9	55.5	76.1	71.0	283.0
1961	11.4	1.7	2.4	1.9	0.9	0.9	6.8	21.8	23.7	56.4	81.8	91.4	301.1
1962	46.1	4.9	2.3	2.2	1.2	2.3	4.1	25.0	38.3	58.0	68.7	50.8	304.0
1963	13.5	3.4	1.2	4.2	1.4	1.8	6.6	26.3	47.2	59.5	59.3	50.1	274.5
1964	20.0	1.1	1.4	1.0	1.1	1.0	2.9	6.0	6.0	37.7	54.6	62.1	194.9
1965	3.3	2.6	1.7	5.6	0.8	1.2	1.1	17.3	17.3	34.1	50.9	68.2	204.2
1966	12.8	4.3	3.8	4.8	2.8	1.9	4.7	14.3	40.8	69.9	78.2	51.0	289.2
1967	19.2	1.6	1.7	0.9	0.8	0.9	8.3	14.4	28.5	40.2	60.6	55.1	232.4
1968	10.7	3.8	3.1	2.1	1.7	1.3	5.1	22.1	17.7	41.4	68.6	67.8	245.5
1969	12.6	2.4	1.8	5.4	6.8	2.5	1.7	7.9	33.0	63.5	79.0	53.1	269.7
1970	6.3	4.4	2.3	2.9	0.9	1.3	6.8	9.9	27.7	43.0	71.4	52.9	229.8
1971	13.8	2.0	2.7	1.6	1.2	5.4	0.9	1.0	8.1	40.3	77.0	82.0	235.9
1972	40.1	3.5	1.7	1.7	4.2	0.9	12.8	28.5	29.7	41.6	75.6	83.4	323.4
1973	37.7	3.8	6.5	9.2	3.0	1.4	10.8	28.9	43.7	68.5	85.5	51.1	350.1
1974	19.2	1.8	0.9	2.7	0.8	0.9	1.7	14.7	18.3	31.6	81.6	76.8	251.1
1975	37.9	2.8	2.0	1.6	3.6	2.4	2.1	2.5	18.5	41.0	75.5	83.3	273.1
1976	31.3	2.0	23.0	44.6	3.4	32.3	27.6	25.2	18.1	34.1	69.3	74.9	385.9
1977	39.5	5.3	4.3	5.2	3.4	1.6	16.5	37.6	72.3	59.2	60.6	44.1	349.5
1978	19.2	1.8	1.2	1.3	1.0	1.0	3.0	18.1	30.9	41.6	56.2	47.0	222.3
1979	13.7	2.0	1.5	3.0	1.7	1.1	2.7	8.9	32.7	35.5	32.4	48.9	184.2
1980	20.0	7.0	2.2	1.9	1.9	0.9	1.3	8.9	28.4	37.8	38.2	48.7	197.3
1981	16.7	1.5	1.4	1.5	1.1	1.0	2.4	15.6	26.3	40.7	55.2	49.4	212.8
1982	7.2	1.5	1.0	1.4	1.1	0.9	1.8	8.6	11.1	38.7	56.6	62.3	192.2
1983	13.6	1.8	1.7	2.0	0.9	0.9	6.7	23.0	18.3	35.2	54.4	64.8	223.2
1984	19.9	1.1	4.1	2.6	0.9	0.9	8.0	19.3	14.4	34.1	52.8	66.0	224.3
1985	13.4	2.4	4.8	4.0	6.4	4.2	6.9	15.3	33.7	58.1	59.8	50.3	259.2
1986	19.0	1.6	2.6	2.8	1.9	0.9	2.7	10.1	32.0	41.9	44.8	47.5	207.7
1987	20.4	2.6	1.7	1.4	0.9	0.9	3.4	13.2	32.6	35.5	47.6	48.9	209.2
1988	20.8	7.2	2.0	1.8	1.0	0.9	3.5	10.6	28.2	30.0	26.4	46.3	178.8
1989	2.8	1.0	1.5	1.1	1.7	1.4	1.3	9.3	28.5	40.2	37.4	50.7	176.9
1990	18.6	1.9	1.8	1.1	1.1	0.9	1.2	11.5	26.2	42.1	38.5	49.6	194.6
1991	14.4	0.9	1.1	2.4	1.3	0.9	2.1	17.4	16.9	37.5	57.6	68.7	221.3
1992	22.4	2.9	3.0	1.5	0.9	2.5	15.9	36.6	73.3	61.5	58.7	47.2	326.3
1993	18.7	4.4	2.2	6.1	1.8	1.4	2.6	5.0	28.4	47.2	51.5	30.7	199.9
1994	2.0	4.5	1.7	1.5	1.5	0.9	1.2	2.7	16.4	22.0	22.6	39.4	116.4
1995	5.1	2.2	1.5	1.4	0.9	1.2	3.4	12.0	31.4	36.2	42.7	47.1	185.0
1996	3.5	1.3	1.2	1.2	1.3	1.2	1.7	13.0	12.1	33.8	52.4	59.1	181.8
1997	13.7	2.4	3.0	1.5	1.2	1.0	0.9	2.2	7.6	35.3	67.4	83.3	219.3
1998	29.1	2.5	1.9	2.0	0.8	1.1	6.3	25.4	38.0	58.6	75.5	78.6	319.7
1999	20.8	2.3	1.4	1.1	1.5	1.0	2.4	18.7	15.7	39.3	72.7	71.0	247.8
2000	12.6	2.0	1.8	2.2	2.2	0.9	5.7	25.4	23.2	41.1	74.5	67.3	259.0
2001	12.0	5.4	7.1	6.6	4.0	2.9	12.4	23.3	60.5	74.2	61.3	51.0	320.7
2002	15.9	3.0	1.3	1.2	1.2	1.0	1.5	6.2	10.1	37.0	55.5	64.4	198.3
2003	10.3	6.7	4.7	3.3	0.9	1.5	4.6	24.7	30.6	48.7	62.8	50.7	249.6
2004	17.2	1.7	1.2	2.0	1.5	0.9	6.2	17.4	35.9	46.6	54.9	47.6	233.2
2005	18.1	1.5	1.4	1.8	1.2	1.0	1.7	12.0	45.4	49.5	59.5	40.2	233.2
2006	3.9	1.6	2.2	1.0	1.7	0.9	1.1	5.1	25.7	40.3	37.3	49.9	170.8
2007	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	17.2	2.9	2.9	3.9	2.0	2.7	5.0	14.7	26.7	44.0	56.7	56.7	235.3

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC3 Adverse

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	355	967	844	131
1927	239	39	29	22	21	16	25	144	450	669	600	821	186
1928	122	15	17	24	22	14	-	-	-	-	35	832	65
1929	137	36	36	34	102	24	33	64	207	775	955	823	196
1930	308	128	69	34	16	25	40	91	273	387	335	662	143
1931	280	47	48	26	25	16	69	165	368	397	343	740	153
1932	198	22	23	21	28	15	18	40	-	-	-	933	78
1933	235	8	1	-	-	-	-	-	-	-	-	-	15
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	581	35
1937	244	151	49	35	44	18	5	-	-	177	769	838	141
1938	266	33	17	17	22	8	-	-	-	-	-	67	26
1939	147	19	-	-	-	-	-	-	-	-	379	850	84
1940	213	51	33	21	10	-	-	-	-	258	961	827	144
1941	234	107	23	26	24	26	48	119	478	522	581	647	172
1942	180	33	27	30	20	19	51	178	348	401	428	781	151
1943	327	22	18	29	27	21	26	143	110	17	805	994	154
1944	231	37	30	30	28	24	38	153	625	704	793	730	208
1945	142	72	34	22	18	18	27	131	500	615	635	812	183
1946	113	18	21	18	25	15	22	66	-	-	-	899	72
1947	187	35	13	-	-	-	-	-	-	-	-	605	50
1948	86	9	-	-	-	-	-	-	-	-	-	-	6
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	283	17
1953	260	145	119	39	2	-	-	-	-	-	45	801	85
1954	149	21	2	-	-	-	-	-	-	-	-	-	11
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	522	31
1959	182	16	5	-	-	-	-	-	-	-	-	-	12
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	722	43
1963	219	56	20	4	-	-	-	-	-	698	965	842	171
1964	324	18	23	17	20	16	49	93	-	-	-	167	44
1965	52	42	-	-	-	-	-	-	-	-	-	-	6
1966	-	-	-	-	-	-	-	-	-	-	-	659	39
1967	311	26	27	-	-	-	-	-	-	-	-	72	27
1968	173	16	-	-	-	-	-	-	-	-	-	-	12
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	103	10	-	-	-	-	-	-	-	-	-	73	11
1971	224	34	43	11	-	-	-	-	-	-	-	-	19
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	444	26
1974	312	30	8	-	-	-	-	-	-	-	-	-	22
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	479	986	741	134
1978	312	30	12	20	18	9	-	-	-	73	915	789	132
1979	223	34	24	49	31	18	45	145	550	577	527	821	184
1980	325	117	35	31	34	15	22	145	477	614	621	819	197
1981	272	24	21	25	20	17	41	253	442	662	898	830	213
1982	117	25	13	24	20	15	30	3	-	-	-	200	27
1983	221	29	2	-	-	-	-	-	-	-	-	-	15
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	65	973	845	114
1986	309	26	42	46	34	15	45	164	538	681	729	798	208
1987	332	42	28	23	15	15	57	215	548	578	775	822	209
1988	339	121	31	29	18	15	58	172	475	488	429	778	179
1989	43	17	24	18	31	22	22	151	480	654	609	853	177
1990	302	32	28	18	20	15	20	27	-	543	626	833	150
1991	235	12	15	17	-	-	-	-	-	-	-	-	17
1992	-	-	-	-	-	-	-	-	-	677	955	793	148
1993	304	74	35	99	33	23	44	81	478	767	837	516	200
1994	32	76	27	24	26	15	21	44	276	358	367	663	116
1995	83	36	22	22	17	19	57	196	527	589	694	792	185
1996	56	18	14	20	23	19	5	-	-	-	-	633	47
1997	223	40	48	24	18	-	-	-	-	-	-	-	22
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	65	998	857	116
2002	259	50	18	19	21	17	25	3	-	-	-	-	25
2003	150	113	76	2	-	-	-	-	-	-	101	853	78
2004	280	28	20	33	26	13	-	-	-	701	894	801	170
2005	295	25	21	29	21	16	28	196	763	805	968	675	233
2006	64	27	33	17	31	15	19	84	19	534	607	838	139
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	135	28	16	13	11	7	12	40	110	196	298	437	79

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC3 Adverse

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	2	8	21	-	110	31	-	-	-	-	-	11
1927	-	-	-	-	-	-	-	105	22	-	-	-	8
1928	-	-	-	68	60	297	400	314	-	10	201	-	82
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	28	-	-	-	-	-	2
1932	-	-	-	-	-	52	400	400	144	304	115	-	86
1933	-	30	366	400	115	11	234	26	-	318	338	0	112
1934	-	6	284	400	23	138	-	-	-	359	335	13	96
1935	51	10	110	400	329	13	-	-	-	358	216	-	89
1936	-	2	21	9	56	4	-	206	42	69	218	-	38
1937	-	-	-	-	-	-	-	61	-	81	-	-	9
1938	-	-	-	271	4	239	262	349	-	297	22	-	88
1939	-	11	20	0	11	5	182	-	-	59	81	-	22
1940	-	-	-	2	295	400	182	46	-	82	-	-	60
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	0	-	181	32	80	-	-	-	-	-	17
1943	-	-	-	-	-	-	225	307	9	302	-	-	51
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	212	52	-	-	-	16
1946	-	-	-	-	-	254	280	400	120	266	114	-	87
1947	-	-	108	78	238	269	285	-	-	13	136	-	67
1948	-	4	36	197	32	20	166	323	-	400	400	13	97
1949	18	17	11	30	28	1	17	-	-	400	400	17	58
1950	57	33	15	42	44	40	-	165	13	331	400	319	89
1951	266	354	261	31	22	67	1	-	-	376	400	18	110
1952	63	28	28	37	40	22	296	262	144	72	320	12	80
1953	-	-	-	-	-	2	-	247	-	31	206	-	30
1954	-	-	232	400	273	272	156	-	-	271	309	-	116
1955	-	3	19	11	29	37	-	-	77	316	367	2	53
1956	7	6	232	12	41	11	-	-	-	373	400	18	67
1957	57	27	272	400	148	0	-	-	-	400	400	13	105
1958	6	25	9	8	279	210	-	-	12	75	172	-	47
1959	-	-	21	397	245	246	93	-	-	386	364	2	106
1960	4	30	186	119	166	10	-	-	-	400	400	13	81
1961	-	8	13	13	301	-	-	-	-	400	400	20	69
1962	59	44	14	15	270	58	243	2	-	56	103	-	51
1963	-	-	-	36	7	35	242	-	-	4	-	-	19
1964	-	-	-	-	-	33	248	178	400	396	397	13	101
1965	-	-	9	50	129	141	272	129	-	193	135	-	64
1966	13	33	26	36	20	9	-	169	-	103	242	-	40
1967	-	-	-	338	296	56	8	32	13	4	240	13	60
1968	-	25	21	13	211	400	95	-	-	202	18	2	60
1969	6	15	9	47	65	16	-	387	192	49	307	13	67
1970	-	34	12	21	140	158	153	-	-	20	291	13	51
1971	-	-	-	4	4	49	-	323	83	400	400	17	78
1972	36	30	229	32	95	253	-	-	-	350	400	18	88
1973	28	34	277	314	25	4	-	-	133	99	215	-	69
1974	-	-	-	112	286	217	400	4	-	339	396	15	106
1975	33	18	10	6	30	15	43	133	-	400	400	18	68
1976	7	201	400	250	17	155	-	-	-	377	397	14	111
1977	35	44	29	40	26	6	-	-	-	-	-	-	11
1978	-	-	206	138	93	192	208	6	-	9	-	-	51
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	85	184	-	-	-	-	16
1981	-	-	-	-	143	190	225	20	-	-	-	-	34
1982	-	-	-	-	143	297	99	375	266	327	223	-	105
1983	-	-	8	11	130	400	265	-	-	192	-	-	61
1984	-	-	33	18	0	205	181	-	-	239	19	-	42
1985	-	3	37	0	-	-	-	-	-	51	-	-	6
1986	-	-	-	-	-	-	-	41	-	-	-	-	2
1987	-	-	-	-	-	323	253	11	-	-	-	-	36
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	231	380	-	-	-	-	37
1990	-	-	-	-	-	-	347	211	9	-	-	-	34
1991	-	24	250	196	348	271	372	262	-	259	19	-	120
1992	-	1	21	6	69	115	-	-	-	-	-	-	13
1993	-	-	-	-	-	-	-	64	-	-	-	-	4
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	259	88	-	-	-	-	-	21
1996	-	-	224	320	185	48	356	318	-	266	-	-	104
1997	-	-	-	-	-	1	173	374	-	400	400	17	84
1998	13	18	205	318	144	1	-	-	-	272	288	13	77
1999	71	15	5	293	79	69	34	120	-	370	400	13	90
2000	10	11	161	55	21	-	-	-	-	290	397	13	59
2001	13	42	52	51	16	0	-	-	-	41	-	-	13
2002	-	-	-	-	-	-	133	378	400	359	257	-	93
2003	-	-	-	25	1	6	325	-	-	34	109	-	30
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	13	332	1	-	-	-	-	21
2006	-	-	-	-	104	-	196	349	155	-	-	-	48
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	11	15	55	75	75	83	110	97	28	159	158	8	53

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC3 Adverse

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	107	31	-	-	-	-	-	8
1927	-	-	-	-	-	-	-	105	22	-	-	-	8
1928	-	-	-	68	60	297	400	314	-	-	-	-	69
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	28	-	-	-	-	-	2
1932	-	-	-	-	-	52	400	400	144	-	-	-	60
1933	-	30	349	386	87	-	234	26	-	48	-	-	70
1934	-	-	129	-	-	-	-	-	-	218	-	-	21
1935	-	-	90	386	328	-	-	-	-	22	-	-	49
1936	-	-	-	-	-	-	-	206	42	-	-	-	15
1937	-	-	-	-	-	-	-	61	-	-	-	-	4
1938	-	-	-	271	4	239	262	349	-	-	-	-	69
1939	-	-	-	-	-	-	182	-	-	-	-	-	11
1940	-	-	-	2	295	400	182	46	-	-	-	-	55
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	0	-	181	32	80	-	-	-	-	-	17
1943	-	-	-	-	-	-	225	307	9	-	-	-	33
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	212	52	-	-	-	16
1946	-	-	-	-	-	254	280	400	120	-	-	-	64
1947	-	-	93	53	236	269	285	-	-	-	-	-	56
1948	-	-	34	179	-	-	166	323	-	71	-	-	47
1949	-	-	-	-	-	-	17	-	-	77	-	-	6
1950	-	-	-	-	-	-	-	165	13	32	-	300	31
1951	239	338	261	-	-	-	1	-	-	86	-	-	56
1952	-	-	-	-	5	-	296	262	144	-	-	-	43
1953	-	-	-	-	-	-	-	247	-	-	-	-	15
1954	-	-	232	375	245	271	156	-	-	27	-	-	79
1955	-	-	-	-	-	-	-	-	77	56	-	-	8
1956	-	-	230	-	-	-	-	-	-	206	-	-	27
1957	-	-	178	372	131	-	-	-	-	45	-	-	44
1958	-	-	-	-	279	204	-	-	12	-	-	-	29
1959	-	-	17	395	225	246	93	-	-	112	-	-	65
1960	-	-	176	87	161	-	-	-	-	106	-	-	32
1961	-	-	-	3	300	-	-	-	-	191	-	-	29
1962	-	-	-	-	267	44	243	2	-	-	-	-	32
1963	-	-	-	-	-	25	242	-	-	-	-	-	16
1964	-	-	-	-	-	33	248	178	400	4	-	-	52
1965	-	-	-	-	129	138	272	129	-	-	-	-	40
1966	-	-	-	-	-	-	-	169	-	-	-	-	10
1967	-	-	-	338	296	56	8	32	13	-	-	-	44
1968	-	-	-	-	201	396	95	-	-	-	-	-	42
1969	-	-	-	-	-	-	-	387	192	-	-	-	35
1970	-	-	-	-	140	155	153	-	-	-	-	-	26
1971	-	-	-	-	-	-	-	323	83	86	-	-	30
1972	-	-	221	24	60	253	-	-	-	219	3	-	48
1973	-	0	199	183	-	-	-	-	133	-	-	-	31
1974	-	-	-	93	286	217	400	4	-	233	-	-	73
1975	-	-	-	-	-	0	43	133	-	273	0	-	28
1976	-	189	201	-	-	-	-	-	-	332	68	-	48
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	206	138	93	192	208	6	-	-	-	-	51
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	85	184	-	-	-	-	16
1981	-	-	-	-	143	190	225	20	-	-	-	-	34
1982	-	-	-	-	143	297	99	375	266	-	-	-	71
1983	-	-	-	-	129	400	265	-	-	-	-	-	47
1984	-	-	-	-	-	205	181	-	-	-	-	-	23
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	41	-	-	-	-	2
1987	-	-	-	-	-	323	253	11	-	-	-	-	36
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	231	380	-	-	-	-	37
1990	-	-	-	-	-	-	347	211	9	-	-	-	34
1991	-	24	250	183	343	271	372	262	-	-	-	-	102
1992	-	-	-	-	69	99	-	-	-	-	-	-	10
1993	-	-	-	-	-	-	-	64	-	-	-	-	4
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	259	88	-	-	-	-	-	21
1996	-	-	224	320	185	48	356	318	-	-	-	-	88
1997	-	-	-	-	-	-	173	374	-	181	18	-	46
1998	-	-	194	308	144	-	-	-	-	257	-	-	55
1999	-	-	-	291	72	68	34	120	-	112	-	-	42
2000	-	-	152	44	10	-	-	-	-	206	-	-	25
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	133	378	400	46	-	-	58
2003	-	-	-	-	-	-	325	-	-	-	-	-	19
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	13	332	1	-	-	-	-	21
2006	-	-	-	-	104	-	196	349	155	-	-	-	48
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	3	7	42	56	66	75	110	97	28	40	1	4	32

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC3 Adverse

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	2	8	21	-	3	-	-	-	-	-	-	2
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	10	201	-	13
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	304	115	-	26
1933	-	-	17	14	28	11	-	-	-	270	338	0	42
1934	-	6	155	400	23	138	-	-	-	141	335	13	74
1935	51	10	20	14	1	13	-	-	-	336	216	-	41
1936	-	2	21	9	56	4	-	-	-	69	218	-	23
1937	-	-	-	-	-	-	-	-	-	81	-	-	5
1938	-	-	-	-	-	-	-	-	-	297	22	-	20
1939	-	11	20	0	11	5	-	-	-	59	81	-	11
1940	-	-	-	-	-	-	-	-	-	82	-	-	5
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	302	-	-	19
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	266	114	-	23
1947	-	-	16	24	2	-	-	-	-	13	136	-	12
1948	-	4	2	18	32	20	-	-	-	329	400	13	50
1949	18	17	11	30	28	1	-	-	-	323	400	17	52
1950	57	33	15	42	44	40	-	-	-	298	400	19	58
1951	27	16	-	31	22	67	-	-	-	291	400	18	53
1952	63	28	28	37	36	22	-	-	-	72	320	12	38
1953	-	-	-	-	-	2	-	-	-	31	206	-	15
1954	-	-	-	25	28	1	-	-	-	244	309	-	37
1955	-	3	19	11	29	37	-	-	-	260	367	2	45
1956	7	6	3	12	41	11	-	-	-	167	400	18	41
1957	57	27	94	28	17	0	-	-	-	355	400	13	61
1958	6	25	9	8	-	6	-	-	-	75	172	-	18
1959	-	-	4	2	20	-	-	-	-	274	364	2	41
1960	4	30	9	32	5	10	-	-	-	294	400	13	49
1961	-	8	13	10	1	-	-	-	-	209	400	20	41
1962	59	44	14	15	4	14	-	-	-	56	103	-	19
1963	-	-	-	36	7	10	-	-	-	4	-	-	3
1964	-	-	-	-	-	-	-	-	-	392	397	13	49
1965	-	-	9	50	-	3	-	-	-	193	135	-	24
1966	13	33	26	36	20	9	-	-	-	103	242	-	29
1967	-	-	-	0	-	0	-	-	-	4	240	13	16
1968	-	25	21	13	10	4	-	-	-	202	18	2	18
1969	6	15	9	47	65	16	-	-	-	49	307	13	32
1970	-	34	12	21	1	3	-	-	-	20	291	13	24
1971	-	-	-	4	4	49	-	-	-	314	400	17	48
1972	36	30	8	8	35	-	-	-	-	131	397	18	41
1973	28	34	78	131	25	4	-	-	-	99	215	-	38
1974	-	-	-	20	-	-	-	-	-	106	396	15	33
1975	33	18	10	6	30	15	-	-	-	127	400	18	40
1976	7	12	199	250	17	155	-	-	-	45	329	14	63
1977	35	44	29	40	26	6	-	-	-	-	-	-	11
1978	-	-	-	-	-	-	-	-	-	9	-	-	1
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	327	223	-	34
1983	-	-	8	11	1	-	-	-	-	192	-	-	13
1984	-	-	33	18	0	-	-	-	-	239	19	-	19
1985	-	3	37	0	-	-	-	-	-	51	-	-	6
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	12	5	-	-	-	-	259	19	-	18
1992	-	1	21	6	-	16	-	-	-	-	-	-	3
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	266	-	-	16
1997	-	-	-	-	-	1	-	-	-	219	382	17	38
1998	13	18	11	10	-	1	-	-	-	15	288	13	23
1999	71	15	5	2	7	1	-	-	-	258	400	13	47
2000	10	11	9	11	12	-	-	-	-	84	397	13	33
2001	13	42	52	51	16	0	-	-	-	41	-	-	13
2002	-	-	-	-	-	-	-	-	-	313	257	-	35
2003	-	-	-	25	1	6	-	-	-	34	109	-	11
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	8	7	13	20	9	9	-	-	-	119	157	4	21

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC3 Adverse

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26	-	-	-	-	-	10,122	44,301	45,402	56,476	56,343	18,172	230,842
1927	26	-	-	-	-	-	10,373	41,951	45,071	59,531	59,978	18,172	235,102
1928	26	-	-	-	-	-	10,375	44,324	45,313	59,463	58,979	17,132	235,614
1929	26	-	-	-	-	-	9,456	44,682	45,327	52,998	50,299	15,583	218,371
1930	26	-	-	-	-	-	2,818	9,800	9,331	9,964	10,668	4,918	47,525
1931	26	-	-	-	-	-	7,905	32,625	31,363	35,055	34,283	11,639	152,895
1932	26	-	-	-	-	-	10,375	44,201	43,710	55,534	53,312	36,010	243,169
1933	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,094	45,029	266,802
1934	18,446	-	-	-	-	-	10,375	43,296	45,609	59,312	58,956	17,768	253,763
1935	26	-	-	-	-	-	7,675	44,609	45,402	54,454	50,989	34,589	237,744
1936	26	-	-	-	-	-	10,384	44,292	45,402	59,463	59,048	17,132	235,747
1937	26	-	-	-	-	-	10,122	44,301	45,402	59,531	59,978	18,172	237,532
1938	26	-	-	-	-	-	10,375	44,288	43,320	55,567	53,076	36,447	243,100
1939	26	-	-	-	-	-	10,403	43,279	45,402	59,531	59,308	18,172	236,121
1940	26	-	-	-	-	-	10,423	41,972	45,402	57,167	54,860	17,132	226,983
1941	26	-	-	-	-	-	4,663	20,673	22,334	25,090	25,369	9,002	107,157
1942	26	-	-	-	-	-	10,104	34,934	35,016	39,398	38,202	12,647	170,327
1943	26	-	-	-	-	-	10,375	42,189	45,402	56,301	53,036	35,873	243,202
1944	26	-	-	-	-	-	7,879	33,203	34,494	38,995	36,980	11,822	163,399
1945	26	-	-	-	-	-	10,077	42,897	44,107	59,531	59,978	18,172	234,788
1946	26	-	-	-	-	-	10,375	44,288	44,852	52,892	48,539	32,608	233,582
1947	26	-	-	-	-	-	10,376	44,288	45,247	59,531	59,931	18,172	237,571
1948	26	-	-	-	-	-	10,375	44,288	45,402	59,453	58,648	39,611	257,804
1949	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1950	18,446	-	-	-	-	-	10,375	44,288	45,198	59,587	62,114	45,029	285,038
1951	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1952	18,446	-	-	-	-	-	10,375	43,942	45,402	59,463	59,048	17,132	253,809
1953	26	-	-	-	-	-	7,041	43,330	45,481	56,520	54,157	16,497	223,053
1954	26	-	-	-	-	-	10,375	44,288	45,402	59,996	62,088	41,989	264,165
1955	26	-	-	-	-	-	10,375	44,288	45,402	58,745	57,262	38,721	254,820
1956	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1957	18,446	-	-	-	-	-	10,375	44,288	44,613	56,912	53,946	36,556	265,137
1958	26	-	-	-	-	-	10,221	44,139	45,402	59,531	59,978	18,172	237,470
1959	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1960	18,446	-	-	-	-	-	10,401	43,937	41,152	58,747	57,165	38,623	268,471
1961	26	-	-	-	-	-	10,375	44,288	45,403	59,587	62,114	45,029	266,822
1962	21,210	-	-	-	-	-	10,375	43,771	45,402	59,531	59,328	18,172	257,790
1963	26	-	-	-	-	-	9,072	44,301	45,402	56,121	56,766	17,703	229,392
1964	26	-	-	-	-	-	10,375	44,288	45,378	59,957	61,948	41,952	263,924
1965	26	-	-	-	-	-	10,376	43,952	45,402	55,027	51,408	35,113	241,305
1966	26	-	-	-	-	-	10,254	42,588	44,980	59,531	59,978	18,172	235,529
1967	26	-	-	-	-	-	6,974	42,487	45,425	57,768	55,972	16,969	225,621
1968	26	-	-	-	-	-	9,471	43,286	45,557	52,258	58,728	16,871	226,196
1969	26	-	-	-	-	-	10,375	44,291	44,433	59,531	59,978	18,172	236,806
1970	26	-	-	-	-	-	9,813	43,224	45,483	58,446	56,807	17,173	230,972
1971	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1972	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1973	18,446	-	-	-	-	-	10,122	44,301	45,402	59,531	59,978	18,172	255,953
1974	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1975	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1976	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1977	18,446	-	-	-	-	-	8,290	40,004	41,505	47,906	45,766	14,643	216,560
1978	26	-	-	-	-	-	10,402	43,882	45,402	59,531	58,104	18,172	235,519
1979	26	-	-	-	-	-	9,964	44,661	45,838	54,072	51,470	15,890	221,920
1980	26	-	-	-	-	-	10,375	43,372	45,061	59,463	59,048	17,131	234,475
1981	26	-	-	-	-	-	10,371	44,152	45,402	59,531	58,732	18,172	236,386
1982	26	-	-	-	-	-	10,375	44,411	45,402	59,411	60,264	40,677	260,567
1983	26	-	-	-	-	-	10,130	43,835	44,930	51,846	47,851	32,580	231,199
1984	26	-	-	-	-	-	9,922	44,446	45,402	54,795	51,100	34,782	240,474
1985	26	-	-	-	-	-	10,122	44,301	45,402	58,412	57,207	18,172	233,642
1986	26	-	-	-	-	-	10,265	44,321	45,415	58,709	57,101	17,205	233,042
1987	26	-	-	-	-	-	10,445	43,996	45,744	54,405	51,615	15,923	222,155
1988	26	-	-	-	-	-	10,375	39,287	39,830	44,730	42,072	12,954	189,273
1989	26	-	-	-	-	-	10,375	42,993	45,402	59,531	59,747	18,162	236,237
1990	26	-	-	-	-	-	10,375	44,308	44,076	59,531	59,978	18,172	236,467
1991	26	-	-	-	-	-	10,375	44,106	44,681	55,300	51,399	35,144	241,031
1992	26	-	-	-	-	-	10,435	44,598	45,697	54,347	52,869	15,519	223,490
1993	26	-	-	-	-	-	8,507	37,997	35,438	40,101	38,514	9,239	169,821
1994	-	-	-	-	-	-	3,148	11,437	11,614	12,410	13,522	5,838	57,967
1995	26	-	-	-	-	-	10,122	44,341	45,748	54,977	52,386	15,966	223,565
1996	-	-	-	-	-	-	10,375	43,881	45,414	52,129	47,463	32,565	231,827
1997	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1998	18,446	-	-	-	-	-	7,260	43,956	45,462	57,497	55,562	16,898	245,082
1999	26	-	-	-	-	-	10,375	44,288	45,402	59,874	62,692	43,270	265,928
2000	26	-	-	-	-	-	10,375	44,302	45,405	53,640	49,994	34,019	237,762
2001	26	-	-	-	-	-	10,122	44,301	45,402	54,596	55,818	18,172	228,438
2002	26	-	-	-	-	-	10,375	44,118	45,497	58,035	57,328	38,813	254,193
2003	26	-	-	-	-	-	10,122	44,301	45,402	59,531	59,006	18,172	236,560
2004	26	-	-	-	-	-	9,941	44,292	45,402	59,439	54,116	16,914	230,130
2005	26	-	-	-	-	-	8,825	40,922	41,689	47,695	45,201	12,859	197,218
2006	-	-	-	-	-	-	10,375	44,288	44,799	59,531	59,978	18,172	237,144
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	3,015	-	-	-	-	-	9,743	42,274	43,357	54,919	54,428	25,860	233,597

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC3 Adverse

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	1,075	-	-	-	-	9,848	27,761	39,773	49,757	49,896	48,680	31,821	258,611
1927	1,075	-	-	-	-	9,848	33,305	44,741	49,577	49,896	48,680	31,821	268,943
1928	1,075	-	-	-	-	9,848	33,502	46,636	50,471	49,896	48,680	31,821	271,930
1929	1,075	-	-	-	-	9,848	23,828	32,558	40,723	41,280	39,791	25,753	214,855
1930	1,075	-	-	-	-	9,848	13,289	5,049	5,731	5,583	6,289	3,705	50,568
1931	1,075	-	-	-	-	9,848	27,261	22,247	25,505	25,837	25,819	16,548	154,140
1932	1,075	-	-	-	-	9,848	33,740	46,545	51,228	57,643	56,415	35,841	292,335
1933	1,075	-	-	-	-	9,848	33,738	46,592	52,490	60,108	59,321	39,294	302,467
1934	20,709	-	-	-	-	9,848	33,741	44,565	49,744	49,120	47,437	30,854	286,019
1935	1,075	-	-	-	-	9,848	32,268	45,584	53,523	55,262	53,547	34,537	285,644
1936	1,075	-	-	-	-	9,848	26,937	39,771	49,757	49,896	48,680	31,821	257,786
1937	1,075	-	-	-	-	9,848	26,952	39,773	49,757	49,896	48,680	31,821	257,802
1938	1,075	-	-	-	-	9,848	33,741	46,592	50,573	57,872	56,938	36,181	292,820
1939	1,075	-	-	-	-	9,848	33,882	39,771	49,757	49,896	48,680	31,821	264,731
1940	1,075	-	-	-	-	9,848	33,315	41,154	49,757	49,896	48,680	31,821	265,548
1941	1,075	-	-	-	-	9,848	17,203	13,121	17,379	17,772	18,385	11,420	106,204
1942	1,075	-	-	-	-	9,848	33,792	24,703	28,976	29,518	29,241	18,912	176,064
1943	1,075	-	-	-	-	9,846	33,738	44,975	52,826	58,005	56,091	35,694	292,250
1944	1,075	-	-	-	-	9,848	17,370	22,412	28,417	29,188	28,651	18,364	155,326
1945	1,075	-	-	-	-	9,848	32,728	45,696	49,304	49,896	48,680	31,821	269,049
1946	1,075	-	-	-	-	9,848	33,826	46,592	52,288	53,301	50,848	32,467	280,244
1947	1,075	-	-	-	-	9,848	33,761	46,592	50,398	49,896	48,680	31,821	272,071
1948	1,075	-	-	-	-	9,848	33,387	46,810	52,490	61,166	60,384	38,309	303,469
1949	1,075	-	-	-	-	9,848	33,740	46,592	52,490	60,108	59,321	39,294	302,468
1950	20,709	-	-	-	-	9,848	33,740	46,592	52,490	60,108	59,321	39,294	322,102
1951	20,709	-	-	-	-	9,848	33,754	46,592	52,490	60,108	59,321	39,294	322,117
1952	20,709	-	-	-	-	9,848	33,848	40,476	49,757	49,896	48,680	31,821	285,036
1953	1,075	-	-	-	-	9,848	29,170	40,410	46,037	44,767	43,152	27,872	242,331
1954	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,513	59,899	39,147	303,306
1955	1,075	-	-	-	-	9,848	33,739	46,787	52,491	61,186	60,223	37,788	303,136
1956	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1957	20,709	-	-	-	-	9,848	33,741	46,591	51,924	59,005	56,964	36,272	315,055
1958	1,075	-	-	-	-	9,848	32,662	40,063	49,757	49,896	48,680	31,821	263,803
1959	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1960	20,709	-	-	-	-	9,848	33,790	46,616	48,625	61,180	60,156	37,742	318,666
1961	1,075	-	-	-	-	9,848	33,740	46,592	52,490	60,108	59,321	39,294	302,468
1962	24,560	-	-	-	-	9,848	33,729	40,101	49,757	49,896	48,680	31,821	288,393
1963	1,075	-	-	-	-	9,844	31,989	39,771	49,435	48,913	47,335	30,688	259,050
1964	1,075	-	-	-	-	9,848	33,740	46,592	52,490	60,578	59,929	39,139	303,391
1965	1,075	-	-	-	-	9,848	33,817	46,735	53,145	56,075	54,348	35,030	290,073
1966	1,075	-	-	-	-	9,848	33,778	45,266	50,059	49,896	48,680	31,821	270,423
1967	1,075	-	-	-	-	9,848	28,285	41,540	47,426	46,112	44,738	28,980	248,003
1968	1,075	-	-	-	-	9,848	32,883	43,529	51,162	50,147	48,303	31,088	268,035
1969	1,075	-	-	-	-	9,848	33,741	46,594	50,749	49,896	48,680	31,821	272,405
1970	1,075	-	-	-	-	9,848	33,510	43,193	48,767	46,956	45,469	29,441	258,259
1971	1,075	-	-	-	-	9,848	33,739	46,592	52,490	60,108	59,321	39,294	302,467
1972	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1973	20,709	-	-	-	-	9,848	26,882	39,776	49,757	49,896	48,680	31,821	277,370
1974	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1975	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1976	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1977	20,709	-	-	-	-	9,848	21,721	28,029	35,143	36,773	35,861	23,648	211,732
1978	1,075	-	-	-	-	9,848	33,520	40,419	49,757	49,896	48,680	31,821	265,017
1979	1,075	-	-	-	-	9,848	24,632	34,382	42,195	42,291	40,825	26,466	221,713
1980	1,075	-	-	-	-	9,848	33,864	45,902	49,559	49,896	48,680	31,821	270,646
1981	1,075	-	-	-	-	9,848	33,866	40,768	49,754	49,896	48,680	31,821	265,708
1982	1,075	-	-	-	-	9,848	33,562	46,747	52,490	60,401	60,252	38,813	303,189
1983	1,075	-	-	-	-	9,848	33,007	46,553	52,358	52,391	50,217	32,401	277,849
1984	1,075	-	-	-	-	9,848	33,264	46,548	52,978	55,806	53,786	34,719	288,025
1985	1,075	-	-	-	-	9,848	26,791	39,774	49,757	49,896	48,680	31,821	257,644
1986	1,075	-	-	-	-	9,848	29,896	38,544	47,934	47,335	45,756	29,574	249,961
1987	1,075	-	-	-	-	9,848	33,825	42,594	41,346	42,456	41,008	26,534	238,685
1988	1,075	-	-	-	-	9,843	33,837	28,264	33,478	34,074	33,166	21,278	195,016
1989	1,075	-	-	-	-	9,848	33,789	45,490	49,754	49,896	48,680	31,821	270,354
1990	1,075	-	-	-	-	9,848	33,740	46,618	50,232	49,896	48,680	31,821	271,911
1991	1,075	-	-	-	-	9,848	33,772	46,526	52,429	56,528	54,440	35,047	289,665
1992	1,075	-	-	-	-	9,848	23,655	34,183	43,809	43,960	42,804	27,730	227,065
1993	1,075	-	-	-	-	9,848	25,427	26,526	29,377	30,110	29,506	18,929	170,797
1994	1,075	-	-	-	-	9,848	20,161	6,265	7,776	7,554	8,646	5,455	66,780
1995	1,075	-	-	-	-	9,848	28,556	37,182	43,226	43,163	41,620	26,965	231,636
1996	1,075	-	-	-	-	9,848	33,846	45,341	53,019	52,353	50,149	32,383	278,014
1997	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1998	20,709	-	-	-	-	9,848	30,249	39,165	46,536	45,849	44,384	28,822	265,561
1999	1,075	-	-	-	-	9,848	33,737	46,592	52,490	60,283	59,614	39,387	303,027
2000	1,075	-	-	-	-	9,848	33,741	45,731	53,485	54,194	52,396	33,972	284,442
2001	1,075	-	-	-	-	9,848	27,673	39,771	49,757	49,896	48,680	31,821	258,522
2002	1,075	-	-	-	-	9,848	33,767	46,534	52,639	60,403	60,267	37,834	302,368
2003	1,075	-	-	-	-	9,848	28,066	39,768	49,754	49,896	48,680	31,821	258,909
2004	1,075	-	-	-	-	9,848	32,015	39,771	49,757	49,896	48,680	31,821	262,864
2005	1,075	-	-	-	-	9,848	26,999	28,775	35,317	36,596	35,344	22,844	196,797
2006	1,075	-	-	-	-	9,848	33,825	46,591	49,971	49,896	48,680	31,821	271,708
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	4,274	-	-	-	-	9,848	31,183	40,881	47,163	49,732	48,624	31,616	263,321

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC3 Adverse

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	23,894	-	-	-	-	6,904	49,276	92,416	89,080	97,312	90,146	54,997	504,025
1927	23,894	-	-	-	-	6,904	53,886	96,997	88,691	97,312	90,146	55,333	513,163
1928	23,894	-	-	-	-	6,904	55,021	109,887	94,184	97,312	90,146	55,333	532,682
1929	23,894	-	-	-	-	6,904	48,095	83,128	80,148	87,623	81,212	52,390	463,393
1930	23,894	-	-	-	-	6,904	38,770	47,706	45,536	47,477	47,525	41,679	299,490
1931	23,894	-	-	-	-	6,904	45,382	69,867	65,095	70,252	67,164	47,919	396,476
1932	23,894	-	-	-	-	6,904	56,318	109,341	108,729	105,527	97,937	57,556	566,207
1933	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1934	27,579	-	-	-	-	6,904	56,318	102,643	89,065	96,440	88,898	54,867	522,715
1935	23,894	-	-	-	-	6,904	51,762	101,638	94,761	103,346	95,046	56,745	534,097
1936	23,894	-	-	-	-	6,904	49,605	92,416	89,080	97,312	90,146	55,333	504,690
1937	23,894	-	-	-	-	6,904	49,221	92,416	89,080	97,312	90,146	55,333	504,306
1938	23,894	-	-	-	-	6,904	56,318	110,491	107,097	104,924	98,459	57,788	565,875
1939	23,894	-	-	-	-	6,904	54,904	90,065	89,080	97,312	90,146	55,333	507,638
1940	23,894	-	-	-	-	6,904	52,701	89,971	89,080	97,312	90,146	55,274	505,282
1941	23,894	-	-	-	-	6,904	41,250	58,087	57,058	61,178	59,695	45,431	353,496
1942	23,894	-	-	-	-	6,904	50,176	72,024	68,527	74,392	70,603	49,065	415,585
1943	23,894	-	-	-	-	6,904	56,318	95,054	99,582	106,524	97,610	57,467	543,354
1944	23,894	-	-	-	-	6,904	44,600	70,058	67,975	74,022	70,011	48,803	406,267
1945	23,894	-	-	-	-	6,904	48,652	99,690	88,804	97,312	90,146	55,333	510,736
1946	23,894	-	-	-	-	6,904	54,173	110,491	109,670	101,142	92,344	55,657	554,274
1947	23,894	-	-	-	-	6,904	56,122	110,491	93,585	97,312	90,146	55,333	533,788
1948	23,894	-	-	-	-	6,904	55,048	109,144	105,355	113,781	103,948	59,564	577,637
1949	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1950	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1951	27,579	-	-	-	-	6,904	56,242	110,491	119,660	123,857	118,505	81,083	644,321
1952	27,579	-	-	-	-	6,904	55,482	93,468	89,080	97,312	90,146	55,333	515,304
1953	23,894	-	-	-	-	6,904	49,658	93,272	85,397	91,544	84,593	53,422	488,684
1954	23,894	-	-	-	-	6,904	56,318	110,491	115,606	118,729	108,238	60,898	601,078
1955	23,894	-	-	-	-	6,904	56,318	109,192	104,658	111,915	102,336	59,065	574,281
1956	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1957	27,579	-	-	-	-	6,904	56,318	110,491	106,267	107,803	98,481	57,850	571,692
1958	23,894	-	-	-	-	6,904	50,903	92,318	89,080	97,312	90,146	55,333	505,890
1959	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1960	27,579	-	-	-	-	6,904	55,712	102,063	93,569	111,962	102,222	59,012	559,024
1961	23,894	-	-	-	-	6,904	56,318	110,491	119,653	123,857	118,505	81,083	640,705
1962	27,579	-	-	-	-	6,904	55,327	91,656	89,080	97,312	90,146	55,333	513,338
1963	23,894	-	-	-	-	6,904	47,745	92,416	88,759	96,207	88,797	54,788	499,511
1964	23,894	-	-	-	-	6,904	56,318	110,491	115,933	118,205	108,046	60,877	600,668
1965	23,894	-	-	-	-	6,904	53,311	104,809	97,328	104,261	95,848	57,041	543,396
1966	23,894	-	-	-	-	6,904	53,400	99,089	90,695	97,312	90,146	55,333	516,773
1967	23,894	-	-	-	-	6,904	48,420	94,724	86,772	93,057	86,186	53,958	493,915
1968	23,894	-	-	-	-	6,904	49,692	93,877	90,488	97,595	89,773	54,988	507,212
1969	23,894	-	-	-	-	6,904	56,318	110,448	99,211	97,312	90,146	55,333	539,566
1970	23,894	-	-	-	-	6,904	48,686	95,550	88,097	94,006	86,920	54,185	498,243
1971	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1972	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1973	27,579	-	-	-	-	6,904	49,745	92,416	89,080	97,312	90,146	54,320	507,501
1974	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1975	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1976	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1977	27,579	-	-	-	-	6,904	46,604	77,290	74,625	82,554	77,154	46,644	439,355
1978	23,894	-	-	-	-	6,904	49,451	92,974	89,080	97,312	90,146	55,333	505,094
1979	23,894	-	-	-	-	6,904	48,924	85,492	81,603	88,760	82,251	52,737	470,565
1980	23,894	-	-	-	-	6,904	55,036	104,066	88,668	97,312	90,146	55,333	521,359
1981	23,894	-	-	-	-	6,904	54,677	94,403	89,080	97,312	90,146	55,333	511,748
1982	23,894	-	-	-	-	6,904	55,212	108,387	119,660	114,162	105,974	60,165	594,359
1983	23,894	-	-	-	-	6,904	52,232	101,378	99,535	100,119	91,699	55,623	531,385
1984	23,894	-	-	-	-	6,904	51,571	104,705	98,449	103,959	95,285	56,853	541,620
1985	23,894	-	-	-	-	6,904	49,637	92,416	89,080	97,312	90,146	51,803	501,192
1986	23,596	-	-	-	-	6,904	48,415	90,824	87,275	94,432	87,211	54,249	492,906
1987	23,894	-	-	-	-	6,904	53,759	100,951	80,761	88,946	82,434	52,772	490,421
1988	23,894	-	-	-	-	6,904	54,894	76,415	72,980	79,518	74,552	50,219	439,377
1989	23,894	-	-	-	-	6,904	55,979	101,020	89,080	97,312	90,146	55,333	519,668
1990	23,894	-	-	-	-	6,904	56,318	110,153	97,446	97,312	90,146	55,333	537,506
1991	23,894	-	-	-	-	6,904	56,131	108,147	97,547	104,789	95,944	57,055	550,411
1992	23,894	-	-	-	-	6,904	48,457	85,216	83,196	90,636	84,240	53,348	475,891
1993	23,894	-	-	-	-	6,904	42,997	75,400	68,923	75,058	70,873	49,075	413,125
1994	23,894	-	-	-	-	6,904	39,202	49,266	47,559	49,692	49,890	42,527	308,934
1995	23,894	-	-	-	-	6,904	47,814	89,119	82,621	89,741	83,051	52,979	476,122
1996	23,894	-	-	-	-	6,904	55,649	99,452	93,856	100,076	91,634	55,610	527,075
1997	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1998	27,579	-	-	-	-	6,904	50,701	91,674	85,892	92,761	85,829	53,880	495,221
1999	23,894	-	-	-	-	6,904	56,318	110,491	118,985	120,799	110,293	61,614	609,297
2000	23,894	-	-	-	-	6,904	56,318	102,366	94,300	102,146	93,887	56,423	536,239
2001	23,894	-	-	-	-	6,904	49,246	92,416	89,080	97,312	90,146	38,094	487,093
2002	23,877	-	-	-	-	6,904	56,166	108,249	117,776	110,367	102,412	59,114	584,865
2003	23,894	-	-	-	-	6,904	49,823	92,416	89,080	97,312	90,146	55,333	504,908
2004	23,894	-	-	-	-	6,904	51,299	92,416	89,080	97,312	90,146	55,333	506,383
2005	23,894	-	-	-	-	6,904	44,716	78,258	74,797	82,356	76,740	50,976	438,641
2006	23,894	-	-	-	-	6,904	55,769	110,491	91,946	97,312	90,146	55,333	531,796
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,482	-	-	-	-	6,904	52,456	97,198	94,641	100,071	93,302	58,619	527,672

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC3 Adverse

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26,528	-	-	-	-	11,217	42,850	53,405	52,437	53,788	53,488	25,899	319,611
1927	23,079	-	-	-	-	11,217	44,403	58,454	64,289	65,637	64,652	52,669	384,399
1928	26,528	-	-	-	-	11,217	45,049	64,600	64,639	64,930	64,064	52,445	393,472
1929	26,528	-	-	-	-	11,217	42,883	52,779	52,173	53,667	53,185	47,756	340,188
1930	26,222	-	-	-	-	11,217	42,037	46,673	45,239	47,098	46,690	45,014	310,190
1931	26,528	-	-	-	-	11,217	42,959	53,672	52,011	53,799	53,558	47,898	341,642
1932	26,528	-	-	-	-	11,217	45,964	64,352	67,752	70,097	70,155	55,012	411,076
1933	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1934	36,441	-	-	-	-	11,217	45,989	62,589	66,105	67,454	66,416	53,492	409,703
1935	26,528	-	-	-	-	11,217	44,366	63,078	68,383	70,053	68,960	54,554	407,137
1936	26,528	-	-	-	-	11,217	43,791	60,316	60,494	61,821	61,099	51,214	376,480
1937	26,528	-	-	-	-	11,217	43,330	59,106	58,945	60,177	59,506	49,415	368,223
1938	26,528	-	-	-	-	11,217	45,989	64,825	66,742	69,692	70,371	55,143	410,508
1939	26,528	-	-	-	-	11,217	45,292	57,297	59,090	60,424	59,761	50,592	370,200
1940	26,528	-	-	-	-	11,217	43,786	54,824	55,636	56,964	56,529	45,083	350,566
1941	26,528	-	-	-	-	11,217	42,095	46,673	45,167	46,673	46,673	45,014	310,040
1942	26,528	-	-	-	-	11,217	42,960	52,880	52,201	54,072	53,759	48,018	341,635
1943	26,528	-	-	-	-	11,217	45,684	58,662	69,641	71,248	70,020	54,962	407,961
1944	26,528	-	-	-	-	11,217	42,273	50,075	49,124	51,079	50,765	46,683	327,744
1945	26,528	-	-	-	-	11,217	40,869	59,921	58,555	60,519	59,685	50,517	367,811
1946	26,528	-	-	-	-	11,217	44,471	64,825	68,851	69,223	67,839	53,937	406,891
1947	26,528	-	-	-	-	11,217	45,839	64,825	63,739	63,914	62,989	51,975	391,027
1948	26,528	-	-	-	-	11,217	44,425	63,472	70,412	73,970	72,644	56,147	418,814
1949	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1950	36,260	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,470
1951	36,441	-	-	-	-	11,217	45,301	63,472	71,459	76,952	77,292	64,789	446,923
1952	36,455	-	-	-	-	11,217	45,411	61,347	62,052	63,299	62,408	51,728	393,916
1953	26,528	-	-	-	-	11,217	43,575	62,426	64,545	65,612	64,633	52,674	391,210
1954	26,528	-	-	-	-	11,217	45,029	63,472	71,074	75,283	74,380	56,901	423,883
1955	26,528	-	-	-	-	11,217	45,029	63,472	70,308	73,276	71,977	55,865	417,672
1956	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1957	36,441	-	-	-	-	11,217	45,802	64,825	69,167	71,729	70,381	55,178	424,740
1958	26,528	-	-	-	-	11,217	42,426	59,047	59,027	60,348	59,771	50,640	369,004
1959	17,519	-	-	-	-	11,217	45,318	63,472	71,459	76,952	77,292	64,789	428,019
1960	36,456	-	-	-	-	11,217	45,762	61,229	61,326	73,293	71,930	55,835	417,048
1961	26,528	-	-	-	-	11,217	45,395	63,472	71,862	76,952	77,292	64,789	437,507
1962	37,626	-	-	-	-	11,217	45,162	58,817	59,558	60,798	60,034	50,705	383,916
1963	20,863	-	-	-	-	11,217	41,347	52,474	51,224	52,497	52,102	40,146	321,869
1964	21,202	-	-	-	-	11,217	45,029	63,472	71,069	75,172	74,307	56,889	418,357
1965	26,528	-	-	-	-	11,217	43,893	62,928	68,864	70,397	69,292	54,721	407,839
1966	26,528	-	-	-	-	11,217	44,739	59,562	59,303	59,910	59,146	50,308	370,713
1967	20,657	-	-	-	-	11,217	42,476	62,731	65,131	66,182	65,293	52,978	386,665
1968	26,528	-	-	-	-	11,217	42,618	60,688	66,711	67,889	66,777	53,559	395,987
1969	26,528	-	-	-	-	11,217	45,989	64,799	65,847	66,985	65,986	53,261	400,612
1970	26,528	-	-	-	-	11,217	42,119	61,608	65,695	66,539	65,597	53,106	392,407
1971	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1972	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1973	36,441	-	-	-	-	11,217	43,622	58,235	57,946	59,217	58,626	34,759	360,063
1974	16,194	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	426,404
1975	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1976	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1977	36,441	-	-	-	-	11,217	42,143	46,934	45,678	47,567	31,427	21,400	282,806
1978	22,517	-	-	-	-	11,217	42,279	60,391	61,815	63,032	62,233	51,646	375,129
1979	26,528	-	-	-	-	11,217	43,367	55,606	55,035	56,366	55,795	48,892	352,805
1980	26,528	-	-	-	-	11,217	45,104	61,878	57,884	59,364	58,656	50,098	370,729
1981	26,528	-	-	-	-	11,217	45,178	59,005	58,431	59,656	58,913	50,202	369,130
1982	26,528	-	-	-	-	11,217	45,004	64,050	72,982	73,609	73,482	56,487	423,359
1983	26,528	-	-	-	-	11,217	43,465	61,093	67,655	68,838	67,574	53,919	400,289
1984	26,528	-	-	-	-	11,217	43,314	63,314	69,351	70,283	69,058	54,615	407,680
1985	26,528	-	-	-	-	11,217	43,207	55,902	53,941	55,243	54,788	33,848	334,674
1986	16,009	-	-	-	-	11,217	43,417	55,560	54,716	55,988	55,437	48,706	341,051
1987	26,528	-	-	-	-	11,217	44,487	60,280	52,623	54,493	53,936	48,076	351,640
1988	26,528	-	-	-	-	11,217	45,240	55,044	55,020	56,944	56,297	49,060	355,349
1989	26,528	-	-	-	-	11,217	45,745	60,568	60,116	61,362	60,552	50,913	377,000
1990	26,528	-	-	-	-	11,217	45,989	64,623	64,098	64,927	64,006	52,383	393,771
1991	26,528	-	-	-	-	11,217	45,832	63,810	67,691	70,595	69,331	54,729	409,734
1992	26,528	-	-	-	-	11,217	42,592	50,985	50,492	51,870	51,626	43,533	328,843
1993	20,870	-	-	-	-	11,217	41,011	55,509	53,529	55,505	54,993	48,508	341,142
1994	26,212	-	-	-	-	11,217	41,087	46,772	45,239	46,744	47,194	45,121	309,584
1995	26,528	-	-	-	-	11,217	42,880	59,060	58,003	59,267	58,557	50,078	365,589
1996	26,528	-	-	-	-	11,217	45,527	61,842	67,816	68,822	67,546	53,912	403,211
1997	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1998	36,441	-	-	-	-	11,217	44,210	62,339	64,755	66,070	65,145	52,934	403,111
1999	26,528	-	-	-	-	11,217	45,029	63,472	71,302	75,414	74,901	57,306	425,170
2000	26,528	-	-	-	-	11,217	45,989	62,725	68,170	69,601	68,480	54,372	407,082
2001	26,528	-	-	-	-	11,217	42,962	54,702	53,085	54,364	52,471	617	295,946
2002	11,761	-	-	-	-	11,217	45,844	63,896	72,187	72,085	72,008	55,893	404,892
2003	26,528	-	-	-	-	11,217	44,178	59,478	59,602	61,002	60,367	50,868	373,240
2004	21,070	-	-	-	-	11,217	44,090	56,847	56,191	57,529	56,992	49,370	353,304
2005	26,528	-	-	-	-	11,217	41,874	52,994	52,087	53,974	53,483	47,884	340,041
2006	26,528	-	-	-	-	11,217	45,562	64,825	64,839	66,461	65,401	52,997	397,831
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	27,136	-	-	-	-	11,217	44,200	59,840	62,521	64,840	64,085	51,893	385,732

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC3 Adverse

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	869	-	-	-	-	458	2,241	14,189	16,377	16,783	16,760	11,638	79,315
1927	771	-	-	-	-	458	4,965	12,479	17,213	18,447	18,447	16,469	89,248
1928	869	-	-	-	-	458	5,057	14,169	17,291	18,447	18,447	16,428	91,165
1929	869	-	-	-	-	458	1,934	14,160	16,330	16,759	16,698	15,175	82,382
1930	869	-	-	-	-	458	1,569	13,818	14,891	15,457	15,376	14,280	76,717
1931	869	-	-	-	-	458	3,605	14,176	16,299	16,785	16,773	15,217	84,184
1932	869	-	-	-	-	458	5,193	14,084	16,381	17,920	18,447	16,567	89,919
1933	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1934	3,968	-	-	-	-	458	5,193	13,708	17,395	18,447	18,447	16,540	94,155
1935	869	-	-	-	-	458	4,351	14,249	17,395	18,447	18,447	16,562	90,776
1936	869	-	-	-	-	458	3,471	14,249	17,395	18,376	18,309	16,140	89,266
1937	869	-	-	-	-	458	3,051	14,249	17,361	18,050	17,984	13,278	85,301
1938	782	-	-	-	-	458	5,193	14,249	15,973	17,736	18,447	16,569	89,406
1939	869	-	-	-	-	458	5,081	13,717	17,380	18,099	18,036	15,974	89,614
1940	869	-	-	-	-	458	4,873	12,767	16,935	17,413	17,378	14,738	85,432
1941	797	-	-	-	-	458	1,739	13,818	14,876	15,372	15,372	14,280	76,713
1942	869	-	-	-	-	458	4,675	14,063	16,334	16,839	16,814	15,253	85,305
1943	869	-	-	-	-	458	5,193	12,774	17,395	18,447	18,447	16,567	90,149
1944	869	-	-	-	-	458	1,387	14,042	15,712	16,246	16,205	14,847	79,765
1945	869	-	-	-	-	458	4,554	12,792	16,526	18,118	18,021	15,955	87,293
1946	869	-	-	-	-	458	4,984	14,249	16,558	18,447	18,447	16,549	90,559
1947	869	-	-	-	-	458	5,176	14,249	17,208	18,447	18,443	16,323	91,171
1948	869	-	-	-	-	458	5,050	14,249	17,395	18,447	18,447	16,581	91,495
1949	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1950	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1951	3,968	-	-	-	-	458	5,188	14,249	17,887	20,637	21,193	17,272	100,852
1952	3,968	-	-	-	-	458	5,106	14,026	17,395	18,447	18,431	16,265	94,095
1953	869	-	-	-	-	458	3,885	14,249	17,395	18,447	18,447	16,469	90,218
1954	869	-	-	-	-	458	5,193	14,249	17,570	18,447	18,447	16,591	91,822
1955	869	-	-	-	-	458	5,193	14,249	17,395	18,447	18,447	16,578	91,634
1956	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1957	3,739	-	-	-	-	458	5,193	14,249	16,826	18,447	18,447	16,569	93,927
1958	869	-	-	-	-	458	4,747	14,158	17,374	18,084	18,039	15,986	89,715
1959	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1960	3,968	-	-	-	-	458	5,150	13,111	14,569	18,447	18,447	16,577	90,725
1961	869	-	-	-	-	458	5,193	14,249	17,886	20,637	21,193	17,272	97,756
1962	3,386	-	-	-	-	458	5,133	13,953	17,389	18,174	18,092	16,005	92,589
1963	869	-	-	-	-	458	4,460	14,145	16,144	16,527	16,477	14,036	83,116
1964	793	-	-	-	-	458	5,193	14,249	17,630	18,447	18,447	16,591	91,805
1965	869	-	-	-	-	458	4,934	13,997	17,395	18,447	18,447	16,564	91,110
1966	869	-	-	-	-	458	4,909	12,765	16,904	17,997	17,911	15,897	87,711
1967	869	-	-	-	-	458	3,796	14,249	17,395	18,447	18,447	16,517	90,177
1968	869	-	-	-	-	458	4,595	13,496	17,395	18,447	18,447	16,541	90,246
1969	869	-	-	-	-	458	5,193	14,243	16,358	18,447	18,447	16,534	90,548
1970	869	-	-	-	-	458	4,515	13,984	17,395	18,447	18,447	16,531	90,645
1971	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1972	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1973	3,968	-	-	-	-	458	2,830	14,249	17,235	17,860	17,806	14,253	88,658
1974	775	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,663
1975	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1976	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1977	3,968	-	-	-	-	458	1,127	13,836	14,985	15,549	13,921	12,475	76,319
1978	819	-	-	-	-	458	4,556	13,966	17,395	18,447	18,427	16,246	90,313
1979	869	-	-	-	-	458	2,385	14,242	16,851	17,294	17,229	15,502	84,830
1980	869	-	-	-	-	458	5,057	13,341	17,076	17,889	17,811	15,840	88,342
1981	869	-	-	-	-	458	5,078	14,097	17,293	17,947	17,864	15,868	89,473
1982	869	-	-	-	-	458	5,070	13,993	17,887	18,157	18,447	16,585	91,466
1983	869	-	-	-	-	458	4,870	13,122	17,032	18,447	18,447	16,549	89,793
1984	869	-	-	-	-	458	4,713	14,249	17,395	18,447	18,447	16,563	91,140
1985	869	-	-	-	-	458	2,476	14,238	16,656	17,072	17,024	13,707	82,500
1986	738	-	-	-	-	458	3,535	14,246	16,786	17,220	17,156	15,449	85,588
1987	869	-	-	-	-	458	4,976	13,906	16,416	16,923	16,850	15,270	85,668
1988	869	-	-	-	-	458	5,075	14,080	16,841	17,409	17,331	15,550	87,613
1989	869	-	-	-	-	458	5,161	13,067	17,395	18,285	18,197	16,061	89,493
1990	869	-	-	-	-	458	5,193	14,202	16,230	18,447	18,447	16,415	90,260
1991	869	-	-	-	-	458	5,183	13,960	16,822	18,447	18,447	16,564	90,748
1992	869	-	-	-	-	458	1,476	14,092	15,994	16,403	16,380	13,843	79,517
1993	799	-	-	-	-	458	3,062	14,226	16,581	17,124	17,065	15,393	84,708
1994	869	-	-	-	-	458	2,595	13,822	14,892	15,386	15,477	14,317	77,816
1995	869	-	-	-	-	458	3,351	14,249	17,243	17,870	17,791	15,833	87,665
1996	869	-	-	-	-	458	5,152	13,782	17,395	18,447	18,447	16,550	91,098
1997	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1998	3,968	-	-	-	-	458	4,106	14,249	17,395	18,447	18,447	16,511	93,580
1999	869	-	-	-	-	458	5,193	14,249	17,826	18,447	18,447	16,596	92,083
2000	869	-	-	-	-	458	5,193	14,138	17,395	18,447	18,447	16,560	91,505
2001	869	-	-	-	-	458	2,479	14,221	16,497	16,898	16,549	8,701	76,672
2002	797	-	-	-	-	458	5,184	13,971	17,605	18,096	18,447	16,578	91,136
2003	869	-	-	-	-	458	3,384	14,249	17,391	18,214	18,160	16,048	88,773
2004	869	-	-	-	-	458	4,489	14,249	17,010	17,525	17,473	15,638	87,711
2005	869	-	-	-	-	458	3,171	14,169	16,316	16,820	16,758	15,213	83,774
2006	869	-	-	-	-	458	5,162	14,249	16,978	18,447	18,447	16,520	91,129
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,347	-	-	-	-	458	4,377	13,998	17,019	18,251	18,318	15,925	89,692

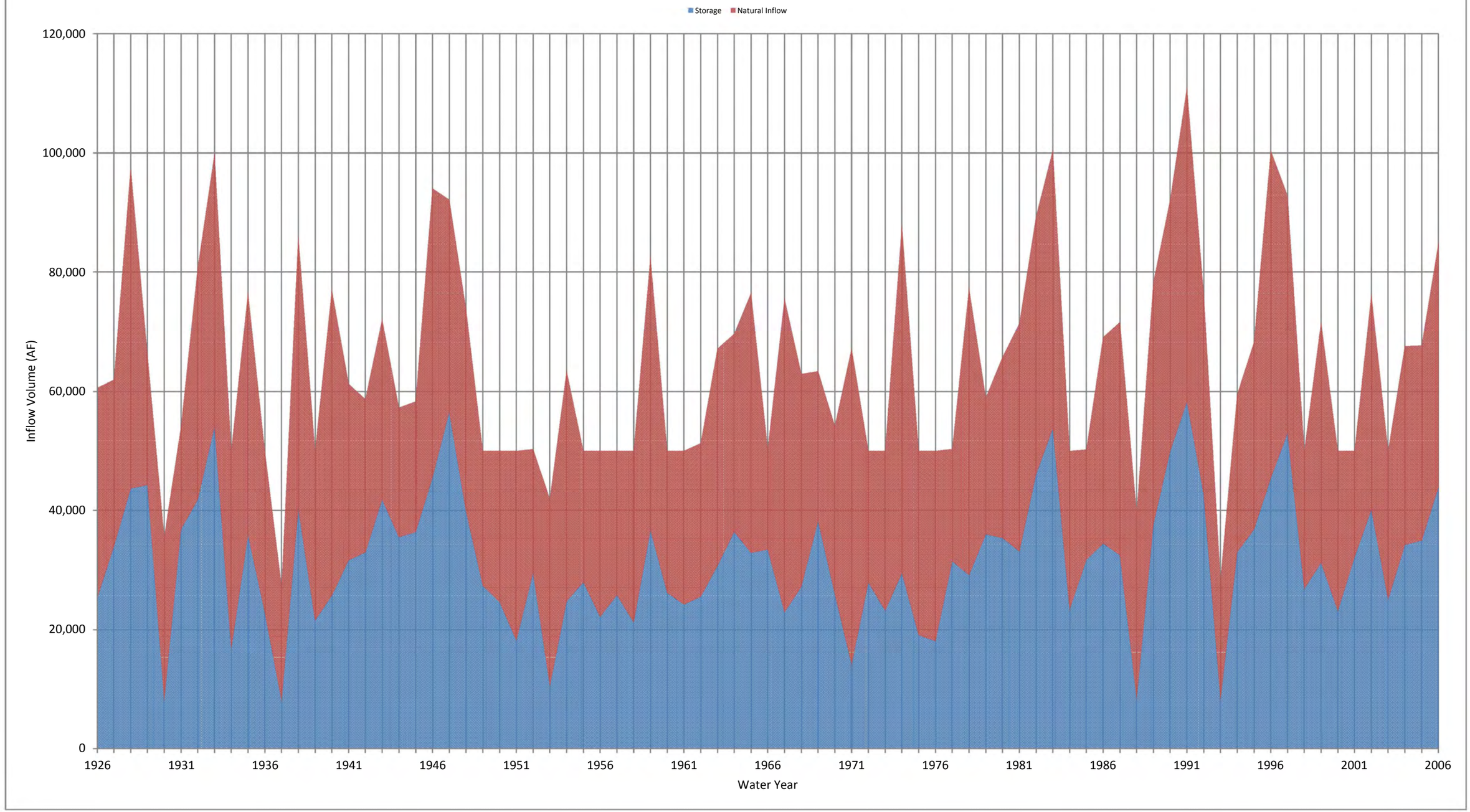
YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC3 Adverse

Kennewick Irrigation Deliveries [AF]

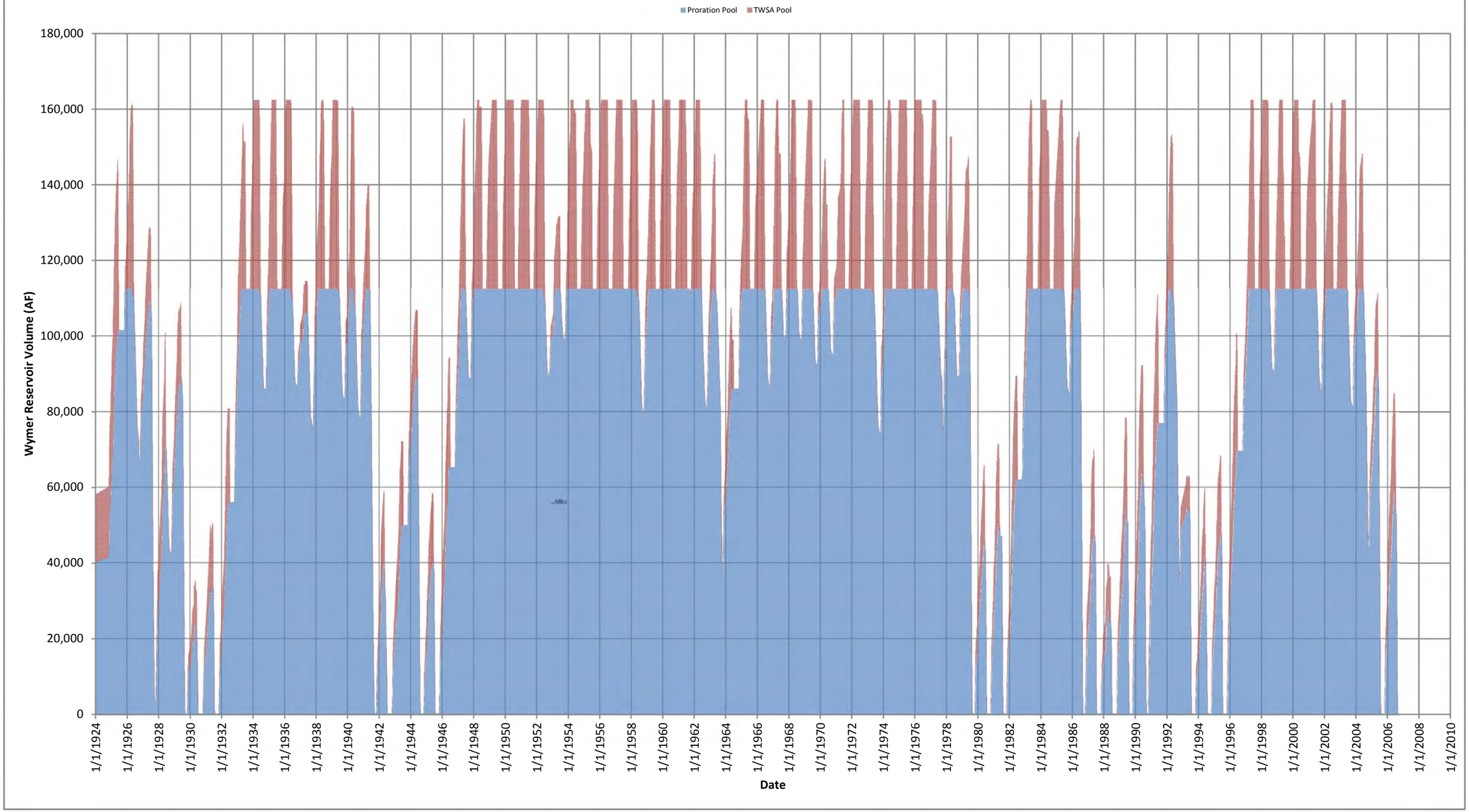
Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	5,536	-	-	-	-	20	10,599	13,791	14,527	14,065	14,735	13,329	86,602
1927	5,536	-	-	-	-	20	11,302	13,705	14,392	14,065	14,735	13,329	87,084
1928	5,536	-	-	-	-	20	11,526	15,457	14,696	14,065	14,735	13,329	89,365
1929	5,536	-	-	-	-	20	10,540	13,571	14,230	13,127	14,194	12,849	84,067
1930	5,536	-	-	-	-	20	8,342	12,454	11,508	10,903	11,990	11,798	72,552
1931	5,536	-	-	-	-	20	10,559	13,395	13,121	11,427	13,468	12,611	80,136
1932	5,536	-	-	-	-	20	11,828	15,391	14,814	13,981	14,735	13,329	89,634
1933	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1934	7,393	-	-	-	-	20	11,828	14,833	14,527	14,065	14,735	13,329	90,730
1935	5,536	-	-	-	-	20	10,697	13,791	14,527	14,065	14,735	13,329	86,701
1936	5,536	-	-	-	-	20	10,707	13,791	14,527	14,065	14,735	13,329	86,711
1937	5,536	-	-	-	-	20	10,602	13,791	14,527	14,065	14,735	13,329	86,606
1938	5,536	-	-	-	-	20	11,828	15,543	14,577	13,856	14,735	13,329	89,423
1939	5,536	-	-	-	-	20	11,544	13,621	14,527	14,065	14,735	13,329	87,378
1940	5,536	-	-	-	-	20	11,096	13,374	14,527	14,065	14,735	13,329	86,682
1941	5,536	-	-	-	-	20	8,551	12,454	11,508	10,917	12,579	12,002	73,568
1942	5,536	-	-	-	-	20	10,690	13,340	13,121	11,427	13,468	12,611	80,213
1943	5,536	-	-	-	-	20	11,828	13,378	14,527	14,065	14,735	13,329	87,418
1944	5,536	-	-	-	-	20	9,894	13,395	13,121	11,427	13,468	12,611	79,471
1945	5,536	-	-	-	-	20	10,153	14,083	13,987	14,065	14,735	13,329	85,909
1946	5,536	-	-	-	-	20	11,291	15,543	14,961	14,065	14,735	13,329	89,480
1947	5,536	-	-	-	-	20	11,788	15,543	14,618	14,065	14,735	13,329	89,633
1948	5,536	-	-	-	-	20	11,525	15,319	14,966	14,065	14,735	13,329	89,494
1949	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,811	15,543	16,253	17,629	17,780	15,757	102,186
1952	7,393	-	-	-	-	20	11,615	14,118	14,527	14,065	14,735	13,329	89,802
1953	5,536	-	-	-	-	20	10,483	13,791	14,319	13,127	14,194	12,849	84,318
1954	5,536	-	-	-	-	20	11,828	15,543	16,021	17,070	17,346	15,376	98,739
1955	5,536	-	-	-	-	20	11,828	15,328	14,843	14,065	14,735	13,329	89,684
1956	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1957	7,393	-	-	-	-	20	11,828	15,543	14,740	14,065	14,735	13,329	91,652
1958	5,536	-	-	-	-	20	10,694	13,872	14,527	14,065	14,735	13,329	86,778
1959	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1960	7,393	-	-	-	-	20	11,723	14,409	12,823	14,065	14,735	13,329	88,496
1961	5,536	-	-	-	-	20	11,828	15,543	16,252	17,629	17,780	15,757	100,344
1962	7,393	-	-	-	-	20	11,551	13,836	14,527	14,065	14,735	13,329	89,456
1963	5,536	-	-	-	-	20	10,369	13,791	14,527	14,065	14,735	13,329	86,373
1964	5,536	-	-	-	-	20	11,828	15,543	16,070	17,070	17,346	15,376	98,788
1965	5,536	-	-	-	-	20	11,076	14,443	14,527	14,065	14,735	13,329	87,732
1966	5,536	-	-	-	-	20	11,360	13,995	14,328	14,065	14,735	13,329	87,369
1967	5,536	-	-	-	-	20	10,179	13,791	14,527	13,127	14,194	12,849	84,223
1968	5,536	-	-	-	-	20	10,725	13,665	14,527	14,065	14,735	13,329	86,602
1969	5,536	-	-	-	-	20	11,828	15,537	14,329	14,065	14,735	13,329	89,379
1970	5,536	-	-	-	-	20	10,448	13,588	14,527	14,065	14,735	13,008	85,928
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,743	13,791	14,527	14,065	14,735	13,329	88,604
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,603	13,571	14,230	13,127	14,194	12,849	85,986
1978	5,536	-	-	-	-	20	10,502	14,049	14,527	14,065	14,735	13,329	86,764
1979	5,536	-	-	-	-	20	10,563	13,571	14,230	13,127	14,194	12,849	84,089
1980	5,536	-	-	-	-	20	11,507	14,681	14,389	14,065	14,735	13,329	88,262
1981	5,536	-	-	-	-	20	11,528	14,260	14,527	14,065	14,735	13,329	88,000
1982	5,536	-	-	-	-	20	11,566	15,257	16,253	15,638	15,142	13,329	92,742
1983	5,536	-	-	-	-	20	11,000	14,294	14,689	14,065	14,735	13,329	87,668
1984	5,536	-	-	-	-	20	10,955	13,791	14,527	14,065	14,735	13,329	86,959
1985	5,536	-	-	-	-	20	10,715	13,791	14,527	14,065	14,735	13,329	86,718
1986	5,536	-	-	-	-	20	10,769	13,791	14,527	14,065	14,735	13,210	86,654
1987	5,536	-	-	-	-	20	11,290	14,937	14,230	13,127	14,194	12,849	86,183
1988	5,536	-	-	-	-	20	11,535	13,532	14,230	13,127	14,194	12,849	85,022
1989	5,536	-	-	-	-	20	11,739	14,362	14,527	14,065	14,735	13,329	88,313
1990	5,536	-	-	-	-	20	11,828	15,498	14,162	14,065	14,735	13,329	89,173
1991	5,536	-	-	-	-	20	11,779	15,213	14,300	14,065	14,735	13,329	88,977
1992	5,536	-	-	-	-	20	10,544	13,571	14,230	13,127	14,194	12,849	84,070
1993	5,536	-	-	-	-	20	9,827	13,520	13,121	11,427	13,468	12,611	79,529
1994	5,536	-	-	-	-	20	9,330	12,454	11,508	10,903	11,990	11,798	73,540
1995	5,536	-	-	-	-	20	10,240	13,656	14,230	13,127	14,194	12,849	83,852
1996	5,536	-	-	-	-	20	11,640	14,102	14,527	14,065	14,735	13,329	87,955
1997	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1998	7,393	-	-	-	-	20	10,652	13,738	14,458	13,127	14,194	12,849	86,429
1999	5,536	-	-	-	-	20	11,828	15,543	16,215	17,070	17,346	15,376	98,933
2000	5,536	-	-	-	-	20	11,828	13,838	14,527	14,065	14,735	13,329	87,878
2001	5,536	-	-	-	-	20	10,584	13,791	14,527	14,065	14,735	13,329	86,587
2002	5,536	-	-	-	-	20	11,791	15,240	16,004	14,133	14,735	13,329	90,789
2003	5,536	-	-	-	-	20	10,729	13,791	14,527	14,065	14,735	13,329	86,733
2004	5,536	-	-	-	-	20	11,159	13,791	14,527	14,065	14,735	13,329	87,163
2005	5,536	-	-	-	-	20	10,269	13,571	14,230	13,127	14,194	12,849	83,795
2006	5,536	-	-	-	-	20	11,678	15,543	14,403	14,065	14,735	13,329	89,309
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,834	-	-	-	-	20	11,142	14,407	14,670	14,390	15,095	13,634	89,193

Annual Wymer (IP6 Full IP CC3 Adverse) Inflow From Upstream Storage Releases and Natural Inflow
Water Years 1926 to 2006



Wymer Reservoir Storage by Pool Type (IP6 Full IP CC3 Adverse)

Water Years 1926 to 2006



Wymer (IP6 Full IP CC3 Adverse)

Monthly Inflow Volume from Storage (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	1,661	2,951	6,369	5,849	6,329	1,488	635	0	0	0	0	25.3
1927	0	1,645	2,657	6,379	5,944	5,897	7,270	4,225	0	0	0	0	34.0
1928	0	6,298	6,626	5,832	5,877	6,375	7,202	5,489	0	0	0	0	43.7
1929	106	6,926	7,912	8,449	8,173	9,530	1,605	1,587	0	0	0	0	44.3
1930	0	1,679	1,619	1,673	1,544	1,664	60	0	0	0	0	0	8.2
1931	0	6,292	6,221	6,157	5,637	6,343	2,760	3,466	0	0	0	0	36.9
1932	0	3,983	5,970	6,158	5,718	6,635	7,264	6,109	0	0	0	0	41.8
1933	2,167	7,370	8,225	9,038	8,178	9,449	8,575	1,091	0	0	0	0	54.1
1934	2,073	6,579	6,784	1,357	0	0	0	0	0	0	0	0	16.8
1935	108	6,879	7,762	9,195	8,916	3,084	0	0	0	0	0	0	35.9
1936	2,060	6,502	6,481	6,316	1,509	0	0	0	0	0	0	0	22.9
1937	0	1,662	1,628	1,601	1,528	1,611	60	0	0	0	0	0	8.1
1938	0	4,896	6,216	6,592	5,392	6,549	9,771	873	0	0	0	0	40.3
1939	108	7,105	7,480	6,863	0	0	0	0	0	0	0	0	21.6
1940	0	1,628	4,499	6,448	6,182	6,764	218	0	0	0	0	0	25.7
1941	0	5,667	6,277	6,342	5,376	6,042	1,964	0	0	0	0	0	31.7
1942	0	6,293	6,479	5,974	5,985	5,656	2,598	0	0	0	0	0	33.0
1943	0	5,634	6,434	6,528	5,589	6,110	5,748	5,836	0	0	0	0	41.9
1944	2,060	6,368	6,470	6,382	5,645	5,371	2,757	476	0	0	0	0	35.5
1945	0	5,324	6,336	6,576	5,733	6,157	3,868	2,380	0	0	0	0	36.4
1946	0	6,113	6,278	6,440	5,795	6,478	7,807	6,642	0	0	0	0	45.6
1947	108	7,108	8,306	8,792	8,702	9,817	10,251	3,491	0	0	0	0	56.6
1948	108	6,906	7,929	8,889	8,588	7,408	0	0	0	0	0	0	39.8
1949	2,060	6,500	6,275	6,013	5,452	1,065	0	0	0	0	0	0	27.4
1950	2,166	7,320	8,063	7,122	0	0	0	0	0	0	0	0	24.7
1951	2,168	7,039	8,125	883	0	0	0	0	0	0	0	0	18.2
1952	2,168	7,341	8,032	8,604	3,093	0	0	313	0	0	0	0	29.6
1953	0	1,577	1,595	1,683	1,538	1,575	1,715	893	0	0	0	0	10.6
1954	0	6,270	6,246	6,527	5,090	655	0	0	0	0	0	0	24.8
1955	2,132	7,090	7,555	8,227	2,979	0	0	0	0	0	0	0	28.0
1956	2,060	6,032	6,507	6,600	969	0	0	0	0	0	0	0	22.2
1957	2,168	7,312	8,265	8,093	0	0	0	0	0	0	0	0	25.8
1958	108	5,062	7,960	8,109	0	0	0	0	0	0	0	0	21.2
1959	0	4,245	6,490	6,642	5,349	6,725	7,245	0	0	0	0	0	36.7
1960	2,168	7,389	8,263	8,403	0	0	0	0	0	0	0	0	26.2
1961	2,155	7,370	8,092	6,604	0	0	0	0	0	0	0	0	24.2
1962	108	5,285	7,824	8,939	3,391	0	0	0	0	0	0	0	25.5
1963	0	2,781	6,507	6,503	5,904	6,426	2,598	0	0	0	0	0	30.7
1964	0	3,097	6,183	6,581	6,209	6,049	7,883	436	0	0	0	0	36.4
1965	2,060	6,531	6,551	6,277	6,088	5,402	0	0	0	0	0	0	32.9
1966	2,060	6,489	6,168	6,493	5,378	6,329	352	186	0	0	0	0	33.5
1967	0	1,668	4,037	6,713	6,052	4,460	0	0	0	0	0	0	22.9
1968	0	6,269	6,297	6,398	6,124	2,134	0	0	0	0	0	0	27.2
1969	108	7,069	7,824	8,878	7,961	6,418	0	0	0	0	0	0	38.3
1970	0	1,645	2,037	6,443	5,787	6,563	3,491	0	0	0	0	0	26.0
1971	0	1,661	1,666	1,762	1,553	1,653	3,265	2,596	0	0	0	0	14.2
1972	2,168	6,995	7,631	8,721	2,432	0	0	0	0	0	0	0	27.9
1973	2,168	7,191	8,127	5,704	0	0	0	0	0	0	0	0	23.2
1974	0	1,672	3,809	6,685	5,997	6,144	5,191	0	0	0	0	0	29.5
1975	2,132	7,086	7,784	2,089	0	0	0	0	0	0	0	0	19.1
1976	2,168	7,360	8,253	286	0	0	0	0	0	0	0	0	18.1
1977	2,166	7,278	7,755	9,024	4,969	0	317	0	0	0	0	0	31.5
1978	0	3,496	6,681	6,450	5,931	6,392	218	0	0	0	0	0	29.2
1979	0	6,274	6,321	6,096	5,939	6,473	1,428	3,491	0	0	0	0	36.0
1980	0	1,616	3,949	6,496	6,084	6,198	7,705	3,340	0	0	0	0	35.4
1981	0	5,976	6,457	6,400	6,041	6,591	1,698	0	0	0	0	0	33.2
1982	0	6,252	6,287	6,646	6,030	6,631	7,613	6,654	0	0	0	0	46.1
1983	108	7,114	8,331	9,114	8,383	10,866	8,828	1,067	0	0	0	0	53.8
1984	108	7,169	7,929	8,186	0	0	0	0	0	0	0	0	23.4
1985	2,041	6,265	5,399	6,292	5,022	5,176	1,327	228	0	0	0	0	31.7
1986	0	5,634	6,132	6,022	5,706	6,643	2,598	1,745	0	0	0	0	34.5
1987	0	2,678	5,685	6,401	5,545	6,739	3,709	1,745	0	0	0	0	32.5
1988	0	1,692	1,747	1,739	1,626	1,605	60	0	0	0	0	0	8.5
1989	0	5,503	6,405	6,504	5,107	6,193	6,453	1,587	0	0	0	0	37.8
1990	55	6,699	7,025	7,431	7,052	8,339	8,587	4,800	0	0	0	0	50.0
1991	108	7,166	8,098	8,956	9,027	9,803	9,313	5,816	0	0	0	0	58.3
1992	108	6,866	7,165	8,422	8,810	9,626	1,711	0	0	0	0	0	42.7
1993	0	1,656	1,669	1,716	1,524	1,667	60	0	0	0	0	0	8.3
1994	0	1,652	4,838	6,274	5,750	6,618	4,185	3,717	0	0	0	0	33.0
1995	0	5,783	6,306	5,985	5,843	6,026	3,074	3,808	0	0	0	0	36.8
1996	0	6,290	6,631	6,438	6,091	6,637	7,589	5,774	0	0	0	0	45.5
1997	108	6,885	7,476	8,928	8,597	10,554	9,976	483	0	0	0	0	53.0
1998	2,168	7,351	8,044	9,072	230	0	0	0	0	0	0	0	26.9
1999	108	7,171	8,105	8,787	7,070	0	0	0	0	0	0	0	31.2
2000	2,060	6,536	6,592	6,325	1,672	0	0	0	0	0	0	0	23.2
2001	2,120	6,996	6,172	6,212	3,625	5,165	1,903	0	0	0	0	0	32.2
2002	0	3,394	6,396	5,947	6,010	6,451	6,279	5,673	0	0	0	0	40.2
2003	108	7,099	7,909	8,705	1,258	0	0	0	0	0	0	0	25.1
2004	0	3,118	6,299	5,817	5,921	6,513	3,392	3,174	0	0	0	0	34.2
2005	0	6,301	5,784	6,103	5,534	6,431	3,392	1,428	0	0	0	0	35.0
2006	0	6,246	6,683	6,376	5,705	6,473	6,482	5,979	0	0	0	0	43.9
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	649	5,408	6,296	6,410	4,510	4,255	2,727	1,324	0	0	0	0	31.6

Wymer (IP6 Full IP CC3 Adverse)

Monthly Natural Inflow Volume (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	6,770	9,868	5,594	1,483	7,720	3,885	0	0	0	0	0	0	35.3
1927	5,980	10,673	3,245	3,844	3,470	575	86	0	0	0	0	0	27.9
1928	6,205	12,738	5,752	2,777	1,069	13,230	1,925	10,104	0	0	0	0	53.8
1929	6,261	11,017	727	1,495	0	2,356	0	0	0	0	0	0	21.9
1930	6,445	7,815	0	1,886	4,741	4,403	1,840	202	0	0	0	0	27.3
1931	5,735	6,069	0	336	1,709	1,975	1,269	0	0	0	0	0	17.1
1932	4,510	10,820	955	2,636	575	12,209	7,132	0	0	0	0	0	38.8
1933	5,767	14,622	7,058	8,884	1,603	1,846	4,763	1,150	0	0	0	0	45.7
1934	5,861	11,446	13,067	2,833	0	0	0	0	0	0	0	0	33.2
1935	6,816	10,885	6,986	8,135	7,676	0	0	0	0	0	0	0	40.5
1936	5,609	10,233	0	11,291	0	0	0	0	0	0	0	0	27.1
1937	4,574	3,608	4,237	0	1,045	4,967	793	0	0	0	0	0	19.2
1938	6,745	16,358	3,413	6,626	703	9,593	1,839	315	0	0	0	0	45.6
1939	7,267	12,110	2,608	6,459	0	0	0	0	0	0	0	0	28.4
1940	6,987	11,849	1,989	2,674	7,974	17,832	1,884	0	0	0	0	0	51.2
1941	7,655	10,728	4,655	1,533	1,731	3,168	113	0	0	0	0	0	29.6
1942	4,234	7,216	4,688	1,150	7,331	1,068	0	0	0	0	0	0	25.7
1943	3,217	11,682	1,220	799	225	2,209	9,229	1,545	0	0	0	0	30.1
1944	5,874	10,269	1,892	2,021	1,150	0	542	0	0	0	0	0	21.7
1945	2,495	7,853	1,134	4,564	4,916	568	0	382	0	0	0	0	21.9
1946	6,392	11,645	2,271	6,940	1,149	10,098	3,319	6,644	0	0	0	0	48.5
1947	7,350	9,334	5,300	3,871	5,541	3,734	428	0	0	0	0	0	35.6
1948	7,826	11,857	3,313	5,885	4,552	453	0	0	0	0	0	0	33.9
1949	5,729	11,109	5,798	0	0	0	0	0	0	0	0	0	22.6
1950	5,768	11,463	6,456	1,642	0	0	0	0	0	0	0	0	25.3
1951	5,362	13,888	11,018	1,518	0	0	0	0	0	0	0	0	31.8
1952	5,766	10,769	3,281	0	947	0	0	0	0	0	0	0	20.8
1953	4,486	7,141	148	6,253	8,814	4,513	0	0	0	0	0	0	31.4
1954	6,854	8,187	10,750	6,794	4,602	1,377	0	0	0	0	0	0	38.6
1955	5,802	10,863	947	3,649	757	0	0	0	0	0	0	0	22.0
1956	5,586	11,887	4,837	5,523	0	0	0	0	0	0	0	0	27.8
1957	5,766	11,720	6,677	0	0	0	0	0	0	0	0	0	24.2
1958	7,740	10,774	6,598	3,649	0	0	0	0	0	0	0	0	28.8
1959	7,125	16,908	1,979	6,322	2,056	7,898	3,451	0	0	0	0	0	45.7
1960	5,766	14,135	3,796	81	0	0	0	0	0	0	0	0	23.8
1961	5,779	14,823	907	4,271	0	0	0	0	0	0	0	0	25.8
1962	7,682	11,798	1,435	4,346	475	0	0	0	0	0	0	0	25.7
1963	6,001	14,117	627	3,389	8,727	2,944	566	0	0	0	0	0	36.4
1964	5,586	13,719	258	3,310	4,353	4,581	1,381	0	0	0	0	0	33.2
1965	5,735	12,269	2,893	805	14,362	7,449	0	0	0	0	0	0	43.5
1966	5,874	9,702	260	0	262	719	48	0	0	0	0	0	16.9
1967	7,140	10,609	3,688	13,623	13,617	3,881	0	0	0	0	0	0	52.6
1968	7,047	10,852	1,909	3,774	6,903	5,177	0	0	0	0	0	0	35.7
1969	7,165	9,628	5,112	606	0	2,560	0	0	0	0	0	0	25.1
1970	6,382	10,755	1,265	3,241	4,343	2,236	0	0	0	0	0	0	28.2
1971	7,208	11,569	30	7,360	8,771	0	3,453	14,555	0	0	0	0	52.9
1972	5,766	11,012	1,351	3,924	0	0	0	0	0	0	0	0	22.1
1973	5,766	11,332	5,437	4,276	0	0	0	0	0	0	0	0	26.8
1974	7,419	14,196	7,406	9,203	11,696	7,241	1,150	0	0	0	0	0	58.3
1975	5,802	15,020	8,950	1,137	0	0	0	0	0	0	0	0	30.9
1976	5,766	12,817	13,145	205	0	0	0	0	0	0	0	0	31.9
1977	5,768	9,745	372	1,519	1,406	0	0	0	0	0	0	0	18.8
1978	5,625	13,123	11,361	5,392	2,613	8,927	1,014	0	0	0	0	0	48.1
1979	7,370	7,885	2,301	0	162	5,180	0	0	0	0	0	0	22.9
1980	7,934	10,260	7,406	0	0	3,063	0	1,637	0	0	0	0	30.3
1981	7,253	8,656	5,752	6,357	7,286	2,838	0	0	0	0	0	0	38.1
1982	3,602	9,118	2,876	4,584	8,945	11,922	1,590	575	0	0	0	0	43.2
1983	7,826	10,777	4,496	5,361	6,473	10,947	761	0	0	0	0	0	46.6
1984	7,799	15,759	0	3,051	0	0	0	0	0	0	0	0	26.6
1985	5,893	11,362	0	0	1,151	73	0	0	0	0	0	0	18.5
1986	6,874	10,461	0	720	575	14,713	1,210	0	0	0	0	0	34.6
1987	5,514	16,008	1,467	0	4,482	10,321	0	1,269	0	0	0	0	39.1
1988	4,624	8,105	5,220	660	8,001	4,238	237	0	0	0	0	0	31.1
1989	6,483	11,921	27	4,388	1,150	3,968	8,614	3,967	0	0	0	0	40.5
1990	7,175	10,970	3,560	2,849	3,975	10,403	1,998	1,226	0	0	0	0	42.2
1991	7,263	11,896	11,274	4,411	10,625	2,574	3,757	829	0	0	0	0	52.6
1992	7,826	10,766	4,294	2,121	6,897	1,676	0	0	0	0	0	0	33.6
1993	6,581	11,650	9	0	0	1,174	0	695	0	0	0	0	20.1
1994	6,419	5,778	2,618	729	1,046	4,323	3,786	1,758	0	0	0	0	26.5
1995	3,280	11,381	3,805	743	6,682	5,443	0	0	0	0	0	0	31.3
1996	7,695	12,405	8,091	6,044	4,490	8,070	2,632	5,472	0	0	0	0	54.9
1997	7,826	8,507	0	2,931	3,480	9,053	6,875	1,140	0	0	0	0	39.8
1998	5,696	14,028	1,285	2,126	0	0	0	0	0	0	0	0	23.1
1999	7,065	14,824	6,277	6,337	5,764	0	0	0	0	0	0	0	40.3
2000	5,837	14,956	4,858	1,164	0	0	0	0	0	0	0	0	26.8
2001	5,525	10,910	0	0	205	1,166	0	0	0	0	0	0	17.8
2002	7,934	9,039	2,787	3,073	3,107	905	5,629	3,534	0	0	0	0	36.0
2003	7,122	10,217	1,328	4,579	1,676	0	0	0	0	0	0	0	24.9
2004	7,934	11,583	553	0	2,175	10,685	383	0	0	0	0	0	33.3
2005	7,225	9,940	1,175	2,493	1,409	9,231	1,210	0	0	0	0	0	32.7
2006	6,295	10,716	2,876	7,164	3,840	1,306	4,543	4,027	0	0	0	0	40.8
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	6,268	11,191	3,619	3,282	3,126	3,543	1,104	753	0	0	0	0	32.9

Wymer (IP6 Full IP CC3 Adverse)

Total Monthly Inflow (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	6,770	11,528	8,545	7,852	13,569	10,214	1,488	635	0	0	0	0	60.6
1927	5,980	12,318	5,902	10,224	9,414	6,473	7,355	4,225	0	0	0	0	61.9
1928	6,205	19,036	12,378	8,609	6,946	19,605	9,126	15,593	0	0	0	0	97.5
1929	6,367	17,943	8,639	9,944	8,173	11,885	1,605	1,587	0	0	0	0	66.1
1930	6,445	9,495	1,619	3,560	6,285	6,068	1,900	202	0	0	0	0	35.6
1931	5,735	12,361	6,221	6,493	7,346	8,318	4,029	3,466	0	0	0	0	54.0
1932	4,510	14,803	6,925	8,794	6,293	18,844	14,397	6,109	0	0	0	0	80.7
1933	7,934	21,992	15,283	17,922	9,781	11,295	13,338	2,241	0	0	0	0	99.8
1934	7,934	18,025	19,851	4,190	0	0	0	0	0	0	0	0	50.0
1935	6,924	17,764	14,748	17,330	16,592	3,084	0	0	0	0	0	0	76.4
1936	7,669	16,735	6,481	17,607	1,509	0	0	0	0	0	0	0	50.0
1937	4,574	5,270	5,866	1,601	2,573	6,577	853	0	0	0	0	0	27.3
1938	6,745	21,254	9,630	13,219	6,095	16,141	11,609	1,187	0	0	0	0	85.9
1939	7,375	19,215	10,089	13,322	0	0	0	0	0	0	0	0	50.0
1940	6,987	13,477	6,488	9,122	14,156	24,595	2,102	0	0	0	0	0	76.9
1941	7,655	16,394	10,931	7,875	7,106	9,210	2,077	0	0	0	0	0	61.2
1942	4,234	13,510	11,166	7,124	13,316	6,724	2,598	0	0	0	0	0	58.7
1943	3,217	17,317	7,654	7,327	5,815	8,319	14,977	7,381	0	0	0	0	72.0
1944	7,934	16,636	8,362	8,403	6,796	5,371	3,299	476	0	0	0	0	57.3
1945	2,495	13,177	7,470	11,141	10,650	6,725	3,868	2,762	0	0	0	0	58.3
1946	6,392	17,758	8,549	13,379	6,945	16,577	11,126	13,286	0	0	0	0	94.0
1947	7,458	16,442	13,606	12,663	14,243	13,551	10,679	3,491	0	0	0	0	92.1
1948	7,934	18,763	11,243	14,774	13,140	7,861	0	0	0	0	0	0	73.7
1949	7,789	17,608	12,073	6,013	5,452	1,065	0	0	0	0	0	0	50.0
1950	7,934	18,784	14,519	8,764	0	0	0	0	0	0	0	0	50.0
1951	7,530	20,926	19,143	2,401	0	0	0	0	0	0	0	0	50.0
1952	7,934	18,109	11,314	8,604	4,040	0	0	313	0	0	0	0	50.3
1953	4,486	8,718	1,744	7,936	10,352	6,087	1,715	893	0	0	0	0	41.9
1954	6,854	14,457	16,995	13,321	9,692	2,032	0	0	0	0	0	0	63.4
1955	7,934	17,953	8,502	11,876	3,736	0	0	0	0	0	0	0	50.0
1956	7,646	17,919	11,344	12,123	969	0	0	0	0	0	0	0	50.0
1957	7,934	19,032	14,942	8,093	0	0	0	0	0	0	0	0	50.0
1958	7,848	15,837	14,558	11,758	0	0	0	0	0	0	0	0	50.0
1959	7,125	21,153	8,469	12,964	7,405	14,623	10,696	0	0	0	0	0	82.4
1960	7,934	21,524	12,059	8,483	0	0	0	0	0	0	0	0	50.0
1961	7,934	22,192	8,999	10,875	0	0	0	0	0	0	0	0	50.0
1962	7,790	17,084	9,259	13,285	3,866	0	0	0	0	0	0	0	51.3
1963	6,001	16,898	7,134	9,892	14,631	9,370	3,164	0	0	0	0	0	67.1
1964	5,586	16,817	6,440	9,891	10,562	10,630	9,264	436	0	0	0	0	69.6
1965	7,795	18,801	9,444	7,082	20,450	12,851	0	0	0	0	0	0	76.4
1966	7,934	16,191	6,429	6,493	5,640	7,048	400	186	0	0	0	0	50.3
1967	7,140	12,277	7,725	20,336	19,670	8,341	0	0	0	0	0	0	75.5
1968	7,047	17,121	8,207	10,172	13,027	7,311	0	0	0	0	0	0	62.9
1969	7,273	16,697	12,937	9,484	7,961	8,978	0	0	0	0	0	0	63.3
1970	6,382	12,400	3,303	9,684	10,130	8,799	3,491	0	0	0	0	0	54.2
1971	7,208	13,230	1,696	9,122	10,324	1,653	6,718	17,151	0	0	0	0	67.1
1972	7,934	18,007	8,983	12,645	2,432	0	0	0	0	0	0	0	50.0
1973	7,934	18,523	13,564	9,980	0	0	0	0	0	0	0	0	50.0
1974	7,419	15,867	11,216	15,888	17,694	13,385	6,342	0	0	0	0	0	87.8
1975	7,934	22,106	16,734	3,227	0	0	0	0	0	0	0	0	50.0
1976	7,934	20,177	21,398	491	0	0	0	0	0	0	0	0	50.0
1977	7,934	17,022	8,126	10,544	6,375	0	317	0	0	0	0	0	50.3
1978	5,625	16,619	18,042	11,842	8,544	15,319	1,232	0	0	0	0	0	77.2
1979	7,370	14,159	8,622	6,096	6,101	11,654	1,428	3,491	0	0	0	0	58.9
1980	7,934	11,876	11,355	6,496	6,084	9,261	7,705	4,977	0	0	0	0	65.7
1981	7,253	14,632	12,209	12,757	13,327	9,430	1,698	0	0	0	0	0	71.3
1982	3,602	15,371	9,163	11,229	14,976	18,553	9,203	7,229	0	0	0	0	89.3
1983	7,934	17,891	12,827	14,474	14,856	21,813	9,590	1,067	0	0	0	0	100.5
1984	7,907	22,928	7,929	11,237	0	0	0	0	0	0	0	0	50.0
1985	7,934	17,627	5,399	6,292	6,173	5,249	1,327	228	0	0	0	0	50.2
1986	6,874	16,096	6,132	6,742	6,281	21,356	3,808	1,745	0	0	0	0	69.0
1987	5,514	18,685	7,152	6,401	10,027	17,060	3,709	3,015	0	0	0	0	71.6
1988	4,624	9,797	6,967	2,399	9,627	5,843	297	0	0	0	0	0	39.6
1989	6,483	17,424	6,432	10,893	6,258	10,161	15,067	5,554	0	0	0	0	78.3
1990	7,230	17,669	10,585	10,280	11,027	18,742	10,584	6,026	0	0	0	0	92.1
1991	7,371	19,062	19,372	13,368	19,652	12,377	13,070	6,646	0	0	0	0	110.9
1992	7,934	17,631	11,459	10,543	15,707	11,302	1,711	0	0	0	0	0	76.3
1993	6,581	13,306	1,678	1,716	1,524	2,840	60	695	0	0	0	0	28.4
1994	6,419	7,429	7,456	7,003	6,796	10,942	7,971	5,475	0	0	0	0	59.5
1995	3,280	17,164	10,111	6,728	12,525	11,470	3,074	3,808	0	0	0	0	68.2
1996	7,695	18,694	14,723	12,482	10,581	14,706	10,221	11,246	0	0	0	0	100.3
1997	7,934	15,392	7,476	11,860	12,077	19,607	16,851	1,624	0	0	0	0	92.8
1998	7,865	21,379	9,329	11,198	230	0	0	0	0	0	0	0	50.0
1999	7,174	21,995	14,381	15,124	12,834	0	0	0	0	0	0	0	71.5
2000	7,898	21,492	11,450	7,489	1,672	0	0	0	0	0	0	0	50.0
2001	7,645	17,906	6,172	6,212	3,831	6,331	1,903	0	0	0	0	0	50.0
2002	7,934	12,433	9,183	9,019	9,117	7,357	11,908	9,207	0	0	0	0	76.2
2003	7,230	17,316	9,236	13,283	2,935	0	0	0	0	0	0	0	50.0
2004	7,934	14,701	6,852	5,817	8,096	17,198	3,774	3,174	0	0	0	0	67.5
2005	7,225	16,241	6,959	8,596	6,943	15,662	4,602	1,428	0	0	0	0	67.7
2006	6,295	16,962	9,559	13,540	9,545	7,779	11,025	10,005	0	0	0	0	84.7
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	6,917	16,599	9,915	9,692	7,636	7,798	3,832	2,077	0	0	0	0	64.5

Wymer (IP6 Full IP CC3 Adverse)

Monthly Proration Pool Release (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	0	0	0	0	0	743	1,954	9,815	12,790	11,943	4,097	41.3
1927	4,807	0	0	0	0	0	0	0	1,016	13,591	59,386	30,518	109.3
1928	1,600	0	0	0	0	0	0	0	1,464	12,558	12,424	1,923	30.0
1929	0	0	0	0	0	0	0	0	1,639	30,130	52,814	3,659	88.2
1930	1	0	0	0	0	0	155	3,083	15,239	6,149	2	0	24.6
1931	0	0	0	0	0	0	2,971	776	386	33,087	143	0	37.4
1932	0	0	0	0	0	0	0	0	0	0	0	0	0.0
1933	0	0	0	0	0	0	0	0	0	0	0	0	-
1934	0	0	0	0	0	0	0	1,255	1,515	12,406	10,390	877	26.4
1935	0	0	0	0	0	0	0	0	0	0	0	0	-
1936	0	0	0	0	0	0	0	1,590	849	10,988	11,021	867	25.3
1937	0	0	0	0	0	0	0	0	3,299	12,620	12,031	1,524	29.5
1938	0	0	0	0	0	0	0	0	0	0	0	0	-
1939	0	0	0	0	0	0	263	571	2,381	11,783	12,349	1,431	28.8
1940	0	0	0	0	0	0	360	3,454	2,662	13,339	11,489	2,564	33.9
1941	0	0	0	0	0	0	0	342	27,235	40,402	35,642	8,657	112.3
1942	13	0	0	0	0	0	2,955	6,865	22,189	8,607	4	0	40.6
1943	0	0	0	0	0	0	0	0	0	0	0	0	0.0
1944	0	0	0	0	0	0	58	728	21,873	50,311	16,527	7	89.5
1945	0	0	0	0	0	0	0	0	3,464	36,758	130	0	40.4
1946	0	0	0	0	0	0	0	0	0	0	0	0	0.0
1947	0	0	0	0	0	0	0	0	186	10,705	11,809	1,014	23.7
1948	0	0	0	0	0	0	0	0	0	0	0	0	-
1949	0	0	0	0	0	0	0	0	0	0	0	0	-
1950	0	0	0	0	0	0	0	0	0	0	0	0	-
1951	0	0	0	0	0	0	0	0	0	0	0	0	-
1952	0	0	0	0	0	0	0	313	2,600	6,943	11,218	1,970	23.0
1953	0	0	0	0	0	0	0	0	878	6,724	5,041	706	13.3
1954	0	0	0	0	0	0	0	0	0	0	0	0	-
1955	0	0	0	0	0	0	0	0	0	0	0	0	-
1956	0	0	0	0	0	0	0	0	0	0	0	0	-
1957	0	0	0	0	0	0	0	0	0	0	0	0	-
1958	0	0	0	0	0	0	296	1,760	1,503	12,536	14,223	2,116	32.4
1959	0	0	0	0	0	0	0	0	0	0	0	0	-
1960	0	0	0	0	0	0	0	0	0	0	0	0	-
1961	0	0	0	0	0	0	0	0	0	0	0	0	-
1962	1,283	0	0	0	0	0	0	0	4,165	13,615	10,688	2,829	32.6
1963	0	0	0	0	0	0	561	2,321	6,348	9,697	12,259	35,345	66.5
1964	8,169	0	0	0	0	0	0	0	0	0	0	0	8.2
1965	0	0	0	0	0	0	0	0	0	0	0	0	-
1966	0	0	0	0	0	0	134	186	316	10,456	12,025	2,691	25.8
1967	0	0	0	0	0	0	0	0	0	2,694	9,265	924	12.9
1968	0	0	0	0	0	0	0	0	0	3,046	8,676	1,608	13.3
1969	0	0	0	0	0	0	0	0	653	5,654	10,920	2,577	19.8
1970	0	0	0	0	0	0	0	0	0	5,837	10,225	1,040	17.1
1971	0	0	0	0	0	0	0	0	0	0	0	0	-
1972	0	0	0	0	0	0	0	0	0	0	0	0	-
1973	0	0	0	0	0	0	595	597	8,253	13,684	11,811	2,870	37.8
1974	0	0	0	0	0	0	0	0	0	0	0	0	-
1975	0	0	0	0	0	0	0	0	0	0	0	0	-
1976	0	0	0	0	0	0	0	0	0	0	0	0	-
1977	0	0	0	0	0	0	672	20	4,875	8,875	8,649	6,870	30.0
1978	7,299	0	0	0	0	0	0	102	2,035	9,025	11,263	656	30.4
1979	0	0	0	0	0	0	845	126	6,388	58,164	47,126	487	113.1
1980	0	0	0	0	0	0	0	135	3,823	41,105	415	0	45.5
1981	0	0	0	0	0	0	68	1,105	1,299	31,810	15,079	4	49.4
1982	0	0	0	0	0	0	0	0	0	0	0	0	0.0
1983	0	0	0	0	0	0	0	0	0	0	0	0	-
1984	0	0	0	0	0	0	0	0	0	0	0	0	-
1985	0	0	0	0	0	0	67	627	2,003	10,568	11,832	2,485	27.6
1986	0	0	0	0	0	0	0	118	416	48,729	59,471	3,675	112.4
1987	1	0	0	0	0	0	1,670	824	15,016	31,976	58	0	49.5
1988	0	0	0	0	0	0	990	2,260	10,056	14,074	4	0	27.4
1989	0	0	0	0	0	0	0	0	3,200	37,347	13,635	4	54.2
1990	0	0	0	0	0	0	0	0	2,934	6,097	39,721	15,020	63.8
1991	18	0	0	0	0	0	0	0	0	0	0	0	0.0
1992	0	0	0	0	0	0	932	2,105	8,390	10,943	14,557	31,194	68.1
1993	9,063	0	0	0	0	0	227	831	12,345	40,972	394	0	63.8
1994	0	0	0	0	0	0	0	0	10,607	29,049	1,530	0	41.2
1995	0	0	0	0	0	0	0	0	5,258	41,756	173	0	47.2
1996	0	0	0	0	0	0	0	0	0	0	0	0	0.0
1997	0	0	0	0	0	0	0	0	0	0	0	0	-
1998	0	0	0	0	0	0	0	607	241	9,387	10,025	1,246	21.5
1999	0	0	0	0	0	0	0	0	0	0	0	0	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	-
2001	0	0	0	0	0	0	0	0	0	9,529	13,046	4,427	27.0
2002	0	0	0	0	0	0	0	0	0	0	0	0	-
2003	0	0	0	0	0	0	0	0	4,129	13,089	11,548	2,087	30.9
2004	0	0	0	0	0	0	434	513	1,795	13,851	15,093	31,082	62.8
2005	6,937	0	0	0	0	0	170	613	37,391	50,194	1,930	0	97.2
2006	0	0	0	0	0	0	0	0	4,931	7,835	45,532	347	58.6
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	484	0	0	0	0	0	187	442	3,420	11,500	8,587	2,610	27.2

Wymer (IP6 Full IP CC3 Adverse)

Monthly TWSA Pool Release (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	0	0	0	0	0	0	35,448	13,751	0	0	0	49.2
1927	0	0	0	0	0	0	0	0	0	19,044	0	0	19.0
1928	0	0	0	0	0	0	0	0	30,000	0	0	0	30.0
1929	0	0	0	0	0	0	0	0	20,352	0	0	0	20.4
1930	0	0	0	0	0	0	0	0	10,945	0	0	0	10.9
1931	0	0	0	0	0	0	0	0	16,606	0	0	0	16.6
1932	0	0	0	0	0	0	0	0	0	24,823	0	0	24.8
1933	0	0	0	0	0	0	0	4,423	0	38,924	0	0	43.3
1934	0	0	0	0	0	0	0	815	49,186	0	0	0	50.0
1935	0	0	0	0	0	0	0	0	25,786	24,215	0	0	50.0
1936	0	0	0	0	0	0	0	0	45,679	4,321	0	0	50.0
1937	0	0	0	0	0	0	0	0	8,404	0	0	0	8.4
1938	0	0	0	0	0	0	0	0	5,929	44,072	0	0	50.0
1939	0	0	0	0	0	0	0	11,664	38,336	0	0	0	50.0
1940	0	0	0	0	0	0	0	1,844	46,307	0	0	0	48.2
1941	0	0	0	0	0	0	0	26,143	1,239	0	0	0	27.4
1942	0	0	0	0	0	0	0	18,053	0	0	0	0	18.1
1943	0	0	0	0	0	0	0	0	0	22,156	0	0	22.2
1944	0	0	0	0	0	0	0	0	17,624	0	0	0	17.6
1945	0	0	0	0	0	0	0	0	17,935	0	0	0	17.9
1946	0	0	0	0	0	0	0	0	3,967	24,959	0	0	28.9
1947	0	0	0	0	0	0	0	0	42,971	1,955	0	0	44.9
1948	0	0	0	0	0	0	0	1,984	0	48,017	0	0	50.0
1949	0	0	0	0	0	0	0	0	19,835	30,166	0	0	50.0
1950	0	0	0	0	0	0	0	0	0	29,753	20,248	0	50.0
1951	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1952	0	0	0	0	0	0	0	0	29,562	20,438	0	0	50.0
1953	0	0	0	0	0	0	0	0	9,875	9,326	0	0	19.2
1954	0	0	0	0	0	0	0	2,411	1,185	46,405	0	0	50.0
1955	0	0	0	0	0	0	0	2,172	10,653	37,176	0	0	50.0
1956	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1957	0	0	0	0	0	0	0	0	37,653	12,348	0	0	50.0
1958	0	0	0	0	0	0	0	3,922	46,079	0	0	0	50.0
1959	0	0	0	0	0	0	0	0	7,934	42,067	0	0	50.0
1960	0	0	0	0	0	0	0	0	19,835	30,166	0	0	50.0
1961	0	0	0	0	0	0	0	0	11,003	38,998	0	0	50.0
1962	0	0	0	0	0	0	0	12,742	37,259	0	0	0	50.0
1963	0	0	0	0	0	0	0	35,719	0	0	0	0	35.7
1964	0	0	0	0	0	0	0	8,481	0	12,943	0	0	21.4
1965	0	0	0	0	0	0	0	5,074	6,892	38,035	0	0	50.0
1966	0	0	0	0	0	0	0	0	47,496	2,504	0	0	50.0
1967	0	0	0	0	0	0	0	14,146	492	35,362	0	0	50.0
1968	0	0	0	0	0	0	0	0	39,352	10,649	0	0	50.0
1969	0	0	0	0	0	0	0	0	19,758	30,243	0	0	50.0
1970	0	0	0	0	0	0	0	12,125	18,988	3,272	0	0	34.4
1971	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1972	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1973	0	0	0	0	0	0	0	44,743	5,258	0	0	0	50.0
1974	0	0	0	0	0	0	0	0	3,075	46,926	0	0	50.0
1975	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1976	0	0	0	0	0	0	0	0	3,967	33,767	12,266	0	50.0
1977	0	0	0	0	0	0	0	40,927	9,073	0	0	0	50.0
1978	0	0	0	0	0	0	0	35,606	4,675	0	0	0	40.3
1979	0	0	0	0	0	0	0	0	32,201	2,795	0	0	35.0
1980	0	0	0	0	0	0	0	0	20,212	0	0	0	20.2
1981	0	0	0	0	0	0	0	21,532	408	0	0	0	21.9
1982	0	0	0	0	0	0	0	0	0	27,485	0	0	27.5
1983	0	0	0	0	0	0	0	0	42,074	7,927	0	0	50.0
1984	0	0	0	0	0	0	0	8,198	152	41,651	0	0	50.0
1985	0	0	0	0	0	0	0	3,967	46,034	0	0	0	50.0
1986	0	0	0	0	0	0	0	0	35,680	5,883	0	0	41.6
1987	0	0	0	0	0	0	0	12,335	9,685	0	0	0	22.0
1988	0	0	0	0	0	0	0	0	12,171	0	0	0	12.2
1989	0	0	0	0	0	0	0	0	24,083	0	0	0	24.1
1990	0	0	0	0	0	0	0	0	5,829	22,523	0	0	28.4
1991	0	0	0	0	0	0	0	0	34,128	0	0	0	34.1
1992	0	0	0	0	0	0	0	29,634	11,152	0	0	0	40.8
1993	0	0	0	0	0	0	0	0	8,739	0	0	0	8.7
1994	0	0	0	0	0	0	0	0	18,305	0	0	0	18.3
1995	0	0	0	0	0	0	0	0	20,972	0	0	0	21.0
1996	0	0	0	0	0	0	0	0	19,835	11,042	0	0	30.9
1997	0	0	0	0	0	0	0	0	0	48,316	1,685	0	50.0
1998	0	0	0	0	0	0	0	0	37,647	12,354	0	0	50.0
1999	0	0	0	0	0	0	0	18,825	17,304	13,872	0	0	50.0
2000	0	0	0	0	0	0	0	14,019	12,471	23,510	0	0	50.0
2001	0	0	0	0	0	0	0	0	49,588	413	0	0	50.0
2002	0	0	0	0	0	0	0	0	0	49,155	0	0	49.2
2003	0	0	0	0	0	0	0	25,485	24,515	0	0	0	50.0
2004	0	0	0	0	0	0	0	0	35,819	0	0	0	35.8
2005	0	0	0	0	0	0	0	5,856	14,960	0	0	0	20.8
2006	0	0	0	0	0	0	0	0	0	26,065	0	0	26.1
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	0	0	0	0	0	0	0	5,658	16,282	16,124	422	0	38.5

Wymer (IP6 Full IP CC3 Adverse)

Total Monthly Wymer Release (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	0	0	0	0	0	743	37,402	23,565	12,790	11,943	4,097	90.5
1927	4,807	0	0	0	0	0	0	0	1,016	32,635	59,386	30,518	128.4
1928	1,600	0	0	0	0	0	0	0	31,464	12,558	12,424	1,923	60.0
1929	0	0	0	0	0	0	0	0	21,990	30,130	52,814	3,659	108.6
1930	1	0	0	0	0	0	155	3,083	26,184	6,149	2	0	35.6
1931	0	0	0	0	0	0	2,971	776	16,992	33,087	143	0	54.0
1932	0	0	0	0	0	0	0	0	0	24,823	0	0	24.8
1933	0	0	0	0	0	0	0	4,423	0	38,924	0	0	43.3
1934	0	0	0	0	0	0	0	2,070	50,700	12,406	10,390	877	76.4
1935	0	0	0	0	0	0	0	0	25,786	24,215	0	0	50.0
1936	0	0	0	0	0	0	0	1,590	46,528	15,310	11,021	867	75.3
1937	0	0	0	0	0	0	0	0	11,703	12,620	12,031	1,524	37.9
1938	0	0	0	0	0	0	0	0	5,929	44,072	0	0	50.0
1939	0	0	0	0	0	0	263	12,235	40,717	11,783	12,349	1,431	78.8
1940	0	0	0	0	0	0	360	5,297	48,969	13,339	11,489	2,564	82.0
1941	0	0	0	0	0	0	0	26,485	28,474	40,402	35,642	8,657	139.7
1942	13	0	0	0	0	0	2,955	24,918	22,189	8,607	4	0	58.7
1943	0	0	0	0	0	0	0	0	0	22,156	0	0	22.2
1944	0	0	0	0	0	0	58	728	39,497	50,311	16,527	7	107.1
1945	0	0	0	0	0	0	0	0	21,399	36,758	130	0	58.3
1946	0	0	0	0	0	0	0	0	3,967	24,959	0	0	28.9
1947	0	0	0	0	0	0	0	0	43,157	12,660	11,809	1,014	68.6
1948	0	0	0	0	0	0	0	1,984	0	48,017	0	0	50.0
1949	0	0	0	0	0	0	0	0	19,835	30,166	0	0	50.0
1950	0	0	0	0	0	0	0	0	0	29,753	20,248	0	50.0
1951	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1952	0	0	0	0	0	0	0	313	32,162	27,381	11,218	1,970	73.0
1953	0	0	0	0	0	0	0	0	10,753	16,051	5,041	706	32.6
1954	0	0	0	0	0	0	0	2,411	1,185	46,405	0	0	50.0
1955	0	0	0	0	0	0	0	2,172	10,653	37,176	0	0	50.0
1956	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1957	0	0	0	0	0	0	0	0	37,653	12,348	0	0	50.0
1958	0	0	0	0	0	0	296	5,682	47,582	12,536	14,223	2,116	82.4
1959	0	0	0	0	0	0	0	0	7,934	42,067	0	0	50.0
1960	0	0	0	0	0	0	0	0	19,835	30,166	0	0	50.0
1961	0	0	0	0	0	0	0	0	11,003	38,998	0	0	50.0
1962	1,283	0	0	0	0	0	0	12,742	41,424	13,615	10,688	2,829	82.6
1963	0	0	0	0	0	0	561	38,040	6,348	9,697	12,259	35,345	102.2
1964	8,169	0	0	0	0	0	0	8,481	0	12,943	0	0	29.6
1965	0	0	0	0	0	0	0	5,074	6,892	38,035	0	0	50.0
1966	0	0	0	0	0	0	134	186	47,812	12,961	12,025	2,691	75.8
1967	0	0	0	0	0	0	0	14,146	492	38,056	9,265	924	62.9
1968	0	0	0	0	0	0	0	0	39,352	13,694	8,676	1,608	63.3
1969	0	0	0	0	0	0	0	0	20,410	35,897	10,920	2,577	69.8
1970	0	0	0	0	0	0	0	12,125	18,988	9,109	10,225	1,040	51.5
1971	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1972	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1973	0	0	0	0	0	0	595	45,340	13,511	13,684	11,811	2,870	87.8
1974	0	0	0	0	0	0	0	0	3,075	46,926	0	0	50.0
1975	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1976	0	0	0	0	0	0	0	0	3,967	33,767	12,266	0	50.0
1977	0	0	0	0	0	0	672	40,947	13,949	8,875	8,649	6,870	80.0
1978	7,299	0	0	0	0	0	0	35,708	6,710	9,025	11,263	656	70.7
1979	0	0	0	0	0	0	845	126	38,589	60,959	47,126	487	148.1
1980	0	0	0	0	0	0	0	135	24,035	41,105	415	0	65.7
1981	0	0	0	0	0	0	68	22,637	1,707	31,810	15,079	4	71.3
1982	0	0	0	0	0	0	0	0	0	27,485	0	0	27.5
1983	0	0	0	0	0	0	0	0	42,074	7,927	0	0	50.0
1984	0	0	0	0	0	0	0	8,198	152	41,651	0	0	50.0
1985	0	0	0	0	0	0	67	4,594	48,037	10,568	11,832	2,485	77.6
1986	0	0	0	0	0	0	0	118	36,096	54,612	59,471	3,675	154.0
1987	1	0	0	0	0	0	1,670	13,159	24,701	31,976	58	0	71.6
1988	0	0	0	0	0	0	990	2,260	22,227	14,074	4	0	39.6
1989	0	0	0	0	0	0	0	0	27,284	37,347	13,635	4	78.3
1990	0	0	0	0	0	0	0	0	8,762	28,620	39,721	15,020	92.1
1991	18	0	0	0	0	0	0	0	34,128	0	0	0	34.1
1992	0	0	0	0	0	0	932	31,739	19,543	10,943	14,557	31,194	108.9
1993	9,063	0	0	0	0	0	227	831	21,083	40,972	394	0	72.6
1994	0	0	0	0	0	0	0	0	28,912	29,049	1,530	0	59.5
1995	0	0	0	0	0	0	0	0	26,231	41,756	173	0	68.2
1996	0	0	0	0	0	0	0	0	19,835	11,042	0	0	30.9
1997	0	0	0	0	0	0	0	0	0	48,316	1,685	0	50.0
1998	0	0	0	0	0	0	0	607	37,888	21,741	10,025	1,246	71.5
1999	0	0	0	0	0	0	0	18,825	17,304	13,872	0	0	50.0
2000	0	0	0	0	0	0	0	14,019	12,471	23,510	0	0	50.0
2001	0	0	0	0	0	0	0	0	49,588	9,942	13,046	4,427	77.0
2002	0	0	0	0	0	0	0	0	0	49,155	0	0	49.2
2003	0	0	0	0	0	0	0	25,485	28,644	13,089	11,548	2,087	80.9
2004	0	0	0	0	0	0	434	513	37,614	13,851	15,093	31,082	98.6
2005	6,937	0	0	0	0	0	170	6,469	52,351	50,194	1,930	0	118.1
2006	0	0	0	0	0	0	0	0	4,931	33,900	45,532	347	84.7
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	484	0	0	0	0	0	187	6,100	19,703	27,624	9,009	2,610	65.7

IP6 Full Integrated Plan CC3 Adverse - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,483	12,372	49,286
1926	56,719	76,657	80,262	70,830	42,076	11,316	8,544	7,761	5,497	13,872	19,427	27,332
1927	43,133	56,750	60,880	71,997	79,221	76,339	49,994	18,861	15,479	20,826	47,724	60,763
1928	77,957	77,297	98,275	85,981	79,490	65,648	42,069	12,091	7,622	14,193	17,758	19,118
1929	16,118	9,410	21,717	33,660	48,948	40,997	11,883	7,460	3,770	4,430	4,966	14,065
1930	12,568	30,899	41,734	55,373	60,042	52,342	33,090	12,340	8,477	14,463	14,744	13,861
1931	31,163	37,689	66,672	75,629	67,930	55,279	35,995	15,776	13,547	20,146	33,979	39,111
1932	46,115	48,030	86,432	101,764	93,241	67,545	27,185	10,454	7,752	11,554	80,362	89,152
1933	86,139	74,205	77,366	82,997	92,038	89,543	47,676	11,755	11,091	29,410	62,481	129,845
1934	121,920	133,056	152,345	156,967	151,947	123,112	74,175	37,850	32,852	50,676	66,768	87,246
1935	94,686	90,767	91,296	101,013	101,196	83,661	37,066	10,528	6,766	8,294	12,684	20,604
1936	53,519	45,080	47,222	72,093	79,613	70,539	40,478	11,258	8,396	6,905	6,429	32,003
1937	27,084	22,820	32,828	73,178	78,595	72,135	38,997	11,476	8,511	10,215	51,789	77,235
1938	79,219	80,167	80,277	88,537	79,835	60,171	16,930	8,557	4,572	11,887	18,404	45,308
1939	71,104	66,007	71,501	78,555	70,014	56,172	27,859	9,529	6,200	11,172	15,981	74,723
1940	78,951	84,168	83,922	79,943	60,306	28,396	10,306	6,975	3,270	8,543	13,304	38,897
1941	45,349	47,861	50,487	49,900	43,406	22,331	9,510	6,985	7,720	11,942	26,271	79,526
1942	79,589	77,464	79,487	76,827	63,097	61,099	40,108	15,598	11,378	10,254	33,910	50,379
1943	47,883	51,029	61,877	86,838	80,374	61,636	20,250	9,615	5,963	13,938	16,479	30,698
1944	36,594	37,866	38,460	53,331	67,078	43,100	12,253	7,609	6,002	6,420	12,781	14,068
1945	34,991	42,857	44,935	63,209	82,273	67,110	39,141	11,255	12,624	26,210	40,292	56,138
1946	73,180	72,209	82,076	80,844	90,162	66,366	28,157	9,480	6,165	14,733	24,041	78,575
1947	82,352	80,126	80,649	79,701	68,879	58,432	33,805	10,894	8,196	30,164	59,346	80,451
1948	77,523	75,029	74,377	79,460	99,952	116,869	69,709	30,488	25,887	27,174	43,550	58,368
1949	54,732	48,046	60,436	82,167	137,424	129,661	82,808	41,928	35,176	36,387	47,574	69,219
1950	65,449	61,304	59,059	74,086	113,599	158,154	140,945	103,569	79,612	84,784	95,910	116,321
1951	116,419	128,755	120,542	126,944	156,796	148,448	103,654	61,605	54,442	57,673	65,017	75,373
1952	71,357	75,129	77,545	85,033	88,074	75,507	49,419	13,252	7,998	5,402	6,817	9,218
1953	41,301	65,182	73,584	78,715	79,883	76,069	53,954	24,673	19,712	20,719	39,387	91,267
1954	86,163	94,614	80,123	82,788	98,765	83,864	45,484	11,466	8,281	8,076	22,824	29,010
1955	42,373	38,793	31,188	37,082	70,955	90,284	50,542	12,369	7,845	25,344	63,960	94,318
1956	103,254	95,005	94,897	105,772	139,318	157,428	111,777	69,912	63,024	68,324	78,762	114,541
1957	88,347	78,540	92,189	116,699	140,241	116,457	65,238	24,911	18,286	20,205	27,545	55,848
1958	73,657	92,600	82,019	95,794	83,640	67,452	36,009	10,499	6,738	14,383	37,668	82,877
1959	93,079	79,975	80,994	103,562	114,342	99,391	49,944	11,823	15,026	35,292	67,721	85,428
1960	80,143	86,574	91,544	107,042	118,352	102,852	52,310	14,073	9,076	15,863	46,056	51,475
1961	78,981	102,944	125,018	135,348	148,051	138,005	87,866	47,047	40,301	43,661	46,110	64,106
1962	80,098	79,697	80,092	80,119	66,301	55,495	27,713	10,460	7,716	11,444	31,495	48,949
1963	54,761	78,828	80,977	72,655	41,341	16,531	10,368	8,705	5,738	14,285	35,912	49,169
1964	66,584	69,505	80,534	77,742	89,117	94,205	54,488	16,309	11,945	15,648	26,096	46,587
1965	61,225	81,853	78,541	86,396	83,010	65,179	31,333	11,392	7,471	13,579	18,958	23,689
1966	28,288	27,909	44,341	72,969	79,982	72,624	41,928	11,374	7,544	15,111	21,046	75,815
1967	83,401	80,084	79,847	70,775	80,144	78,186	54,994	23,569	17,678	22,678	26,776	54,802
1968	77,295	99,513	101,911	102,239	87,312	59,063	19,877	12,420	9,599	17,137	34,302	53,498
1969	49,970	41,450	48,237	79,624	93,050	79,216	52,788	17,923	16,237	16,406	21,355	46,212
1970	70,420	80,340	80,214	76,065	78,812	75,212	52,474	19,145	15,694	17,333	19,175	16,450
1971	38,595	57,913	50,499	68,141	117,412	137,509	106,028	66,930	62,631	66,737	80,833	78,848
1972	79,193	80,472	97,330	110,212	143,795	157,770	118,511	78,184	75,759	70,798	81,026	118,796
1973	116,445	119,734	124,695	117,200	97,374	73,881	40,217	10,610	6,921	8,205	22,332	65,004
1974	88,531	79,947	81,760	80,248	97,166	104,574	72,828	35,694	28,921	22,645	25,710	57,150
1975	78,644	76,633	78,016	79,976	117,923	127,209	84,087	46,158	40,106	61,578	90,592	118,796
1976	118,796	121,796	112,640	112,582	142,461	134,205	92,221	54,768	49,041	44,643	43,721	46,602
1977	51,084	54,466	68,743	54,653	24,391	9,478	7,179	7,977	7,770	8,195	30,826	82,812
1978	79,864	80,275	82,259	80,308	62,904	47,179	19,818	10,597	12,263	10,402	18,746	28,259
1979	20,821	18,474	34,845	53,349	78,080	60,363	36,001	11,430	7,936	10,149	8,680	43,319
1980	39,959	45,379	61,674	80,902	78,427	67,034	39,867	11,910	10,249	8,396	21,216	64,946
1981	69,961	90,704	80,350	80,532	57,161	46,697	17,711	8,257	6,819	15,664	27,818	50,621
1982	65,838	87,617	79,993	80,328	80,538	79,789	38,442	10,240	7,792	13,521	26,201	48,438
1983	73,333	86,014	89,273	78,841	71,692	47,138	12,204	9,057	6,976	6,485	44,190	44,254
1984	70,205	75,671	83,903	71,437	73,669	56,442	16,565	8,247	4,939	5,385	14,200	11,389
1985	9,730	5,565	8,463	26,583	40,537	35,440	11,192	8,129	4,670	14,270	25,946	19,893
1986	32,805	40,017	67,010	74,752	78,808	57,143	28,646	9,849	8,267	9,923	45,525	48,702
1987	54,564	72,764	81,701	78,334	65,961	44,873	18,887	8,448	4,626	2,870	8,262	20,387
1988	22,538	34,247	53,370	65,610	72,599	58,768	36,011	12,140	9,377	17,960	36,052	43,248
1989	58,172	50,941	63,743	85,212	79,740	70,861	42,132	11,989	7,467	9,110	21,396	34,728
1990	58,308	57,833	76,279	86,232	76,756	74,898	46,479	16,824	11,516	22,576	82,511	77,609
1991	79,638	92,281	79,976	84,249	78,914	57,222	16,240	9,632	5,936	5,797	16,990	39,905
1992	62,090	83,099	79,228	66,806	31,064	9,830	9,052	6,787	5,121	5,367	12,246	13,349
1993	13,744	12,634	30,593	57,031	79,731	63,145	30,313	10,645	7,210	9,107	12,177	23,184
1994	38,656	36,467	53,806	65,086	69,985	59,709	40,769	17,357	13,033	21,854	24,426	47,079
1995	49,904	80,193	80,284	76,638	69,873	50,129	23,825	10,671	7,240	16,656	50,945	80,050
1996	77,905	79,034	79,160	96,030	79,046	54,297	12,321	8,952	6,606	13,923	17,903	21,941
1997	36,923	46,966	70,916	88,165	127,117	140,997	94,697	54,001	49,278	57,075	77,453	83,350
1998	81,943	92,339	112,537	109,614	119,231	111,918	68,769	33,800	27,969	25,251	43,580	76,367
1999	80,452	80,438	80,013	78,477	87,242	98,748	58,990	18,725	12,278	15,470	54,891	79,694
2000	76,903	80,326	89,426	109,483	120,461	107,070	63,051	21,331	15,004	16,593	16,185	13,476
2001	12,030	11,092	16,863	17,520	32,092	20,033	9,479	8,012	4,842	9,127	30,641	49,316
2002	66,025	68,902	65,784	80,312	93,415	86,681	42,488	10,470	6,475	4,507	9,706	16,690
2003	35,709	52,747	80,420	79,625	62,102	56,954	30,605	10,117	7,500	23,243	30,362	38,463
2004	45,150	50,599	60,191	64,332	58,236	43,841	12,454	11,987	11,560	13,868	29,047	48,240
2005	65,694	66,190	82,882	80,056	72,108	42,537	12,125	7,728	4,631	6,721	19,864	38,352
2006	80,133	74,641	76,297	81,158	86,958	76,779	52,455	21,785	16,675	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC3 Adverse - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	37,600	40,545	72,202
1926	88,063	120,441	139,967	142,280	120,619	41,764	-21,898	-80,604	-130,098	-133,395	-125,518	-114,072
1927	-92,909	-75,462	-65,794	-46,171	-12,283	-16,991	-54,173	-90,757	-137,544	-133,978	-112,365	-88,914
1928	-59,253	-47,018	12,579	59,453	105,236	79,256	40,468	-2,092	-51,236	-48,931	-40,829	-34,686
1929	-31,127	-36,045	-18,655	-4,639	13,406	-8,915	-54,647	-112,656	-161,319	-177,593	-180,593	-171,870
1930	-164,467	-142,190	-126,427	-108,936	-94,326	-103,944	-125,907	-145,727	-184,763	-192,905	-187,093	-182,682
1931	-168,537	-155,908	-127,876	-101,969	-91,649	-103,839	-127,094	-147,839	-190,011	-190,943	-177,030	-166,074
1932	-147,368	-136,060	-87,281	-27,618	32,007	52,834	45,774	1,617	-55,916	-64,470	-2,465	59,598
1933	113,786	121,180	128,409	168,565	181,435	193,141	180,835	143,150	70,149	53,112	88,886	203,025
1934	203,025	221,860	236,137	238,226	233,323	205,793	158,018	96,801	20,168	22,931	40,722	81,714
1935	141,917	176,884	183,687	203,369	201,536	197,465	173,950	125,957	58,106	46,434	49,053	55,631
1936	91,254	90,263	103,280	131,445	159,242	131,202	73,246	13,871	-34,935	-48,350	-53,786	-32,652
1937	-29,611	-26,875	-9,715	25,015	51,904	37,613	-11,847	-58,091	-106,788	-118,812	-88,514	-58,797
1938	-15,919	-8,791	25,999	75,002	124,441	127,280	112,953	57,634	-5,274	-5,093	10,158	31,885
1939	62,431	70,035	84,245	109,842	106,071	79,155	30,467	-24,703	-74,664	-81,141	-74,017	-36,560
1940	-26,682	17,222	80,616	105,852	106,861	47,028	-16,677	-75,147	-124,003	-131,703	-127,298	-102,937
1941	-89,860	-80,530	-71,366	-64,811	-62,017	-88,250	-119,373	-154,234	-188,693	-193,154	-177,444	-140,095
1942	-131,163	-105,328	-93,795	-74,884	-67,896	-73,941	-96,933	-122,629	-168,482	-187,549	-159,311	-142,279
1943	-135,598	-126,797	-112,218	-60,526	-12,218	4,104	-995	-49,427	-108,075	-112,119	-103,234	-89,742
1944	-80,483	-71,368	-64,503	-48,066	-31,975	-63,175	-105,420	-153,326	-195,034	-199,796	-194,279	-187,911
1945	-165,591	-147,114	-138,014	-117,361	-66,314	-76,607	-110,946	-149,228	-193,736	-188,728	-174,618	-155,668
1946	-134,270	-128,323	-90,445	-54,056	22,592	50,133	43,481	5,050	-53,732	-54,330	-45,940	9,951
1947	33,142	62,478	100,241	145,304	143,375	118,161	68,627	12,179	-35,661	-16,741	10,042	38,566
1948	66,254	73,819	79,989	109,405	174,054	200,146	190,284	145,559	81,335	79,623	97,897	121,674
1949	124,265	124,525	143,688	173,390	224,541	224,663	199,836	148,163	64,230	35,451	48,920	75,728
1950	80,627	83,319	89,316	114,770	188,304	239,337	230,323	184,643	117,512	124,049	171,512	203,025
1951	202,927	217,359	204,637	210,546	238,101	237,660	209,581	161,672	75,555	45,715	56,605	67,791
1952	70,529	78,047	85,769	133,249	173,857	153,136	94,875	31,942	-18,036	-33,495	-37,246	-37,935
1953	-11,955	19,257	32,772	48,468	92,864	77,024	37,996	-3,219	-50,750	-53,942	-37,006	39,746
1954	88,941	125,989	151,483	179,668	198,441	201,667	188,450	141,657	71,968	60,073	70,673	78,024
1955	97,642	103,088	104,043	115,430	142,747	185,056	177,381	143,664	73,853	83,509	116,750	174,979
1956	190,100	189,907	183,974	191,047	231,506	238,766	224,112	176,465	92,036	62,986	76,813	134,601
1957	160,608	171,868	191,113	219,037	235,729	223,310	185,685	137,454	69,749	44,034	56,568	81,876
1958	106,403	155,659	177,343	194,555	183,093	147,685	89,023	18,312	-31,985	-30,773	-1,867	35,984
1959	96,158	114,940	151,210	191,973	208,887	208,732	187,186	135,078	64,849	58,780	94,261	136,684
1960	149,561	180,478	191,418	210,502	220,413	216,246	187,629	138,353	68,302	65,928	88,251	98,809
1961	125,621	180,141	206,396	223,622	238,588	231,248	202,031	145,470	55,728	22,718	30,912	48,987
1962	67,401	98,362	110,770	150,420	143,454	119,162	67,022	7,006	-42,941	-49,448	-32,063	-12,214
1963	1,128	28,334	40,604	69,877	58,107	14,989	-42,169	-100,458	-149,913	-158,834	-139,397	-122,175
1964	-100,588	-90,780	-73,407	-37,899	6,033	74,148	74,591	48,022	-10,964	-6,863	4,194	27,156
1965	46,541	86,504	106,118	155,447	177,073	180,849	165,328	124,119	56,483	50,613	60,362	66,748
1966	73,599	77,748	93,123	123,512	160,245	134,489	74,358	11,475	-38,965	-46,932	-34,954	1,111
1967	58,517	100,541	115,314	116,887	139,448	131,121	94,993	49,698	-4,325	-5,296	4,984	29,998
1968	56,533	101,871	159,141	178,021	173,057	168,153	140,459	77,008	11,292	9,675	26,317	52,343
1969	56,086	53,815	70,155	107,286	171,290	166,369	107,382	47,879	-802	-2,845	4,330	22,564
1970	47,211	73,347	96,610	116,612	142,030	134,496	98,038	45,016	-5,281	-13,456	-7,318	-4,028
1971	19,794	41,599	41,906	71,132	158,634	200,409	207,484	157,541	78,969	52,456	66,002	97,712
1972	117,644	129,072	181,019	195,102	230,065	238,980	228,232	178,137	99,384	65,690	77,834	138,089
1973	173,728	182,426	193,419	194,317	182,866	155,769	94,558	23,025	-27,553	-42,878	-27,959	20,677
1974	59,656	94,007	126,863	171,725	189,722	217,292	220,190	168,363	92,946	58,526	66,896	92,304
1975	118,318	123,326	131,406	148,689	208,336	230,391	223,575	176,502	95,353	86,869	129,155	203,139
1976	203,025	211,260	197,343	197,289	229,876	234,925	233,620	192,550	119,658	85,191	88,200	94,706
1977	101,235	109,964	125,235	119,882	95,568	27,778	-30,225	-86,851	-127,205	-142,824	-121,904	-43,153
1978	-24,389	-7,826	24,947	56,343	56,666	34,293	-5,277	-59,678	-101,515	-112,972	-102,676	-90,375
1979	-90,802	-86,547	-64,782	-44,204	-12,123	-30,676	-64,241	-95,989	-144,494	-160,324	-163,741	-137,841
1980	-134,295	-126,119	-104,783	-67,704	-29,984	-44,239	-79,611	-117,208	-164,109	-179,656	-163,761	-135,695
1981	-120,238	-79,457	-58,309	-22,689	-20,900	-32,895	-71,978	-126,744	-173,901	-170,250	-154,363	-127,233
1982	-100,520	-58,699	-21,192	-691	54,135	100,988	90,490	48,017	-12,584	-17,460	-1,541	27,645
1983	58,780	92,659	145,538	172,202	168,362	159,336	139,089	85,761	22,694	5,485	37,116	46,208
1984	77,825	89,448	129,054	145,473	149,709	152,524	137,427	86,306	20,935	11,692	23,858	27,872
1985	29,110	24,919	28,835	46,659	67,952	49,511	-3,951	-63,329	-113,131	-120,029	-106,481	-104,746
1986	-96,812	-85,527	-52,754	-35,455	-12,329	-38,534	-78,626	-122,667	-167,703	-183,736	-155,267	-146,598
1987	-135,238	-116,881	-66,858	-28,948	-16,409	-40,305	-74,308	-121,271	-169,858	-190,153	-188,094	-173,831
1988	-164,506	-146,506	-120,681	-96,644	-80,239	-98,775	-126,711	-152,546	-198,099	-189,191	-171,623	-159,307
1989	-137,812	-134,667	-115,796	-64,758	-14,803	-29,780	-68,194	-105,311	-155,626	-169,725	-153,508	-135,961
1990	-105,902	-98,077	-72,191	-13,263	15,058	6,965	-33,138	-70,428	-119,477	-119,576	-53,143	-19,626
1991	9,468	63,663	89,122	142,754	171,065	168,128	150,314	94,367	26,051	6,189	21,553	42,017
1992	67,065	98,494	116,030	114,222	89,219	18,105	-41,571	-99,481	-144,996	-161,349	-155,827	-151,589
1993	-151,718	-148,496	-130,072	-103,266	-55,810	-73,698	-119,259	-169,756	-199,844	-197,208	-194,532	-181,342
1994	-167,659	-163,408	-139,489	-119,292	-104,769	-114,901	-135,692	-157,459	-196,467	-194,674	-186,366	-163,899
1995	-154,799	-124,075	-90,868	-72,580	-54,180	-77,055	-111,662	-153,120	-199,833	-192,113	-158,289	-96,045
1996	-50,258	-24,161	-11,920	48,525	83,878	85,789	72,001	20,322	-38,258	-42,202	-36,294	-29,723
1997	-13,437	2,397	42,105	86,098	176,067	212,336	209,282	166,959	86,692	67,916	87,765	118,566
1998	155,829	186,197	210,257	215,996	223,891	194,424	153,534	96,513	19,010	6,809	27,425	60,734
1999	107,300	123,099	138,424	150,424	174,607	203,166	196,815	149,834	80,302	74,792	105,297	151,340
2000	163,134	173,066	191,020	218,265	223,807	214,928	193,509	143,798	77,839	72,665	75,519	77,018
2001	79,394	81,932	88,527	92,172	110,037	64,149	-5,633	-65,438	-115,810	-125,486	-109,528	-87,421
2002	-66,534	-56,661	-50,192	-11,765	51,118	110,864	103,250	64,268	257	-9,155	-6,353	-1,523
2003	12,425	37,877	69,820	109,165	108,664	92,428	47,560	-7,858	-58,113	-61,710	-48,457	-38,569
2004	-26,241	-16,175	4,669	21,971	27,917	2,867	-42,764	-93,404	-138,074	-151,516	-134,169	-114,497
2005	-97,996	-90,376	-66,134	-21,888	-13,750	-53,529	-101,178	-160,216	-199,842	-199,547	-182,686	-162,303
2006	-126,062	-110,507	-106,142	-70,146	-1,797	4,329	-31,877	-68,489	-117,871	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP6 Full Integrated Plan CC3 Adverse - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	23,204	30,523	95,107
1926	112,754	167,903	205,265	243,228	272,626	192,417	88,716	34,198	13,829	33,165	51,075	74,574
1927	97,324	118,484	122,542	167,711	257,434	372,029	342,503	193,973	166,469	188,918	235,907	266,527
1928	306,556	310,293	371,002	397,235	451,166	407,530	244,902	78,331	64,658	84,512	93,961	97,842
1929	91,442	76,131	85,213	112,334	212,301	236,992	178,881	80,728	50,376	35,604	36,199	57,904
1930	67,620	105,163	136,767	200,758	257,783	251,741	194,305	102,172	75,583	57,977	58,810	57,887
1931	74,305	83,635	122,372	172,960	292,202	327,659	199,857	50,777	23,123	33,550	56,340	59,415
1932	75,033	75,604	159,719	248,737	412,109	451,480	326,468	135,816	108,246	107,683	274,165	326,919
1933	341,088	330,730	326,505	370,123	438,766	401,927	312,763	126,045	98,172	119,271	214,315	413,814
1934	387,032	410,724	446,090	451,362	451,480	365,405	212,401	59,500	24,850	64,113	99,547	172,873
1935	240,510	265,954	265,111	297,796	400,019	410,920	277,488	111,771	82,121	74,066	76,981	88,541
1936	156,423	144,665	148,293	225,809	355,749	329,413	165,157	30,770	12,628	8,951	10,492	61,242
1937	57,430	55,264	64,512	132,658	252,181	283,639	165,299	103,004	65,702	39,359	108,086	150,267
1938	188,758	188,425	213,942	282,293	428,018	441,001	323,054	124,156	93,107	99,580	131,505	176,919
1939	239,397	237,634	264,654	338,998	378,508	279,176	137,435	39,260	26,564	26,284	41,576	155,178
1940	169,873	217,262	301,623	360,227	404,050	333,829	209,897	144,218	123,618	109,325	117,536	164,451
1941	186,033	192,254	223,828	250,022	284,789	245,271	169,026	85,985	67,108	75,333	109,667	193,475
1942	198,517	223,342	230,292	277,147	316,029	296,774	170,527	33,887	11,020	9,608	66,316	86,914
1943	85,377	86,210	104,103	188,619	298,724	397,862	328,804	151,151	120,823	122,422	133,549	165,092
1944	183,231	187,801	189,150	228,468	307,983	285,471	213,275	101,546	76,433	73,518	83,871	95,247
1945	138,903	183,666	189,446	220,478	369,574	406,389	268,241	91,672	62,250	87,281	108,465	139,331
1946	163,435	161,602	198,802	248,439	448,182	443,868	326,057	140,014	109,916	127,825	129,404	230,650
1947	252,055	274,230	327,323	394,110	451,480	394,774	217,327	60,048	32,424	96,485	158,756	207,179
1948	221,691	217,097	210,324	234,671	387,647	412,999	288,123	113,965	85,820	86,865	115,308	145,314
1949	136,644	129,757	147,712	219,533	409,813	428,052	292,610	111,252	73,474	66,144	105,305	175,777
1950	175,954	167,807	161,143	188,363	331,445	451,480	423,231	278,288	251,834	290,627	325,551	327,473
1951	323,250	352,304	335,112	351,917	448,450	449,064	335,227	149,808	111,891	103,172	122,917	140,658
1952	129,283	124,523	121,747	193,922	315,466	300,606	178,319	41,324	12,340	7,778	10,186	18,399
1953	72,508	130,655	155,988	188,888	307,894	335,383	237,027	108,937	96,608	101,035	148,797	276,691
1954	320,586	358,573	364,291	376,676	437,308	413,428	322,116	139,438	113,453	105,242	136,593	138,950
1955	160,697	159,668	145,296	140,927	234,716	364,437	282,329	107,441	76,637	125,766	209,548	253,204
1956	271,281	260,912	259,209	283,807	425,277	451,480	375,255	193,347	155,556	145,016	164,047	255,758
1957	244,383	236,838	249,153	318,434	450,934	412,687	235,121	70,509	40,361	40,316	62,223	104,190
1958	142,252	212,403	219,861	254,692	354,575	278,803	107,453	16,958	8,147	21,137	101,785	188,544
1959	253,598	253,264	282,163	353,668	451,019	445,230	304,601	113,358	85,561	122,506	190,152	249,643
1960	247,184	273,136	296,369	340,830	436,825	422,024	265,714	86,604	57,557	58,655	107,021	116,646
1961	155,568	225,609	263,380	305,088	435,463	437,904	279,797	96,206	58,856	45,598	56,081	81,569
1962	106,903	135,901	138,501	218,190	263,150	262,780	129,223	23,121	9,499	16,323	68,171	99,160
1963	124,124	175,330	203,183	219,395	237,822	130,879	50,837	12,485	7,149	26,343	68,412	88,519
1964	113,114	116,184	133,831	181,856	285,273	392,243	292,405	123,111	103,449	109,413	120,302	151,108
1965	176,686	230,558	260,502	340,099	429,501	384,377	254,231	82,355	52,334	52,332	73,932	81,987
1966	83,586	79,532	91,091	166,061	291,080	277,242	139,440	24,976	9,629	25,788	45,722	133,509
1967	206,740	260,945	280,375	263,105	366,799	401,312	278,577	102,601	67,085	79,556	103,100	165,756
1968	213,040	286,142	380,895	400,735	451,480	416,027	234,575	80,631	49,151	57,898	85,181	121,060
1969	113,867	98,103	100,887	172,032	338,682	367,271	220,325	60,704	27,423	29,698	42,730	75,677
1970	99,350	126,730	143,885	158,364	260,015	358,866	210,746	57,556	27,126	27,741	40,058	40,304
1971	69,326	97,761	89,092	135,564	380,932	451,480	410,349	242,050	216,240	211,440	228,865	247,835
1972	265,360	264,043	313,256	310,858	424,584	451,480	389,010	209,769	175,810	153,955	175,068	291,804
1973	324,327	331,889	348,169	361,686	389,068	264,034	109,650	17,332	8,220	13,396	41,660	114,674
1974	190,795	228,949	262,952	313,154	389,458	439,264	403,380	243,515	225,412	201,299	217,816	266,868
1975	307,990	301,838	299,212	311,971	438,088	443,597	354,065	179,142	146,827	203,067	281,186	357,032
1976	346,401	350,564	338,619	333,089	440,792	437,113	378,694	207,028	178,074	154,639	154,526	156,803
1977	158,449	162,678	178,230	185,142	192,139	134,352	53,251	14,352	9,822	13,035	68,553	207,207
1978	213,479	234,416	301,684	346,326	379,284	330,934	175,635	114,668	109,137	101,881	125,127	137,671
1979	128,202	123,925	146,061	188,871	329,333	331,132	213,419	75,228	42,801	41,958	38,804	110,487
1980	106,552	106,790	127,081	205,864	338,891	375,047	258,579	86,340	56,164	49,786	86,440	130,158
1981	154,876	213,856	242,387	305,539	360,469	364,287	257,754	91,981	62,275	75,847	109,229	151,348
1982	193,344	270,374	300,564	339,564	447,399	451,267	320,823	128,448	99,263	110,225	130,366	220,909
1983	265,980	314,750	400,727	428,209	451,480	420,455	267,927	86,941	61,267	55,289	119,940	124,092
1984	179,862	197,761	251,799	255,779	296,834	361,802	304,345	115,818	85,887	78,877	92,861	86,835
1985	78,165	66,336	63,016	98,734	199,343	212,660	71,487	20,372	9,819	33,166	69,344	58,953
1986	62,519	76,403	164,146	208,417	284,179	315,859	192,643	55,076	25,656	24,497	98,818	108,656
1987	119,416	146,629	202,583	259,762	367,157	357,299	214,820	52,402	20,010	10,531	26,412	65,333
1988	75,540	117,391	166,151	236,207	320,175	334,750	196,835	54,173	22,519	45,055	88,493	109,214
1989	134,977	129,535	147,059	254,373	393,592	442,716	334,562	157,130	120,117	119,468	156,683	195,910
1990	263,549	264,353	302,961	432,624	451,279	430,712	368,955	232,476	199,896	225,364	392,220	348,495
1991	333,469	394,567	388,746	433,210	451,366	422,823	274,736	96,805	66,995	58,781	89,514	126,808
1992	164,132	209,799	235,065	254,434	268,047	190,912	106,063	41,909	14,211	11,013	32,406	35,788
1993	37,018	37,351	60,901	120,292	305,960	323,602	234,829	101,606	62,881	36,352	45,516	79,062
1994	100,891	98,058	135,443	186,079	240,662	229,677	166,690	73,631	47,403	45,041	54,681	91,943
1995	106,023	156,118	186,554	214,977	337,884	369,009	238,661	69,316	36,482	59,083	150,065	263,386
1996	303,476	304,992	316,182	405,304	450,734	445,870	305,154	117,453	89,698	101,397	108,864	106,806
1997	124,208	138,267	176,776	251,669	416,468	451,480	385,523	190,503	157,178	162,926	198,321	215,939
1998	232,049	272,378	308,919	331,008	451,480	407,460	253,678	91,230	55,856	53,373	94,342	146,577
1999	191,648	203,042	216,648	246,114	336,152	419,051	310,176	138,515	113,111	111,635	198,809	299,402
2000	306,842	306,525	333,702	399,697	427,155	376,526	213,132	55,474	26,354	25,604	25,790	16,551
2001	12,592	11,165	21,935	48,109	170,973	149,894	51,671	13,183	7,342	19,482	70,060	99,205
2002	121,710	133,039	130,703	201,432	367,294	451,480	340,384	138,541	107,111	97,289	107,970	117,656
2003	139,793	181,343	224,524	279,511	345,685	325,139	154,349	31,134	17,667	40,725	65,260	77,127
2004	80,878	81,394	120,992	173,472	268,715	233,705	151,574	84,976	60,387	62,621	89,993	118,093
2005	139,429	141,484	184,123	242,017	348,261	309,216	221,816	87,455	54,445	51,672	83,983	115,218
2006	164,470	169,579	167,673	228,793	378,343	446,745	391,935	231,258	192,645	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC3 Adverse - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	145,412	141,485	151,077
1926	154,951	182,553	188,271	180,300	180,300	167,573	120,271	41,888	32,963	30,515	31,725	39,288
1927	49,925	52,758	50,606	48,721	40,290	86,689	26,799	17,635	11,860	9,770	21,177	29,109
1928	36,672	36,803	60,106	62,804	110,027	132,460	131,097	119,649	113,461	112,618	116,385	118,045
1929	116,631	113,576	110,379	78,835	84,928	67,755	20,748	7,945	2,188	1,732	1,663	2,352
1930	1,783	7,816	9,968	18,359	34,038	32,023	20,690	8,650	2,580	2,169	1,865	1,939
1931	3,617	3,183	4,316	12,706	55,941	30,553	14,032	2,334	1,389	4,739	9,812	13,489
1932	21,421	25,773	43,481	51,712	78,150	112,682	106,477	98,669	93,016	88,589	127,683	158,488
1933	170,094	169,827	166,199	156,340	151,173	180,300	189,475	183,769	178,830	172,123	169,984	197,300
1934	170,764	177,828	186,871	179,368	180,300	172,351	151,306	142,805	136,497	136,682	151,855	169,999
1935	169,999	175,186	181,704	175,850	180,300	180,300	169,325	159,623	153,434	148,122	146,461	145,784
1936	159,803	157,157	155,620	170,199	180,300	179,977	163,852	147,861	141,732	134,627	128,737	141,464
1937	138,943	135,389	131,561	139,081	177,695	180,300	150,338	69,438	63,131	56,918	79,530	107,568
1938	120,235	119,457	121,302	125,784	150,992	172,374	164,228	153,761	147,513	143,080	149,804	156,384
1939	169,999	171,748	174,146	180,300	180,300	180,300	169,539	131,171	125,161	119,375	115,626	140,713
1940	150,735	179,745	189,559	180,300	180,300	173,775	133,515	53,734	47,308	42,814	45,298	54,829
1941	58,764	62,707	67,442	43,684	40,793	29,742	8,889	1,682	1,474	1,650	5,884	26,175
1942	27,712	32,821	33,989	32,575	34,008	31,798	18,481	5,467	1,489	1,873	18,479	22,106
1943	22,168	21,113	26,339	41,532	54,443	76,241	77,526	71,367	66,130	64,962	64,486	71,988
1944	74,386	80,126	83,446	65,617	43,789	31,014	10,758	1,780	1,579	1,425	5,357	7,201
1945	21,528	39,300	41,513	44,356	83,528	32,623	22,035	15,314	8,602	3,633	7,547	15,356
1946	29,867	32,199	40,869	42,853	80,112	86,440	80,468	72,631	66,323	64,735	64,997	96,478
1947	104,595	108,482	119,304	126,643	159,003	169,881	154,913	142,838	136,709	147,600	159,917	169,999
1948	169,999	170,969	167,552	155,868	168,717	180,300	169,868	160,006	154,453	152,362	159,820	164,001
1949	162,895	159,404	158,789	160,010	179,308	180,300	171,737	162,577	156,389	154,975	163,960	169,999
1950	169,999	169,999	169,637	155,010	160,335	180,756	189,008	180,220	174,864	171,748	169,999	173,003
1951	170,250	174,506	169,957	159,337	179,360	180,300	166,250	155,598	149,350	158,402	162,677	169,999
1952	169,367	168,856	166,089	166,588	180,256	180,300	167,924	153,747	147,558	141,029	136,978	135,318
1953	152,350	170,288	170,468	160,691	180,270	180,300	170,123	160,599	155,125	150,719	155,730	170,199
1954	170,089	171,183	168,455	158,498	180,035	180,300	182,360	175,117	170,118	166,264	169,999	169,999
1955	169,999	173,897	168,675	152,440	150,655	180,300	178,281	172,349	167,112	172,658	170,480	171,414
1956	170,146	168,864	165,605	160,153	172,188	180,300	176,171	167,481	161,292	159,581	165,500	169,999
1957	169,999	169,221	169,999	159,799	180,129	178,992	162,416	152,547	146,418	141,419	145,639	154,125
1958	164,147	186,459	187,339	180,300	180,300	171,817	150,399	137,686	130,943	128,265	155,518	169,999
1959	169,999	171,072	169,999	160,623	170,090	179,869	169,509	159,312	155,088	157,178	171,256	170,783
1960	170,041	178,703	175,112	173,960	173,159	177,522	164,665	154,487	148,299	145,139	155,731	157,145
1961	169,258	178,594	170,736	160,173	171,977	180,300	166,561	156,791	150,543	147,376	147,126	153,213
1962	162,006	169,670	171,023	180,297	180,300	180,300	167,853	156,730	150,607	145,716	160,116	165,650
1963	169,999	188,750	189,912	180,300	180,300	176,887	109,897	32,583	25,244	21,275	30,254	32,468
1964	39,969	41,044	43,934	43,002	46,197	85,371	89,463	83,859	79,694	75,462	77,714	89,950
1965	98,189	117,960	128,290	137,474	150,323	161,054	152,119	142,833	136,823	132,642	138,589	138,958
1966	138,144	135,852	138,619	154,863	180,287	180,300	165,062	147,741	141,591	137,336	140,499	165,463
1967	169,999	175,924	178,630	168,486	180,300	180,300	170,199	161,887	155,639	162,116	167,472	169,999
1968	169,999	181,455	188,884	174,052	174,911	177,192	160,518	148,640	142,231	141,412	150,108	159,639
1969	160,561	158,229	155,277	159,162	179,965	179,096	168,197	159,085	152,597	147,896	154,239	158,113
1970	165,675	171,674	171,194	160,023	163,956	180,300	170,066	159,678	153,841	149,419	150,847	148,818
1971	157,549	163,158	160,084	152,904	170,441	180,300	189,819	182,970	178,209	171,081	169,999	169,727
1972	169,666	167,408	169,999	154,987	171,973	180,300	189,508	182,632	179,240	170,752	169,999	170,056
1973	169,999	172,223	176,712	180,300	180,300	178,544	157,945	142,298	133,666	127,465	135,081	166,378
1974	169,999	170,976	169,999	158,681	161,997	180,300	188,869	182,189	176,596	170,499	169,892	169,999
1975	169,999	169,799	166,848	151,120	159,419	180,300	180,889	171,742	166,803	169,447	169,999	170,622
1976	170,596	170,360	168,288	154,315	176,340	180,300	186,360	179,450	174,809	170,120	167,584	166,044
1977	166,339	167,505	171,501	180,300	180,300	175,619	119,499	39,480	30,911	23,770	34,481	70,636
1978	73,710	78,653	91,627	108,110	134,119	152,506	141,301	61,139	56,022	49,569	50,520	51,319
1979	47,692	43,804	45,587	36,130	69,589	30,892	15,459	2,032	1,408	3,555	1,854	34,630
1980	35,921	34,553	34,184	43,253	86,959	32,970	28,606	21,196	15,424	8,154	16,263	44,425
1981	55,738	79,841	88,142	95,630	99,980	59,408	23,182	15,419	9,035	6,394	11,063	19,118
1982	21,393	24,947	27,960	25,426	45,882	94,636	91,991	84,601	79,067	75,853	77,812	81,686
1983	84,760	91,536	116,192	121,925	146,395	158,732	149,298	141,949	136,832	131,371	158,015	159,613
1984	169,999	175,031	171,236	161,411	161,286	180,300	178,493	171,690	166,096	163,145	167,104	164,169
1985	160,849	156,850	152,730	157,431	180,300	180,300	161,430	80,141	72,403	68,978	75,470	72,273
1986	70,117	69,117	91,990	86,924	80,033	43,741	15,514	2,422	1,652	2,597	13,308	13,185
1987	12,263	15,761	26,583	38,903	71,552	31,124	14,995	3,086	1,400	1,164	2,378	13,666
1988	12,190	15,820	26,580	35,625	61,793	33,001	25,713	18,813	12,743	8,483	26,916	29,621
1989	31,528	29,473	27,075	35,841	83,597	57,752	21,138	15,297	9,228	4,093	16,529	26,859
1990	42,169	42,169	45,121	62,040	82,730	110,162	52,196	21,978	16,028	25,972	68,407	77,876
1991	83,164	107,379	113,281	119,668	137,805	143,061	135,292	125,880	119,692	112,692	116,714	120,834
1992	129,504	148,517	157,126	161,945	176,702	170,915	102,870	29,982	22,048	13,450	15,857	11,477
1993	6,851	2,280	4,247	11,566	61,371	31,250	14,311	1,921	1,408	1,830	1,911	2,557
1994	2,322	1,967	5,665	16,971	42,324	29,898	11,480	1,756	1,401	4,061	6,441	16,279
1995	18,000	33,273	45,940	38,999	70,925	31,030	16,614	8,362	2,260	2,664	31,049	66,097
1996	88,540	113,551	121,791	134,307	150,968	159,616	150,999	142,090	136,021	134,135	133,291	129,966
1997	130,212	130,601	142,591	148,919	169,842	180,300	183,887	176,678	172,334	170,243	169,999	169,999
1998	169,999	174,832	184,417	170,266	180,300	179,046	164,429	150,256	144,068	138,635	155,772	169,999
1999	170,416	172,581	169,999	158,510	157,525	180,300	177,530	168,342	162,748	157,724	169,999	169,999
2000	169,999	169,702	170,317	175,319	180,300	180,300	168,820	160,312	154,124	150,314	147,692	144,038
2001	141,532	138,699	142,327	146,849	180,300	179,913	159,278	73,104	63,048	57,412	67,517	71,391
2002	86,148	89,313	88,084	88,758	104,804	149,631	140,669	131,780	125,651	119,257	119,792	122,407
2003	129,048	158,427	180,316	180,250	180,300	179,195	163,575	144,825	138,458	136,066	141,922	148,193
2004	150,653	151,284	162,597	180,162	180,300	179,938	98,284	30,195	23,839	18,735	23,012	26,701
2005	32,297	33,241	46,584	46,789	32,202	21,138	3,127	1,472	1,348	1,838	9,334	11,895
2006	28,927	30,205	27,253	30,486	57,199	78,290	28,806	17,662	11,533	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC3 Adverse - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	50,797	53,329	76,141
1926	86,655	114,424	131,511	161,167	186,947	181,140	115,671	41,749	53	13,091	22,003	42,601
1927	65,352	79,736	90,496	114,046	145,533	198,000	176,223	161,986	115,997	133,477	130,133	129,712
1928	129,712	138,800	154,105	169,328	197,792	198,000	186,005	149,309	43,269	35,745	49,385	57,748
1929	62,728	63,503	69,657	78,794	108,912	128,722	111,779	80,575	9,272	2,647	31	5,919
1930	7,655	15,708	22,348	35,887	59,027	65,673	62,727	58,098	9,124	3,582	5,543	7,010
1931	12,938	19,699	25,294	55,162	117,884	129,428	125,728	112,383	41,891	14,871	28,848	38,808
1932	49,692	58,441	102,343	141,694	196,173	198,000	187,901	158,613	50,326	30,419	82,902	129,025
1933	131,819	144,899	146,631	153,099	182,364	198,000	186,817	148,157	41,943	10,227	41,646	175,682
1934	144,422	171,703	195,018	197,899	198,000	194,467	186,599	167,415	120,658	107,812	129,025	129,402
1935	131,014	153,544	172,298	196,714	198,000	198,000	187,531	151,774	54,826	30,380	34,529	39,082
1936	66,998	71,082	81,166	116,488	163,228	175,638	169,859	124,386	24,255	1,484	29	22,117
1937	24,084	25,251	29,432	51,250	105,772	135,549	124,150	63,320	46	4,761	48,374	77,334
1938	109,123	118,731	141,255	148,416	196,916	198,000	187,532	147,294	41,910	27,147	41,432	60,063
1939	88,655	98,429	122,164	150,770	193,519	197,996	183,758	120,554	20,236	4,807	8,252	56,951
1940	75,766	118,281	164,090	193,061	198,000	193,228	151,498	83,107	51	7,576	13,921	33,474
1941	44,419	51,694	63,482	76,293	98,003	96,834	83,223	61,228	22,876	11,873	23,442	64,515
1942	74,722	88,440	98,802	114,631	138,027	149,242	146,982	125,619	50,346	21,415	57,266	67,227
1943	74,360	82,579	96,844	140,864	183,917	198,000	190,065	159,326	55,634	39,882	44,940	57,730
1944	69,105	83,074	94,204	103,347	127,247	124,392	118,331	90,287	28,687	8,992	16,797	24,975
1945	53,751	75,799	96,459	120,259	181,860	189,125	178,316	142,421	77,320	43,839	55,514	68,427
1946	90,993	101,045	128,960	141,376	196,158	198,000	187,532	160,003	62,748	44,110	51,945	129,025
1947	129,025	143,572	165,954	197,270	197,998	194,123	186,527	154,876	66,141	83,012	104,830	125,736
1948	129,025	139,107	143,658	139,333	186,394	198,000	189,563	160,598	66,466	62,204	77,556	100,491
1949	107,008	111,562	124,905	139,529	196,212	197,990	184,451	136,744	15,964	6,272	19,839	44,434
1950	55,686	63,183	73,144	91,058	132,230	198,000	193,527	148,167	24,688	6,852	35,295	68,499
1951	95,984	121,697	131,781	143,441	196,304	198,000	182,332	132,527	12,580	16,218	26,809	45,748
1952	50,052	57,190	63,831	98,448	148,796	161,888	156,436	126,709	40,063	9,344	4,788	8,940
1953	37,616	72,493	85,528	105,340	150,260	182,695	187,532	157,642	59,561	45,463	57,097	110,222
1954	129,025	142,478	151,565	163,324	197,499	198,000	192,492	166,444	63,609	46,908	60,108	70,930
1955	95,832	107,884	113,971	127,410	159,049	198,000	187,532	159,894	64,051	70,361	109,991	130,255
1956	130,255	139,087	101,455	106,143	183,614	198,000	187,936	146,273	21,934	9,615	22,170	69,393
1957	75,787	82,563	93,754	130,696	197,665	195,569	183,907	141,319	45,317	46,566	59,152	82,455
1958	103,730	153,436	171,267	197,993	198,000	192,980	183,398	106,474	4,035	10,947	55,076	98,855
1959	129,025	142,360	152,547	171,706	197,711	198,000	185,489	138,673	33,778	22,466	57,692	85,300
1960	95,815	112,672	136,099	164,588	197,979	198,000	186,897	143,538	44,193	28,356	58,108	65,978
1961	88,298	136,394	158,258	175,006	197,828	198,000	183,998	126,411	8,197	9,228	17,896	31,915
1962	48,394	62,667	74,780	105,291	134,237	164,276	164,994	104,508	5,552	8,325	43,721	59,216
1963	80,736	120,834	140,850	167,453	195,296	195,120	148,013	60,145	53	10,336	27,096	35,458
1964	53,167	62,971	74,346	101,292	135,358	192,976	184,607	152,168	53,241	44,192	50,083	73,694
1965	96,998	138,706	159,815	180,288	197,748	197,999	186,961	147,408	49,811	29,931	40,761	44,942
1966	50,230	52,285	63,475	101,576	164,140	175,048	170,128	111,313	10,269	11,344	23,105	49,545
1967	78,751	119,571	139,124	154,627	198,000	198,000	187,532	170,065	94,542	88,439	100,617	119,125
1968	129,025	179,622	196,052	197,932	198,000	195,184	187,166	168,107	113,166	107,957	126,076	129,025
1969	129,025	132,968	142,438	152,476	197,374	195,972	187,532	164,752	106,704	96,215	109,049	126,450
1970	129,025	152,144	164,271	177,283	197,930	197,975	187,532	163,017	94,354	71,088	75,702	81,790
1971	129,025	157,846	113,472	102,943	166,332	198,000	195,312	155,889	36,549	5,698	16,170	29,452
1972	50,726	60,475	114,461	117,212	170,371	198,000	190,394	146,604	43,276	1,148	10,252	59,503
1973	84,959	96,955	115,505	131,698	150,918	148,785	140,094	70,238	45	5,634	23,538	47,580
1974	104,394	147,824	135,664	129,144	162,646	198,000	197,020	166,514	41,065	1,824	13,724	43,177
1975	80,131	90,850	101,917	117,915	165,692	198,000	187,385	160,898	37,663	15,167	30,043	129,025
1976	129,025	150,490	124,433	120,075	180,408	198,000	190,385	164,636	40,258	3,422	7,587	12,875
1977	20,253	27,862	40,528	58,617	66,135	61,496	11,238	252	75	4,898	28,082	98,116
1978	117,546	129,654	153,818	176,316	198,000	198,000	179,166	110,965	39,061	15,881	21,105	28,668
1979	30,574	32,185	45,404	64,939	123,613	129,504	126,105	113,837	30,924	8,045	5,448	58,033
1980	64,059	70,475	81,174	121,384	184,327	195,710	178,305	142,080	64,979	46,373	62,435	111,994
1981	129,025	174,326	191,718	197,973	198,000	197,967	178,333	141,491	66,544	66,718	81,029	102,795
1982	115,400	134,450	145,567	142,701	195,729	198,000	188,578	153,358	47,796	33,407	42,550	58,045
1983	78,890	94,718	137,144	166,442	197,992	198,000	183,587	141,761	54,341	37,915	98,936	105,208
1984	129,025	143,459	163,001	180,443	197,897	198,000	187,532	156,217	64,034	42,632	57,847	63,240
1985	65,131	64,670	67,629	91,963	137,579	159,786	142,287	67,338	59	11,541	25,256	26,794
1986	31,159	37,490	79,855	102,403	130,147	143,333	131,230	118,419	41,052	17,635	45,162	50,696
1987	55,615	67,334	88,854	114,213	172,605	172,344	165,842	133,766	52,257	21,760	23,544	51,616
1988	58,010	68,148	89,484	118,740	174,137	186,788	176,314	138,273	65,854	26,852	61,299	68,493
1989	78,577	82,854	90,294	131,635	197,751	196,414	180,045	152,350	71,976	51,151	65,978	83,687
1990	112,832	120,996	141,963	183,604	197,854	198,000	169,603	152,167	86,598	102,043	138,683	130,105
1991	130,105	174,951	159,066	184,436	197,901	198,000	187,532	147,943	52,307	35,189	49,476	62,941
1992	83,970	109,880	131,006	155,315	178,809	151,491	91,308	32,594	57	3,991	12,163	14,199
1993	13,661	13,773	23,071	41,458	108,632	122,139	120,261	96,992	12,660	3,386	3,822	14,299
1994	21,739	24,001	38,451	58,860	103,779	111,853	108,753	103,108	47,288	6,612	15,221	35,881
1995	42,460	74,560	97,065	117,612	171,853	177,284	171,184	137,950	59,365	38,532	77,044	129,235
1996	129,235	169,677	149,094	165,184	197,556	198,000	187,130	154,597	52,669	33,167	39,098	45,001
1997	56,622	66,008	94,087	98,918	172,490	198,000	189,615	154,087	37,304	3,248	29,549	37,850
1998	47,011	60,007	81,343	96,511	152,167	162,770	155,500	146,014	95,089	89,323	122,507	131,369
1999	131,425	147,805	154,999	152,155	181,403	198,000	191,982	164,342	61,158	43,467	78,693	107,039
2000	122,657	132,517	143,892	177,439	197,978	198,000	187,499	149,748	59,668	41,757	46,398	49,042
2001	52,540	55,096	64,817	75,892	121,025	128,202	74,171	86	65	7,856	32,078	48,496
2002	73,890	88,774	99,104	128,069	179,196	198,000	189,446	152,313	44,343	21,826	24,196	35,229
2003	56,073	93,117	143,475	169,637	197,880	195,114	183,783	116,436	10,395	11,242	23,123	36,466
2004	47,411	57,771	84,764	115,039	178,180	192,816	151,067	102,359	54,684	46,339	58,211	71,799
2005	85,081	93,189	110,954	136,088	160,401	158,214	151,510	108,712	26,306	1,251	19,877	30,134
2006	67,149	82,922	93,928	121,524	189,270	198,000	171,089	161,273	82,637	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC3 Adverse - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	108,308	119,836	128,381
1926	136,233	149,802	160,015	160,760	123,993	100,428	87,638	75,696	71,599	72,772	85,090	90,992
1927	101,216	110,630	117,103	124,458	128,683	127,667	95,033	35,648	5,131	9,737	28,772	41,150
1928	49,759	56,705	76,310	85,436	101,029	69,565	57,008	44,583	42,660	49,027	66,970	75,609
1929	85,552	93,725	105,611	107,216	108,802	86,812	56,683	3,869	211	6,655	16,149	17,768
1930	21,328	27,612	33,680	35,425	32,544	6,360	212	210	210	5,945	18,305	24,526
1931	31,019	38,365	46,683	47,740	50,431	33,439	353	210	210	4,720	19,522	26,447
1932	35,240	41,533	60,377	74,774	80,883	80,883	56,060	56,060	56,060	63,994	85,986	101,270
1933	119,192	128,973	140,267	153,605	151,423	151,423	112,500	112,500	112,500	120,434	138,459	158,310
1934	162,500	162,500	162,500	162,500	160,430	109,730	97,325	86,935	86,058	92,982	110,746	125,494
1935	142,824	159,416	162,500	162,500	162,500	136,715	112,500	112,500	112,500	120,169	136,904	143,384
1936	160,991	162,500	162,500	162,500	160,910	114,382	99,073	88,052	87,185	91,759	97,029	102,895
1937	104,496	107,068	113,646	114,498	114,498	102,796	90,176	78,146	76,621	83,366	104,620	114,249
1938	127,468	133,562	149,704	161,313	162,500	156,571	112,500	112,500	112,500	119,875	139,090	149,178
1939	162,500	162,500	162,500	162,237	150,002	109,286	97,503	85,154	83,724	90,711	104,187	110,676
1940	119,797	133,953	158,548	160,290	154,993	106,024	92,685	81,197	78,633	86,288	102,682	113,613
1941	121,488	128,594	137,804	139,881	113,397	84,923	44,522	8,881	224	4,445	17,955	29,121
1942	36,245	49,561	56,284	55,927	31,009	8,821	214	210	210	3,427	20,744	28,397
1943	35,724	41,539	49,857	64,834	72,215	72,215	50,060	50,060	50,060	57,994	74,629	82,991
1944	91,395	98,190	103,561	106,802	106,550	67,054	16,744	217	210	2,705	15,881	23,352
1945	34,492	45,142	51,867	55,734	58,496	37,098	340	210	210	6,602	24,359	32,908
1946	46,287	53,231	69,808	80,934	94,220	90,253	65,294	65,294	65,294	72,752	89,193	102,799
1947	115,462	129,706	143,257	153,935	157,426	114,270	101,609	89,801	88,787	96,721	115,483	126,726
1948	141,500	154,639	162,500	162,500	160,517	160,517	112,500	112,500	112,500	120,289	137,897	149,970
1949	155,983	161,435	162,500	162,500	162,500	142,665	112,500	112,500	112,500	120,434	139,217	153,736
1950	162,500	162,500	162,500	162,500	162,500	162,500	132,748	112,500	112,500	120,030	140,956	160,099
1951	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,543	149,856
1952	158,460	162,500	162,500	162,500	162,500	130,338	102,958	91,740	89,770	94,256	102,974	104,718
1953	112,654	123,006	129,093	130,808	131,701	120,948	104,898	99,857	99,151	106,005	120,462	137,457
1954	150,777	160,468	162,500	162,500	160,089	158,904	112,500	112,500	112,500	120,434	138,387	146,889
1955	158,764	162,500	162,500	162,500	160,328	149,675	112,500	112,500	112,500	120,146	138,065	149,409
1956	161,531	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	139,465	154,407
1957	162,500	162,500	162,500	162,500	162,500	124,847	112,500	112,500	112,500	120,348	136,185	150,742
1958	162,500	162,500	162,500	162,204	156,522	108,941	96,405	82,182	80,066	87,191	108,344	116,812
1959	129,777	137,181	151,804	162,500	162,500	154,566	112,500	112,500	112,500	120,434	141,958	154,017
1960	162,500	162,500	162,500	162,500	162,500	142,665	112,500	112,500	112,500	120,434	142,626	151,625
1961	162,500	162,500	162,500	162,500	162,500	151,498	112,500	112,500	112,500	119,007	136,091	145,349
1962	158,634	162,500	162,500	162,500	149,758	108,335	94,721	84,033	81,204	87,205	104,103	111,237
1963	121,129	135,760	145,130	147,733	109,694	103,346	93,649	81,390	46,046	43,463	60,279	66,719
1964	76,610	87,172	97,802	107,066	99,022	99,022	86,079	86,079	86,079	93,874	112,675	122,118
1965	129,200	149,649	162,500	162,500	157,426	150,535	112,500	112,500	112,500	120,434	136,625	143,053
1966	149,546	155,186	162,234	162,500	162,500	114,689	101,728	89,703	87,012	94,152	106,429	114,154
1967	134,490	154,159	162,500	162,500	148,354	147,861	109,806	100,541	99,617	106,663	123,784	131,991
1968	142,162	155,189	162,500	162,500	162,500	123,148	109,454	100,779	99,171	106,444	123,141	136,077
1969	145,561	153,523	162,500	162,500	162,500	142,090	106,194	95,274	92,697	99,079	111,479	114,782
1970	124,465	134,595	143,394	146,885	134,760	115,772	106,663	96,438	95,398	102,607	115,837	117,533
1971	126,654	136,979	138,631	145,349	162,500	162,500	112,500	112,500	112,500	120,434	138,441	147,423
1972	160,068	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,957	152,520
1973	162,500	162,500	162,500	161,905	116,566	103,055	89,371	77,560	74,691	82,110	97,977	109,192
1974	125,080	142,774	156,159	162,500	162,500	159,425	112,500	112,500	112,500	120,434	142,540	159,274
1975	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	140,611	162,009
1976	162,500	162,500	162,500	162,500	162,500	158,533	124,766	112,500	112,500	120,434	137,456	145,582
1977	156,125	162,500	162,500	162,146	121,199	107,251	98,376	89,728	82,858	81,183	97,802	115,844
1978	127,686	136,230	151,549	152,781	117,073	110,364	101,339	90,076	89,420	96,790	110,949	119,571
1979	125,667	131,768	143,422	144,004	147,369	108,781	47,823	697	210	8,144	20,019	31,374
1980	37,871	43,955	53,216	60,921	65,764	41,729	625	210	210	7,463	22,095	34,304
1981	47,061	60,387	69,817	71,446	48,810	47,103	15,293	214	210	3,812	19,182	28,345
1982	39,574	54,550	73,102	82,305	89,535	89,535	62,050	62,050	62,050	69,984	87,874	100,701
1983	115,175	130,031	151,844	161,434	162,500	120,427	112,500	112,500	112,500	120,407	143,334	151,263
1984	162,500	162,500	162,500	162,500	154,302	154,150	112,500	112,500	112,500	120,434	138,060	143,459
1985	149,752	155,924	161,173	162,433	158,068	110,032	99,463	87,632	85,147	92,021	108,117	114,249
1986	120,991	127,271	148,627	152,435	154,063	117,967	63,356	3,886	211	5,724	24,409	31,561
1987	37,962	47,989	65,049	67,089	56,944	32,244	268	210	210	4,834	14,631	21,598
1988	23,997	33,624	39,467	38,774	36,514	14,288	214	210	210	6,692	24,116	30,548
1989	41,440	47,698	57,859	72,926	78,480	51,196	13,850	214	210	7,440	25,109	35,693
1990	45,973	57,000	75,742	86,326	92,352	83,590	54,970	15,250	229	7,582	26,644	46,015
1991	59,382	79,034	91,411	104,481	111,126	76,999	76,999	76,999	76,999	84,932	102,564	114,023
1992	124,566	140,273	151,574	152,353	120,615	101,072	90,129	75,573	44,379	41,898	55,204	56,882
1993	58,598	60,121	62,962	62,794	62,658	41,575	604	210	210	6,629	14,058	21,514
1994	28,517	35,312	46,254	54,225	59,700	30,788	1,740	210	210	3,490	20,654	30,765
1995	37,492	50,017	61,486	64,561	68,369	42,139	383	210	210	7,905	26,599	41,321
1996	53,803	64,385	79,091	89,311	100,557	80,723	69,681	69,681	69,681	77,615	93,007	100,483
1997	112,342	124,419	144,026	160,877	162,500	162,500	114,185	112,500	112,500	120,364	141,743	151,072
1998	162,270	162,500	162,500	162,500	161,893	124,005	102,265	92,240	90,994	98,167	120,162	134,543
1999	149,667	162,500	162,500	162,500	143,675	126,372	112,500	112,500	112,500	120,398	141,889	153,339
2000	160,829	162,500	162,500	162,500	148,481	136,010	112,500	112,500	112,500	120,145	138,051	144,222
2001	150,435	154,265	160,597	162,500	162,500	112,913	102,971	89,925	85,498	93,432	105,865	115,047
2002	124,067	133,184	140,540	152,448	161,655	161,655	112,500	112,500	112,500	119,730	137,046	146,282
2003	159,565	162,500	162,500	162,500	137,015	108,371	95,282	83,734	81,647	89,581	104,282	111,134
2004	116,950	125,046	142,244	145,584	148,245	110,631	96,780	81,687	50,606	50,894	67,134	74,093
2005	82,688	89,632	105,293	109,725	104,683	52,333	2,140	210	210	6,505	23,467	33,026
2006	46,566	56,111	63,889	74,914	84,919	79,989	46,089	558	210	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC3 Adverse - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	372,804	398,091	572,192
1926	635,374	811,778	905,291	958,565	926,562	694,637	398,943	120,688	-6,157	30,019	83,802	160,715
1927	264,041	342,896	375,833	480,762	638,877	843,732	636,379	337,346	177,393	228,750	351,348	438,348
1928	541,403	572,880	772,377	860,237	1,044,741	952,460	701,548	401,871	220,433	247,163	303,630	333,676
1929	341,345	320,300	373,921	406,201	577,297	552,364	325,327	67,921	-95,503	-126,525	-121,585	-73,861
1930	-53,515	45,008	118,071	236,866	349,107	304,196	185,117	35,743	-88,788	-108,769	-87,825	-77,459
1931	-15,494	26,663	137,461	262,228	492,739	472,519	248,871	33,641	-109,851	-112,917	-28,527	11,196
1932	80,133	113,319	365,072	591,064	892,562	963,424	749,865	461,230	259,484	237,769	648,633	864,451
1933	962,117	969,814	985,378	1,084,728	1,197,199	1,214,334	1,030,066	725,375	512,685	504,576	715,771	1,277,975
1934	1,189,663	1,277,669	1,378,960	1,386,322	1,375,480	1,170,859	879,823	591,305	421,083	475,195	598,664	766,728
1935	920,949	1,021,752	1,056,596	1,137,242	1,243,551	1,207,061	957,861	672,153	467,753	427,466	456,612	493,027
1936	688,990	670,748	698,081	878,533	1,099,043	1,001,152	711,665	416,198	239,261	195,378	188,930	327,069
1937	322,426	318,918	362,264	535,680	780,645	812,033	557,113	267,292	107,223	75,807	303,885	467,857
1938	608,885	631,551	732,480	881,345	1,142,703	1,155,397	917,197	603,903	394,328	396,475	490,393	619,737
1939	794,086	806,353	879,210	1,020,703	1,078,415	902,085	646,561	360,965	187,220	171,206	211,606	501,679
1940	568,440	750,632	978,358	1,079,674	1,104,510	882,280	581,225	294,085	128,877	122,843	165,443	302,327
1941	366,193	402,580	471,677	494,968	518,370	390,851	195,798	10,527	-89,291	-87,912	5,774	252,716
1942	285,622	366,299	405,060	482,223	514,273	473,792	279,380	58,151	-94,039	-140,972	37,402	112,744
1943	129,913	155,673	226,802	462,163	677,454	810,057	665,709	392,091	190,535	187,079	230,851	318,756
1944	374,227	415,689	444,318	509,499	620,672	487,855	265,941	48,114	-82,123	-106,738	-59,591	-23,069
1945	118,073	239,649	286,205	386,675	709,418	655,738	397,128	111,644	-32,730	-21,163	61,558	156,491
1946	269,491	291,964	430,070	540,390	931,425	935,060	730,990	452,471	256,714	269,825	313,640	647,478
1947	716,631	798,595	936,727	1,096,963	1,178,161	1,049,640	762,808	470,636	296,598	437,242	608,375	748,657
1948	805,992	830,660	838,401	881,236	1,177,280	1,268,831	1,020,047	723,116	526,460	528,517	632,027	739,817
1949	741,527	734,730	798,031	937,130	1,309,798	1,303,332	1,043,943	713,164	457,734	419,662	524,815	688,893
1950	710,215	708,113	714,800	785,787	1,088,414	1,390,227	1,309,782	1,007,387	761,011	798,090	939,224	1,048,418
1951	1,071,329	1,157,121	1,124,530	1,154,686	1,381,511	1,375,972	1,109,544	773,711	516,317	501,613	572,569	649,425
1952	649,048	666,245	677,481	839,739	1,068,949	1,001,776	749,931	458,713	279,693	224,313	224,498	238,657
1953	404,473	580,881	647,433	712,910	942,871	972,420	791,529	548,490	379,407	369,998	484,466	825,582
1954	945,581	1,053,306	1,078,418	1,123,454	1,272,138	1,236,164	1,043,402	746,621	539,929	506,997	598,583	633,802
1955	725,308	745,830	725,672	735,789	918,450	1,167,752	988,566	708,217	501,998	597,784	808,793	973,578
1956	1,026,568	1,016,275	967,640	1,009,423	1,314,403	1,388,474	1,187,750	865,978	606,343	565,956	646,757	898,698
1957	901,625	901,531	958,708	1,107,165	1,367,198	1,251,863	944,867	639,239	432,632	412,889	487,312	629,236
1958	752,688	963,057	1,000,330	1,085,539	1,156,130	967,679	662,687	372,112	197,944	231,151	456,523	693,072
1959	871,635	898,792	988,717	1,144,032	1,304,550	1,285,787	1,009,228	670,744	466,801	516,655	723,040	881,855
1960	905,245	994,062	1,053,042	1,159,422	1,309,228	1,259,310	969,716	649,555	439,927	434,374	597,792	641,678
1961	780,227	986,181	1,086,287	1,161,737	1,354,407	1,336,955	1,032,754	684,424	426,125	387,589	434,216	525,140
1962	623,435	708,798	737,667	896,817	937,201	890,348	651,526	385,858	211,636	219,565	375,542	471,998
1963	551,877	727,835	800,656	857,413	822,561	637,752	370,594	94,850	-65,683	-43,132	82,556	150,159
1964	248,855	286,097	357,040	473,060	661,001	937,965	781,634	509,548	323,444	331,726	391,064	510,613
1965	608,840	805,231	895,767	1,062,204	1,195,082	1,139,992	902,472	620,606	415,422	399,530	469,226	499,377
1966	523,393	528,511	592,883	781,481	1,038,235	954,392	692,643	396,581	217,080	236,798	301,847	539,597
1967	731,898	891,223	955,790	936,381	1,113,046	1,136,780	896,102	608,362	430,236	454,156	526,733	671,670
1968	788,053	1,003,792	1,189,382	1,215,479	1,247,261	1,138,768	852,049	587,586	424,610	440,524	545,124	651,643
1969	655,071	638,087	679,494	833,080	1,142,862	1,130,015	842,418	545,616	394,856	386,450	443,182	543,797
1970	636,146	738,829	799,569	835,231	977,503	1,062,622	825,519	540,851	381,132	354,731	394,302	400,867
1971	540,943	655,256	593,683	676,032	1,156,251	1,330,198	1,221,491	917,880	685,098	627,847	700,310	770,997
1972	842,657	863,970	1,038,564	1,050,871	1,303,288	1,389,030	1,228,155	907,826	685,970	582,777	653,135	930,769
1973	1,031,959	1,065,727	1,120,999	1,147,107	1,117,093	924,068	631,835	341,064	195,990	193,931	292,628	523,505
1974	738,456	864,478	933,396	1,015,453	1,163,489	1,298,855	1,194,787	908,775	677,439	575,225	636,579	788,771
1975	917,581	924,945	939,899	972,171	1,251,959	1,341,998	1,142,501	846,942	599,253	656,561	841,586	1,140,624
1976	1,130,342	1,166,970	1,103,822	1,079,850	1,332,377	1,343,077	1,206,045	910,933	674,340	578,449	599,074	622,611
1977	653,485	684,974	746,738	760,741	679,733	515,974	259,319	64,938	4,231	-11,743	137,839	531,464
1978	587,897	651,402	805,883	920,184	948,046	873,275	611,983	327,767	204,388	161,552	223,772	275,113
1979	262,153	263,609	350,537	443,089	735,860	629,997	374,567	107,234	-61,215	-88,473	-88,936	140,003
1980	150,066	175,033	252,545	444,620	724,384	668,251	426,370	144,528	-17,082	-59,484	44,688	250,131
1981	336,422	539,658	614,104	728,431	743,520	682,567	420,295	130,618	-29,019	-1,815	93,958	224,993
1982	335,030	513,239	605,995	669,634	913,217	1,014,213	792,375	486,715	283,385	285,529	363,264	537,424
1983	676,918	809,708	1,040,719	1,129,052	1,198,420	1,104,088	864,605	577,969	394,610	356,952	601,531	630,639
1984	789,415	843,871	961,493	977,043	1,033,698	1,103,218	936,862	650,778	454,391	422,165	493,930	496,965
1985	492,738	474,264	481,847	583,803	783,779	747,730	481,908	200,282	58,967	99,947	197,652	187,415
1986	220,779	264,773	498,875	589,477	714,900	639,509	352,762	66,985	-90,866	-123,360	71,955	106,202
1987	144,582	233,596	397,913	529,351	717,811	597,579	340,504	76,641	-91,356	-148,994	-112,868	-1,232
1988	27,769	122,724	254,371	398,313	584,979	528,819	308,375	71,063	-87,396	-84,149	65,252	121,818
1989	206,883	205,833	270,234	515,228	818,356	789,160	523,533	231,670	53,371	21,537	132,187	240,916
1990	416,930	444,275	569,876	837,562	916,029	904,327	659,065	368,267	194,790	263,961	655,321	660,474
1991	695,227	911,875	921,603	1,068,799	1,148,177	1,066,233	841,113	551,627	347,980	303,580	396,811	506,528
1992	631,327	790,062	870,028	905,075	864,455	642,325	357,850	87,362	-59,180	-85,631	-27,950	-19,895
1993	-21,847	-22,337	51,702	189,875	562,542	508,014	281,060	41,618	-115,475	-139,903	-117,048	-40,725
1994	24,466	32,397	140,129	261,928	411,680	347,025	193,738	38,604	-87,131	-113,616	-64,943	58,047
1995	99,081	270,085	380,461	440,206	664,725	592,536	339,006	73,389	-94,276	-67,274	177,413	484,044
1996	602,701	707,477	733,398	938,662	1,062,739	1,024,295	797,286	513,095	316,416	318,035	355,869	374,474
1997	446,871	508,659	670,500	834,646	1,224,483	1,345,613	1,177,189	854,728	615,287	581,772	704,829	776,775
1998	849,101	948,252	1,059,973	1,085,895	1,288,962	1,179,624	898,176	610,054	432,986	411,560	563,787	719,590
1999	830,906	889,465	922,582	948,181	1,080,604	1,225,638	1,047,993	752,257	542,097	523,486	749,579	960,814
2000	1,000,363	1,024,636	1,090,858	1,242,704	1,298,184	1,212,835	938,511	643,162	445,489	427,078	449,635	444,348
2001	448,523	452,250	495,065	543,043	776,927	655,104	391,937	118,873	44,986	61,823	196,633	296,033
2002	405,305	456,552	474,023	639,255	957,483	1,158,310	928,737	609,872	396,338	353,454	392,358	436,742
2003	532,614	686,010	861,056	980,688	1,031,647	957,201	675,155	378,388	197,556	239,147	316,492	372,815
2004	414,801	449,918	575,457	700,561	861,593	763,797	467,395	217,800	63,002	40,941	133,229	224,430
2005	307,192	333,359	463,701	592,786	703,905	529,908	289,540	45,361	-112,901	-131,560	-26,162	66,322
2006	261,184	302,951	322,899	466,730	794,892	884,132	658,497	364,046	185,828	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D-11

Scenario IP6 (KKC, KDRPP, CEPR, WDR, and BRE) under Less Adverse Climate Change Conditions

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP6 Full IP CC2 Less Adverse

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
Avg. WY 1926 to 2009	2,778	610	1,633	1,473	87.5%	453	40	86.7%	411	25	1,966	86
Avg. WY 1982 to 2009	2,687	558	1,626	1,458	86.9%	430	33	86.1%	379	16	3,615	280
1941 (Dry Year)	1,720	237	1,433	1,242	70.0%	18	-147	70.0%	16	-153	7,589	0
1994 (Dry Year)	1,738	225	1,434	1,184	70.0%	-39	-182	70.0%	-94	-199	7,405	0
2001 (Dry Year)	1,653	217	1,374	1,186	70.0%	44	-119	70.0%	29	-131	65,969	5,983
2005 (Dry Year)	2,269	348	1,501	1,630	70.0%	370	-35	70.0%	366	-33	0	0

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
1926	2,132	266	1,490	1,572	70.0%	318	-39	70.0%	312	-38	0	0
1927	2,870	542	1,758	1,440	100.0%	478	65	100.0%	494	57	0	0
1928	2,850	645	1,652	1,377	90.1%	467	75	88.6%	491	79	0	0
1929	1,750	190	1,433	1,323	70.0%	120	-90	70.0%	92	-105	15,799	0
1930	1,576	229	1,312	1,043	58.6%	-105	-187	56.2%	-144	-200	8,663	0
1931	1,744	317	1,135	947	38.3%	-107	-173	38.3%	-149	-186	4,335	0
1932	3,171	845	1,692	1,365	95.6%	370	-5	93.4%	327	-16	308	0
1933	3,287	839	1,758	1,617	100.0%	634	108	100.0%	553	82	2	0
1934	2,485	525	1,502	1,221	70.3%	415	20	68.0%	365	3	0	0
1935	2,695	426	1,747	1,419	100.0%	429	67	100.0%	341	24	0	0
1936	2,462	333	1,585	1,327	82.8%	458	75	81.1%	423	70	2,188	0
1937	2,796	511	1,750	1,418	100.0%	438	59	100.0%	345	26	0	0
1938	2,956	675	1,759	1,393	100.0%	430	63	100.0%	372	33	0	0
1939	2,356	294	1,552	1,302	77.5%	457	73	75.7%	424	68	166	0
1940	2,281	406	1,491	1,590	70.0%	343	-26	70.0%	317	-32	0	0
1941	1,720	237	1,433	1,242	70.0%	18	-147	70.0%	16	-153	7,589	0
1942	1,960	194	1,463	1,360	70.0%	120	-102	70.0%	76	-117	1,752	0
1943	3,029	690	1,690	1,386	95.3%	390	-10	93.3%	357	-19	181	0
1944	1,724	211	1,430	1,259	70.0%	22	-143	70.0%	1	-154	7,789	0
1945	2,222	296	1,493	1,533	70.0%	276	-89	70.0%	222	-102	172	0
1946	3,105	719	1,758	1,473	100.0%	486	68	100.0%	402	36	0	0
1947	2,807	648	1,628	1,342	86.5%	446	70	83.8%	452	73	86	0
1948	3,570	1,040	1,758	1,656	100.0%	672	105	100.0%	647	92	0	0
1949	3,476	1,054	1,758	1,587	100.0%	597	91	100.0%	562	70	0	0
1950	4,026	1,408	1,758	1,799	100.0%	798	128	100.0%	794	122	0	0
1951	3,670	1,235	1,758	1,557	100.0%	588	94	100.0%	543	68	0	0
1952	2,895	633	1,662	1,427	92.3%	511	85	90.4%	464	74	0	0
1953	2,872	487	1,758	1,568	100.0%	559	95	100.0%	529	79	0	0
1954	3,335	824	1,758	1,657	100.0%	673	122	100.0%	601	95	0	0
1955	2,983	516	1,758	1,610	100.0%	623	108	100.0%	632	97	0	0
1956	4,388	1,759	1,758	1,775	100.0%	786	126	100.0%	699	98	0	0
1957	2,698	600	1,604	1,293	83.8%	435	72	80.5%	398	66	0	0
1958	2,308	421	1,500	1,637	70.0%	379	13	70.0%	377	11	8	0
1959	3,297	871	1,758	1,582	100.0%	588	97	100.0%	579	81	0	0
1960	2,726	543	1,657	1,361	95.5%	455	76	93.4%	425	70	0	0
1961	2,810	620	1,759	1,398	100.0%	446	68	100.0%	389	40	0	0
1962	2,343	366	1,475	1,661	66.6%	425	6	63.7%	426	1	240	0
1963	2,301	381	1,500	1,634	70.0%	376	1	70.0%	331	-7	0	0
1964	3,436	876	1,758	1,743	100.0%	730	96	100.0%	717	93	0	0
1965	3,132	794	1,726	1,501	100.0%	557	103	99.4%	526	96	0	0
1966	3,021	708	1,758	1,497	100.0%	505	83	100.0%	422	47	0	0
1967	2,617	386	1,668	1,409	92.4%	512	90	90.6%	491	85	1,535	0
1968	2,639	493	1,608	1,358	84.5%	466	80	82.0%	446	76	0	0
1969	3,232	895	1,758	1,455	100.0%	476	64	100.0%	431	41	0	0
1970	2,682	413	1,686	1,412	95.1%	516	84	93.4%	472	76	0	0
1971	4,461	1,616	1,758	2,040	100.0%	986	171	100.0%	898	156	0	0
1972	3,945	1,302	1,758	1,808	100.0%	818	136	100.0%	727	107	22	0
1973	2,222	315	1,441	1,663	65.2%	432	19	62.9%	394	5	0	0
1974	3,608	1,038	1,758	1,753	100.0%	767	102	100.0%	680	73	0	0
1975	3,320	796	1,758	1,657	100.0%	687	111	100.0%	610	82	0	0
1976	3,505	940	1,758	1,761	100.0%	736	129	100.0%	648	100	0	0
1977	1,762	215	1,430	1,323	70.0%	118	-81	70.0%	83	-96	17,569	0
1978	2,526	379	1,588	1,322	80.8%	458	37	78.7%	417	29	419	0
1979	2,575	456	1,582	1,283	80.3%	444	42	77.3%	393	15	0	0
1980	2,941	648	1,696	1,432	99.4%	502	75	97.1%	460	66	0	0
1981	2,573	426	1,595	1,337	82.0%	463	78	79.9%	517	90	2	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP6 Full IP CC2 Less Adverse

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	3,022	649	1,758	1,545	100.0%	564	100	100.0%	482	68	89	89
1983	2,783	552	1,758	1,441	100.0%	455	67	100.0%	363	29	0	0
1984	2,905	485	1,758	1,553	100.0%	563	95	100.0%	477	64	446	0
1985	2,717	487	1,648	1,362	89.5%	487	65	87.0%	446	57	0	0
1986	2,605	456	1,640	1,321	91.0%	437	73	88.5%	398	44	0	0
1987	2,445	484	1,547	1,261	74.8%	434	76	72.3%	386	45	97	97
1988	2,314	361	1,454	1,643	64.5%	423	11	62.1%	371	-2	723	0
1989	2,739	567	1,652	1,372	96.4%	462	67	94.8%	419	56	0	0
1990	2,752	543	1,668	1,401	93.8%	499	86	92.8%	475	83	0	0
1991	3,068	753	1,758	1,530	100.0%	518	86	100.0%	425	50	0	0
1992	2,046	269	1,477	1,533	70.0%	288	-40	70.0%	240	-52	1,170	0
1993	2,464	497	1,519	1,553	70.0%	307	-94	70.0%	262	-103	2,392	0
1994	1,738	225	1,434	1,184	70.0%	-39	-182	70.0%	-94	-199	7,405	0
1995	2,455	446	1,528	1,475	70.0%	223	-93	70.0%	256	-86	679	0
1996	3,215	868	1,711	1,501	100.0%	552	95	98.4%	506	87	0	0
1997	4,193	1,606	1,758	1,768	100.0%	788	122	100.0%	765	115	0	0
1998	2,703	562	1,612	1,291	84.3%	438	76	82.5%	412	72	0	0
1999	3,207	728	1,758	1,615	100.0%	629	115	100.0%	557	89	0	0
2000	2,780	514	1,758	1,415	100.0%	435	63	100.0%	367	29	0	0
2001	1,653	217	1,374	1,186	70.0%	44	-119	70.0%	29	-131	65,969	5,983
2002	3,077	786	1,695	1,385	96.8%	490	71	95.5%	470	71	11,400	829
2003	2,151	259	1,483	1,604	70.0%	348	4	70.0%	304	-6	14	0
2004	2,672	476	1,644	1,346	90.1%	461	37	88.4%	420	28	0	0
2005	2,269	348	1,501	1,630	70.0%	370	-35	70.0%	366	-33	0	0
2006	3,199	801	1,758	1,530	100.0%	564	78	100.0%	NA	NA	0	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,778	610	1,633	1,473	87.5%	453	40	86.7%	411	25	1,966	86

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.
5) Climate Change inflow dataset provided only extended to the end of Water Year 2006.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP6 Full IP CC2 Less Adverse

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	99.3%	97.8%	9.1%	2.4%	70.2%
	0 -10% Above Target[1]	0.5%	2.2%	2.2%	2.3%	14.1%
	0-10% Below Target	0.1%	0.0%	10.7%	77.3%	5.4%
	> 10% Below Target	0.1%	0.0%	78.0%	18.0%	10.3%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	68.6%	68.8%	58.3%	29.4%
	0 -10% Above Target	31.2%	26.8%	32.2%	59.9%
	0-10% Below Target	0.2%	0.3%	2.5%	4.4%
	> 10% Below Target	0.0%	4.1%	7.0%	6.3%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			23.5%	
	0 -10% Above Target			7.6%	
	0-10% Below Target			6.3%	
	> 10% Below Target			62.6%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				52.7%	
	0 -10% Above Target				17.0%	
	0-10% Below Target				17.2%	
	> 10% Below Target				13.1%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				100.0%	
	0 -10% Above Target				0.0%	
	0-10% Below Target				0.0%	
	> 10% Below Target				0.0%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	32.8%	41.1%		8.2%
	0 -10% Above Target	1.9%	3.2%		1.4%
	0-10% Below Target	8.3%	30.5%		11.8%
	> 10% Below Target	57.0%	25.2%		78.6%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			26.7%	12.1%	10.5%
	0 -10% Above Target			14.7%	2.3%	1.1%
	0-10% Below Target			26.5%	4.8%	2.2%
	> 10% Below Target			32.1%	80.8%	86.2%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.5%	95.8%	91.6%
	0 -10% Above Target			0.1%	2.2%	3.4%
	0-10% Below Target			0.0%	1.4%	2.7%
	> 10% Below Target			0.4%	0.6%	2.3%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			56.4%	
	0 -10% Above Target			4.9%	
	0-10% Below Target			3.8%	
	> 10% Below Target			34.9%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			99.2%	97.2%	93.8%
	0 -10% Above Target			0.3%	0.8%	2.9%
	0-10% Below Target			0.2%	0.7%	1.1%
	> 10% Below Target			0.3%	1.3%	2.2%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP6 Full IP CC2 Less Adverse

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	98.6%	96.9%	99.8%		80.4%
	0 -10% Above Target	0.3%	3.1%	0.2%		13.9%
	0-10% Below Target	0.0%	0.0%	0.0%		0.3%
	> 10% Below Target	1.1%	0.0%	0.0%		5.4%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	18.2%			
	0 -10% Above Target	81.5%			
	0-10% Below Target	0.0%			
	> 10% Below Target	0.3%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		>=130 cfs	>=130 cfs	>=130 cfs	>=130 cfs
Flow %	> 10% Above Target	43.7%	78.3%	90.7%	14.8%
	0 -10% Above Target	56.1%	21.7%	9.2%	83.2%
	0-10% Below Target	0.0%	0.0%	0.1%	0.0%
	> 10% Below Target	0.2%	0.0%	0.0%	2.0%

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	62.6%			
	0 -10% Above Target	3.5%			
	0-10% Below Target	3.5%			
	> 10% Below Target	30.4%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC2 Less Adverse

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	-	-	-	-	-	-	-	702	42
1927	93	27	12	-	-	-	-	-	-	-	-	-	8
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	709	822	93
1930	300	142	52	34	15	24	7	-	557	930	964	795	232
1931	251	89	68	19	21	17	61	202	414	417	455	757	168
1932	305	24	20	19	21	13	-	-	-	-	-	67	28
1933	223	3	-	-	-	-	-	-	-	-	-	-	14
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	450	27
1941	174	44	1	-	-	-	-	-	-	742	955	820	166
1942	212	25	10	30	9	-	-	-	-	24	867	824	121
1943	303	23	16	30	19	17	1	-	-	-	-	133	33
1944	220	39	3	-	-	-	-	-	-	677	966	799	165
1945	265	82	36	20	17	18	1	-	-	75	795	775	126
1946	224	21	21	14	-	-	-	-	-	-	-	-	17
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	16	-	-	-	-	-	-	-	-	-	-	-	1
1964	141	-	-	-	-	-	-	-	-	-	-	-	9
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	730	766	90
1978	282	16	1	-	-	-	-	-	-	-	-	-	18
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	25	-	-	-	-	-	-	-	-	-	-	-	2
1990	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	-	22	721	44
1993	222	26	28	38	35	15	-	-	-	-	741	833	117
1994	192	137	25	16	24	15	5	-	470	890	982	816	217
1995	317	27	14	16	15	14	-	-	-	-	776	820	121
1996	58	17	0	-	-	-	-	-	-	-	-	-	5
1997	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	258	984	799	124
2002	248	24	15	16	1	-	-	-	-	-	-	-	19
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	124	-	-	-	-	-	-	-	-	-	-	-	8
2005	-	-	-	-	-	-	-	-	-	-	-	612	36
2006	69	21	32	-	-	-	-	-	-	-	-	-	8
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	53	10	4	3	2	2	1	2	18	50	123	152	25

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC2 Less Adverse

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	8	31	62	328	1	6	-	-	107	281	194	-	62
1927	-	-	7	185	342	400	89	-	-	363	374	3	106
1928	13	13	192	137	0	222	-	-	-	400	400	13	85
1929	16	37	21	13	34	-	-	-	-	134	-	-	16
1930	-	-	-	-	-	90	338	-	-	-	-	-	26
1931	-	-	-	-	-	129	320	-	-	-	-	-	27
1932	-	-	-	63	150	400	400	400	91	314	79	-	115
1933	-	128	400	222	16	198	0	-	-	368	371	14	105
1934	-	333	374	400	36	50	-	-	-	310	337	13	113
1935	50	5	208	400	10	69	-	-	-	400	400	17	96
1936	90	38	26	258	81	194	-	-	-	400	400	13	92
1937	-	2	-	38	29	208	-	-	-	400	400	17	67
1938	0	5	18	400	132	1	-	-	-	340	398	17	80
1939	15	28	18	331	101	1	-	-	-	242	289	0	62
1940	0	35	56	269	17	0	-	-	-	399	399	13	73
1941	-	-	22	318	112	53	114	-	-	-	-	-	37
1942	-	-	129	129	400	315	28	-	-	14	-	-	60
1943	-	-	-	-	-	157	400	400	53	325	26	-	83
1944	-	-	28	26	127	57	74	-	-	13	-	-	19
1945	-	-	-	-	271	357	337	21	-	20	-	-	60
1946	-	-	-	380	226	400	400	121	-	267	387	1	132
1947	1	25	225	314	-	73	-	-	-	400	400	13	89
1948	-	241	271	74	45	362	-	-	-	360	400	16	108
1949	73	182	400	34	17	-	-	-	-	400	400	18	93
1950	36	119	400	33	45	391	4	-	-	297	400	213	118
1951	296	334	206	203	217	348	2	-	-	374	400	15	145
1952	19	24	372	41	111	3	-	-	-	400	400	13	85
1953	8	33	15	168	43	328	-	-	-	369	400	18	85
1954	13	98	400	224	89	320	3	-	-	371	356	14	115
1955	9	33	9	141	2	1	-	-	-	400	400	15	62
1956	7	400	289	247	41	400	12	-	-	283	400	94	133
1957	144	197	217	52	1	71	-	-	-	400	400	13	92
1958	4	28	70	318	-	5	-	-	-	354	364	13	71
1959	22	10	310	400	8	282	-	-	-	400	400	14	113
1960	2	113	387	52	87	211	-	-	-	400	400	13	102
1961	3	91	273	152	221	345	-	-	-	400	400	18	116
1962	43	36	12	277	321	79	-	-	12	32	273	13	66
1963	17	23	4	317	333	128	-	-	85	57	317	13	77
1964	-	4	161	400	207	242	0	-	-	400	400	16	112
1965	224	103	400	33	135	364	-	-	-	400	400	13	126
1966	11	7	155	201	1	87	-	-	-	400	400	15	78
1967	75	30	348	367	41	185	-	-	-	393	396	13	113
1968	3	27	64	271	2	71	-	-	-	400	400	13	77
1969	8	12	149	160	23	8	-	-	-	400	400	18	72
1970	45	36	128	400	229	133	-	-	-	397	400	13	108
1971	3	12	17	96	152	400	8	-	-	83	367	400	93
1972	400	197	71	192	174	400	31	16	-	336	400	173	145
1973	28	203	396	265	8	6	-	-	-	336	332	13	97
1974	37	6	155	400	200	400	4	-	-	374	400	20	121
1975	26	63	356	351	13	313	-	-	-	399	400	14	119
1976	18	73	400	308	81	371	0	-	-	400	383	14	125
1977	7	29	18	104	71	168	-	-	-	98	-	-	30
1978	-	-	245	400	400	398	120	-	-	289	9	-	112
1979	0	26	9	29	10	46	298	34	-	343	119	-	56
1980	-	-	2	41	232	361	-	-	-	328	400	13	84
1981	7	5	46	297	10	6	-	-	-	388	400	13	72
1982	14	16	284	8	161	359	-	-	-	389	400	15	100
1983	52	23	335	120	61	228	-	-	-	400	400	16	100
1984	94	38	167	314	193	1	-	-	-	400	399	17	99
1985	28	13	28	22	34	4	-	134	13	284	335	-	55
1986	-	25	27	13	49	129	-	-	-	387	400	13	64
1987	10	14	27	167	246	1	-	-	-	372	400	13	75
1988	-	-	12	23	0	94	184	-	140	13	257	13	45
1989	5	10	8	387	170	219	-	-	-	393	365	1	95
1990	-	0	18	288	14	-	-	-	-	400	400	13	70
1991	2	151	247	125	130	325	-	-	-	400	400	17	109
1992	64	10	236	247	28	4	-	-	120	262	185	-	71
1993	-	-	-	-	-	-	133	362	-	308	64	-	53
1994	-	-	-	-	-	51	179	-	-	-	-	-	14
1995	-	-	-	215	400	400	397	-	-	9	2	-	84
1996	-	-	374	400	400	54	53	-	-	385	400	13	126
1997	-	11	21	298	79	400	13	-	-	294	400	122	100
1998	225	400	219	241	89	330	-	-	-	400	400	13	141
1999	13	10	206	255	70	366	-	-	-	400	372	14	104
2000	23	37	400	8	1	271	-	-	-	400	400	17	96
2001	91	40	55	26	18	5	-	-	-	180	-	-	25
2002	-	-	135	303	400	384	373	259	-	334	333	-	152
2003	-	5	2	17	284	95	-	-	-	130	322	13	52
2004	2	22	1	22	325	241	161	-	-	279	101	1	69
2005	6	15	12	153	236	100	-	-	108	280	291	-	72
2006	-	-	-	400	400	153	13	-	-	384	400	17	106
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	30	53	140	189	117	183	55	22	9	300	301	22	86

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC2 Less Adverse

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	61	316	-	-	-	-	107	17	-	-	31
1927	-	-	-	180	332	400	89	-	-	84	-	-	65
1928	-	-	181	120	-	-	-	-	-	213	-	-	32
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	90	338	-	-	-	-	-	26
1931	-	-	-	-	-	129	320	-	-	-	-	-	27
1932	-	-	-	63	150	359	400	400	91	-	-	-	88
1933	-	127	387	82	-	-	0	-	-	126	-	-	44
1934	-	326	128	-	-	-	-	-	-	102	-	-	34
1935	-	-	196	348	-	-	-	-	-	31	-	-	35
1936	-	-	-	249	35	193	-	-	-	93	-	-	35
1937	-	-	-	-	-	208	-	-	-	114	-	-	20
1938	-	-	13	400	127	-	-	-	-	132	-	-	41
1939	-	-	-	331	101	-	-	-	-	21	-	-	27
1940	-	-	51	262	17	-	-	-	-	13	-	-	21
1941	-	-	13	316	85	35	114	-	-	-	-	-	34
1942	-	-	129	129	389	308	28	-	-	-	-	-	58
1943	-	-	-	-	-	157	400	400	53	-	-	-	61
1944	-	-	-	-	120	44	74	-	-	-	-	-	14
1945	-	-	-	-	271	357	337	21	-	-	-	-	58
1946	-	-	-	380	226	400	400	121	-	62	-	-	96
1947	-	-	205	293	-	-	-	-	-	47	-	-	33
1948	-	240	271	-	-	-	-	-	-	99	-	-	37
1949	55	155	391	-	-	-	-	-	-	57	-	-	40
1950	-	93	400	-	-	-	4	-	-	47	2	197	45
1951	285	324	80	-	-	-	2	-	-	145	-	-	51
1952	-	-	365	3	97	-	-	-	-	116	-	-	35
1953	-	-	-	168	35	66	-	-	-	170	-	-	27
1954	-	93	158	-	-	2	3	-	-	217	-	-	29
1955	-	-	-	138	-	-	-	-	-	221	-	-	22
1956	-	392	198	-	-	-	12	-	-	253	4	80	57
1957	139	175	95	-	-	-	-	-	-	88	-	-	30
1958	-	-	52	311	-	-	-	-	-	123	-	-	30
1959	-	-	308	245	-	6	-	-	-	148	-	-	43
1960	-	93	206	-	-	1	-	-	-	174	-	-	29
1961	-	79	266	92	-	-	-	-	-	226	-	-	41
1962	-	-	-	266	320	73	-	-	12	-	-	-	39
1963	-	-	-	289	329	124	-	-	85	-	-	-	49
1964	-	-	155	400	207	-	0	-	-	-	-	-	46
1965	201	70	395	-	-	-	-	-	-	62	-	-	45
1966	-	-	142	188	-	-	-	-	-	169	-	-	31
1967	-	-	310	18	-	-	-	-	-	250	-	-	36
1968	-	-	39	269	-	-	-	-	-	94	-	-	25
1969	-	-	140	123	-	8	-	-	-	5	-	-	17
1970	-	-	116	344	220	24	-	-	-	258	-	-	58
1971	-	-	-	90	94	-	8	-	-	59	4	387	38
1972	400	197	0	-	-	-	31	16	-	239	30	156	65
1973	19	169	313	-	-	-	-	-	-	150	-	-	40
1974	-	-	155	354	26	-	4	-	-	223	3	5	47
1975	-	53	305	78	-	-	-	-	-	318	20	-	47
1976	-	67	204	-	-	-	0	-	-	341	88	-	43
1977	-	-	-	72	50	166	-	-	-	-	-	-	17
1978	-	-	228	389	400	397	120	-	-	-	-	-	92
1979	-	-	-	-	-	46	298	34	-	-	-	-	23
1980	-	-	-	13	224	361	-	-	-	144	-	-	45
1981	-	-	44	284	-	-	-	-	-	219	-	-	34
1982	-	-	284	-	-	-	-	-	-	254	-	-	33
1983	-	-	329	97	-	-	-	-	-	166	-	-	36
1984	-	34	137	304	193	-	-	-	-	163	8	-	51
1985	-	-	-	-	-	-	-	134	13	41	-	-	12
1986	-	-	-	-	43	129	-	-	-	249	-	-	26
1987	-	-	-	160	246	-	-	-	-	137	-	-	32
1988	-	-	-	-	-	90	184	-	140	-	-	-	25
1989	-	-	-	387	154	219	-	-	-	92	-	-	51
1990	-	-	-	285	14	-	-	-	-	146	-	-	27
1991	-	151	190	-	-	-	-	-	-	275	-	-	38
1992	-	-	208	244	28	-	-	-	120	-	-	-	37
1993	-	-	-	-	-	-	133	362	-	-	-	-	30
1994	-	-	-	-	-	51	179	-	-	-	-	-	14
1995	-	-	-	215	400	400	397	-	-	-	-	-	84
1996	-	-	367	283	384	52	53	-	-	166	-	-	79
1997	-	-	8	290	-	-	13	-	-	241	45	106	43
1998	216	391	217	-	-	-	-	-	-	218	-	-	63
1999	-	-	205	4	-	-	-	-	-	258	15	-	30
2000	-	27	325	-	-	-	-	-	-	77	-	-	26
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	135	303	400	381	373	259	-	64	-	-	115
2003	-	-	-	-	284	94	-	-	-	76	-	-	26
2004	-	-	-	-	325	241	161	-	-	-	-	-	43
2005	-	-	-	129	221	99	-	-	108	46	-	-	36
2006	-	-	-	373	308	153	13	-	-	139	-	-	59
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	16	40	112	132	85	72	55	22	9	105	3	11	40

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC2 Less Adverse

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	8	31	1	12	1	6	-	-	-	264	194	-	32
1927	-	-	7	5	9	-	-	-	-	279	374	3	42
1928	13	13	11	16	0	222	-	-	-	187	400	13	54
1929	16	37	21	13	34	-	-	-	-	134	-	-	16
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	41	-	-	-	314	79	-	27
1933	-	1	13	140	16	198	-	-	-	242	371	14	61
1934	-	7	246	400	36	50	-	-	-	208	337	13	79
1935	50	5	13	52	10	69	-	-	-	369	400	17	60
1936	90	38	26	9	47	1	-	-	-	307	400	13	57
1937	-	2	-	38	29	-	-	-	-	286	400	17	47
1938	0	5	5	-	5	1	-	-	-	208	398	17	39
1939	15	28	18	-	0	1	-	-	-	222	289	0	35
1940	0	35	5	7	0	0	-	-	-	385	399	13	52
1941	-	-	9	2	27	18	-	-	-	-	-	-	3
1942	-	-	-	-	11	7	-	-	-	14	-	-	2
1943	-	-	-	-	-	-	-	-	-	325	26	-	22
1944	-	-	28	26	7	13	-	-	-	13	-	-	5
1945	-	-	-	-	-	-	-	-	-	20	-	-	1
1946	-	-	-	-	-	-	-	-	-	205	387	1	36
1947	1	25	20	21	-	73	-	-	-	353	400	13	56
1948	-	0	-	74	45	362	-	-	-	261	400	16	71
1949	18	27	9	34	17	-	-	-	-	343	400	18	53
1950	36	26	-	33	45	391	-	-	-	250	398	15	73
1951	11	10	126	203	217	348	-	-	-	229	400	15	95
1952	19	24	7	37	14	3	-	-	-	284	400	13	49
1953	8	33	15	-	8	263	-	-	-	199	400	18	58
1954	13	5	242	224	89	318	-	-	-	153	356	14	86
1955	9	33	9	3	2	1	-	-	-	179	400	15	40
1956	7	8	92	247	41	400	-	-	-	30	396	14	76
1957	5	22	122	52	1	71	-	-	-	312	400	13	61
1958	4	28	19	6	-	5	-	-	-	231	364	13	41
1959	22	10	2	155	8	276	-	-	-	252	400	14	70
1960	2	20	181	52	87	210	-	-	-	226	400	13	73
1961	3	12	7	60	221	345	-	-	-	174	400	18	75
1962	43	36	12	11	1	6	-	-	-	32	273	13	26
1963	17	23	4	28	4	4	-	-	-	57	317	13	29
1964	-	4	6	-	-	242	-	-	-	400	400	16	66
1965	24	33	5	33	135	364	-	-	-	338	400	13	82
1966	11	7	13	13	1	87	-	-	-	231	400	15	48
1967	75	30	38	348	41	185	-	-	-	143	396	13	78
1968	3	27	25	2	2	71	-	-	-	306	400	13	52
1969	8	12	9	37	23	1	-	-	-	395	400	18	55
1970	45	36	12	56	9	109	-	-	-	139	400	13	50
1971	3	12	17	6	57	400	-	-	-	23	363	13	55
1972	-	-	70	192	174	400	-	-	-	97	370	17	80
1973	10	34	82	265	8	6	-	-	-	186	332	13	57
1974	37	6	-	46	174	400	-	-	-	151	397	15	74
1975	26	10	51	272	13	313	-	-	-	81	380	14	71
1976	18	6	196	308	81	371	-	-	-	59	295	14	82
1977	7	29	18	32	21	2	-	-	-	98	-	-	13
1978	-	-	17	11	0	0	-	-	-	289	9	-	20
1979	0	26	9	29	10	-	-	-	-	343	119	-	33
1980	-	-	2	28	8	-	-	-	-	184	400	13	39
1981	7	5	2	13	10	6	-	-	-	169	400	13	38
1982	14	16	-	8	161	359	-	-	-	135	400	15	67
1983	52	23	6	23	61	228	-	-	-	234	400	16	64
1984	94	4	31	10	-	1	-	-	-	237	391	17	48
1985	28	13	28	22	34	4	-	-	-	242	335	-	43
1986	-	25	27	13	6	-	-	-	-	138	400	13	38
1987	10	14	27	7	-	1	-	-	-	235	400	13	43
1988	-	-	12	23	0	3	-	-	-	13	257	13	20
1989	5	10	8	0	16	1	-	-	-	301	365	1	43
1990	-	0	18	3	-	-	-	-	-	254	400	13	42
1991	2	-	57	125	130	325	-	-	-	125	400	17	72
1992	64	10	28	2	-	4	-	-	-	262	185	-	34
1993	-	-	-	-	-	-	-	-	-	308	64	-	23
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	9	2	-	1
1996	-	-	7	117	16	2	-	-	-	219	400	13	48
1997	-	11	13	8	79	400	-	-	-	53	355	17	57
1998	10	9	2	241	89	330	-	-	-	182	400	13	78
1999	13	10	2	251	70	366	-	-	-	142	357	14	75
2000	23	11	75	8	1	271	-	-	-	323	400	17	69
2001	91	40	55	26	18	5	-	-	-	180	-	-	25
2002	-	-	-	-	-	3	-	-	-	270	333	-	37
2003	-	5	2	17	-	1	-	-	-	54	322	13	25
2004	2	22	1	22	0	-	-	-	-	279	101	1	26
2005	6	15	12	24	15	0	-	-	-	234	291	-	37
2006	-	-	-	27	92	-	-	-	-	245	400	17	48
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	14	13	28	57	32	111	-	-	-	196	298	10	46

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC2 Less Adverse

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26	-	-	-	-	-	10,261	43,754	45,402	59,531	59,978	18,172	237,124
1927	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1928	18,446	-	-	-	-	-	10,375	44,288	45,051	59,278	58,337	39,503	275,278
1929	26	-	-	-	-	-	10,122	44,301	45,402	58,152	55,967	18,172	232,142
1930	26	-	-	-	-	-	10,031	44,605	45,188	52,858	50,565	15,605	218,877
1931	26	-	-	-	-	-	7,232	32,172	33,027	37,524	36,244	12,101	158,325
1932	26	-	-	-	-	-	10,375	44,288	45,402	60,024	61,236	41,421	262,773
1933	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,112	45,029	266,820
1934	18,446	-	-	-	-	-	10,375	41,128	45,627	58,544	59,519	17,913	251,553
1935	26	-	-	-	-	-	10,375	44,288	44,877	59,587	62,114	45,029	266,296
1936	21,210	-	-	-	-	-	10,375	42,891	45,402	56,621	53,754	36,544	266,797
1937	26	-	-	-	-	-	10,375	44,288	45,002	59,587	62,114	45,029	266,421
1938	21,210	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	288,005
1939	21,210	-	-	-	-	-	10,375	43,185	45,403	54,289	50,717	34,419	259,598
1940	26	-	-	-	-	-	10,388	41,332	45,149	59,463	59,048	17,132	232,538
1941	26	-	-	-	-	-	10,139	44,301	45,402	55,927	55,994	18,172	229,961
1942	26	-	-	-	-	-	10,122	44,301	45,402	59,531	58,226	18,172	235,780
1943	26	-	-	-	-	-	10,375	44,288	45,402	60,003	61,018	41,357	262,470
1944	26	-	-	-	-	-	10,384	44,292	45,402	54,897	56,076	17,132	228,209
1945	26	-	-	-	-	-	10,415	43,191	45,402	59,531	59,966	18,172	236,702
1946	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1947	18,446	-	-	-	-	-	10,375	44,340	44,448	57,915	55,698	37,652	268,874
1948	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1949	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1950	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1951	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1952	18,446	-	-	-	-	-	10,375	44,288	45,402	59,812	59,586	40,236	278,146
1953	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1954	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1955	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1956	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1957	18,446	-	-	-	-	-	10,375	44,011	44,173	56,898	53,907	36,406	264,216
1958	26	-	-	-	-	-	10,376	44,226	45,402	59,531	59,978	18,172	237,711
1959	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1960	18,446	-	-	-	-	-	10,375	44,287	42,627	60,022	61,443	41,478	278,678
1961	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1962	18,446	-	-	-	-	-	10,375	43,285	45,412	58,596	56,722	17,090	249,927
1963	26	-	-	-	-	-	10,389	44,167	45,402	59,531	59,978	18,172	237,665
1964	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1965	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,031	43,744	283,874
1966	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1967	18,446	-	-	-	-	-	10,375	44,288	45,402	59,825	59,673	40,316	278,326
1968	26	-	-	-	-	-	10,406	43,936	45,402	57,350	54,744	36,981	248,844
1969	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1970	18,446	-	-	-	-	-	10,375	44,288	45,402	60,039	61,320	41,418	281,290
1971	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1972	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1973	18,446	-	-	-	-	-	6,767	43,061	45,448	57,749	55,796	16,915	244,183
1974	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1975	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1976	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1977	18,446	-	-	-	-	-	10,130	44,301	45,402	58,151	55,218	18,172	249,822
1978	26	-	-	-	-	-	10,380	44,125	45,402	55,904	52,710	35,694	244,242
1979	26	-	-	-	-	-	10,375	44,168	43,650	55,478	52,059	35,156	240,912
1980	26	-	-	-	-	-	10,375	44,297	44,890	59,899	62,682	42,891	265,061
1981	26	-	-	-	-	-	10,378	44,154	45,402	56,338	53,323	36,115	245,737
1982	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1983	18,446	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	285,242
1984	21,210	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	288,005
1985	18,446	-	-	-	-	-	10,375	44,288	45,402	58,935	57,590	38,905	273,942
1986	26	-	-	-	-	-	10,376	43,789	44,176	59,408	58,587	39,550	255,911
1987	26	-	-	-	-	-	10,375	43,574	45,410	52,627	48,810	33,141	233,963
1988	26	-	-	-	-	-	10,378	43,293	45,542	57,483	54,435	15,841	226,998
1989	26	-	-	-	-	-	10,375	43,039	42,628	60,003	61,923	41,969	259,964
1990	26	-	-	-	-	-	10,375	43,308	45,402	60,005	60,706	41,128	260,950
1991	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1992	18,446	-	-	-	-	-	10,222	44,000	45,402	59,463	58,388	17,132	253,055
1993	26	-	-	-	-	-	10,375	44,288	44,766	59,531	57,586	18,172	234,745
1994	26	-	-	-	-	-	10,014	44,213	45,402	55,521	56,583	18,172	229,932
1995	26	-	-	-	-	-	10,275	44,288	44,796	59,531	59,937	18,172	237,025
1996	26	-	-	-	-	-	10,375	44,288	45,402	59,852	62,688	43,327	265,959
1997	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
1998	18,446	-	-	-	-	-	10,278	44,377	44,289	57,256	54,683	37,111	266,440
1999	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
2000	18,446	-	-	-	-	-	10,375	44,288	45,417	59,587	62,114	45,029	285,257
2001	21,210	-	-	-	-	-	10,122	44,301	45,402	56,832	56,247	18,172	252,287
2002	26	-	-	-	-	-	10,375	44,288	45,402	60,009	62,151	42,187	264,439
2003	26	-	-	-	-	-	10,122	44,301	45,402	59,531	59,978	18,172	237,532
2004	26	-	-	-	-	-	10,388	44,357	44,313	59,244	58,270	39,459	256,057
2005	26	-	-	-	-	-	10,346	44,070	45,402	59,531	59,978	18,172	237,525
2006	26	-	-	-	-	-	10,375	44,288	45,402	59,587	62,114	45,029	266,821
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	7,246	-	-	-	-	-	10,260	43,915	45,052	58,523	59,132	35,312	259,441

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC2 Less Adverse

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	1,075	-	-	-	-	9,848	33,720	39,592	49,757	49,896	48,680	31,821	264,390
1927	1,075	-	-	-	-	9,848	33,738	46,592	52,490	60,108	59,321	39,294	302,467
1928	20,709	-	-	-	-	9,848	33,581	46,592	52,194	61,240	60,414	38,247	322,824
1929	1,075	-	-	-	-	9,848	27,449	39,776	49,757	49,896	48,680	31,821	258,303
1930	1,075	-	-	-	-	9,848	32,472	33,028	40,271	41,562	40,019	25,782	224,057
1931	1,075	-	-	-	-	9,848	26,223	21,824	27,084	27,925	27,527	17,624	159,130
1932	1,075	-	-	-	-	9,848	33,740	46,592	52,489	60,685	60,080	39,011	303,520
1933	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1934	20,709	-	-	-	-	9,848	33,741	42,485	50,424	49,763	48,114	31,169	286,253
1935	1,075	-	-	-	-	9,848	33,737	46,590	52,403	60,108	59,321	39,294	302,375
1936	24,560	-	-	-	-	9,848	33,375	45,045	52,940	58,507	56,743	36,261	317,279
1937	1,075	-	-	-	-	9,848	33,741	46,592	52,306	60,108	59,321	39,294	302,285
1938	24,560	-	-	-	-	9,848	33,741	46,590	52,490	60,108	59,321	39,294	325,952
1939	24,560	-	-	-	-	9,848	33,736	43,099	53,388	55,051	53,232	34,374	307,288
1940	1,075	-	-	-	-	9,848	33,780	44,139	49,671	49,896	48,680	31,821	268,911
1941	1,075	-	-	-	-	9,848	29,479	39,776	49,757	49,896	48,680	31,821	260,333
1942	1,075	-	-	-	-	9,848	26,825	39,776	49,757	49,896	48,680	31,821	257,679
1943	1,075	-	-	-	-	9,848	33,739	46,590	52,490	60,719	60,103	38,992	303,558
1944	1,075	-	-	-	-	9,848	26,860	39,776	49,757	49,896	48,680	31,821	257,713
1945	1,075	-	-	-	-	9,848	33,946	40,092	49,757	49,896	48,680	31,821	265,116
1946	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1947	20,709	-	-	-	-	9,848	33,741	46,659	51,720	60,478	58,839	37,116	319,109
1948	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1949	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1950	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1951	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1952	20,709	-	-	-	-	9,848	33,741	46,596	52,490	61,010	60,352	38,643	323,389
1953	1,075	-	-	-	-	9,848	33,737	46,592	52,490	60,108	59,321	39,294	302,465
1954	20,709	-	-	-	-	9,848	33,740	46,592	52,490	60,108	59,321	39,294	322,102
1955	20,709	-	-	-	-	9,848	33,740	46,592	52,490	60,108	59,321	39,294	322,103
1956	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1957	20,709	-	-	-	-	9,848	33,741	46,434	51,674	58,968	56,920	36,165	314,458
1958	1,075	-	-	-	-	9,848	33,833	40,270	49,757	49,896	48,680	31,821	265,181
1959	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1960	20,709	-	-	-	-	9,848	33,741	46,693	50,193	60,654	60,050	39,040	320,927
1961	1,075	-	-	-	-	9,848	33,740	46,592	52,490	60,108	59,321	39,294	302,469
1962	20,709	-	-	-	-	9,848	33,739	39,356	47,982	47,164	45,387	29,237	273,422
1963	1,075	-	-	-	-	9,847	33,757	39,875	49,757	49,896	48,680	31,821	264,709
1964	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1965	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,403	39,475	322,366
1966	1,075	-	-	-	-	9,848	33,740	46,592	52,490	60,108	59,321	39,294	302,468
1967	20,709	-	-	-	-	9,848	33,737	46,592	52,490	61,002	60,343	38,674	323,396
1968	1,075	-	-	-	-	9,848	33,865	46,597	52,728	59,669	57,883	36,636	298,301
1969	1,075	-	-	-	-	9,848	33,741	46,591	52,490	60,108	59,321	39,294	302,468
1970	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,718	60,075	39,017	323,190
1971	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1972	20,709	-	-	-	-	9,848	33,741	46,591	52,490	60,108	59,321	39,294	322,102
1973	20,709	-	-	-	-	9,848	28,328	39,069	46,817	46,155	44,585	28,841	264,352
1974	1,075	-	-	-	-	9,848	33,741	46,591	52,490	60,108	59,321	39,294	302,469
1975	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1976	20,709	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	322,103
1977	20,709	-	-	-	-	9,848	28,944	39,776	49,757	49,896	48,680	31,821	279,431
1978	1,075	-	-	-	-	9,848	33,804	46,124	53,058	57,407	55,591	35,550	292,458
1979	1,075	-	-	-	-	9,848	33,743	46,588	51,435	56,802	54,783	35,084	289,357
1980	1,075	-	-	-	-	9,848	33,741	46,659	52,211	60,318	59,683	39,340	302,876
1981	1,075	-	-	-	-	9,848	33,749	46,080	52,993	58,070	56,245	35,908	293,968
1982	1,075	-	-	-	-	9,848	33,739	46,592	52,490	60,108	59,321	39,294	302,468
1983	20,709	-	-	-	-	9,848	33,738	46,592	52,490	60,108	59,321	39,294	322,101
1984	24,560	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	325,955
1985	20,709	-	-	-	-	9,848	33,823	46,782	52,490	61,280	60,358	37,913	323,204
1986	1,075	-	-	-	-	9,848	33,742	46,569	51,410	61,179	60,396	38,298	302,516
1987	1,075	-	-	-	-	9,848	33,772	45,121	53,287	52,955	51,028	33,048	280,134
1988	1,075	-	-	-	-	9,848	33,751	39,182	45,675	45,717	44,136	28,499	247,883
1989	1,075	-	-	-	-	9,848	33,741	45,776	49,872	60,549	59,938	39,148	299,947
1990	1,075	-	-	-	-	9,848	33,741	45,869	52,490	60,829	60,193	38,933	302,978
1991	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1992	20,709	-	-	-	-	9,848	33,233	39,703	49,757	49,896	48,680	31,821	283,649
1993	1,075	-	-	-	-	9,848	33,740	46,590	50,003	49,896	48,680	31,821	271,653
1994	1,075	-	-	-	-	9,848	33,077	39,925	49,757	49,896	48,680	31,821	264,080
1995	1,075	-	-	-	-	9,848	33,589	46,592	50,175	49,896	48,680	31,821	271,676
1996	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,251	59,595	39,397	302,990
1997	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
1998	20,709	-	-	-	-	9,848	33,774	46,712	51,692	59,515	57,812	36,716	316,777
1999	1,075	-	-	-	-	9,848	33,740	46,592	52,490	60,108	59,321	39,294	302,468
2000	20,709	-	-	-	-	9,848	33,741	46,592	52,553	60,108	59,321	39,294	322,166
2001	24,560	-	-	-	-	9,848	28,079	39,771	49,757	49,896	48,680	31,821	282,413
2002	1,075	-	-	-	-	9,848	33,741	46,752	52,490	60,551	59,879	39,188	303,524
2003	1,075	-	-	-	-	9,848	28,138	39,768	49,754	49,896	48,680	31,821	258,980
2004	1,075	-	-	-	-	9,848	33,760	46,791	51,775	61,249	60,422	38,223	303,143
2005	1,075	-	-	-	-	9,848	33,786	40,472	49,757	49,896	48,680	31,821	265,336
2006	1,075	-	-	-	-	9,848	33,741	46,592	52,490	60,108	59,321	39,294	302,469
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	8,827	-	-	-	-	9,848	33,053	44,502	51,132	56,540	55,506	36,270	295,677

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC2 Less Adverse

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	23,894	-	-	-	-	6,904	54,815	90,985	89,080	97,312	90,146	55,333	508,469
1927	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1928	27,579	-	-	-	-	6,904	55,647	110,491	105,309	113,249	103,583	59,503	582,265
1929	23,894	-	-	-	-	6,904	50,163	92,416	89,080	97,312	90,146	55,139	505,055
1930	23,894	-	-	-	-	6,904	47,782	82,728	79,704	87,940	81,443	52,407	462,803
1931	23,894	-	-	-	-	6,904	45,492	69,306	66,656	72,600	68,883	48,442	402,177
1932	23,894	-	-	-	-	6,904	56,318	110,491	116,118	117,375	107,076	60,579	598,755
1933	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1934	27,579	-	-	-	-	6,904	56,318	94,564	89,738	97,162	89,580	55,025	516,870
1935	23,894	-	-	-	-	6,904	56,318	110,491	112,421	123,857	118,505	81,083	633,473
1936	27,579	-	-	-	-	6,904	54,305	98,521	98,663	107,153	98,255	57,843	549,223
1937	23,894	-	-	-	-	6,904	56,318	110,491	114,590	123,857	118,505	81,083	635,642
1938	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1939	27,579	-	-	-	-	6,904	56,318	95,142	93,800	103,110	94,728	56,651	534,231
1940	23,894	-	-	-	-	6,904	55,895	94,520	88,871	97,312	90,146	55,333	512,875
1941	23,894	-	-	-	-	6,904	49,179	92,416	89,080	97,312	90,146	55,333	504,264
1942	23,894	-	-	-	-	6,904	48,067	92,416	89,080	97,312	90,146	55,333	503,152
1943	23,894	-	-	-	-	6,904	56,318	110,491	115,121	117,110	106,927	60,542	597,306
1944	23,894	-	-	-	-	6,904	49,449	92,416	89,080	97,312	90,146	55,333	504,534
1945	23,894	-	-	-	-	6,904	54,430	90,912	89,080	97,312	90,146	55,333	508,011
1946	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1947	27,579	-	-	-	-	6,904	56,318	109,593	102,635	109,961	100,518	58,466	571,975
1948	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1949	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1950	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1951	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1952	27,579	-	-	-	-	6,904	56,318	109,999	105,885	114,918	105,037	59,915	586,555
1953	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1954	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1955	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1956	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1957	27,579	-	-	-	-	6,904	56,318	108,028	101,228	107,750	98,438	57,768	564,013
1958	23,894	-	-	-	-	6,904	54,856	92,926	89,080	97,312	90,146	55,333	510,452
1959	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1960	27,579	-	-	-	-	6,904	56,318	108,260	99,705	117,597	107,267	60,614	584,245
1961	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1962	27,579	-	-	-	-	6,904	56,318	91,448	87,319	94,240	86,841	54,088	504,737
1963	23,894	-	-	-	-	6,904	56,098	92,098	89,080	97,312	90,146	55,333	510,865
1964	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1965	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	116,043	61,894	622,745
1966	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1967	27,579	-	-	-	-	6,904	56,318	110,491	110,057	114,976	105,137	59,959	591,422
1968	23,894	-	-	-	-	6,904	54,663	103,089	100,135	108,613	99,409	58,091	554,798
1969	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1970	27,579	-	-	-	-	6,904	56,318	110,491	111,406	117,111	107,109	60,578	597,496
1971	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1972	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1973	27,579	-	-	-	-	6,904	48,531	91,524	86,170	93,105	86,032	53,894	493,739
1974	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1975	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1976	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1977	27,579	-	-	-	-	6,904	47,664	92,416	89,080	97,312	90,146	55,333	506,434
1978	23,894	-	-	-	-	6,904	55,708	102,739	97,881	105,807	97,101	57,369	547,404
1979	23,894	-	-	-	-	6,904	56,286	107,998	97,275	105,111	96,289	57,069	550,827
1980	23,894	-	-	-	-	6,904	56,318	109,615	113,212	120,447	109,771	61,406	601,567
1981	23,894	-	-	-	-	6,904	56,230	102,291	98,308	106,614	97,758	57,604	549,602
1982	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1983	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1984	27,579	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	644,397
1985	27,579	-	-	-	-	6,904	55,826	109,277	105,047	112,439	102,716	59,169	578,957
1986	23,894	-	-	-	-	6,904	56,293	101,163	109,413	113,689	103,875	59,534	574,764
1987	23,894	-	-	-	-	6,904	56,127	104,169	93,132	100,753	92,512	55,936	533,427
1988	23,894	-	-	-	-	6,904	56,191	91,345	85,042	92,612	85,582	53,729	495,299
1989	23,894	-	-	-	-	6,904	56,318	101,444	102,856	118,413	107,985	60,887	578,701
1990	23,894	-	-	-	-	6,904	56,318	104,865	107,550	116,249	106,349	60,413	582,542
1991	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1992	27,579	-	-	-	-	6,904	51,328	91,752	89,080	97,312	90,146	55,333	509,434
1993	23,894	-	-	-	-	6,904	56,318	110,491	90,644	97,312	90,146	55,333	531,042
1994	23,894	-	-	-	-	6,904	49,971	92,196	89,080	97,312	90,146	55,333	504,836
1995	23,894	-	-	-	-	6,904	52,410	110,491	96,617	97,312	90,146	55,333	533,108
1996	23,894	-	-	-	-	6,904	56,318	110,491	119,660	121,641	110,437	61,646	610,990
1997	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
1998	27,579	-	-	-	-	6,904	53,963	108,955	102,823	108,422	99,334	58,161	566,141
1999	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
2000	27,579	-	-	-	-	6,904	56,318	110,491	118,892	123,857	118,505	81,083	643,630
2001	27,579	-	-	-	-	6,904	49,821	92,416	89,080	97,312	90,146	48,695	501,953
2002	23,894	-	-	-	-	6,904	56,318	109,609	113,855	118,411	108,366	61,007	598,363
2003	23,894	-	-	-	-	6,904	49,935	92,416	89,080	97,312	90,146	55,333	505,020
2004	23,894	-	-	-	-	6,904	56,070	107,823	103,895	113,187	103,504	59,478	574,755
2005	23,894	-	-	-	-	6,904	54,782	93,319	89,080	97,312	90,146	55,333	510,770
2006	23,894	-	-	-	-	6,904	56,318	110,491	119,660	123,857	118,505	81,083	640,712
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	25,305	-	-	-	-	6,904	54,986	104,188	105,908	112,214	105,044	66,520	581,069

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC2 Less Adverse

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26,528	-	-	-	-	11,217	45,157	60,618	63,401	64,747	63,852	52,371	387,891
1927	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1928	36,441	-	-	-	-	11,217	44,857	63,889	69,751	73,778	72,493	56,113	428,539
1929	26,528	-	-	-	-	11,217	43,921	57,028	56,655	58,008	57,416	40,838	351,611
1930	21,374	-	-	-	-	11,217	40,955	50,325	49,334	51,123	50,725	46,662	321,715
1931	26,528	-	-	-	-	11,217	43,309	52,167	51,212	53,201	52,857	47,584	338,075
1932	26,528	-	-	-	-	11,217	45,029	63,472	71,123	74,971	73,939	56,721	423,000
1933	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1934	36,441	-	-	-	-	11,217	45,989	58,834	66,391	67,726	66,698	53,581	406,877
1935	26,528	-	-	-	-	11,217	45,068	63,659	69,106	76,952	77,292	64,789	434,611
1936	37,199	-	-	-	-	11,217	44,470	60,139	69,540	71,484	70,288	55,174	419,512
1937	26,528	-	-	-	-	11,217	45,029	63,472	69,789	76,952	77,292	64,789	435,069
1938	37,473	-	-	-	-	11,217	45,065	63,472	71,663	76,952	77,292	64,789	447,922
1939	37,687	-	-	-	-	11,217	45,989	61,406	68,086	69,963	68,828	54,500	417,676
1940	26,528	-	-	-	-	11,217	45,725	57,289	63,537	65,234	64,413	52,603	386,544
1941	26,528	-	-	-	-	11,217	43,495	55,470	54,875	56,233	55,742	48,838	352,398
1942	26,528	-	-	-	-	11,217	42,387	60,380	61,018	62,429	61,725	51,465	377,148
1943	26,528	-	-	-	-	11,217	45,029	63,472	70,954	74,907	73,877	56,700	422,684
1944	26,528	-	-	-	-	11,217	43,050	56,216	55,535	56,775	56,228	49,044	354,594
1945	26,528	-	-	-	-	11,217	44,943	60,231	64,667	66,063	65,153	52,907	391,708
1946	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1947	36,441	-	-	-	-	11,217	45,443	64,300	68,640	72,541	71,224	55,526	425,333
1948	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1949	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1950	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1951	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1952	36,441	-	-	-	-	11,217	45,029	63,472	70,375	74,348	73,095	56,345	430,322
1953	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1954	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1955	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1956	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1957	36,441	-	-	-	-	11,217	45,989	63,742	66,560	71,709	70,363	55,132	421,153
1958	26,528	-	-	-	-	11,217	45,222	62,223	64,718	66,187	65,203	52,929	394,227
1959	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1960	36,441	-	-	-	-	11,217	45,395	63,898	63,669	75,034	74,015	56,740	426,410
1961	26,528	-	-	-	-	11,217	45,425	63,472	71,459	76,952	77,292	64,789	437,135
1962	36,461	-	-	-	-	11,217	45,989	61,908	65,387	66,627	65,564	53,050	406,202
1963	26,528	-	-	-	-	11,217	45,913	61,918	64,589	65,989	65,034	52,858	394,047
1964	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1965	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	76,316	57,465	438,350
1966	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1967	36,441	-	-	-	-	11,217	45,029	63,472	70,510	74,367	73,136	56,370	430,542
1968	26,528	-	-	-	-	11,217	45,294	62,444	69,916	72,033	70,765	55,314	413,512
1969	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1970	36,441	-	-	-	-	11,217	45,029	63,472	70,561	74,913	73,952	56,721	432,306
1971	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1972	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1973	36,441	-	-	-	-	11,217	43,065	62,356	64,873	66,200	65,229	52,941	402,321
1974	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1975	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1976	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1977	36,441	-	-	-	-	11,217	42,595	57,079	56,798	58,126	57,508	41,880	361,644
1978	26,528	-	-	-	-	11,217	45,633	62,813	69,165	70,978	69,810	54,906	411,051
1979	26,528	-	-	-	-	11,217	45,954	63,765	65,859	70,716	69,474	54,736	408,248
1980	26,528	-	-	-	-	11,217	45,029	63,878	69,545	75,425	74,789	57,188	423,599
1981	26,528	-	-	-	-	11,217	45,917	62,873	69,395	71,282	70,082	55,039	412,332
1982	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1983	36,441	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	446,651
1984	37,165	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	447,375
1985	36,441	-	-	-	-	11,217	45,435	63,472	70,396	73,473	72,134	55,924	428,492
1986	26,528	-	-	-	-	11,217	45,895	60,792	68,387	73,936	72,614	56,129	415,498
1987	26,528	-	-	-	-	11,217	45,777	63,100	67,785	69,077	67,911	54,096	405,490
1988	26,528	-	-	-	-	11,217	45,893	61,236	64,607	66,014	65,042	52,848	393,385
1989	26,528	-	-	-	-	11,217	45,989	60,697	65,064	75,224	74,284	56,895	415,898
1990	26,528	-	-	-	-	11,217	45,472	61,970	70,439	74,705	73,638	56,627	420,597
1991	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1992	36,441	-	-	-	-	11,217	42,773	60,483	62,269	63,712	62,877	51,927	391,700
1993	26,528	-	-	-	-	11,217	45,989	64,825	61,793	63,433	62,615	51,813	388,213
1994	26,528	-	-	-	-	11,217	42,092	54,872	54,246	55,650	55,153	48,598	348,355
1995	26,528	-	-	-	-	11,217	43,882	64,825	64,850	65,021	64,116	52,448	392,888
1996	26,528	-	-	-	-	11,217	45,029	63,472	71,459	75,714	74,930	57,325	425,672
1997	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
1998	36,441	-	-	-	-	11,217	44,786	64,284	67,045	71,962	70,735	55,354	421,825
1999	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
2000	36,441	-	-	-	-	11,217	45,029	63,705	71,350	76,952	77,292	64,789	446,776
2001	37,290	-	-	-	-	11,217	43,502	54,302	53,439	55,002	54,509	7,579	316,840
2002	16,403	-	-	-	-	11,217	45,746	63,472	71,040	75,231	74,417	56,963	414,490
2003	26,528	-	-	-	-	11,217	44,539	61,852	63,984	65,353	64,466	52,639	390,577
2004	26,528	-	-	-	-	11,217	45,834	63,826	67,698	73,754	72,461	56,099	417,417
2005	26,528	-	-	-	-	11,217	45,338	61,725	64,787	66,409	65,426	53,031	394,462
2006	26,528	-	-	-	-	11,217	45,029	63,472	71,459	76,952	77,292	64,789	436,738
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	30,191	-	-	-	-	11,217	44,904	62,083	67,533	71,558	71,117	57,405	416,007

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC2 Less Adverse

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	869	-	-	-	-	458	5,064	14,074	17,395	18,447	18,447	16,412	91,165
1927	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1928	3,968	-	-	-	-	458	5,120	14,249	17,141	18,447	18,447	16,581	94,410
1929	869	-	-	-	-	458	2,613	14,249	17,074	17,620	17,559	14,789	85,231
1930	869	-	-	-	-	458	4,435	13,903	15,757	16,255	16,197	14,400	82,274
1931	801	-	-	-	-	458	3,419	14,136	16,143	16,667	16,631	15,125	83,380
1932	869	-	-	-	-	458	5,193	14,249	17,630	18,447	18,447	16,588	91,879
1933	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1934	3,968	-	-	-	-	458	5,193	12,897	17,395	18,447	18,447	16,541	93,346
1935	869	-	-	-	-	458	5,193	14,249	16,861	20,637	21,193	17,272	96,731
1936	3,498	-	-	-	-	458	4,970	13,127	17,395	18,447	18,447	16,569	92,910
1937	869	-	-	-	-	458	5,193	14,249	17,164	20,637	21,193	17,272	97,033
1938	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1939	3,968	-	-	-	-	458	5,193	13,776	17,395	18,447	18,447	16,561	94,244
1940	869	-	-	-	-	458	5,155	12,190	17,239	18,447	18,447	16,457	89,261
1941	869	-	-	-	-	458	3,292	14,245	16,817	17,268	17,218	15,488	85,655
1942	869	-	-	-	-	458	3,085	14,249	17,395	18,447	18,409	16,202	89,114
1943	869	-	-	-	-	458	5,193	14,249	17,570	18,447	18,447	16,588	91,820
1944	869	-	-	-	-	458	2,400	14,249	16,916	17,376	17,317	15,548	85,131
1945	869	-	-	-	-	458	5,052	13,601	17,395	18,447	18,447	16,507	90,775
1946	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1947	3,968	-	-	-	-	458	5,193	14,130	16,803	18,447	18,447	16,574	94,018
1948	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1949	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1950	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1951	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1952	3,968	-	-	-	-	458	5,193	14,249	17,395	18,447	18,447	16,584	94,739
1953	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1954	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1955	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1956	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1957	3,968	-	-	-	-	458	5,193	13,900	15,992	18,447	18,447	16,569	92,972
1958	869	-	-	-	-	458	5,072	14,187	17,395	18,447	18,447	16,510	91,384
1959	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1960	3,968	-	-	-	-	458	5,193	13,960	15,114	18,447	18,447	16,588	92,175
1961	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1962	3,968	-	-	-	-	458	5,193	14,009	17,395	18,447	18,447	16,527	94,443
1963	869	-	-	-	-	458	5,175	14,188	17,395	18,447	18,447	16,499	91,477
1964	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1965	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	20,946	16,598	99,935
1966	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1967	3,778	-	-	-	-	458	5,193	14,249	17,395	18,447	18,447	16,584	94,549
1968	869	-	-	-	-	458	5,018	13,884	17,395	18,447	18,447	16,571	91,087
1969	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1970	3,968	-	-	-	-	458	5,193	14,249	17,395	18,447	18,447	16,588	94,744
1971	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1972	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1973	3,968	-	-	-	-	458	3,795	14,249	17,395	18,447	18,447	16,512	93,269
1974	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1975	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1976	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1977	3,968	-	-	-	-	458	3,288	14,249	17,092	17,644	17,578	13,332	87,608
1978	869	-	-	-	-	458	5,142	14,033	17,395	18,447	18,447	16,566	91,356
1979	869	-	-	-	-	458	5,190	13,949	16,132	18,447	18,447	16,564	90,054
1980	869	-	-	-	-	458	5,193	14,123	17,101	18,447	18,447	16,594	91,231
1981	869	-	-	-	-	458	5,187	14,036	17,395	18,447	18,447	16,568	91,406
1982	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1983	3,968	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,856
1984	3,896	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	100,784
1985	3,968	-	-	-	-	458	5,165	14,249	17,395	18,447	18,447	16,579	94,707
1986	869	-	-	-	-	458	5,190	13,043	16,456	18,447	18,447	16,581	89,490
1987	869	-	-	-	-	458	5,182	13,903	17,395	18,447	18,447	16,553	91,254
1988	869	-	-	-	-	458	5,183	13,852	17,395	18,447	18,447	16,498	91,148
1989	869	-	-	-	-	458	5,193	13,000	15,614	18,447	18,447	16,591	88,617
1990	869	-	-	-	-	458	5,193	13,663	17,395	18,447	18,447	16,587	91,058
1991	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1992	3,915	-	-	-	-	458	4,753	14,158	17,395	18,447	18,441	16,311	93,878
1993	869	-	-	-	-	458	5,193	14,249	16,795	18,447	18,437	16,285	90,732
1994	869	-	-	-	-	458	4,659	14,188	16,712	17,153	17,098	15,419	86,556
1995	869	-	-	-	-	458	4,814	14,249	16,919	18,447	18,447	16,429	90,631
1996	869	-	-	-	-	458	5,193	14,249	17,887	18,697	18,447	16,596	92,395
1997	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
1998	3,968	-	-	-	-	458	4,994	14,032	16,053	18,447	18,447	16,572	92,969
1999	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
2000	3,968	-	-	-	-	458	5,193	14,249	17,780	20,637	21,193	17,272	100,749
2001	3,943	-	-	-	-	458	2,692	14,218	16,567	17,024	16,967	10,543	82,412
2002	869	-	-	-	-	458	5,193	14,249	17,604	18,447	18,447	16,592	91,857
2003	869	-	-	-	-	458	3,825	14,249	17,395	18,447	18,447	16,463	90,152
2004	869	-	-	-	-	458	5,166	13,923	16,305	18,447	18,447	16,581	90,195
2005	869	-	-	-	-	458	5,066	14,073	17,395	18,447	18,447	16,525	91,279
2006	869	-	-	-	-	458	5,193	14,249	17,887	20,637	21,193	17,272	97,757
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	2,044	-	-	-	-	458	4,923	14,084	17,357	19,212	19,426	16,606	94,111

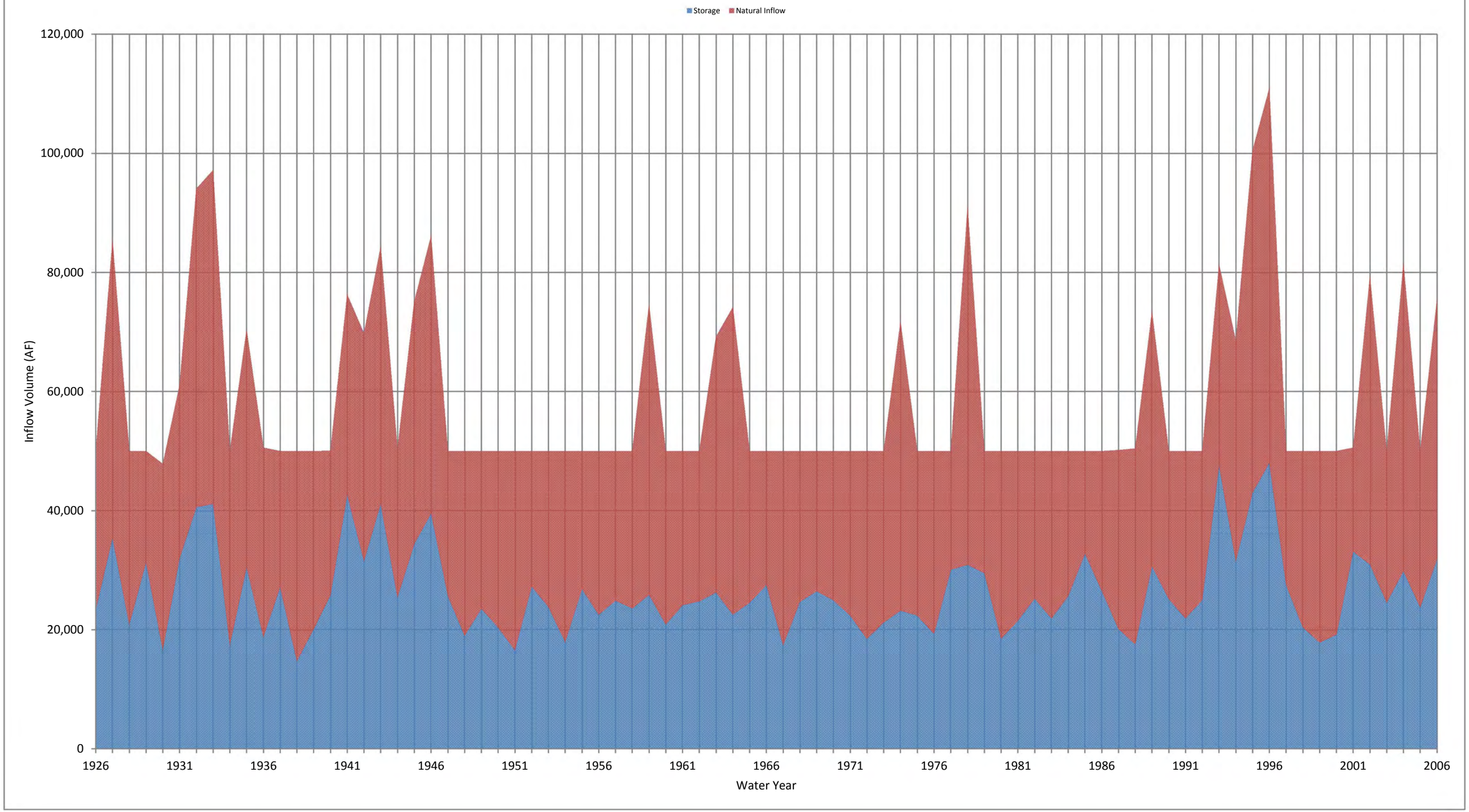
YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC2 Less Adverse

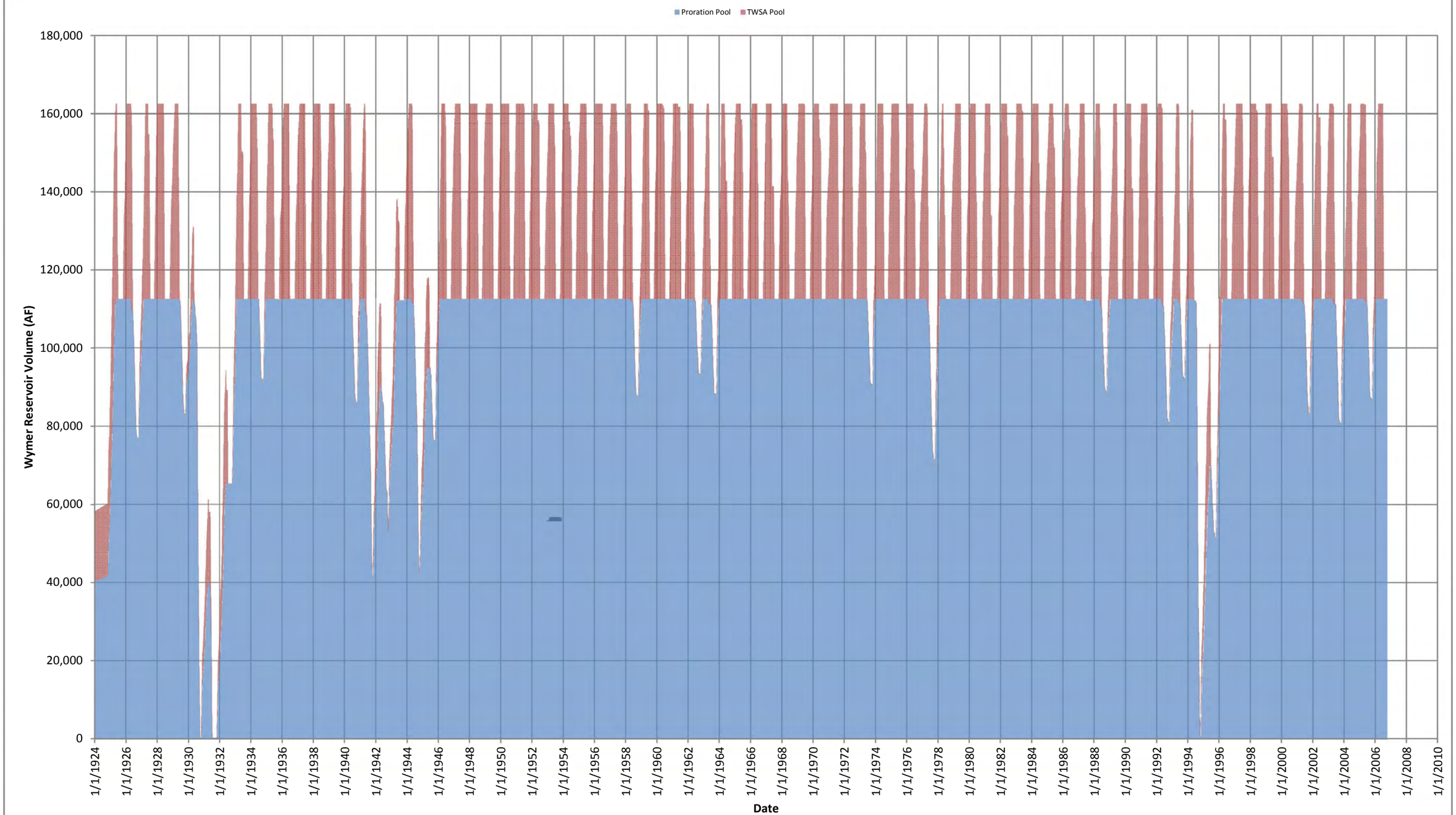
Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	5,536	-	-	-	-	20	11,581	13,641	14,527	14,065	14,735	13,329	87,434
1927	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1928	7,393	-	-	-	-	20	11,666	15,543	14,600	14,065	14,735	13,329	91,351
1929	5,536	-	-	-	-	20	10,855	13,791	14,527	14,065	14,735	13,329	86,859
1930	5,536	-	-	-	-	20	10,182	13,582	14,230	13,127	14,194	12,849	83,719
1931	5,536	-	-	-	-	20	10,721	13,395	13,121	11,427	13,468	12,611	80,298
1932	5,536	-	-	-	-	20	11,828	15,543	16,070	17,070	17,346	15,376	98,788
1933	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1934	7,393	-	-	-	-	20	11,828	13,823	14,527	14,065	14,735	13,329	89,720
1935	5,536	-	-	-	-	20	11,828	15,543	15,300	17,629	17,780	15,757	99,393
1936	7,393	-	-	-	-	20	11,357	14,071	14,527	14,065	14,735	13,329	89,497
1937	5,536	-	-	-	-	20	11,828	15,543	15,587	17,629	17,780	15,757	99,680
1938	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1939	7,393	-	-	-	-	20	11,828	13,815	14,527	14,065	14,735	13,329	89,712
1940	5,536	-	-	-	-	20	11,748	13,415	14,416	14,065	14,735	13,329	87,264
1941	5,536	-	-	-	-	20	10,727	13,791	14,527	14,065	14,735	13,329	86,731
1942	5,536	-	-	-	-	20	10,260	13,791	14,527	14,065	14,735	13,329	86,263
1943	5,536	-	-	-	-	20	11,828	15,543	16,021	17,070	17,346	15,376	98,739
1944	5,536	-	-	-	-	20	10,666	13,791	14,527	14,065	14,735	13,329	86,670
1945	5,536	-	-	-	-	20	11,432	13,776	14,527	14,065	14,735	13,329	87,421
1946	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1947	7,393	-	-	-	-	20	11,828	15,424	14,398	14,065	14,735	13,329	91,192
1948	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1949	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1950	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1951	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1952	7,393	-	-	-	-	20	11,828	15,463	15,001	14,065	14,735	13,329	91,834
1953	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1954	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1955	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1956	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1957	7,393	-	-	-	-	20	11,828	15,213	14,046	14,065	14,735	13,329	90,628
1958	5,536	-	-	-	-	20	11,527	13,985	14,527	14,065	14,735	13,329	87,725
1959	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1960	7,393	-	-	-	-	20	11,828	15,228	13,775	17,070	17,346	15,376	98,035
1961	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1962	7,393	-	-	-	-	20	11,828	14,005	14,527	14,065	14,622	12,849	89,309
1963	5,536	-	-	-	-	20	11,795	13,760	14,527	14,065	14,735	13,329	87,768
1964	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1965	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,701	15,376	101,742
1966	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1967	7,393	-	-	-	-	20	11,828	15,543	15,616	14,065	14,735	13,329	92,528
1968	5,536	-	-	-	-	20	11,572	14,012	14,527	14,065	14,735	13,329	87,797
1969	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1970	7,393	-	-	-	-	20	11,828	15,543	15,850	17,070	17,346	15,376	100,425
1971	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1972	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1973	7,393	-	-	-	-	20	10,325	13,764	14,527	13,307	14,194	12,849	86,378
1974	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1975	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1976	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1977	7,393	-	-	-	-	20	10,394	13,791	14,527	14,065	14,735	13,329	88,255
1978	5,536	-	-	-	-	20	11,699	14,191	14,527	14,065	14,735	13,329	88,103
1979	5,536	-	-	-	-	20	11,819	15,211	13,925	14,065	14,735	13,329	88,641
1980	5,536	-	-	-	-	20	11,828	15,427	15,563	17,070	17,346	15,376	98,165
1981	5,536	-	-	-	-	20	11,814	14,322	14,527	14,065	14,735	13,329	88,348
1982	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1983	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1984	7,393	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	102,202
1985	7,393	-	-	-	-	20	11,695	15,328	14,876	14,065	14,735	13,329	91,442
1986	5,536	-	-	-	-	20	11,822	14,268	14,820	14,065	14,735	13,329	88,596
1987	5,536	-	-	-	-	20	11,778	14,977	14,527	14,065	14,735	13,329	88,967
1988	5,536	-	-	-	-	20	11,801	14,010	14,315	13,127	14,194	12,849	85,851
1989	5,536	-	-	-	-	20	11,828	14,333	14,217	17,070	17,346	15,376	95,725
1990	5,536	-	-	-	-	20	11,828	14,695	15,644	17,070	17,346	14,335	96,473
1991	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1992	7,393	-	-	-	-	20	10,770	13,709	14,527	14,065	14,735	13,329	88,548
1993	5,536	-	-	-	-	20	11,828	15,543	14,230	14,065	14,735	13,329	89,286
1994	5,536	-	-	-	-	20	10,535	13,774	14,527	14,065	14,735	13,329	86,522
1995	5,536	-	-	-	-	20	11,094	15,543	14,575	14,065	14,735	13,329	88,898
1996	5,536	-	-	-	-	20	11,828	15,543	16,253	17,155	17,346	15,376	99,056
1997	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
1998	7,393	-	-	-	-	20	11,391	15,337	14,186	14,065	14,735	13,329	90,457
1999	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2000	7,393	-	-	-	-	20	11,828	15,543	16,152	17,629	17,780	15,757	102,101
2001	7,393	-	-	-	-	20	10,728	13,791	14,527	14,065	14,735	13,329	88,589
2002	5,536	-	-	-	-	20	11,828	15,328	15,949	17,070	17,346	15,376	98,453
2003	5,536	-	-	-	-	20	10,756	13,791	14,527	14,065	14,735	13,329	86,760
2004	5,536	-	-	-	-	20	11,787	15,189	14,201	14,065	14,735	13,329	88,863
2005	5,536	-	-	-	-	20	11,573	14,084	14,527	14,065	14,735	13,329	87,870
2006	5,536	-	-	-	-	20	11,828	15,543	16,253	17,629	17,780	15,757	100,345
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	6,246	-	-	-	-	20	11,596	14,918	15,292	15,787	16,228	14,496	94,582

Annual Wymer (IP6 Full IP CC2 Less Adverse) Inflow From Upstream Storage Releases and Natural Inflow
Water Years 1926 to 2006



Wymer Reservoir Storage by Pool Type (IP6 Full IP CC2 Less Adverse)



Wymer (IP6 Full IP CC2 Less Adverse)

Monthly Inflow Volume from Storage (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	2,168	7,086	8,346	5,820	0	0	0	0	0	0	0	0	23.4
1927	29	6,317	6,626	7,331	6,786	7,756	595	0	0	0	0	0	35.4
1928	2,168	7,360	8,389	2,959	0	0	0	0	0	0	0	0	20.9
1929	2,168	7,235	8,070	8,593	5,275	0	0	0	0	0	0	0	31.3
1930	0	1,685	1,648	1,743	2,493	6,326	2,757	0	0	0	0	0	16.7
1931	0	6,291	6,508	6,595	5,689	6,202	729	0	0	0	0	0	32.0
1932	0	4,038	6,184	6,253	6,135	6,658	6,122	5,193	0	0	0	0	40.6
1933	2,168	7,350	8,056	9,279	8,790	5,500	0	0	0	0	0	0	41.1
1934	2,109	6,887	7,496	999	0	0	0	0	0	0	0	0	17.5
1935	108	7,057	8,121	9,176	6,058	0	0	0	0	0	0	0	30.5
1936	108	2,531	3,548	8,798	3,829	0	0	0	0	0	0	0	18.8
1937	1,989	6,619	7,202	7,339	4,012	0	0	0	0	0	0	0	27.2
1938	0	4,627	6,621	3,525	0	0	0	0	0	0	0	0	14.8
1939	2,168	7,317	7,438	3,199	0	0	0	0	0	0	0	0	20.1
1940	2,165	7,332	7,604	8,651	0	0	60	0	0	0	0	0	25.8
1941	108	6,815	8,368	8,435	8,194	9,951	808	0	0	0	0	0	42.7
1942	0	6,106	6,640	6,097	5,873	6,620	218	0	0	0	0	0	31.6
1943	0	6,262	6,131	6,615	6,102	6,482	8,038	1,527	0	0	0	0	41.2
1944	2,083	6,652	6,783	7,148	2,813	0	0	0	0	0	0	0	25.5
1945	0	6,307	6,234	6,652	5,939	6,546	2,722	0	0	0	0	0	34.4
1946	108	7,096	8,028	8,938	9,052	6,343	0	0	0	0	0	0	39.6
1947	2,167	7,174	8,019	8,351	0	0	0	0	0	0	0	0	25.7
1948	2,168	7,150	8,390	1,323	0	0	0	0	0	0	0	0	19.0
1949	2,168	7,340	8,354	5,694	0	0	0	0	0	0	0	0	23.6
1950	2,166	7,351	8,328	2,552	0	0	0	0	0	0	0	0	20.4
1951	2,168	7,381	7,033	0	0	0	0	0	0	0	0	0	16.6
1952	2,168	7,128	8,347	8,415	1,225	0	0	0	0	0	0	0	27.3
1953	2,142	7,121	7,807	6,779	0	0	0	0	0	0	0	0	23.8
1954	2,168	7,353	8,434	0	0	0	0	0	0	0	0	0	18.0
1955	2,132	7,079	7,459	7,724	2,465	0	0	0	0	0	0	0	26.9
1956	2,168	7,186	8,146	5,046	0	0	0	0	0	0	0	0	22.5
1957	2,168	7,305	8,201	7,238	0	0	0	0	0	0	0	0	24.9
1958	2,168	7,358	8,086	5,993	0	0	0	0	0	0	0	0	23.6
1959	13	4,644	6,346	6,997	6,253	1,626	0	0	0	0	0	0	25.9
1960	2,168	7,389	8,302	3,044	0	0	0	0	0	0	0	0	20.9
1961	2,168	7,327	7,974	6,656	0	0	0	0	0	0	0	0	24.1
1962	2,168	7,308	8,101	7,218	0	0	0	0	0	0	0	0	24.8
1963	0	4,258	6,294	6,366	6,015	3,334	0	0	0	0	0	0	26.3
1964	0	4,272	6,561	6,498	5,236	0	0	0	0	0	0	0	22.6
1965	2,136	7,115	7,793	7,517	0	0	0	0	0	0	0	0	24.6
1966	2,166	7,309	8,075	8,841	1,146	0	0	0	0	0	0	0	27.5
1967	2,168	7,107	8,156	0	0	0	0	0	0	0	0	0	17.4
1968	2,167	7,329	8,219	7,000	0	0	0	0	0	0	0	0	24.7
1969	2,167	7,325	7,659	8,971	361	0	0	0	0	0	0	0	26.5
1970	2,168	7,219	8,177	7,397	0	0	0	0	0	0	0	0	25.0
1971	2,060	6,326	6,223	6,705	1,091	0	0	0	0	0	0	0	22.4
1972	2,168	6,727	8,399	1,192	0	0	0	0	0	0	0	0	18.5
1973	2,168	7,187	8,096	3,792	0	0	0	0	0	0	0	0	21.2
1974	108	2,456	5,354	9,198	6,101	0	0	0	0	0	0	0	23.2
1975	2,168	7,349	7,959	4,919	0	0	0	0	0	0	0	0	22.4
1976	2,168	7,369	8,369	1,441	0	0	0	0	0	0	0	0	19.3
1977	2,137	7,015	7,337	8,285	5,318	0	0	0	0	0	0	0	30.1
1978	0	2,331	6,685	6,211	5,877	6,328	3,481	0	0	0	0	0	30.9
1979	2,156	7,334	7,748	8,546	3,724	0	0	0	0	0	0	0	29.5
1980	0	5,909	6,588	6,022	0	0	0	0	0	0	0	0	18.5
1981	2,140	7,176	8,265	3,966	0	0	0	0	0	0	0	0	21.5
1982	2,168	7,207	8,084	7,811	0	0	0	0	0	0	0	0	25.3
1983	2,167	7,220	7,871	4,659	0	0	0	0	0	0	0	0	21.9
1984	2,168	7,369	7,887	8,230	0	0	0	0	0	0	0	0	25.7
1985	2,168	7,233	8,142	8,402	6,847	0	0	0	0	0	0	0	32.8
1986	2,060	6,482	6,323	6,477	5,235	0	0	0	0	0	0	0	26.6
1987	63	3,329	6,689	7,965	1,943	0	160	0	0	0	0	0	20.1
1988	30	1,923	4,729	6,983	3,905	0	0	0	0	0	0	0	17.6
1989	0	5,635	6,422	6,464	5,642	6,549	0	0	0	0	0	0	30.7
1990	2,168	6,904	7,848	8,260	0	0	0	0	0	0	0	0	25.2
1991	2,168	7,374	7,914	4,467	0	0	0	0	0	0	0	0	21.9
1992	2,167	7,158	7,698	8,016	0	0	0	0	0	0	0	0	25.0
1993	108	6,745	7,497	8,639	8,402	10,624	5,576	0	0	0	0	0	47.6
1994	0	6,223	6,549	6,243	5,685	6,612	218	0	0	0	0	0	31.5
1995	0	6,095	6,292	6,443	6,061	6,470	5,976	5,725	0	0	0	0	43.1
1996	108	6,911	8,223	9,184	9,423	10,611	3,568	0	0	0	0	0	48.0
1997	2,167	7,041	7,122	8,727	2,482	0	0	0	0	0	0	0	27.5
1998	2,168	7,349	8,126	2,762	0	0	0	0	0	0	0	0	20.4
1999	2,168	7,318	8,111	286	0	0	0	0	0	0	0	0	17.9
2000	2,147	7,215	8,047	1,770	0	0	0	0	0	0	0	0	19.2
2001	2,168	7,165	7,118	9,098	7,016	0	0	578	0	0	0	0	33.1
2002	0	3,760	6,462	6,462	6,041	6,393	1,869	0	0	0	0	0	31.0
2003	2,138	7,090	7,532	7,832	0	0	0	0	0	0	0	0	24.6
2004	0	3,427	6,015	6,612	5,823	6,764	1,210	0	0	0	0	0	29.9
2005	2,139	7,069	7,408	7,175	0	0	0	0	0	0	0	0	23.8
2006	37	6,423	6,963	7,563	6,830	4,004	0	0	0	0	0	0	31.8
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,420	6,412	7,338	6,130	2,632	1,700	545	161	0	0	0	0	26.3

Wymer (IP6 Full IP CC2 Less Adverse)

Monthly Natural Inflow Volume (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	5,766	9,568	8,884	2,364	0	0	0	0	0	0	0	0	26.6
1927	7,218	9,058	3,863	5,433	9,204	14,225	993	0	0	0	0	0	50.0
1928	5,734	13,881	9,510	0	0	0	0	0	0	0	0	0	29.1
1929	5,766	10,463	913	1,519	0	0	0	0	0	0	0	0	18.7
1930	5,666	5,367	1,913	2,811	11,661	3,451	313	0	0	0	0	0	31.2
1931	7,354	8,620	934	3,927	4,027	2,070	2,063	0	0	0	0	0	29.0
1932	5,363	10,958	3,031	3,616	5,396	13,948	9,842	1,302	0	0	0	0	53.5
1933	5,766	14,696	7,823	15,316	5,970	6,474	0	0	0	0	0	0	56.0
1934	5,825	11,975	12,628	2,083	0	0	0	0	0	0	0	0	32.5
1935	6,467	11,490	9,443	6,937	5,530	0	0	0	0	0	0	0	39.9
1936	7,469	12,462	2,102	9,735	0	0	0	0	0	0	0	0	31.8
1937	5,945	9,144	7,574	178	0	0	0	0	0	0	0	0	22.8
1938	7,697	15,854	6,500	5,177	0	0	0	0	0	0	0	0	35.2
1939	5,766	12,578	6,065	5,469	0	0	0	0	0	0	0	0	29.9
1940	5,760	9,259	5,611	3,618	0	0	0	0	0	0	0	0	24.2
1941	7,589	9,695	9,882	4,129	290	1,547	483	0	0	0	0	0	33.6
1942	5,612	8,588	8,628	1,726	8,393	5,264	0	0	0	0	0	0	38.2
1943	5,206	10,078	1,150	1,726	9,084	7,579	8,339	0	0	0	0	0	43.2
1944	5,851	10,273	3,636	3,256	1,850	0	0	0	0	0	0	0	24.9
1945	5,146	8,691	3,908	7,478	8,904	5,655	575	338	0	0	0	0	40.7
1946	7,643	10,803	3,473	8,031	8,527	8,073	0	0	0	0	0	0	46.5
1947	5,767	11,318	5,590	1,614	0	0	0	0	0	0	0	0	24.3
1948	5,766	12,134	11,047	2,022	0	0	0	0	0	0	0	0	31.0
1949	5,722	11,936	8,786	0	0	0	0	0	0	0	0	0	26.4
1950	5,768	12,074	9,109	2,653	0	0	0	0	0	0	0	0	29.6
1951	5,368	14,789	13,261	0	0	0	0	0	0	0	0	0	33.4
1952	5,766	11,029	5,902	0	22	0	0	0	0	0	0	0	22.7
1953	5,759	9,794	3,766	6,832	0	0	0	0	0	0	0	0	26.2
1954	5,766	13,576	12,703	0	0	0	0	0	0	0	0	0	32.0
1955	5,802	11,539	1,094	4,706	0	0	0	0	0	0	0	0	23.1
1956	5,766	11,998	6,713	2,977	0	0	0	0	0	0	0	0	27.5
1957	5,766	11,195	8,115	13	0	0	0	0	0	0	0	0	25.1
1958	5,766	9,675	6,816	4,138	0	0	0	0	0	0	0	0	26.4
1959	7,297	14,237	2,089	11,686	9,947	3,452	0	0	0	0	0	0	48.7
1960	5,600	14,080	8,242	1,176	0	0	0	0	0	0	0	0	29.1
1961	5,713	12,486	1,254	6,422	0	0	0	0	0	0	0	0	25.9
1962	5,766	11,002	4,043	4,396	0	0	0	0	0	0	0	0	25.2
1963	6,500	11,851	6,204	5,117	10,065	3,219	0	0	0	0	0	0	43.0
1964	6,985	15,323	4,107	12,404	12,747	0	0	0	0	0	0	0	51.6
1965	5,787	12,544	7,005	105	0	0	0	0	0	0	0	0	25.4
1966	5,768	9,707	3,757	3,232	0	0	0	0	0	0	0	0	22.5
1967	5,766	13,520	13,283	0	0	0	0	0	0	0	0	0	32.6
1968	5,547	10,184	3,616	5,938	0	0	0	0	0	0	0	0	25.3
1969	5,694	10,440	5,887	1,497	0	0	0	0	0	0	0	0	23.5
1970	5,766	10,279	7,212	1,783	0	0	0	0	0	0	0	0	25.0
1971	5,874	10,798	419	7,659	2,847	0	0	0	0	0	0	0	27.6
1972	5,766	12,231	13,518	0	0	0	0	0	0	0	0	0	31.5
1973	5,766	10,909	6,557	5,526	0	0	0	0	0	0	0	0	28.8
1974	7,791	12,933	11,243	7,825	8,729	0	0	0	0	0	0	0	48.5
1975	5,766	11,634	5,944	4,262	0	0	0	0	0	0	0	0	27.6
1976	5,766	11,283	11,082	2,523	0	0	0	0	0	0	0	0	30.7
1977	5,797	9,747	527	3,097	739	0	0	0	0	0	0	0	19.9
1978	6,748	14,895	11,190	8,053	7,647	10,482	1,043	0	0	0	0	0	60.1
1979	5,778	9,342	3,668	0	1,704	0	0	0	0	0	0	0	20.5
1980	7,934	9,904	12,080	1,563	0	0	0	0	0	0	0	0	31.5
1981	5,794	11,537	7,832	3,291	0	0	0	0	0	0	0	0	28.5
1982	4,936	9,670	6,207	3,918	0	0	0	0	0	0	0	0	24.7
1983	5,767	11,336	6,776	4,205	0	0	0	0	0	0	0	0	28.1
1984	5,766	14,759	10	3,813	0	0	0	0	0	0	0	0	24.3
1985	5,766	10,983	0	0	459	0	0	0	0	0	0	0	17.2
1986	5,874	10,182	0	3,916	3,451	0	0	0	0	0	0	0	23.4
1987	7,259	15,481	1,101	2,544	3,627	0	0	0	0	0	0	0	30.0
1988	7,588	10,438	7,039	3,784	4,018	0	0	0	0	0	0	0	32.9
1989	7,332	10,779	1,726	6,929	2,862	13,107	0	0	0	0	0	0	42.7
1990	5,766	9,704	4,345	5,005	0	0	0	0	0	0	0	0	24.8
1991	5,766	14,163	7,654	495	0	0	0	0	0	0	0	0	28.1
1992	5,767	11,970	5,503	1,721	0	0	0	0	0	0	0	0	25.0
1993	7,778	10,805	429	1,186	2,602	9,814	1,096	0	0	0	0	0	33.7
1994	7,591	8,035	3,451	5,962	3,986	8,037	0	0	0	0	0	0	37.1
1995	6,229	11,722	5,711	6,562	11,827	9,767	256	5,368	0	0	0	0	57.4
1996	7,826	11,238	10,612	10,933	9,282	11,955	1,030	0	0	0	0	0	62.9
1997	5,767	9,920	0	4,387	2,388	0	0	0	0	0	0	0	22.5
1998	5,466	14,566	5,033	4,531	0	0	0	0	0	0	0	0	29.6
1999	5,766	14,789	11,093	469	0	0	0	0	0	0	0	0	32.1
2000	5,787	14,026	10,358	650	0	0	0	0	0	0	0	0	30.8
2001	5,694	10,936	0	196	609	0	0	0	0	0	0	0	17.4
2002	7,408	9,736	7,605	6,507	8,378	7,587	1,094	0	0	0	0	0	48.3
2003	5,796	10,594	3,602	5,416	0	0	0	0	0	0	0	0	25.4
2004	7,880	12,049	3,523	3,423	6,455	17,774	575	0	0	0	0	0	51.7
2005	5,795	10,874	4,675	4,865	0	0	0	0	0	0	0	0	26.2
2006	6,406	9,802	3,318	11,279	7,074	5,704	0	0	0	0	0	0	43.6
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	6,162	11,407	5,814	3,947	2,473	2,089	342	87	0	0	0	0	32.3

Wymer (IP6 Full IP CC2 Less Adverse)

Total Monthly Inflow (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	7,934	16,653	17,230	8,183	0	0	0	0	0	0	0	0	50.0
1927	7,246	15,375	10,490	12,763	15,989	21,981	1,588	0	0	0	0	0	85.4
1928	7,903	21,241	17,899	2,959	0	0	0	0	0	0	0	0	50.0
1929	7,934	17,698	8,983	10,111	5,275	0	0	0	0	0	0	0	50.0
1930	5,666	7,052	3,561	4,554	14,154	9,777	3,070	0	0	0	0	0	47.8
1931	7,354	14,911	7,442	10,522	9,716	8,272	2,792	0	0	0	0	0	61.0
1932	5,363	14,996	9,216	9,869	11,530	20,606	15,964	6,495	0	0	0	0	94.0
1933	7,934	22,046	15,879	24,595	14,759	11,975	0	0	0	0	0	0	97.2
1934	7,934	18,861	20,123	3,082	0	0	0	0	0	0	0	0	50.0
1935	6,575	18,547	17,563	16,113	11,588	0	0	0	0	0	0	0	70.4
1936	7,577	14,993	5,650	18,533	3,829	0	0	0	0	0	0	0	50.6
1937	7,934	15,763	14,775	7,516	4,012	0	0	0	0	0	0	0	50.0
1938	7,697	20,481	13,121	8,702	0	0	0	0	0	0	0	0	50.0
1939	7,934	19,895	13,503	8,668	0	0	0	0	0	0	0	0	50.0
1940	7,925	16,592	13,215	12,269	0	0	60	0	0	0	0	0	50.1
1941	7,697	16,510	18,249	12,564	8,484	11,498	1,291	0	0	0	0	0	76.3
1942	5,612	14,694	15,268	7,822	14,265	11,884	218	0	0	0	0	0	69.8
1943	5,206	16,339	7,282	8,340	15,186	14,061	16,377	1,527	0	0	0	0	84.3
1944	7,934	16,926	10,419	10,404	4,663	0	0	0	0	0	0	0	50.3
1945	5,146	14,998	10,142	14,130	14,842	12,201	3,297	338	0	0	0	0	75.1
1946	7,751	17,899	11,501	16,968	17,580	14,416	0	0	0	0	0	0	86.1
1947	7,934	18,493	13,609	9,965	0	0	0	0	0	0	0	0	50.0
1948	7,934	19,285	19,437	3,345	0	0	0	0	0	0	0	0	50.0
1949	7,891	19,276	17,140	5,694	0	0	0	0	0	0	0	0	50.0
1950	7,934	19,425	17,437	5,205	0	0	0	0	0	0	0	0	50.0
1951	7,536	22,170	20,295	0	0	0	0	0	0	0	0	0	50.0
1952	7,934	18,156	14,249	8,415	1,247	0	0	0	0	0	0	0	50.0
1953	7,902	16,915	11,573	13,612	0	0	0	0	0	0	0	0	50.0
1954	7,934	20,929	21,137	0	0	0	0	0	0	0	0	0	50.0
1955	7,934	18,618	8,553	12,430	2,465	0	0	0	0	0	0	0	50.0
1956	7,934	19,185	14,859	8,023	0	0	0	0	0	0	0	0	50.0
1957	7,934	18,500	16,316	7,251	0	0	0	0	0	0	0	0	50.0
1958	7,934	17,033	14,902	10,131	0	0	0	0	0	0	0	0	50.0
1959	7,310	18,882	8,435	18,683	16,201	5,078	0	0	0	0	0	0	74.6
1960	7,768	21,469	16,543	4,220	0	0	0	0	0	0	0	0	50.0
1961	7,881	19,813	9,228	13,079	0	0	0	0	0	0	0	0	50.0
1962	7,934	18,309	12,144	11,614	0	0	0	0	0	0	0	0	50.0
1963	6,500	16,108	12,498	11,483	16,080	6,553	0	0	0	0	0	0	69.2
1964	6,985	19,595	10,667	18,902	17,983	0	0	0	0	0	0	0	74.1
1965	7,922	19,658	14,798	7,622	0	0	0	0	0	0	0	0	50.0
1966	7,934	17,016	11,832	12,073	1,146	0	0	0	0	0	0	0	50.0
1967	7,934	20,627	21,440	0	0	0	0	0	0	0	0	0	50.0
1968	7,714	17,513	11,835	12,938	0	0	0	0	0	0	0	0	50.0
1969	7,861	17,765	13,546	10,468	361	0	0	0	0	0	0	0	50.0
1970	7,934	17,498	15,389	9,180	0	0	0	0	0	0	0	0	50.0
1971	7,934	17,124	6,642	14,364	3,937	0	0	0	0	0	0	0	50.0
1972	7,934	18,958	21,917	1,192	0	0	0	0	0	0	0	0	50.0
1973	7,934	18,096	14,653	9,318	0	0	0	0	0	0	0	0	50.0
1974	7,899	15,389	16,597	17,023	14,830	0	0	0	0	0	0	0	71.7
1975	7,934	18,983	13,903	9,181	0	0	0	0	0	0	0	0	50.0
1976	7,934	18,652	19,450	3,964	0	0	0	0	0	0	0	0	50.0
1977	7,934	16,763	7,865	11,382	6,057	0	0	0	0	0	0	0	50.0
1978	6,748	17,226	17,875	14,264	13,524	16,810	4,524	0	0	0	0	0	91.0
1979	7,934	16,676	11,416	8,546	5,428	0	0	0	0	0	0	0	50.0
1980	7,934	15,814	18,668	7,585	0	0	0	0	0	0	0	0	50.0
1981	7,934	18,713	16,097	7,257	0	0	0	0	0	0	0	0	50.0
1982	7,105	16,877	14,291	11,729	0	0	0	0	0	0	0	0	50.0
1983	7,934	18,555	14,647	8,864	0	0	0	0	0	0	0	0	50.0
1984	7,934	22,128	7,896	12,043	0	0	0	0	0	0	0	0	50.0
1985	7,934	18,217	8,142	8,402	7,306	0	0	0	0	0	0	0	50.0
1986	7,934	16,665	6,323	10,393	8,686	0	0	0	0	0	0	0	50.0
1987	7,322	18,810	7,790	10,508	5,570	0	160	0	0	0	0	0	50.2
1988	7,618	12,361	11,768	10,767	7,923	0	0	0	0	0	0	0	50.4
1989	7,332	16,415	8,147	13,393	8,504	19,656	0	0	0	0	0	0	73.4
1990	7,934	16,608	12,193	13,265	0	0	0	0	0	0	0	0	50.0
1991	7,934	21,536	15,568	4,962	0	0	0	0	0	0	0	0	50.0
1992	7,934	19,128	13,202	9,737	0	0	0	0	0	0	0	0	50.0
1993	7,886	17,550	7,926	9,825	11,004	20,438	6,672	0	0	0	0	0	81.3
1994	7,591	14,257	10,000	12,206	9,670	14,649	218	0	0	0	0	0	68.6
1995	6,229	17,818	12,003	13,005	17,888	16,237	6,232	11,093	0	0	0	0	100.5
1996	7,934	18,149	18,835	20,117	18,705	22,566	4,598	0	0	0	0	0	110.9
1997	7,934	16,961	7,122	13,114	4,870	0	0	0	0	0	0	0	50.0
1998	7,634	21,915	13,158	7,293	0	0	0	0	0	0	0	0	50.0
1999	7,934	22,107	19,204	756	0	0	0	0	0	0	0	0	50.0
2000	7,934	21,241	18,405	2,420	0	0	0	0	0	0	0	0	50.0
2001	7,862	18,101	7,118	9,294	7,626	0	0	578	0	0	0	0	50.6
2002	7,408	13,496	14,067	12,969	14,418	13,980	2,964	0	0	0	0	0	79.3
2003	7,934	17,685	11,135	13,248	0	0	0	0	0	0	0	0	50.0
2004	7,880	15,476	9,538	10,035	12,278	24,538	1,785	0	0	0	0	0	81.5
2005	7,934	17,943	12,084	12,040	0	0	0	0	0	0	0	0	50.0
2006	6,443	16,225	10,282	18,841	13,904	9,708	0	0	0	0	0	0	75.4
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	7,582	17,819	13,152	10,078	5,105	3,789	887	247	0	0	0	0	58.7

Wymer (IP6 Full IP CC2 Less Adverse)

Monthly Proration Pool Release (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	0	0	0	0	0	1,007	2,191	6,543	12,405	11,710	1,577	35.4
1927	0	0	0	0	0	0	0	0	0	0	0	0	-
1928	0	0	0	0	0	0	0	0	0	0	0	0	-
1929	0	0	0	0	0	0	0	48	1,898	11,604	12,383	3,339	29.3
1930	0	0	0	0	0	0	185	2,056	3,660	26,425	52,374	26,929	111.6
1931	654	0	0	0	0	0	3,205	2,554	24,208	12,276	3	0	42.9
1932	0	0	0	0	0	0	0	0	0	0	0	0	0.0
1933	0	0	0	0	0	0	0	0	0	0	0	0	-
1934	0	0	0	0	0	0	0	0	0	9,729	10,435	222	20.4
1935	0	0	0	0	0	0	0	0	0	0	0	0	-
1936	582	0	0	0	0	0	0	0	0	0	0	0	0.6
1937	0	0	0	0	0	0	0	0	0	0	0	0	-
1938	0	0	0	0	0	0	0	0	0	0	0	0	-
1939	0	0	0	0	0	0	0	0	0	0	0	0	-
1940	0	0	0	0	0	0	60	0	3,606	10,307	10,457	1,922	26.4
1941	0	0	0	0	0	0	3,064	783	10,128	14,136	13,538	25,550	67.2
1942	3,727	0	0	0	0	0	122	2,508	2,122	10,281	10,846	3,813	33.4
1943	6,400	0	0	0	0	0	0	0	0	0	0	0	6.4
1944	0	0	0	0	0	0	596	414	9,081	13,032	15,684	27,346	66.2
1945	3,366	0	0	0	0	0	0	0	0	7,715	9,215	1,653	21.9
1946	0	0	0	0	0	0	0	0	0	0	0	0	-
1947	0	0	0	0	0	0	0	0	0	0	0	0	-
1948	0	0	0	0	0	0	0	0	0	0	0	0	-
1949	0	0	0	0	0	0	0	0	0	0	0	0	-
1950	0	0	0	0	0	0	0	0	0	0	0	0	-
1951	0	0	0	0	0	0	0	0	0	0	0	0	-
1952	0	0	0	0	0	0	0	0	0	0	0	0	-
1953	0	0	0	0	0	0	0	0	0	0	0	0	-
1954	0	0	0	0	0	0	0	0	0	0	0	0	-
1955	0	0	0	0	0	0	0	0	0	0	0	0	-
1956	0	0	0	0	0	0	0	0	0	0	0	0	-
1957	0	0	0	0	0	0	0	0	0	0	0	0	-
1958	0	0	0	0	0	0	365	234	1,941	11,554	9,742	753	24.6
1959	0	0	0	0	0	0	0	0	0	0	0	0	-
1960	0	0	0	0	0	0	0	0	0	0	0	0	-
1961	0	0	0	0	0	0	0	0	0	0	0	0	-
1962	0	0	0	0	0	0	0	380	2,062	10,316	5,938	525	19.2
1963	0	0	0	0	0	0	963	391	2,099	10,374	10,203	102	24.1
1964	0	0	0	0	0	0	0	0	0	0	0	0	-
1965	0	0	0	0	0	0	0	0	0	0	0	0	-
1966	0	0	0	0	0	0	0	0	0	0	0	0	-
1967	0	0	0	0	0	0	0	0	0	0	0	0	-
1968	0	0	0	0	0	0	0	0	0	0	0	0	-
1969	0	0	0	0	0	0	0	0	0	0	0	0	-
1970	0	0	0	0	0	0	0	0	0	0	0	0	-
1971	0	0	0	0	0	0	0	0	0	0	0	0	-
1972	0	0	0	0	0	0	0	0	0	0	0	0	-
1973	0	0	0	0	0	0	0	0	1,758	10,340	8,965	674	21.7
1974	0	0	0	0	0	0	0	0	0	0	0	0	-
1975	0	0	0	0	0	0	0	0	0	0	0	0	-
1976	0	0	0	0	0	0	0	0	0	0	0	0	-
1977	0	0	0	0	0	0	1,842	1,225	11,015	14,709	10,329	1,851	41.0
1978	0	0	0	0	0	0	0	0	0	0	0	0	-
1979	0	0	0	0	0	0	0	0	0	0	0	0	-
1980	0	0	0	0	0	0	0	0	0	0	0	0	-
1981	0	0	0	0	0	0	0	0	0	0	0	0	-
1982	0	0	0	0	0	0	0	0	0	0	0	0	-
1983	0	0	0	0	0	0	0	0	0	0	0	0	-
1984	0	0	0	0	0	0	0	0	0	0	0	0	-
1985	0	0	0	0	0	0	0	0	0	0	0	0	-
1986	0	0	0	0	0	0	0	0	0	0	0	0	-
1987	0	0	0	0	0	0	160	436	0	0	0	0	0.6
1988	0	0	0	0	0	0	0	1,943	893	9,996	8,591	2,023	23.4
1989	0	0	0	0	0	0	0	0	0	0	0	0	-
1990	0	0	0	0	0	0	0	0	0	0	0	0	-
1991	0	0	0	0	0	0	0	0	0	0	0	0	-
1992	0	0	0	0	0	0	916	839	5,780	9,538	12,049	2,179	31.3
1993	0	0	0	0	0	0	0	570	477	8,575	9,329	1,204	20.2
1994	0	0	0	0	0	0	0	320	43	16,287	56,692	30,993	104.3
1995	7,655	0	0	0	0	0	0	0	957	9,591	6,541	1,405	26.1
1996	0	0	0	0	0	0	0	0	0	0	0	0	-
1997	0	0	0	0	0	0	0	0	0	0	0	0	-
1998	0	0	0	0	0	0	0	0	0	0	0	0	-
1999	0	0	0	0	0	0	0	0	0	0	0	0	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	-
2001	0	0	0	0	0	0	578	1,283	1,947	10,641	11,521	3,912	29.9
2002	0	0	0	0	0	0	0	0	0	0	0	0	-
2003	0	0	0	0	0	0	444	872	2,971	12,414	12,644	2,185	31.5
2004	0	0	0	0	0	0	0	0	0	0	0	0	-
2005	0	0	0	0	0	0	203	713	1,348	11,093	11,328	718	25.4
2006	0	0	0	0	0	0	0	0	0	0	0	0	-
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	276	0	0	0	0	0	169	244	1,167	3,375	3,957	1,739	10.9

Wymer (IP6 Full IP CC2 Less Adverse)

Monthly TWSA Pool Release (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	0	0	0	0	0	0	33,232	16,769	0	0	0	50.0
1927	0	0	0	0	0	0	0	1,984	5,772	42,245	0	0	50.0
1928	0	0	0	0	0	0	0	0	49,659	342	0	0	50.0
1929	0	0	0	0	0	0	0	33,911	16,090	0	0	0	50.0
1930	0	0	0	0	0	0	0	18,562	0	0	0	0	18.6
1931	0	0	0	0	0	0	0	0	18,772	0	0	0	18.8
1932	0	0	0	0	0	0	0	2,663	2,307	23,966	0	0	28.9
1933	0	0	0	0	0	0	0	12,324	0	37,677	0	0	50.0
1934	0	0	0	0	0	0	0	9,050	40,950	0	0	0	50.0
1935	0	0	0	0	0	0	0	6,358	28,624	15,018	0	0	50.0
1936	0	0	0	0	0	0	0	0	44,593	5,408	0	0	50.0
1937	0	0	0	0	0	0	0	0	23,507	26,493	0	0	50.0
1938	0	0	0	0	0	0	0	0	9,335	40,666	0	0	50.0
1939	0	0	0	0	0	0	0	16,821	33,179	0	0	0	50.0
1940	0	0	0	0	0	0	0	9,150	40,851	0	0	0	50.0
1941	0	0	0	0	0	0	0	50,001	0	0	0	0	50.0
1942	0	0	0	0	0	0	0	21,466	0	0	0	0	21.5
1943	0	0	0	0	0	0	0	1,984	3,585	20,376	0	0	25.9
1944	0	0	0	0	0	0	0	49,004	996	0	0	0	50.0
1945	0	0	0	0	0	0	0	2,075	21,030	0	0	0	23.1
1946	0	0	0	0	0	0	0	0	15,099	34,902	0	0	50.0
1947	0	0	0	0	0	0	0	0	49,909	91	0	0	50.0
1948	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1949	0	0	0	0	0	0	0	0	17,852	32,149	0	0	50.0
1950	0	0	0	0	0	0	0	0	0	37,687	12,314	0	50.0
1951	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1952	0	0	0	0	0	0	0	4,262	32,068	13,671	0	0	50.0
1953	0	0	0	0	0	0	0	0	29,041	20,960	0	0	50.0
1954	0	0	0	0	0	0	0	4,491	3,679	41,830	0	0	50.0
1955	0	0	0	0	0	0	0	0	2,651	47,350	0	0	50.0
1956	0	0	0	0	0	0	0	0	0	35,337	14,664	0	50.0
1957	0	0	0	0	0	0	0	1,984	28,356	19,662	0	0	50.0
1958	0	0	0	0	0	0	0	21,278	28,723	0	0	0	50.0
1959	0	0	0	0	0	0	0	0	5,976	44,024	0	0	50.0
1960	0	0	0	0	0	0	0	469	17,748	31,784	0	0	50.0
1961	0	0	0	0	0	0	0	790	2,245	46,965	0	0	50.0
1962	0	0	0	0	0	0	0	35,480	14,521	0	0	0	50.0
1963	0	0	0	0	0	0	0	33,224	16,777	0	0	0	50.0
1964	0	0	0	0	0	0	0	19,723	460	29,818	0	0	50.0
1965	0	0	0	0	0	0	0	4,006	9,158	36,837	0	0	50.0
1966	0	0	0	0	0	0	0	0	31,897	18,104	0	0	50.0
1967	0	0	0	0	0	0	0	21,123	0	28,878	0	0	50.0
1968	0	0	0	0	0	0	0	21,962	28,038	0	0	0	50.0
1969	0	0	0	0	0	0	0	0	20,933	29,068	0	0	50.0
1970	0	0	0	0	0	0	0	4,696	4,797	40,508	0	0	50.0
1971	0	0	0	0	0	0	0	0	0	0	50,001	0	50.0
1972	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1973	0	0	0	0	0	0	0	19,298	30,703	0	0	0	50.0
1974	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1975	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1976	0	0	0	0	0	0	0	0	16,835	33,165	0	0	50.0
1977	0	0	0	0	0	0	0	50,001	0	0	0	0	50.0
1978	0	0	0	0	0	0	0	22,956	27,044	0	0	0	50.0
1979	0	0	0	0	0	0	0	0	31,736	18,265	0	0	50.0
1980	0	0	0	0	0	0	0	3,967	27,668	18,366	0	0	50.0
1981	0	0	0	0	0	0	0	28,601	21,400	0	0	0	50.0
1982	0	0	0	0	0	0	0	0	8,075	41,926	0	0	50.0
1983	0	0	0	0	0	0	0	1,810	30,207	17,983	0	0	50.0
1984	0	0	0	0	0	0	0	0	15,121	34,880	0	0	50.0
1985	0	0	0	0	0	0	0	3,452	11,631	34,918	0	0	50.0
1986	0	0	0	0	0	0	0	6,491	11,877	31,632	0	0	50.0
1987	0	0	0	0	0	0	0	13,713	36,287	0	0	0	50.0
1988	0	0	0	0	0	0	0	8,557	41,444	0	0	0	50.0
1989	0	0	0	0	0	0	0	0	23,472	26,529	0	0	50.0
1990	0	0	0	0	0	0	0	21,701	1,804	26,495	0	0	50.0
1991	0	0	0	0	0	0	0	0	40,087	9,914	0	0	50.0
1992	0	0	0	0	0	0	0	28,342	21,658	0	0	0	50.0
1993	0	0	0	0	0	0	0	0	35,643	14,358	0	0	50.0
1994	0	0	0	0	0	0	0	48,436	0	0	0	0	48.4
1995	0	0	0	0	0	0	0	0	30,925	0	0	0	30.9
1996	0	0	0	0	0	0	0	3,967	17,954	28,080	0	0	50.0
1997	0	0	0	0	0	0	0	0	0	42,653	7,348	0	50.0
1998	0	0	0	0	0	0	0	1,715	18,449	29,837	0	0	50.0
1999	0	0	0	0	0	0	0	13,640	0	36,361	0	0	50.0
2000	0	0	0	0	0	0	0	1,533	21,133	27,335	0	0	50.0
2001	0	0	0	0	0	0	0	24,322	25,679	0	0	0	50.0
2002	0	0	0	0	0	0	0	3,435	0	46,565	0	0	50.0
2003	0	0	0	0	0	0	0	32,873	17,128	0	0	0	50.0
2004	0	0	0	0	0	0	0	0	21,770	28,231	0	0	50.0
2005	0	0	0	0	0	0	0	3,873	46,128	0	0	0	50.0
2006	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	0	0	0	0	0	0	0	9,688	16,640	20,362	1,041	0	47.7

Wymer (IP6 Full IP CC2 Less Adverse)

Total Monthly Wymer Release (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	0	0	0	0	0	1,007	35,422	23,312	12,405	11,710	1,577	85.4
1927	0	0	0	0	0	0	0	1,984	5,772	42,245	0	0	50.0
1928	0	0	0	0	0	0	0	0	49,659	342	0	0	50.0
1929	0	0	0	0	0	0	0	33,959	17,988	11,604	12,383	3,339	79.3
1930	0	0	0	0	0	0	185	20,617	3,660	26,425	52,374	26,929	130.2
1931	654	0	0	0	0	0	3,205	2,554	42,980	12,276	3	0	61.7
1932	0	0	0	0	0	0	0	2,663	2,307	23,966	0	0	28.9
1933	0	0	0	0	0	0	0	12,324	0	37,677	0	0	50.0
1934	0	0	0	0	0	0	0	9,050	40,950	9,729	10,435	222	70.4
1935	0	0	0	0	0	0	0	6,358	28,624	15,018	0	0	50.0
1936	582	0	0	0	0	0	0	0	44,593	5,408	0	0	50.6
1937	0	0	0	0	0	0	0	0	23,507	26,493	0	0	50.0
1938	0	0	0	0	0	0	0	0	9,335	40,666	0	0	50.0
1939	0	0	0	0	0	0	0	16,821	33,179	0	0	0	50.0
1940	0	0	0	0	0	0	60	9,150	44,457	10,307	10,457	1,922	76.4
1941	0	0	0	0	0	0	3,064	50,784	10,128	14,136	13,538	25,550	117.2
1942	3,727	0	0	0	0	0	122	23,974	2,122	10,281	10,846	3,813	54.9
1943	6,400	0	0	0	0	0	0	1,984	3,585	20,376	0	0	32.3
1944	0	0	0	0	0	0	596	49,418	10,078	13,032	15,684	27,346	116.2
1945	3,366	0	0	0	0	0	0	2,075	21,030	7,715	9,215	1,653	45.1
1946	0	0	0	0	0	0	0	0	15,099	34,902	0	0	50.0
1947	0	0	0	0	0	0	0	0	49,909	91	0	0	50.0
1948	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1949	0	0	0	0	0	0	0	0	17,852	32,149	0	0	50.0
1950	0	0	0	0	0	0	0	0	0	37,687	12,314	0	50.0
1951	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1952	0	0	0	0	0	0	0	4,262	32,068	13,671	0	0	50.0
1953	0	0	0	0	0	0	0	0	29,041	20,960	0	0	50.0
1954	0	0	0	0	0	0	0	4,491	3,679	41,830	0	0	50.0
1955	0	0	0	0	0	0	0	0	2,651	47,350	0	0	50.0
1956	0	0	0	0	0	0	0	0	0	35,337	14,664	0	50.0
1957	0	0	0	0	0	0	0	1,984	28,356	19,662	0	0	50.0
1958	0	0	0	0	0	0	365	21,512	30,664	11,554	9,742	753	74.6
1959	0	0	0	0	0	0	0	0	5,976	44,024	0	0	50.0
1960	0	0	0	0	0	0	0	469	17,748	31,784	0	0	50.0
1961	0	0	0	0	0	0	0	790	2,245	46,965	0	0	50.0
1962	0	0	0	0	0	0	0	35,860	16,583	10,316	5,938	525	69.2
1963	0	0	0	0	0	0	963	33,615	18,876	10,374	10,203	102	74.1
1964	0	0	0	0	0	0	0	19,723	460	29,818	0	0	50.0
1965	0	0	0	0	0	0	0	4,006	9,158	36,837	0	0	50.0
1966	0	0	0	0	0	0	0	0	31,897	18,104	0	0	50.0
1967	0	0	0	0	0	0	0	21,123	0	28,878	0	0	50.0
1968	0	0	0	0	0	0	0	21,962	28,038	0	0	0	50.0
1969	0	0	0	0	0	0	0	0	20,933	29,068	0	0	50.0
1970	0	0	0	0	0	0	0	4,696	4,797	40,508	0	0	50.0
1971	0	0	0	0	0	0	0	0	0	0	50,001	0	50.0
1972	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1973	0	0	0	0	0	0	0	19,298	32,461	10,340	8,965	674	71.7
1974	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1975	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
1976	0	0	0	0	0	0	0	0	16,835	33,165	0	0	50.0
1977	0	0	0	0	0	0	1,842	51,225	11,015	14,709	10,329	1,851	91.0
1978	0	0	0	0	0	0	0	22,956	27,044	0	0	0	50.0
1979	0	0	0	0	0	0	0	0	31,736	18,265	0	0	50.0
1980	0	0	0	0	0	0	0	3,967	27,668	18,366	0	0	50.0
1981	0	0	0	0	0	0	0	28,601	21,400	0	0	0	50.0
1982	0	0	0	0	0	0	0	0	8,075	41,926	0	0	50.0
1983	0	0	0	0	0	0	0	1,810	30,207	17,983	0	0	50.0
1984	0	0	0	0	0	0	0	0	15,121	34,880	0	0	50.0
1985	0	0	0	0	0	0	0	3,452	11,631	34,918	0	0	50.0
1986	0	0	0	0	0	0	0	6,491	11,877	31,632	0	0	50.0
1987	0	0	0	0	0	0	160	14,150	36,287	0	0	0	50.6
1988	0	0	0	0	0	0	0	10,500	42,337	9,996	8,591	2,023	73.4
1989	0	0	0	0	0	0	0	0	23,472	26,529	0	0	50.0
1990	0	0	0	0	0	0	0	21,701	1,804	26,495	0	0	50.0
1991	0	0	0	0	0	0	0	0	40,087	9,914	0	0	50.0
1992	0	0	0	0	0	0	916	29,182	27,438	9,538	12,049	2,179	81.3
1993	0	0	0	0	0	0	0	570	36,119	22,933	9,329	1,204	70.2
1994	0	0	0	0	0	0	0	48,755	43	16,287	56,692	30,993	152.8
1995	7,655	0	0	0	0	0	0	0	31,882	9,591	6,541	1,405	57.1
1996	0	0	0	0	0	0	0	3,967	17,954	28,080	0	0	50.0
1997	0	0	0	0	0	0	0	0	0	42,653	7,348	0	50.0
1998	0	0	0	0	0	0	0	1,715	18,449	29,837	0	0	50.0
1999	0	0	0	0	0	0	0	13,640	0	36,361	0	0	50.0
2000	0	0	0	0	0	0	0	1,533	21,133	27,335	0	0	50.0
2001	0	0	0	0	0	0	578	25,605	27,625	10,641	11,521	3,912	79.9
2002	0	0	0	0	0	0	0	3,435	0	46,565	0	0	50.0
2003	0	0	0	0	0	0	444	33,745	20,099	12,414	12,644	2,185	81.5
2004	0	0	0	0	0	0	0	0	21,770	28,231	0	0	50.0
2005	0	0	0	0	0	0	203	4,586	47,476	11,093	11,328	718	75.4
2006	0	0	0	0	0	0	0	0	0	50,001	0	0	50.0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	276	0	0	0	0	0	169	9,932	17,807	23,736	4,998	1,739	58.7

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC2 Less Adverse - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	20,744	21,592	80,013
1926	81,509	113,906	120,016	128,084	118,153	82,338	35,785	11,485	10,240	19,255	33,530	60,702
1927	82,086	99,161	97,931	105,273	115,858	97,001	50,160	11,906	12,674	22,954	65,922	80,785
1928	103,482	111,401	135,922	152,945	152,227	120,951	70,616	30,042	26,036	33,975	37,469	46,978
1929	46,767	48,407	76,507	73,082	50,990	38,347	11,371	9,144	7,661	7,106	8,943	30,976
1930	36,474	72,765	91,039	77,599	33,665	12,120	8,602	6,835	5,467	9,093	11,245	17,530
1931	48,890	67,594	82,818	77,056	62,525	47,217	27,275	11,513	13,881	21,348	41,232	59,234
1932	78,446	100,641	123,679	122,195	90,185	64,072	23,526	10,616	10,122	16,948	83,188	115,838
1933	116,695	124,242	128,726	133,831	130,590	111,369	66,767	29,966	33,707	61,561	84,212	130,007
1934	122,658	127,527	156,337	156,485	146,916	109,710	65,693	31,065	30,108	47,087	76,198	103,545
1935	118,796	145,853	149,192	156,702	144,718	118,303	69,728	30,999	27,928	21,673	23,565	52,820
1936	82,945	84,021	102,697	113,429	133,495	103,715	53,911	13,953	12,445	9,506	10,796	72,930
1937	69,280	72,993	83,807	128,194	123,170	105,832	55,228	15,639	11,914	11,260	51,151	87,247
1938	97,085	95,481	124,296	137,133	128,612	104,256	57,848	18,216	13,356	15,005	27,422	67,060
1939	83,567	87,900	105,847	115,211	106,974	83,487	44,865	11,656	9,830	13,572	17,897	81,491
1940	81,735	114,966	141,342	152,789	141,163	107,673	57,137	17,332	14,060	17,204	21,050	84,161
1941	82,489	78,681	80,275	58,305	28,041	10,972	8,056	6,617	9,949	14,547	31,837	87,874
1942	83,476	84,643	79,873	78,510	54,948	49,915	24,064	10,702	7,985	7,122	29,812	56,658
1943	56,562	78,944	91,804	106,377	84,567	60,684	18,937	10,178	8,524	16,501	18,920	53,188
1944	70,149	79,788	80,135	72,345	52,700	16,420	9,249	7,364	10,280	9,435	20,290	34,475
1945	68,360	84,825	81,281	81,728	67,582	61,173	34,246	11,157	18,059	25,499	43,860	75,641
1946	82,003	85,319	102,228	92,378	104,321	88,785	50,973	12,150	10,491	24,595	41,772	96,209
1947	100,902	126,282	139,858	157,185	148,094	121,228	70,869	31,464	30,611	56,928	83,539	103,033
1948	118,238	137,204	120,575	121,598	152,149	157,770	114,397	76,160	73,986	76,609	85,430	87,336
1949	84,652	89,776	116,031	124,477	156,732	148,806	105,704	68,205	64,896	75,561	96,098	109,256
1950	110,313	124,541	107,472	113,311	140,221	157,770	131,812	95,728	80,693	84,753	93,056	118,796
1951	118,733	135,940	116,943	122,217	145,434	143,371	99,562	59,726	54,597	64,061	79,513	79,927
1952	76,486	103,537	119,692	142,109	155,496	130,014	83,223	43,449	38,906	34,200	34,645	51,243
1953	104,938	143,933	137,501	153,538	157,738	144,629	102,383	63,900	59,358	61,318	93,746	118,796
1954	116,524	141,054	127,512	128,751	124,208	114,897	71,928	35,738	32,957	31,164	56,372	75,622
1955	91,950	101,773	107,166	130,806	141,215	143,770	102,943	64,829	60,671	81,434	85,004	118,796
1956	118,469	119,265	96,964	106,481	135,805	157,579	125,919	86,822	77,727	81,668	79,170	118,334
1957	114,711	128,309	148,376	157,479	149,621	118,266	67,600	28,072	23,471	23,074	40,236	88,138
1958	100,334	133,989	139,096	154,233	139,610	115,140	67,439	28,839	26,564	30,168	60,989	115,183
1959	118,796	128,282	128,518	137,668	135,913	119,380	69,453	30,109	44,902	67,831	105,142	118,201
1960	118,796	147,805	147,407	155,894	157,770	129,868	77,535	38,867	35,277	41,647	83,829	79,743
1961	118,111	146,289	138,103	154,172	147,556	128,188	78,261	36,519	33,523	36,227	42,911	77,424
1962	81,803	79,753	94,066	104,720	86,969	75,301	49,203	18,827	16,447	18,217	40,655	74,749
1963	77,611	91,059	92,054	110,220	96,652	77,070	50,098	16,092	13,923	24,007	68,690	93,394
1964	112,517	120,149	124,186	128,618	145,245	157,683	117,655	80,279	79,203	77,149	86,444	91,056
1965	118,796	142,309	130,881	142,544	151,028	140,167	94,420	56,245	53,249	54,629	70,001	80,375
1966	91,101	107,089	128,944	144,632	155,047	139,864	94,118	54,775	51,559	53,586	71,008	118,796
1967	118,796	148,398	155,293	157,583	141,036	124,266	74,434	33,073	28,412	34,633	38,793	90,602
1968	107,082	141,587	154,707	156,817	141,109	120,484	70,127	32,443	30,638	37,700	58,214	79,530
1969	75,113	78,987	106,627	130,311	154,352	145,905	95,732	56,388	60,345	59,213	62,047	102,016
1970	118,796	134,370	140,127	156,551	140,109	124,555	75,076	36,225	35,967	36,049	50,208	54,776
1971	100,222	126,880	91,831	98,652	130,377	157,770	154,617	122,653	104,147	89,882	100,920	118,308
1972	118,757	132,862	126,690	118,971	142,476	157,412	124,828	85,549	81,279	77,929	87,757	120,253
1973	118,683	123,872	140,577	146,227	134,847	115,811	67,913	31,692	30,065	27,701	42,621	104,979
1974	118,796	136,075	120,702	123,785	137,324	153,401	117,772	81,318	76,362	70,187	80,306	118,796
1975	118,254	133,025	125,958	126,541	145,156	140,852	97,635	59,336	53,020	61,280	86,932	118,796
1976	118,796	139,295	123,248	125,806	143,715	131,198	91,470	54,897	51,997	48,688	53,019	66,291
1977	78,974	80,773	92,746	90,026	58,953	32,116	10,879	11,024	15,068	12,546	40,827	97,632
1978	96,894	89,896	83,333	92,405	85,738	58,212	14,635	10,722	14,177	12,147	24,811	39,319
1979	36,347	57,651	80,173	80,994	93,321	70,919	27,712	10,278	8,573	9,535	10,258	78,929
1980	76,790	88,381	92,422	116,803	118,532	101,845	58,208	18,434	15,618	11,698	34,545	95,229
1981	93,091	125,813	127,119	147,097	135,439	112,124	62,300	20,313	19,817	42,828	59,436	81,210
1982	116,492	141,481	134,131	140,841	146,947	139,492	94,846	55,379	54,194	57,845	72,719	89,930
1983	118,796	145,280	149,144	156,964	149,016	126,663	80,733	41,574	38,717	29,938	81,459	76,452
1984	94,150	98,578	119,071	120,879	149,017	133,016	84,072	44,249	40,106	36,197	50,138	49,092
1985	47,483	44,268	48,153	74,937	83,127	87,292	47,339	11,664	9,761	22,490	40,114	35,924
1986	66,485	96,042	114,671	124,757	132,750	113,391	64,015	22,089	21,295	20,457	67,376	75,899
1987	84,963	105,581	131,613	141,911	133,670	104,065	53,559	13,539	9,697	6,916	9,501	30,130
1988	46,471	71,148	86,980	91,191	90,517	75,156	51,234	20,059	17,818	22,457	63,286	78,992
1989	86,918	80,252	90,372	120,182	114,176	99,081	49,407	11,939	9,407	9,686	32,647	71,874
1990	92,704	113,735	139,253	157,412	147,609	133,947	84,266	45,292	40,391	47,708	110,254	117,204
1991	117,547	142,959	132,021	150,061	146,112	129,836	82,552	43,516	38,561	31,272	44,913	81,854
1992	96,384	118,885	122,767	129,553	112,837	75,454	33,426	10,173	9,719	8,398	23,082	32,016
1993	31,405	35,404	62,049	84,255	79,354	67,533	24,209	10,469	7,711	8,344	11,122	31,776
1994	54,996	60,404	80,496	71,960	44,287	19,752	9,338	7,454	6,561	15,415	21,536	77,346
1995	83,830	100,158	98,133	79,538	63,634	52,961	29,231	10,847	8,554	25,711	64,719	110,761
1996	109,088	125,329	128,098	148,908	157,519	130,784	82,262	43,103	40,168	53,572	68,612	78,266
1997	92,138	120,688	108,151	107,415	135,124	156,487	124,500	84,726	80,073	85,293	88,446	112,774
1998	118,796	144,999	141,743	148,838	146,807	120,639	68,736	29,023	24,303	23,446	48,588	105,498
1999	118,796	140,221	129,514	131,119	136,040	120,525	80,805	44,470	40,379	39,984	83,219	112,318
2000	118,116	138,022	141,174	155,572	151,475	134,337	84,717	44,205	39,556	37,313	37,323	36,897
2001	43,359	45,056	63,742	62,888	59,786	38,994	11,240	9,892	8,669	18,514	52,764	79,271
2002	92,512	95,233	80,399	88,242	86,837	88,606	46,830	11,413	8,826	7,572	11,268	34,495
2003	66,787	85,311	99,714	114,866	96,773	87,813	54,026	18,972	17,471	31,132	47,546	63,259
2004	84,510	80,601	80,982	79,536	82,510	68,709	25,632	12,104	13,307	14,273	34,462	71,655
2005	88,523	78,469	90,349	113,256	113,243	87,505	44,932	11,555	8,977	13,090	40,103	83,596
2006	118,796	119,411	118,139	130,187	137,917	140,543	97,827	57,561	55,716	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP6 Full Integrated Plan CC2 Less Adverse - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	67,323	74,075	122,991
1926	172,673	216,117	229,890	229,274	210,963	158,091	76,266	3,176	-39,335	-31,927	-19,177	6,348
1927	56,953	112,655	162,768	191,780	201,126	201,159	186,926	138,363	64,509	59,406	92,011	139,870
1928	183,950	196,797	218,834	237,372	234,344	220,944	196,004	140,900	75,101	81,330	87,071	97,333
1929	104,657	110,992	142,350	147,597	132,093	88,308	15,112	-43,178	-90,207	-106,242	-109,302	-93,034
1930	-80,642	-46,500	-15,875	21,826	5,827	-28,162	-83,135	-141,647	-186,963	-196,074	-196,384	-191,875
1931	-164,548	-140,059	-107,554	-64,571	-63,984	-80,222	-104,717	-131,542	-172,619	-181,111	-163,737	-140,068
1932	-105,885	-62,700	13,677	74,390	105,768	117,291	106,996	51,340	-4,550	-11,241	57,684	142,755
1933	188,055	203,930	212,191	220,604	211,144	215,655	209,651	172,598	108,265	105,658	174,597	203,151
1934	203,025	217,026	238,129	237,862	230,526	211,846	154,369	90,459	19,793	22,925	45,505	111,268
1935	173,087	198,846	212,745	237,647	232,041	226,690	196,934	143,146	66,881	25,912	31,560	53,184
1936	119,481	131,034	189,348	206,337	214,070	209,536	183,025	136,321	75,060	67,976	67,760	118,780
1937	121,807	133,057	177,213	225,770	218,788	213,617	188,564	135,497	59,331	26,408	56,756	97,346
1938	162,154	181,578	208,609	221,402	216,985	210,743	193,835	142,437	63,116	35,000	51,647	87,292
1939	154,101	187,920	211,802	218,370	207,905	200,472	180,344	135,155	73,327	69,753	75,808	134,463
1940	170,421	212,507	238,643	238,169	226,878	179,245	98,349	19,178	-25,778	-30,303	-21,848	30,605
1941	72,545	83,139	93,909	100,046	81,313	14,258	-46,297	-103,623	-146,800	-153,872	-134,192	-62,422
1942	-42,456	10,960	49,149	60,017	51,535	35,414	-2,418	-54,416	-101,975	-118,427	-97,446	-73,447
1943	-65,006	-39,899	-7,105	64,178	105,905	116,207	107,598	50,394	-9,645	-11,866	-5,626	21,704
1944	40,242	69,893	81,772	92,342	78,569	17,503	-42,078	-100,225	-143,292	-156,187	-147,224	-134,274
1945	-92,740	-43,906	-1,486	45,883	50,229	30,667	-4,899	-52,595	-89,438	-94,039	-77,700	-44,631
1946	12,901	46,846	109,748	155,024	191,354	199,985	188,504	141,544	67,897	42,108	53,629	130,404
1947	175,749	207,238	222,827	238,461	231,571	222,733	183,002	133,162	70,459	91,668	149,689	203,025
1948	203,003	219,120	204,667	205,606	234,206	238,980	218,561	173,334	104,951	90,313	118,712	175,274
1949	177,694	193,484	204,730	208,269	238,043	235,747	215,540	169,645	91,010	72,600	106,227	184,747
1950	192,586	209,661	192,572	197,962	220,952	238,980	228,745	185,607	128,012	143,197	190,985	203,025
1951	203,013	218,645	201,315	206,183	236,268	237,218	215,509	169,677	94,163	77,752	93,111	138,157
1952	141,245	178,300	199,346	233,800	238,736	233,598	203,563	152,224	84,602	73,374	77,897	93,962
1953	164,472	210,997	220,291	237,643	238,971	238,051	226,675	176,529	95,279	78,195	116,866	203,025
1954	202,457	223,459	211,296	215,769	215,565	224,269	223,395	186,707	122,376	94,735	121,432	140,804
1955	179,215	204,775	215,867	223,559	226,621	233,751	226,853	179,270	107,587	107,191	162,507	203,025
1956	202,980	202,304	179,411	191,657	225,869	238,863	235,541	190,905	126,426	121,714	143,086	202,950
1957	201,344	225,349	230,065	238,733	230,872	219,752	185,454	135,915	72,409	68,200	84,834	128,714
1958	182,479	224,965	237,619	235,766	226,322	203,180	147,352	80,079	13,283	12,576	45,036	123,726
1959	186,836	200,998	211,962	224,217	222,659	222,015	205,690	153,997	97,269	92,775	146,937	203,025
1960	203,025	229,803	230,864	237,556	238,980	233,696	199,433	143,132	75,769	75,045	113,483	151,542
1961	199,729	224,494	220,847	237,314	234,101	236,319	211,447	147,810	67,685	42,301	52,686	81,023
1962	123,477	159,012	186,878	208,205	190,123	159,722	112,498	61,397	5,585	1,657	25,823	59,971
1963	105,731	157,892	182,676	202,336	190,539	164,851	114,077	53,120	990	2,999	35,244	77,431
1964	145,990	185,297	208,001	212,091	236,611	238,973	219,388	168,284	96,176	95,973	116,862	176,789
1965	203,025	223,868	214,181	227,872	238,647	238,046	216,318	165,211	102,625	97,512	112,889	139,394
1966	172,141	189,802	212,392	229,302	237,516	233,779	208,133	157,063	82,742	50,001	67,830	153,321
1967	198,047	230,350	236,715	238,828	229,423	228,567	209,929	156,415	89,755	92,048	99,410	140,414
1968	192,146	229,346	236,174	238,410	229,267	229,081	185,285	138,311	79,979	79,879	101,197	145,236
1969	160,590	166,672	206,621	213,392	238,312	233,439	191,749	139,139	64,172	36,482	42,678	85,169
1970	144,743	191,002	218,204	237,848	227,265	224,021	204,943	150,294	84,270	78,653	91,881	100,286
1971	154,982	200,766	178,002	184,485	216,353	238,980	238,898	206,145	170,888	178,254	203,025	202,977
1972	203,025	206,457	197,835	199,631	225,951	238,728	231,389	188,842	135,641	107,038	134,429	203,025
1973	203,025	213,503	233,463	237,464	225,126	199,056	148,690	88,258	18,628	6,451	20,413	89,392
1974	156,193	194,323	203,995	207,630	227,829	238,396	227,046	173,847	101,763	69,476	87,658	156,128
1975	200,051	221,583	209,636	210,174	235,393	237,177	232,305	185,245	111,196	89,633	115,125	203,025
1976	203,025	219,789	206,697	209,495	234,186	233,245	234,665	196,500	128,675	99,871	105,155	118,103
1977	136,014	148,445	184,995	185,620	155,892	88,260	11,760	-43,338	-81,414	-96,240	-68,641	13,945
1978	65,474	110,103	159,497	188,648	182,848	176,089	155,260	95,434	36,596	29,188	42,420	64,445
1979	67,802	100,170	128,929	166,954	187,719	182,342	159,571	106,036	41,610	16,302	13,229	73,573
1980	82,637	120,271	175,258	207,340	209,916	205,860	192,013	141,110	75,440	65,747	86,616	143,301
1981	184,702	218,751	227,517	238,980	221,580	215,575	189,394	138,967	78,321	91,854	113,062	179,092
1982	203,025	223,554	217,180	226,091	229,807	235,861	222,225	169,935	100,008	67,315	83,265	158,339
1983	203,025	226,272	230,623	238,244	232,720	227,774	197,533	139,985	66,893	27,360	71,220	93,022
1984	152,950	185,409	215,309	213,397	234,541	230,051	218,255	173,082	95,366	65,071	77,791	86,187
1985	92,081	96,562	110,885	136,607	171,058	186,826	173,513	133,106	65,455	68,009	84,933	88,301
1986	115,370	150,109	195,981	218,690	226,119	217,135	192,630	133,995	73,008	43,909	83,563	96,608
1987	131,266	178,459	211,259	229,391	221,150	211,014	187,194	139,335	76,000	42,165	43,237	64,939
1988	83,793	112,462	145,058	178,551	176,885	158,395	115,038	64,890	10,627	6,579	36,490	59,654
1989	121,356	138,998	180,825	215,709	209,759	204,871	182,186	133,370	67,160	56,917	78,380	107,486
1990	169,731	205,901	225,755	238,671	232,896	235,240	206,746	154,335	86,140	91,347	167,565	203,025
1991	202,572	224,997	215,233	235,858	230,221	227,996	219,482	166,524	85,764	47,059	65,069	117,423
1992	165,375	203,031	215,188	223,856	203,153	148,394	68,012	-1,458	-40,328	-51,801	-40,396	-30,523
1993	-23,835	-16,258	13,278	52,145	108,965	80,019	9,696	-45,826	-93,869	-102,283	-106,200	-79,510
1994	-53,004	-43,804	-8,926	17,760	8,378	-22,914	-76,068	-135,432	-181,536	-193,362	-184,585	-145,516
1995	-107,923	-44,833	9,135	52,554	59,602	40,064	2,444	-46,067	-92,951	-79,241	-40,686	48,704
1996	104,607	168,544	184,346	230,734	238,769	237,553	211,487	158,544	95,408	98,085	112,404	126,355
1997	173,922	201,328	185,754	192,520	225,193	238,789	233,279	187,258	121,664	124,090	178,615	203,025
1998	203,025	226,606	224,389	237,908	229,638	221,635	193,092	140,634	75,840	73,809	96,235	174,607
1999	203,025	221,074	212,918	215,408	226,552	233,419	228,620	186,028	114,972	87,168	124,596	202,605
2000	203,025	224,459	223,681	237,053	237,402	235,333	201,257	143,682	62,845	29,345	31,661	35,350
2001	43,730	50,284	73,075	85,689	96,149	45,618	-16,103	-74,138	-118,872	-124,916	-96,753	-51,846
2002	-3,144	50,283	88,722	143,060	178,702	200,781	189,185	140,721	71,306	68,116	69,702	83,278
2003	113,110	163,776	197,300	216,110	197,437	173,167	123,633	59,818	4,039	4,803	20,152	42,307
2004	67,592	105,775	141,857	175,985	185,126	184,038	158,370	98,610	36,815	29,421	47,941	84,825
2005	121,138	142,684	175,142	203,550	202,241	162,117	87,326	12,860	-35,396	-32,402	-12,332	27,559
2006	103,349	157,458	178,897	209,795	234,642	235,962	210,967	155,252	78,394	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC2 Less Adverse - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	39,898	43,161	163,648
1926	213,515	296,273	336,504	398,997	431,861	343,158	214,139	86,963	72,018	97,439	119,926	161,167
1927	233,177	306,305	353,178	415,389	445,081	428,977	297,657	113,108	85,733	105,707	175,614	233,691
1928	303,296	335,190	380,776	435,474	451,441	417,681	247,887	76,169	48,004	70,930	73,957	91,395
1929	90,541	88,336	151,882	183,753	225,114	206,495	106,837	39,967	20,259	11,281	13,676	48,908
1930	74,733	142,949	208,679	284,201	292,115	267,864	202,653	108,404	74,281	52,209	47,151	53,300
1931	97,755	144,573	234,899	300,240	358,554	318,236	176,197	36,658	16,925	25,939	54,441	74,978
1932	122,754	189,303	327,097	382,429	444,836	423,237	304,119	121,880	102,610	111,148	261,804	364,000
1933	357,946	379,421	377,340	404,745	440,634	405,119	317,816	147,375	130,605	162,385	282,143	419,419
1934	417,704	418,030	448,389	451,480	439,964	329,064	177,217	43,839	22,990	69,499	131,592	266,282
1935	358,495	404,982	417,194	451,070	442,372	386,938	235,733	77,200	56,152	34,531	37,734	78,989
1936	194,033	198,881	295,530	362,595	441,359	409,387	220,822	61,021	39,001	26,766	23,350	128,591
1937	120,565	131,208	181,987	277,985	361,432	414,324	272,139	91,084	61,046	42,885	93,800	154,550
1938	228,028	252,297	302,410	386,410	450,731	436,370	291,704	99,170	65,711	54,365	89,642	180,677
1939	277,523	328,960	377,494	426,858	436,791	353,367	210,242	59,527	39,691	39,809	48,155	174,595
1940	199,513	286,705	382,373	443,338	437,878	346,166	214,906	85,820	54,876	60,646	67,638	184,128
1941	223,173	231,401	265,238	292,059	299,820	213,747	137,241	75,474	57,739	66,254	105,884	234,209
1942	260,218	328,640	369,529	406,698	374,690	293,211	167,434	109,589	102,409	87,197	123,197	157,262
1943	160,336	199,045	242,148	351,812	428,768	409,374	313,798	132,068	113,456	121,545	125,175	190,857
1944	217,811	270,709	290,191	316,750	341,115	249,398	169,737	101,595	80,408	75,680	96,328	129,777
1945	211,986	301,623	341,959	405,688	451,480	390,310	235,469	175,032	173,310	184,061	208,011	266,764
1946	322,903	362,287	376,481	374,849	449,928	433,569	316,237	130,547	109,190	114,393	115,335	240,064
1947	305,734	373,720	397,708	449,617	451,480	397,897	211,860	58,684	35,456	96,381	185,449	298,987
1948	329,469	377,192	363,218	353,238	434,724	451,480	372,426	196,713	175,967	176,573	203,637	245,604
1949	237,304	257,250	331,769	343,944	448,154	440,855	328,813	154,193	134,647	142,408	212,574	331,442
1950	326,552	369,009	338,905	333,977	401,099	451,480	414,678	268,611	251,435	307,663	325,551	363,721
1951	349,315	402,861	355,771	351,310	446,214	451,480	347,342	171,371	146,405	165,844	188,207	219,229
1952	208,654	259,431	298,712	388,866	435,749	379,554	246,304	88,312	66,778	55,548	54,668	87,755
1953	233,347	352,199	386,050	446,755	451,407	424,931	309,858	142,979	123,777	124,342	199,545	329,597
1954	348,065	438,097	381,925	390,766	435,791	405,884	347,250	175,436	151,421	134,361	192,825	221,209
1955	270,311	326,124	336,231	374,386	435,470	450,998	353,885	174,134	148,878	176,896	225,561	281,239
1956	324,445	322,949	305,514	304,180	407,880	451,480	413,877	260,303	241,057	261,502	268,037	330,335
1957	321,573	353,071	411,256	450,569	451,480	386,631	208,397	56,088	32,773	27,168	45,664	112,779
1958	191,730	304,701	337,922	405,070	430,792	327,098	166,145	36,738	17,869	26,429	110,768	244,000
1959	350,116	377,179	383,575	433,503	451,049	432,473	308,237	127,344	119,848	158,760	255,504	357,817
1960	337,775	404,698	432,039	450,778	431,716	373,547	229,121	70,361	47,351	54,782	115,943	138,790
1961	217,498	363,128	397,101	448,040	436,798	392,094	250,673	84,455	60,401	50,204	57,513	95,854
1962	136,623	183,395	219,940	292,355	314,191	303,203	193,906	61,321	36,099	42,910	102,871	170,261
1963	229,105	308,801	357,007	411,551	430,499	330,858	170,899	38,400	20,499	34,518	91,166	140,479
1964	220,782	274,002	343,714	357,323	446,950	440,039	385,355	242,725	232,301	247,819	266,449	318,332
1965	370,835	415,069	390,296	414,747	437,997	395,172	270,196	107,249	91,211	92,185	124,146	152,744
1966	174,380	194,333	278,305	366,570	451,202	418,790	276,366	105,577	78,900	66,507	93,633	237,491
1967	325,498	411,650	443,361	450,904	432,456	395,339	254,808	92,185	73,056	89,450	100,873	220,945
1968	293,095	390,998	445,167	451,316	429,459	364,797	189,917	47,915	28,888	29,248	62,033	115,083
1969	120,334	113,984	190,408	277,105	423,793	436,846	274,797	94,151	61,116	52,394	53,281	100,915
1970	168,137	225,644	281,763	322,170	393,061	402,141	253,074	85,648	62,763	58,582	76,374	77,235
1971	155,570	231,878	233,169	260,703	369,892	451,480	451,480	371,071	355,311	359,974	349,707	343,134
1972	359,774	395,586	368,495	354,452	430,320	451,459	399,454	248,021	233,223	215,354	253,783	384,802
1973	366,818	392,758	437,097	450,765	427,607	323,928	180,160	45,387	23,107	21,192	33,082	114,957
1974	253,182	331,275	345,219	342,953	421,706	451,480	400,690	262,487	252,868	234,320	268,227	331,431
1975	333,422	363,471	371,829	363,282	446,454	445,809	391,323	216,133	192,939	206,792	250,398	346,700
1976	357,629	411,645	375,264	368,911	446,300	435,664	395,113	216,927	196,332	184,228	190,355	208,959
1977	238,534	270,684	325,272	353,715	350,947	266,526	129,673	65,776	26,736	15,370	63,747	206,890
1978	253,682	307,387	407,919	450,829	433,449	392,090	227,716	65,933	52,849	42,571	61,603	78,667
1979	67,293	112,008	182,183	239,444	352,546	348,982	235,625	72,108	53,204	56,517	50,011	171,142
1980	183,132	227,300	316,641	396,893	451,131	409,016	252,801	85,362	64,263	52,203	103,310	201,052
1981	252,957	345,224	374,032	446,421	432,979	366,288	199,772	50,808	31,705	52,847	98,358	188,039
1982	275,906	423,656	399,024	416,166	449,854	426,766	297,081	122,011	100,220	87,365	106,647	240,501
1983	325,499	398,091	427,858	450,464	441,162	386,704	237,346	75,298	50,239	25,118	99,370	119,079
1984	218,753	270,032	359,429	373,756	451,085	432,569	329,461	138,965	106,293	90,808	99,670	97,193
1985	94,075	87,551	99,884	169,128	285,932	376,731	273,112	90,333	62,216	84,044	125,697	118,011
1986	164,865	255,668	352,081	407,783	440,733	386,856	210,414	52,604	26,642	23,578	109,386	127,031
1987	164,850	241,745	325,310	387,415	437,164	391,841	204,806	51,648	24,640	14,237	20,844	71,696
1988	96,755	156,160	233,587	304,272	352,609	345,290	212,020	64,490	32,696	44,619	107,297	147,817
1989	219,204	231,145	274,002	368,177	439,734	444,937	282,183	98,697	70,975	63,341	122,954	190,193
1990	290,603	348,758	405,459	450,352	440,695	395,532	254,023	85,776	58,382	75,713	267,430	323,641
1991	356,559	422,692	389,780	444,216	451,283	425,157	288,734	114,047	83,022	51,997	89,486	183,187
1992	254,671	337,313	370,563	424,682	443,837	340,591	202,763	70,262	60,387	52,384	70,741	71,573
1993	68,438	65,058	115,557	184,991	354,050	350,397	241,054	178,509	168,303	163,323	156,817	215,968
1994	256,612	281,992	367,460	414,112	417,866	341,871	249,591	134,168	110,872	107,417	111,939	168,630
1995	213,270	312,127	406,018	445,320	451,480	413,568	261,236	198,402	188,148	222,142	296,373	349,496
1996	340,746	411,646	380,758	422,215	441,221	410,666	281,174	117,788	96,878	114,333	123,256	126,747
1997	170,796	239,865	293,895	293,701	407,879	451,480	411,255	247,697	233,595	238,555	297,871	325,524
1998	325,497	391,366	410,737	449,266	448,178	388,968	220,029	59,972	31,890	24,748	67,344	181,437
1999	264,263	337,860	367,065	380,663	443,964	413,550	324,861	165,510	147,544	137,916	223,284	329,742
2000	325,580	356,095	396,940	448,156	438,168	393,011	245,432	80,624	50,184	36,351	30,987	25,118
2001	25,797	25,697	65,254	108,541	206,689	160,398	72,996	29,305	12,806	27,469	101,790	164,938
2002	240,260	304,128	326,079	367,537	440,931	417,633	298,355	116,745	90,826	78,248	80,492	107,612
2003	152,452	230,811	289,690	347,451	375,431	340,751	178,997	39,621	15,422	43,050	79,149	111,614
2004	137,070	168,242	215,711	286,535	398,424	446,780	276,469	93,161	70,999	62,970	94,726	143,361
2005	188,255	204,402	274,275	346,510	436,816	391,519	273,150	139,985	113,366	119,575	157,530	225,454
2006	325,560	391,280	380,665	383,417	449,564	451,480	347,301	170,221	137,133	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP6 Full Integrated Plan CC2 Less Adverse - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	147,057	142,297	161,850
1926	169,999	185,110	189,827	180,300	180,300	175,614	152,608	140,830	134,652	133,199	134,389	145,149
1927	166,977	177,216	170,473	160,585	157,324	180,300	176,197	167,511	163,465	165,187	169,999	169,999
1928	170,073	172,010	170,628	169,081	180,286	180,300	172,923	163,803	158,389	159,926	158,081	164,883
1929	166,051	163,552	168,163	175,185	180,300	180,300	167,932	105,084	98,702	89,977	84,086	86,270
1930	83,565	103,336	112,498	129,593	142,628	75,904	22,613	5,326	1,604	2,117	1,827	2,554
1931	9,326	17,546	29,720	34,964	32,815	29,928	13,124	1,765	1,492	3,540	6,621	17,443
1932	40,070	74,412	98,577	107,224	121,549	149,001	145,796	140,009	135,760	133,177	163,108	172,472
1933	170,222	173,985	170,477	162,798	167,900	180,300	187,221	186,842	182,419	172,314	169,965	208,855
1934	176,728	179,221	188,574	180,074	180,300	167,824	151,597	139,931	133,286	139,823	154,699	169,999
1935	170,042	181,497	181,925	178,751	176,474	178,576	168,651	159,222	153,985	147,576	143,800	145,328
1936	169,999	172,979	176,797	178,269	180,300	179,531	165,944	157,088	152,625	146,784	142,678	168,871
1937	168,625	166,626	169,999	161,033	177,141	180,300	171,171	162,188	157,725	152,075	164,333	176,966
1938	170,480	173,031	170,963	163,086	175,382	180,300	172,190	161,981	156,150	151,599	156,479	167,362
1939	171,420	182,490	189,254	180,038	175,416	171,195	164,542	156,744	152,043	147,111	142,519	169,451
1940	169,999	181,830	189,585	180,300	180,300	173,322	149,739	135,336	129,326	124,656	123,811	146,254
1941	158,367	162,033	169,903	177,698	180,300	177,472	109,486	32,406	25,897	19,766	23,835	53,472
1942	59,560	84,329	99,332	106,711	114,028	120,593	115,398	38,668	32,777	26,476	34,735	38,732
1943	38,978	42,643	60,905	81,335	90,372	105,268	113,316	108,977	105,228	102,639	98,711	106,520
1944	112,054	140,287	156,335	161,095	167,798	167,875	105,737	30,247	24,131	17,956	20,885	23,652
1945	45,911	88,119	109,886	125,535	143,182	152,048	140,978	60,321	56,153	50,273	49,143	62,486
1946	86,035	103,585	126,766	132,320	159,926	165,123	162,187	155,248	150,845	150,680	149,424	169,999
1947	170,147	179,277	174,034	179,341	180,300	179,941	163,323	153,588	148,768	158,975	169,999	170,325
1948	170,136	173,146	170,064	158,536	171,693	180,300	176,278	167,547	163,917	161,212	162,516	166,082
1949	164,545	164,823	169,999	160,333	179,269	180,300	179,115	173,141	169,332	168,287	169,999	174,191
1950	170,425	172,936	170,319	158,055	169,524	180,300	189,537	182,403	178,357	171,827	169,999	173,859
1951	171,014	172,384	170,204	160,333	174,495	180,300	172,258	162,533	156,820	165,429	169,999	170,418
1952	169,750	174,903	170,246	167,524	177,237	174,937	167,237	158,521	153,107	146,650	142,247	144,830
1953	171,951	177,979	171,077	166,833	166,831	163,638	160,031	152,049	146,991	144,654	152,450	171,117
1954	170,614	174,145	170,411	161,626	179,984	180,300	188,257	187,084	182,344	170,726	169,999	169,999
1955	170,721	178,536	169,999	158,312	155,420	170,614	168,578	161,900	158,211	170,499	170,042	171,016
1956	170,396	169,999	169,999	160,544	169,798	180,300	184,878	177,620	173,157	171,200	169,336	170,711
1957	170,129	174,101	180,089	177,708	180,300	178,878	161,845	151,842	145,987	141,314	140,421	150,690
1958	169,999	185,480	189,719	180,300	180,300	175,440	153,516	141,279	134,765	131,759	151,515	169,999
1959	176,156	173,477	170,757	159,033	160,138	169,738	162,517	153,468	151,147	158,341	170,348	170,793
1960	170,294	180,508	183,992	177,182	171,830	174,230	160,825	150,731	145,316	143,116	155,671	162,619
1961	169,999	179,881	171,445	173,666	180,289	180,300	169,240	157,963	152,370	150,050	147,075	158,511
1962	169,999	181,382	181,261	180,123	180,300	180,300	170,395	164,989	159,456	155,692	169,999	169,999
1963	169,999	184,016	189,542	180,300	180,300	179,446	169,593	161,691	155,431	152,622	161,876	167,840
1964	169,999	171,435	170,538	159,649	160,692	179,635	185,612	180,550	177,575	170,659	169,999	169,999
1965	174,599	177,510	170,966	164,375	174,580	180,300	174,512	165,373	160,642	156,215	163,564	167,130
1966	169,999	172,835	171,089	162,841	180,212	179,994	171,941	163,752	158,992	155,733	160,434	170,544
1967	170,378	181,681	187,496	170,674	170,733	180,300	172,490	161,779	155,948	158,403	158,819	169,457
1968	169,999	182,436	186,831	174,853	169,625	173,870	158,218	149,029	144,686	144,234	158,158	169,999
1969	169,999	169,055	169,999	159,374	179,758	180,274	163,973	154,992	151,054	145,951	144,628	153,292
1970	169,999	179,128	173,455	168,780	168,470	180,300	171,383	162,712	157,892	153,465	156,855	157,162
1971	170,452	171,962	169,999	159,122	160,960	180,300	189,966	187,062	182,039	171,031	169,999	169,999
1972	169,999	170,637	170,435	160,022	174,592	180,300	189,966	184,794	182,206	170,828	169,999	172,087
1973	170,469	176,568	189,850	176,707	171,417	175,706	165,561	155,274	148,816	143,876	148,622	169,999
1974	171,733	172,417	170,716	158,974	163,278	180,300	187,923	184,318	180,390	170,781	169,897	171,925
1975	170,612	173,020	170,037	156,330	158,542	180,300	189,385	182,461	178,118	172,015	169,999	170,538
1976	170,538	173,011	170,200	157,579	174,621	180,300	189,966	185,264	181,368	171,047	167,728	168,527
1977	169,935	173,156	189,758	180,300	180,300	176,271	156,062	91,231	85,587	78,780	85,385	122,031
1978	135,681	152,954	176,319	179,484	177,391	180,300	172,837	164,364	161,488	155,622	158,619	163,046
1979	161,447	166,168	170,359	164,516	180,221	180,300	176,154	168,809	164,644	160,464	156,228	171,023
1980	169,999	171,599	171,050	169,954	180,190	180,292	177,518	170,535	166,727	160,921	169,999	176,864
1981	170,433	183,875	189,271	179,566	172,247	168,399	157,903	149,774	145,371	144,454	144,811	155,080
1982	167,008	177,923	170,870	160,300	169,583	180,300	176,288	167,829	163,366	158,912	158,257	166,620
1983	170,042	179,825	179,577	178,719	181,233	180,300	175,412	167,692	163,943	158,370	169,999	169,834
1984	170,336	176,473	171,566	159,457	164,866	178,393	182,981	177,369	173,085	169,804	169,844	168,119
1985	165,859	163,027	163,027	157,928	175,572	180,300	179,829	173,322	169,633	170,755	169,590	167,211
1986	169,707	176,371	176,511	177,149	180,300	180,300	169,263	160,578	155,877	150,478	158,987	159,848
1987	161,324	176,041	182,263	180,188	180,300	180,300	169,033	159,433	153,720	146,588	142,959	168,292
1988	169,999	180,765	182,589	179,653	180,300	180,300	170,362	164,522	158,515	155,374	169,999	169,999
1989	169,999	170,420	170,352	169,811	180,242	180,300	169,468	160,780	155,603	150,283	164,385	170,153
1990	170,737	179,292	179,044	179,504	180,300	180,300	172,837	163,345	158,049	158,706	171,584	170,188
1991	170,178	179,719	170,687	167,771	180,128	180,300	182,914	176,242	171,303	164,840	169,999	169,999
1992	171,072	187,718	189,909	180,300	180,300	167,910	145,981	129,925	124,926	118,525	121,621	118,429
1993	115,330	111,831	125,727	133,661	172,151	180,300	169,554	104,315	99,019	92,412	86,283	87,267
1994	89,911	91,855	107,042	121,680	141,172	87,843	26,219	10,375	4,040	4,255	3,660	17,433
1995	24,504	64,213	86,902	93,884	106,464	122,233	119,443	46,612	41,197	49,751	76,312	116,894
1996	141,366	175,109	171,058	165,783	171,315	176,453	168,619	159,890	154,772	153,789	153,851	152,444
1997	161,360	169,999	170,945	160,333	171,655	180,300	189,966	184,331	181,482	171,304	169,999	169,999
1998	169,999	178,456	172,872	172,668	180,300	180,149	167,381	156,187	150,296	145,439	160,315	177,205
1999	170,605	175,295	170,877	158,916	160,144	180,300	178,633	174,311	169,967	165,356	169,999	170,804
2000	170,384	175,622	174,018	177,502	180,300	180,300	171,490	161,960	156,605	153,267	149,325	146,265
2001	145,007	144,674	154,819	166,006	180,300	180,300	147,419	66,127	57,196	51,907	67,499	79,796
2002	103,653	122,703	131,372	137,938	149,741	180,300	171,856	162,417	157,002	150,730	147,220	155,073
2003	169,999	182,792	189,469	180,300	180,300	179,994	160,191	148,985	142,915	142,641	148,353	160,835
2004	169,999	174,560	171,924	166,305	180,238	180,300	169,242	159,890	155,904	150,769	150,377	155,788
2005	165,995	168,049	176,842	180,228	180,300	173,184	157,161	141,876	135,688	129,806	134,471	140,681
2006	171,451	173,589	169,999	160,333	172,690	180,300	171,428	161,339	155,686	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC2 Less Adverse - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	20,705	21,538	62,735
1926	82,719	127,371	155,532	188,911	198,000	196,200	186,956	148,929	63,770	53,187	62,326	88,336
1927	124,490	170,142	157,916	177,206	197,706	198,000	187,752	147,960	39,005	28,898	57,579	77,932
1928	112,426	127,673	159,325	190,197	197,942	198,000	186,496	140,294	46,642	36,423	41,421	56,363
1929	62,634	66,022	79,734	96,570	123,942	152,623	139,075	62,573	85	3,326	32	13,124
1930	16,137	32,298	46,379	74,472	102,795	97,521	68,597	39,215	67	2,046	795	3,437
1931	19,793	29,900	40,468	73,463	118,872	129,375	125,442	96,908	33,241	16,374	27,274	46,273
1932	74,927	111,278	137,665	157,374	197,149	198,000	187,455	150,860	60,383	42,970	85,931	144,826
1933	132,094	158,031	150,724	164,594	196,998	198,000	187,532	156,702	66,505	34,005	47,691	177,935
1934	176,570	175,646	196,307	197,966	198,000	193,810	185,678	159,675	116,813	111,455	129,025	136,396
1935	138,196	174,435	190,172	197,739	198,000	198,000	177,659	120,569	11,340	4,406	6,105	12,500
1936	64,272	73,743	115,247	154,626	196,112	197,140	187,124	147,378	66,724	46,087	43,184	72,615
1937	76,980	80,812	100,857	141,251	191,796	198,000	186,459	142,435	35,170	2,877	33,710	77,120
1938	112,967	128,129	152,348	171,618	197,554	198,000	184,113	138,361	19,309	1,050	12,356	40,825
1939	92,475	135,627	183,833	197,964	198,000	198,000	187,532	148,134	69,831	48,853	50,103	101,383
1940	123,396	180,982	197,292	197,979	198,000	193,844	184,561	162,063	84,268	70,026	77,083	102,416
1941	125,289	134,342	149,578	173,150	192,399	185,100	132,978	62,036	25,986	23,865	35,383	90,046
1942	110,398	149,774	177,320	197,993	198,000	198,000	179,145	116,802	18,621	15,113	39,430	54,064
1943	65,870	90,806	117,983	158,719	197,362	198,000	187,524	154,040	60,708	43,168	46,500	64,147
1944	84,007	108,362	129,457	149,214	168,991	171,935	122,277	53,705	3,721	1,651	9,828	18,559
1945	58,403	102,333	144,206	173,969	198,000	197,820	180,577	116,241	41,977	14,757	22,414	44,242
1946	77,875	110,698	147,829	150,484	197,114	198,000	189,319	151,703	35,220	8,254	14,502	104,090
1947	129,754	169,604	168,796	196,944	197,983	196,510	180,089	127,939	48,148	62,729	89,863	129,025
1948	131,717	162,569	139,346	133,933	183,706	198,000	188,011	147,951	40,636	7,302	18,488	44,805
1949	50,954	64,060	113,496	139,075	196,142	198,000	184,671	135,958	25,047	5,469	21,713	71,518
1950	94,023	132,843	118,228	119,321	172,764	198,000	197,287	160,025	47,428	22,072	50,872	110,638
1951	129,025	163,201	132,208	135,078	195,080	198,000	186,179	143,299	23,825	17,180	30,092	71,658
1952	78,053	118,902	144,727	180,706	197,810	198,000	185,375	142,269	54,682	28,955	28,181	43,430
1953	100,859	161,395	162,691	190,333	197,924	197,991	186,190	139,764	21,058	1,193	14,522	104,356
1954	129,025	173,724	148,256	163,121	197,408	198,000	187,532	161,873	71,670	43,423	61,215	82,121
1955	119,013	162,055	156,048	168,777	196,548	198,000	187,307	146,928	35,302	32,831	63,594	115,736
1956	129,025	135,939	95,290	107,236	176,551	198,000	197,203	168,825	55,228	12,897	18,728	77,080
1957	86,610	102,883	148,568	181,163	198,000	195,744	184,888	138,551	47,819	28,585	33,881	75,385
1958	108,834	183,365	197,530	197,998	198,000	194,544	187,097	155,300	98,875	91,716	128,767	129,025
1959	141,531	168,640	150,305	174,964	197,728	198,000	188,781	148,912	62,414	52,713	86,095	132,529
1960	130,527	170,474	187,398	197,579	198,000	198,000	185,450	134,474	38,809	25,514	56,516	71,273
1961	112,715	172,870	164,669	196,080	197,946	198,000	185,877	133,229	19,085	6,598	11,953	34,519
1962	62,988	86,702	111,236	151,387	179,667	198,000	187,532	168,831	114,475	112,353	129,696	129,644
1963	129,644	174,139	197,216	197,996	198,000	196,400	187,532	158,382	96,695	76,328	97,608	110,151
1964	129,025	158,859	142,863	146,402	173,746	198,000	186,062	143,739	32,215	43	7,222	46,452
1965	79,347	141,993	153,234	169,727	197,456	197,878	182,035	132,038	36,324	15,590	26,479	34,103
1966	44,618	54,559	106,454	150,419	197,811	198,000	180,051	130,011	20,403	7,696	20,251	69,441
1967	120,415	170,565	193,597	197,648	198,000	198,000	186,197	146,500	52,207	46,003	52,489	93,378
1968	123,077	179,918	196,458	197,874	198,000	196,844	183,599	140,685	69,259	62,986	91,667	117,984
1969	129,025	135,671	139,485	148,617	197,009	197,207	172,056	112,064	26,407	740	4,548	28,897
1970	76,734	115,055	159,080	183,110	197,959	198,000	187,530	142,729	62,731	42,091	48,576	55,402
1971	143,631	148,141	96,107	93,251	153,169	198,000	198,000	163,410	60,951	14,309	26,507	46,614
1972	84,183	133,085	126,403	124,531	185,037	198,000	197,480	164,910	72,836	28,855	35,698	92,635
1973	129,025	143,706	182,627	197,997	198,000	197,451	187,532	162,258	120,639	110,648	122,881	129,025
1974	140,211	159,048	137,739	137,583	176,003	198,000	197,718	162,170	43,375	828	9,635	55,443
1975	103,219	136,985	145,369	142,098	177,422	198,000	191,253	162,862	39,099	7,951	22,351	129,025
1976	133,392	166,378	142,367	141,427	195,900	198,000	192,300	167,459	65,160	15,776	18,513	25,461
1977	33,947	41,333	62,485	79,856	88,026	94,127	63,574	0	127	3,690	18,128	108,146
1978	129,025	160,042	185,088	197,607	197,989	198,000	187,258	144,518	80,199	58,322	64,738	80,848
1979	83,676	100,226	141,608	168,967	197,827	198,000	186,352	143,907	63,170	55,741	52,114	109,155
1980	116,595	132,120	154,616	181,816	197,773	198,000	187,330	148,984	67,324	46,184	72,128	129,025
1981	129,025	186,113	196,736	197,989	198,000	198,000	186,992	146,189	75,019	74,256	83,004	109,874
1982	134,848	173,604	158,465	174,789	197,690	198,000	186,601	143,050	34,193	3,954	10,321	30,857
1983	77,895	120,715	168,060	197,407	197,993	198,000	184,933	127,957	22,713	914	31,380	37,221
1984	84,136	122,376	157,605	172,301	197,747	198,000	187,164	150,401	35,368	4,470	19,882	27,260
1985	31,749	34,637	45,458	85,791	134,073	190,476	185,916	149,439	67,513	54,533	68,754	70,660
1986	84,618	117,885	171,748	197,016	197,976	198,000	184,334	126,772	47,808	51,007	78,892	85,164
1987	94,879	128,035	173,105	197,769	198,000	197,881	187,406	146,100	57,834	51,546	51,654	100,793
1988	110,815	126,562	166,099	197,526	197,993	198,000	187,532	168,205	114,601	91,901	123,891	129,025
1989	129,025	137,268	155,033	190,673	197,864	198,000	186,167	145,175	46,270	24,670	46,499	74,230
1990	129,025	176,017	177,795	197,346	197,979	198,000	186,674	144,829	43,162	28,456	66,539	90,826
1991	126,489	174,117	154,757	189,113	197,856	198,000	187,283	146,153	26,822	1,173	15,454	37,036
1992	71,223	117,849	146,072	171,802	198,000	190,763	183,016	141,221	51,900	28,397	38,481	40,449
1993	42,047	43,991	74,366	102,794	191,257	198,000	187,301	132,171	33,871	8,960	3,488	23,797
1994	38,124	46,454	72,709	95,915	133,811	133,304	98,220	63,893	13,290	7,265	14,207	57,863
1995	78,216	135,919	176,679	197,111	197,993	198,000	183,789	123,914	26,066	31,780	64,428	131,870
1996	131,381	169,886	149,601	167,439	197,535	197,987	184,232	144,497	52,475	30,403	37,544	44,984
1997	71,485	114,248	115,464	108,890	176,146	198,000	197,290	163,593	59,155	36,159	63,411	80,505
1998	107,805	144,627	172,636	196,751	197,986	198,000	187,046	137,939	43,273	27,951	57,525	107,145
1999	129,025	166,931	151,689	154,876	196,685	198,000	187,532	154,325	43,537	2,576	34,827	89,920
2000	117,343	148,585	167,672	197,046	197,971	198,000	185,607	129,775	13,259	3,742	5,944	8,711
2001	14,306	21,582	34,802	48,869	83,532	91,123	58,484	0	1,110	9,614	39,584	66,086
2002	119,149	160,525	144,791	152,380	196,902	198,000	187,462	151,537	49,457	34,847	35,350	55,669
2003	89,179	143,995	194,476	197,966	198,000	195,139	187,532	156,156	87,176	69,055	81,591	103,542
2004	129,025	159,605	158,236	184,515	197,857	198,000	186,843	144,195	71,815	55,048	60,047	77,448
2005	100,260	107,479	122,437	150,993	175,821	178,036	173,299	147,209	60,739	48,034	64,248	84,478
2006	129,025	171,639	147,431	153,435	196,914	198,000	186,693	139,809	24,358	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC2 Less Adverse - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	120,434	137,087	154,317
1926	162,500	162,500	162,500	161,493	126,072	102,760	90,355	78,645	77,068	84,315	99,690	110,179
1927	122,942	138,931	160,912	162,500	160,517	154,745	112,500	112,500	112,500	120,402	141,643	159,541
1928	162,500	162,500	162,500	162,500	162,500	112,842	112,500	112,500	112,500	120,434	138,131	147,114
1929	157,225	162,500	162,500	162,500	128,542	110,554	98,950	86,567	83,228	88,894	95,946	99,506
1930	104,060	118,214	127,991	130,877	110,260	106,600	80,175	27,802	874	7,574	22,484	29,926
1931	40,448	50,164	58,436	58,022	55,469	12,489	213	210	210	5,573	20,569	29,784
1932	39,653	51,183	71,789	87,753	91,585	89,278	65,313	65,313	65,313	73,247	95,292	111,171
1933	135,766	150,525	162,500	162,500	150,176	150,176	112,500	112,500	112,500	120,434	139,295	159,418
1934	162,500	162,500	162,500	162,500	153,450	112,500	102,771	92,336	92,114	98,690	117,236	134,799
1935	150,912	162,500	162,500	162,500	156,142	127,518	112,500	112,500	112,500	119,495	134,488	140,138
1936	158,671	162,500	162,500	162,500	162,500	117,908	112,500	112,500	112,500	120,434	136,197	150,972
1937	158,488	162,500	162,500	162,500	162,500	138,993	112,500	112,500	112,500	120,197	140,678	153,798
1938	162,500	162,500	162,500	162,500	162,500	153,165	112,500	112,500	112,500	120,434	140,329	153,832
1939	162,500	162,500	162,500	162,500	145,679	112,500	112,500	112,500	112,500	120,425	137,016	150,231
1940	162,500	162,500	162,500	162,500	153,350	108,894	98,587	88,130	86,208	93,904	110,414	128,663
1941	141,227	149,711	161,209	159,436	108,653	98,525	84,390	70,852	45,302	47,187	61,880	77,149
1942	84,971	99,236	111,120	111,216	87,243	85,121	74,840	63,994	60,182	58,988	75,327	82,608
1943	90,948	106,134	120,195	136,572	136,116	132,530	112,155	112,155	112,155	120,089	137,014	147,433
1944	157,838	162,500	162,500	161,904	112,486	102,409	89,377	73,693	46,348	48,128	63,126	73,267
1945	87,396	102,238	114,439	117,736	115,998	94,968	87,254	78,039	76,386	84,138	102,037	113,537
1946	130,505	148,084	162,500	162,500	162,500	147,402	112,500	112,500	112,500	120,434	138,926	152,535
1947	162,500	162,500	162,500	162,500	162,500	112,591	112,500	112,500	112,500	120,434	139,718	159,155
1948	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,391	139,666	156,806
1949	162,500	162,500	162,500	162,500	162,500	144,649	112,500	112,500	112,500	120,434	139,858	157,295
1950	162,500	162,500	162,500	162,500	162,500	162,500	124,814	112,500	112,500	120,036	142,206	162,500
1951	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,590	152,839
1952	161,253	162,500	162,500	162,500	158,238	126,171	112,500	112,500	112,500	120,402	137,316	148,888
1953	162,500	162,500	162,500	162,500	162,500	133,460	112,500	112,500	112,500	120,434	141,363	162,500
1954	162,500	162,500	162,500	162,500	158,009	154,330	112,500	112,500	112,500	120,434	139,052	147,605
1955	160,035	162,500	162,500	162,500	162,500	159,849	112,500	112,500	112,500	120,434	139,618	154,477
1956	162,500	162,500	162,500	162,500	162,500	162,500	127,164	112,500	112,500	120,434	138,933	155,249
1957	162,500	162,500	162,500	162,500	160,517	132,161	112,500	112,500	112,500	120,434	137,467	152,369
1958	162,500	162,500	162,500	162,135	140,623	109,960	98,407	88,665	87,912	95,222	114,104	122,539
1959	141,222	157,422	162,500	162,500	162,500	156,524	112,500	112,500	112,500	120,268	141,736	158,280
1960	162,500	162,500	162,500	162,500	162,031	144,283	112,500	112,500	112,500	120,381	140,193	149,422
1961	162,500	162,500	162,500	162,500	161,710	159,465	112,500	112,500	112,500	120,434	138,743	150,887
1962	162,500	162,500	162,500	162,500	126,641	110,058	99,742	93,805	93,279	99,780	115,888	128,385
1963	139,868	155,947	162,500	161,537	127,923	109,048	98,674	88,471	88,369	95,354	114,949	125,616
1964	144,517	162,500	162,500	162,500	142,777	142,317	112,500	112,500	112,500	120,422	140,080	154,878
1965	162,500	162,500	162,500	162,500	158,494	149,337	112,500	112,500	112,500	120,434	137,449	149,281
1966	161,354	162,500	162,500	162,500	162,500	130,604	112,500	112,500	112,500	120,434	141,061	162,500
1967	162,500	162,500	162,500	162,500	141,377	141,377	112,500	112,500	112,500	120,214	137,727	149,562
1968	162,500	162,500	162,500	162,500	140,538	112,500	112,500	112,500	112,500	120,361	138,126	151,672
1969	162,139	162,500	162,500	162,500	162,500	141,567	112,500	112,500	112,500	120,434	137,932	153,321
1970	162,500	162,500	162,500	162,500	157,804	153,007	112,500	112,500	112,500	120,434	137,558	144,199
1971	158,563	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	120,434	139,391	161,308
1972	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	138,529	153,182
1973	162,500	162,500	162,500	162,500	143,202	110,742	100,402	91,437	90,763	98,662	114,051	130,648
1974	147,670	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	139,417	153,319
1975	162,500	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	120,434	139,086	158,536
1976	162,500	162,500	162,500	162,500	162,500	145,665	112,500	112,500	112,500	120,434	137,196	145,061
1977	156,443	162,500	162,500	160,658	109,434	98,419	83,710	73,381	71,530	78,277	95,503	113,378
1978	127,642	141,166	157,976	162,500	139,544	112,500	112,500	112,500	112,500	120,434	137,110	148,526
1979	157,072	162,500	162,500	162,500	162,500	130,764	112,500	112,500	112,500	120,434	136,247	154,915
1980	162,500	162,500	162,500	162,500	158,533	130,866	112,500	112,500	112,500	120,434	139,147	155,243
1981	162,500	162,500	162,500	162,500	133,900	112,500	112,500	112,500	112,500	119,604	136,481	150,771
1982	162,500	162,500	162,500	162,500	162,500	154,425	112,500	112,500	112,500	120,434	138,989	153,636
1983	162,500	162,500	162,500	162,500	160,690	130,483	112,500	112,500	112,500	120,434	142,561	150,457
1984	162,500	162,500	162,500	162,500	162,500	147,379	112,500	112,500	112,500	120,434	138,650	146,792
1985	155,194	162,500	162,500	162,500	159,048	147,417	112,500	112,500	112,500	120,434	137,098	143,421
1986	153,814	162,500	162,500	162,500	156,009	144,132	112,500	112,500	112,500	119,822	138,632	146,422
1987	156,930	162,500	162,500	162,500	148,351	112,064	112,064	112,064	112,064	119,681	132,043	143,810
1988	154,577	162,500	162,500	162,500	152,000	109,664	99,668	91,077	89,054	96,387	112,801	120,949
1989	134,341	142,844	162,500	162,500	162,500	139,028	112,500	112,500	112,500	120,434	137,042	149,235
1990	162,500	162,500	162,500	162,500	140,799	138,995	112,500	112,500	112,500	120,434	141,970	157,538
1991	162,500	162,500	162,500	162,500	162,500	122,414	112,500	112,500	112,500	120,434	139,562	152,763
1992	162,500	162,500	162,500	161,584	132,403	104,965	95,427	83,378	81,199	89,085	106,635	114,561
1993	124,386	135,390	155,828	162,500	161,930	125,811	102,878	93,549	92,345	99,936	114,193	124,193
1994	136,398	146,068	160,717	160,935	112,180	112,137	95,851	39,160	8,167	6,742	24,560	36,563
1995	49,568	67,455	83,692	89,924	101,017	69,136	59,545	53,004	51,599	59,533	77,681	96,516
1996	116,633	135,337	157,902	162,500	158,533	140,579	112,500	112,500	112,500	120,434	137,394	144,516
1997	157,630	162,500	162,500	162,500	162,500	162,500	119,848	112,500	112,500	120,134	142,049	155,207
1998	162,500	162,500	162,500	162,500	160,785	142,336	112,500	112,500	112,500	120,434	142,541	161,744
1999	162,500	162,500	162,500	162,500	148,860	148,860	112,500	112,500	112,500	120,434	141,675	160,080
2000	162,500	162,500	162,500	162,500	160,967	139,835	112,500	112,500	112,500	120,362	138,462	145,581
2001	154,875	162,500	162,500	161,922	136,896	109,271	98,630	87,110	83,198	90,607	104,102	118,169
2002	131,138	145,556	159,536	162,500	159,065	159,065	112,500	112,500	112,500	120,434	138,118	149,253
2003	162,500	162,500	162,500	162,056	128,312	108,213	95,800	83,156	80,971	88,851	104,327	113,865
2004	123,900	136,178	160,715	162,500	162,500	140,730	112,500	112,500	112,500	120,434	138,377	150,460
2005	162,500	162,500	162,500	162,297	157,711	110,236	99,144	87,816	87,098	93,541	109,766	120,047
2006	138,889	152,792	162,500	162,500	162,500	162,500	112,500	112,500	112,500	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC2 Less Adverse - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	416,162	439,751	745,553
1926	882,915	1,101,277	1,194,268	1,287,059	1,265,349	1,058,161	756,108	470,028	318,413	355,467	430,684	571,881
1927	786,626	1,004,410	1,103,177	1,212,733	1,277,612	1,260,183	1,011,191	691,347	477,886	502,554	702,768	861,819
1928	1,035,728	1,105,571	1,227,984	1,347,570	1,378,740	1,250,719	986,426	663,708	466,671	503,017	536,131	604,065
1929	627,876	639,808	781,135	838,687	840,981	776,627	539,278	260,157	119,729	94,341	93,380	185,751
1930	234,326	423,062	570,710	718,567	687,289	531,847	299,505	45,936	-104,672	-123,035	-112,883	-85,129
1931	51,665	169,719	338,787	479,175	564,250	457,023	237,534	15,511	-106,870	-108,338	-13,601	87,644
1932	249,965	464,118	772,483	931,365	1,051,072	1,040,878	833,205	540,018	369,638	366,248	747,007	1,051,062
1933	1,100,779	1,190,135	1,201,958	1,249,072	1,297,443	1,260,621	1,081,487	805,982	634,000	656,357	897,903	1,298,785
1934	1,259,185	1,279,949	1,390,236	1,386,367	1,349,156	1,124,754	837,325	557,305	415,105	489,480	654,255	922,289
1935	1,109,528	1,268,114	1,313,729	1,384,408	1,349,747	1,236,025	961,205	643,637	428,787	353,593	377,252	482,959
1936	789,401	823,158	1,042,120	1,177,755	1,327,835	1,217,218	923,326	628,260	458,355	417,553	423,965	712,759
1937	715,746	747,196	876,363	1,096,733	1,234,827	1,251,066	986,060	659,343	437,686	355,701	540,428	747,027
1938	933,213	993,016	1,121,125	1,242,150	1,331,763	1,282,834	1,012,189	672,664	430,141	377,454	477,874	697,048
1939	941,585	1,085,397	1,230,730	1,300,942	1,270,764	1,119,020	900,026	623,716	457,222	439,524	471,499	811,615
1940	907,564	1,139,492	1,311,734	1,375,075	1,337,568	1,109,144	803,279	507,859	342,958	336,133	378,149	676,228
1941	803,092	839,307	920,111	960,694	890,526	700,075	425,853	143,761	18,074	17,746	124,627	480,328
1942	556,166	757,581	886,324	961,144	880,443	782,253	558,461	285,340	119,999	76,468	205,055	315,877
1943	347,688	477,674	625,932	898,993	1,043,089	1,022,063	853,328	567,813	390,426	392,075	420,695	583,848
1944	682,100	831,539	900,391	953,650	921,659	725,540	454,298	166,379	21,595	-3,337	63,233	145,457
1945	379,317	635,233	790,284	950,539	1,026,472	926,986	673,624	388,195	276,446	264,690	347,764	518,038
1946	712,223	856,820	1,025,552	1,067,553	1,265,143	1,232,863	1,019,721	703,693	486,143	460,464	513,588	893,301
1947	1,044,785	1,218,622	1,265,723	1,384,048	1,371,929	1,230,900	921,643	617,337	445,942	587,114	818,257	1,063,550
1948	1,115,063	1,231,731	1,160,369	1,135,411	1,338,977	1,389,030	1,182,173	874,205	671,957	632,399	728,449	875,907
1949	877,648	931,893	1,098,526	1,138,598	1,380,840	1,348,356	1,126,343	813,641	597,433	584,758	746,469	1,028,449
1950	1,056,399	1,171,490	1,089,996	1,085,126	1,267,059	1,389,030	1,286,873	1,004,874	798,425	849,547	972,669	1,132,539
1951	1,133,600	1,255,531	1,138,941	1,137,622	1,359,991	1,372,870	1,133,350	819,107	588,310	610,699	699,513	832,227
1952	835,442	997,573	1,095,223	1,275,504	1,363,265	1,242,273	998,201	697,274	510,576	459,129	474,955	570,108
1953	938,068	1,209,003	1,240,110	1,357,602	1,375,370	1,302,699	1,097,638	787,721	558,963	530,137	718,493	1,089,391
1954	1,129,184	1,312,979	1,201,900	1,222,534	1,310,964	1,277,680	1,130,862	859,337	673,268	594,843	740,895	837,359
1955	991,245	1,135,762	1,147,810	1,218,341	1,317,773	1,356,981	1,152,066	839,561	623,149	689,285	846,325	1,044,289
1956	1,107,815	1,112,956	1,009,678	1,032,598	1,278,403	1,388,722	1,284,583	996,974	786,094	769,415	817,291	1,054,660
1957	1,056,868	1,146,213	1,280,853	1,368,153	1,370,789	1,231,431	920,684	622,968	434,959	408,776	482,503	708,075
1958	915,876	1,195,001	1,264,386	1,335,502	1,315,648	1,125,363	819,956	530,900	379,269	387,871	611,179	904,472
1959	1,114,657	1,205,998	1,207,618	1,291,885	1,329,986	1,298,131	1,047,178	726,330	588,080	650,688	905,762	1,140,645
1960	1,122,917	1,295,787	1,344,200	1,381,488	1,360,327	1,253,624	964,864	650,066	455,023	460,484	665,635	753,389
1961	980,552	1,249,161	1,254,666	1,371,771	1,358,400	1,294,367	1,007,999	672,476	445,565	405,813	450,881	598,218
1962	737,390	852,744	955,880	1,099,290	1,077,892	1,026,584	813,277	569,169	425,342	430,609	584,931	733,009
1963	851,958	1,071,855	1,180,994	1,263,941	1,223,913	1,057,674	790,875	516,157	375,906	385,828	569,532	714,912
1964	922,830	1,072,242	1,151,802	1,166,582	1,306,021	1,356,646	1,206,573	928,078	729,970	712,065	787,057	957,505
1965	1,109,102	1,263,249	1,222,058	1,281,764	1,358,202	1,300,900	1,049,982	738,616	556,550	536,565	634,529	723,028
1966	813,593	881,118	1,059,684	1,216,263	1,384,288	1,301,031	1,043,110	723,677	505,096	453,957	554,216	912,094
1967	1,095,633	1,305,142	1,378,963	1,378,137	1,313,025	1,267,850	1,010,358	702,452	511,878	540,750	588,110	864,358
1968	1,047,899	1,286,784	1,381,837	1,381,771	1,307,998	1,197,576	899,646	620,884	465,950	474,408	609,393	779,503
1969	817,202	826,869	975,639	1,091,299	1,355,723	1,335,239	1,010,806	669,234	475,593	415,213	445,114	623,609
1970	840,909	1,007,699	1,135,129	1,230,960	1,284,669	1,282,024	1,004,507	690,108	516,124	489,273	561,451	589,060
1971	883,420	1,042,128	931,608	958,714	1,193,251	1,389,030	1,395,461	1,162,840	985,836	933,883	989,550	1,042,340
1972	1,098,237	1,201,127	1,152,358	1,120,107	1,320,877	1,388,399	1,255,617	984,615	817,685	720,438	820,195	1,125,984
1973	1,150,520	1,212,907	1,346,114	1,371,661	1,300,200	1,122,694	850,259	574,306	432,017	408,529	481,670	738,999
1974	987,785	1,155,638	1,140,871	1,133,425	1,288,640	1,384,077	1,243,649	976,640	767,258	666,026	755,139	987,041
1975	1,088,058	1,190,584	1,185,328	1,160,924	1,325,467	1,364,638	1,214,400	918,538	686,872	658,105	783,892	1,126,620
1976	1,145,880	1,272,618	1,180,276	1,165,718	1,357,221	1,324,073	1,216,014	933,547	736,030	640,044	671,966	732,403
1977	813,847	876,891	1,017,756	1,050,176	943,552	755,718	455,658	198,074	117,634	92,424	234,949	662,023
1978	808,399	961,548	1,170,132	1,271,473	1,216,961	1,117,191	870,206	593,471	457,809	418,284	489,301	574,852
1979	573,637	698,724	865,752	983,375	1,174,135	1,111,307	897,914	613,638	443,701	418,992	418,087	758,737
1980	791,654	902,170	1,072,488	1,235,306	1,316,075	1,225,879	980,370	676,925	501,872	457,187	605,745	900,714
1981	992,708	1,222,277	1,277,175	1,372,553	1,294,145	1,172,886	908,862	618,551	462,733	525,844	635,151	864,066
1982	1,059,779	1,302,717	1,242,169	1,280,686	1,356,381	1,334,845	1,089,540	770,704	564,482	495,824	570,198	839,884
1983	1,057,757	1,232,683	1,317,763	1,384,299	1,362,814	1,249,925	988,457	665,006	455,005	362,134	595,990	646,066
1984	882,826	1,015,368	1,185,481	1,202,290	1,359,757	1,319,409	1,114,434	796,566	562,717	486,784	555,976	574,644
1985	586,441	588,544	629,908	786,891	1,008,810	1,169,042	972,209	670,364	487,077	520,265	626,186	623,529
1986	754,858	958,575	1,173,492	1,287,896	1,333,887	1,239,814	933,155	608,538	437,130	409,250	636,837	690,972
1987	794,212	992,361	1,186,050	1,299,175	1,318,636	1,197,166	914,062	622,119	433,955	381,133	400,238	579,662
1988	662,411	809,596	976,812	1,113,693	1,150,305	1,066,805	835,854	573,244	423,312	417,317	613,765	706,436
1989	860,844	900,927	1,033,084	1,227,052	1,304,276	1,266,218	981,912	662,462	461,915	425,332	581,907	763,171
1990	1,015,299	1,186,204	1,289,806	1,385,786	1,340,279	1,282,015	1,017,047	706,077	498,625	522,363	925,341	1,062,423
1991	1,135,845	1,306,984	1,224,977	1,349,519	1,368,099	1,283,703	1,073,465	758,982	517,972	416,775	524,483	742,264
1992	921,225	1,127,295	1,207,000	1,291,777	1,270,530	1,028,078	728,625	433,499	287,802	244,989	320,165	346,505
1993	357,771	375,416	546,805	720,347	1,067,705	1,002,060	734,692	473,186	307,380	270,692	265,703	403,491
1994	523,036	582,969	779,497	882,362	857,694	671,994	403,151	119,617	-38,606	-52,268	-8,684	212,320
1995	341,465	635,039	860,560	958,333	980,191	895,962	655,688	386,713	222,613	309,675	538,827	854,241
1996	943,821	1,185,850	1,171,764	1,297,580	1,364,893	1,294,022	1,040,272	736,322	552,201	570,615	633,061	673,312
1997	827,331	1,008,628	1,036,710	1,025,360	1,278,497	1,387,557	1,276,139	980,105	788,470	775,534	940,391	1,047,034
1998	1,087,623	1,248,552	1,284,878	1,367,932	1,363,694	1,251,727	948,784	636,255	438,103	415,827	572,547	907,635
1999	1,048,214	1,203,880	1,194,563	1,203,483	1,312,246	1,294,655	1,112,951	837,144	628,900	553,434	777,600	1,065,468
2000	1,096,949	1,205,282	1,265,984	1,377,828	1,366,284	1,280,817	1,001,003	672,745	434,949	380,380	393,702	397,921
2001	427,074	449,792	554,192	633,915	763,351	625,704	372,667	118,296	44,107	73,195	268,986	456,413
2002	683,569	878,427	930,899	1,051,657	1,212,177	1,244,385	1,006,188	695,333	489,917	459,948	482,150	585,379
2003	754,028	969,185	1,133,149	1,218,749	1,176,253	1,085,076	800,180	506,708	347,994	379,532	481,118	595,423
2004	712,095	824,962	929,424	1,055,376	1,206,654	1,218,558	929,057	620,460	461,340	432,915	525,929	683,536
2005	826,671	863,584	1,001,545	1,156,835	1,266,134	1,102,597	835,012	541,302	370,473	371,643	493,786	681,816
2006	987,069	1,166,169	1,157,631	1,199,667	1,354,227	1,368,786	1,126,716	796,682	563,787	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D-12

Scenario IP6 (KKC, KDRPP, CEPR, WDR, and BRE) under More Adverse Climate Change Conditions

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YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP6 Full IP CC4 More Adverse

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
Avg. WY 1926 to 2009	1,891	357	1,278	1,144	53.0%	78	-89	52.9%	49	-102	9,034	293
Avg. WY 1982 to 2009	1,717	302	1,197	1,068	45.4%	16	-112	45.2%	-19	-127	10,061	949
1941 (Dry Year)	939	189	526	570	0.0%	-108	-185	0.0%	-105	-188	223	0
1994 (Dry Year)	1,178	220	677	724	0.0%	-79	-190	0.0%	-141	-200	7,132	0
2001 (Dry Year)	829	173	627	683	0.0%	-40	-103	0.0%	-66	-119	44,865	14,999
2005 (Dry Year)	1,343	268	807	751	5.9%	-83	-128	6.2%	-103	-140	8,321	0

Period	April 1st TWSA	April - Sept Volume[1]	April - Sept Major Diversions[2]	July 1st TWSA	July 1st Prorationing	Sept. 30th Reservoir Storage[3]	Sept. 30th Kachess Storage[3]	Sept. 30th Prorationing	Oct. 15th Reservoir Storage[3]	Oct. 15th Kachess Storage[3]	Water Not Delivered[4]	Water Not Delivered to Chandler Power Plant[4]
(Year)	(kAF)	(kAF)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(%)	(kAF)	(kAF)	(AF)	(AF)
1926	1,244	180	1,082	936	37.1%	-82	-137	38.2%	-96	-147	6,345	0
1927	2,198	350	1,484	1,307	70.0%	67	-135	70.0%	91	-134	2,615	0
1928	2,067	424	1,468	1,252	70.0%	32	-88	70.0%	54	-88	2,874	0
1929	1,125	206	713	755	2.8%	-75	-126	2.5%	-124	-143	2,615	0
1930	1,160	220	668	629	0.0%	-96	-169	0.0%	-148	-185	1,429	0
1931	1,393	352	705	715	0.0%	-93	-161	0.0%	-135	-175	5,192	0
1932	2,306	487	1,481	1,316	70.0%	81	-83	70.0%	30	-97	2,276	0
1933	2,208	321	1,494	1,518	70.0%	266	-24	70.0%	220	-35	20	0
1934	2,004	351	1,475	1,426	70.0%	199	-20	70.0%	172	-38	0	0
1935	2,064	309	1,481	1,458	70.0%	214	-32	70.0%	173	-48	13,414	0
1936	1,379	186	1,174	1,004	48.3%	-8	-119	51.7%	-41	-136	48,899	0
1937	1,635	293	1,101	914	33.4%	-87	-127	34.3%	-124	-144	8,087	0
1938	2,192	452	1,476	1,279	70.0%	51	-79	70.0%	40	-89	10,548	0
1939	1,361	208	1,177	965	45.0%	-104	-143	46.1%	-131	-158	3,939	0
1940	1,278	210	939	857	23.7%	-84	-164	24.4%	-125	-178	6,036	0
1941	939	189	526	570	0.0%	-108	-185	0.0%	-105	-188	223	0
1942	1,490	228	1,019	881	26.5%	-81	-145	27.8%	-134	-162	52	0
1943	2,581	674	1,475	1,270	70.0%	32	-135	70.0%	-10	-149	1,511	0
1944	1,338	213	840	829	15.2%	-69	-157	15.6%	-96	-168	3,067	0
1945	1,584	246	1,063	900	30.2%	-87	-149	30.9%	-142	-166	3,532	0
1946	2,269	419	1,505	1,352	70.0%	113	-82	70.0%	68	-93	2,001	0
1947	1,899	335	1,427	1,229	70.0%	51	-89	70.0%	60	-90	27,054	0
1948	2,553	503	1,511	1,212	71.9%	408	34	69.4%	414	26	7,329	0
1949	2,407	564	1,503	1,522	70.0%	276	-19	70.0%	257	-22	0	0
1950	3,198	917	1,756	1,391	100.0%	432	50	100.0%	392	29	0	0
1951	2,894	813	1,557	1,258	74.7%	433	78	72.3%	406	74	676	0
1952	2,361	543	1,486	1,478	70.0%	239	-16	70.0%	186	-31	0	0
1953	1,751	221	1,434	1,276	70.0%	72	-101	70.0%	64	-110	15,886	0
1954	2,417	463	1,458	1,613	64.2%	396	-11	62.1%	358	-22	5,127	0
1955	2,200	327	1,491	1,561	70.0%	312	-57	70.0%	324	-57	0	0
1956	3,126	1,018	1,576	1,259	76.7%	429	66	74.4%	378	54	0	0
1957	2,145	484	1,456	1,383	70.0%	172	-43	70.0%	150	-60	4,248	0
1958	1,373	213	1,207	1,004	49.3%	-56	-132	51.3%	-46	-135	25,186	0
1959	2,347	507	1,488	1,430	70.0%	182	-55	70.0%	185	-58	11,542	0
1960	2,241	407	1,496	1,516	70.0%	269	-10	70.0%	228	-19	68	0
1961	2,016	311	1,478	1,429	70.0%	201	-30	70.0%	181	-39	0	0
1962	1,415	262	1,217	989	48.1%	-64	-142	49.9%	-62	-149	16,237	0
1963	1,435	268	991	862	25.8%	-87	-121	26.3%	-122	-138	6,917	0
1964	2,310	341	1,500	1,433	70.0%	181	-36	70.0%	176	-36	6,760	0
1965	2,200	385	1,485	1,432	70.0%	189	-30	70.0%	163	-44	0	0
1966	1,836	368	1,362	1,110	66.7%	-5	-125	67.1%	-26	-140	55,640	0
1967	1,824	204	1,447	1,318	70.0%	92	-106	70.0%	56	-117	16,093	0
1968	1,778	270	1,422	1,241	70.0%	39	-104	70.0%	35	-113	14,056	0
1969	2,218	491	1,467	1,292	70.0%	67	-118	70.0%	58	-126	13,812	0
1970	1,867	292	1,412	1,112	65.4%	-89	-166	62.6%	-136	-181	1,225	0
1971	2,904	726	1,540	1,502	70.0%	242	-68	70.0%	191	-79	711	0
1972	2,866	644	1,625	1,309	86.1%	405	33	82.7%	359	11	0	0
1973	1,368	156	1,198	1,039	55.2%	25	-111	56.0%	6	-126	67,474	0
1974	2,802	605	1,614	1,259	83.9%	412	19	82.0%	366	3	14,032	0
1975	2,431	346	1,552	1,281	79.8%	442	38	77.1%	405	32	169	0
1976	2,659	568	1,570	1,287	78.8%	438	74	76.5%	390	44	0	0
1977	713	150	610	669	0.0%	-39	-130	0.0%	-66	-145	19,912	0
1978	1,798	224	1,443	1,249	70.0%	19	-119	70.0%	-28	-135	16,018	0
1979	1,479	251	1,016	872	26.1%	-84	-131	27.0%	-134	-149	1,869	0
1980	2,004	413	1,333	1,046	54.9%	-95	-157	54.7%	-143	-173	6,615	0
1981	1,620	285	1,140	951	39.1%	-93	-147	39.8%	-81	-147	891	2

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
OUT-OF-STREAM WATER SUPPLY RESULTS

Run: IP6 Full IP CC4 More Adverse

Period (Year)	April 1st TWSA (kAF)	April - Sept Volume[1] (kAF)	April - Sept Major Diversions[2] (kAF)	July 1st TWSA (kAF)	July 1st Prorationing (%)	Sept. 30th Reservoir Storage[3] (kAF)	Sept. 30th Kachess Storage[3] (kAF)	Sept. 30th Prorationing (%)	Oct. 15th Reservoir Storage[3] (kAF)	Oct. 15th Kachess Storage[3] (kAF)	Water Not Delivered[4] (AF)	Water Not Delivered to Chandler Power Plant[4] (AF)
1982	2,210	302	1,486	1,399	70.0%	149	-59	70.0%	108	-69	207	89
1983	1,688	235	1,406	1,143	69.9%	-30	-126	69.6%	-55	-142	27,056	268
1984	1,565	235	1,313	1,049	58.5%	-97	-180	56.0%	-141	-194	13,583	0
1985	1,599	287	945	827	16.2%	-78	-181	16.6%	-126	-197	0	0
1986	1,347	197	905	861	20.4%	-67	-145	21.2%	-118	-161	1,299	0
1987	1,402	241	979	912	27.6%	-57	-111	28.3%	-112	-128	274	0
1988	1,564	265	1,027	881	26.8%	-78	-118	28.0%	-116	-135	2,829	0
1989	1,472	257	1,096	919	34.1%	-88	-118	34.9%	-118	-134	12,778	138
1990	1,792	272	1,393	1,082	63.5%	-93	-140	62.6%	-120	-153	13,589	1
1991	2,272	512	1,463	1,331	70.0%	97	-79	70.0%	58	-97	4,368	263
1992	1,242	193	1,045	918	33.8%	-81	-147	34.3%	-133	-163	2,977	0
1993	1,525	272	915	804	14.1%	-86	-184	14.1%	-135	-200	4,916	0
1994	1,178	220	677	724	0.0%	-79	-190	0.0%	-141	-200	7,132	0
1995	1,720	239	1,326	1,059	58.5%	-95	-197	56.0%	-93	-196	934	0
1996	2,180	457	1,469	1,301	70.0%	76	-85	70.0%	46	-100	2,092	0
1997	2,837	829	1,566	1,237	75.8%	419	39	73.7%	423	31	8,830	136
1998	1,604	181	1,382	1,198	70.0%	64	-83	70.0%	53	-95	60,188	7,253
1999	2,203	303	1,420	1,612	62.1%	404	-11	60.1%	372	-20	8,599	87
2000	2,155	361	1,480	1,500	70.0%	259	-18	70.0%	223	-26	0	0
2001	829	173	627	683	0.0%	-40	-103	0.0%	-66	-119	44,865	14,999
2002	2,313	465	1,488	1,359	70.0%	122	-73	70.0%	89	-82	17,659	498
2003	1,291	190	1,106	959	39.3%	-74	-133	40.4%	-111	-148	882	0
2004	1,503	238	1,119	931	37.5%	-100	-154	38.2%	-145	-169	5,120	0
2005	1,343	268	807	751	5.9%	-83	-128	6.2%	-103	-140	8,321	0
2006	2,094	349	1,475	1,264	70.0%	33	-82	70.0%	NA	NA	3,038	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,891	357	1,278	1,144	53.0%	78	-89	52.9%	49	-102	9,034	293

	=	Most Severe Droughts of Record
	=	Driest Years of Record
	=	< 70% Prorationing Achieved

Notes:

1) April to September flow volume is calculated at the Parker Gage (PARW).
2) April to September Diversions are the six major irrigation districts.
3) A negative reservoir storage value indicates Kachess inactive storage is being used.
4) This is water not delivered due to infrastructure capacity. Summarized on an annual water year (WY) basis, October 1 to September 30.
5) Climate Change inflow dataset provided only extended to the end of Water Year 2006.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP6 Full IP CC4 More Adverse

R1: Keechelus *(Yakima River Below Keechelus Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July	August	
Target Flow (cfs)		>=100	>=100	Reduce to 500 cfs	Ramp Down from 500 to 120 cfs[2]	>=100
Flow %	> 10% Above Target	95.2%	86.8%	5.1%	12.3%	26.9%
	0 -10% Above Target[1]	1.7%	13.2%	1.8%	2.0%	12.3%
	0-10% Below Target	1.3%	0.0%	6.1%	25.4%	8.4%
	> 10% Below Target	1.8%	0.0%	87.0%	60.4%	52.4%

R2: Easton *(Yakima 202 at Easton EASW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
					September 1 - October 31
Target Flow		>= 250	>= 250	>= 250	>= 220
Flow %	> 10% Above Target	55.8%	62.2%	58.9%	9.0%
	0 -10% Above Target	41.4%	15.3%	13.1%	31.5%
	0-10% Below Target	2.7%	2.4%	8.8%	24.0%
	> 10% Below Target	0.1%	20.1%	19.2%	35.5%

R3: Teanaway *(Yakima 183 at Cle Elum YUMW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				July 1 - September 10	
Target Flow		NA	NA	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target			0.3%	
	0 -10% Above Target			0.9%	
	0-10% Below Target			1.9%	
	> 10% Below Target			96.9%	

R4: Kittitas *(Yakima 155.8 at Ellensburg ELNW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				13.5%	
	0 -10% Above Target				17.2%	
	0-10% Below Target				13.6%	
	> 10% Below Target				55.7%	

R5: Canyon *(Yakima 139.8 at Umtanum UMTW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				July 1	July 1 - September 10	
Target Flow		NA	NA	Reduce Flow by 1,000 cfs	Ramp down to 1,000 cfs by Sept 10	
Flow %	> 10% Above Target				81.8%	
	0 -10% Above Target				14.2%	
	0-10% Below Target				1.4%	
	> 10% Below Target				2.6%	

R6: Selah *(Yakima 127.98 at Roza Dam RBDW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		1,000 to 1,400 cfs	>=1,400 cfs	NA	1,000 to 1,400 cfs[3]
Flow %	> 10% Above Target	22.5%	18.3%		6.6%
	0 -10% Above Target	1.5%	2.6%		1.1%
	0-10% Below Target	6.5%	28.9%		8.2%
	> 10% Below Target	69.5%	50.2%		84.1%

R7: Union Gap *(Yakima 113.2 at Terrace Heights YRTW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	Reduce flows as much as possible	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R8: Wapato *(Yakima River at Parker PARW)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			6.5%	1.9%	1.6%
	0 -10% Above Target			5.4%	0.3%	0.2%
	0-10% Below Target			29.9%	0.9%	0.4%
	> 10% Below Target			58.2%	96.9%	97.8%

R9: Mabton *(Yakima River at Grandview)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			94.4%	75.5%	53.2%
	0 -10% Above Target			1.7%	9.3%	18.2%
	0-10% Below Target			1.1%	6.7%	11.6%
	> 10% Below Target			2.8%	8.5%	17.0%

R10: Chandler *(Yakima River at Prosser)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				September	
Target Flow		NA	Need More Flow	>1,000 cfs	NA
Flow %	> 10% Above Target			12.0%	
	0 -10% Above Target			7.4%	
	0-10% Below Target			19.0%	
	> 10% Below Target			61.6%	

R11: Lower Yakima *(Yakima River at Kiona)*

Flow Season (Date)		Winter	Spring	Summer		Fall
				June to October 15		
Target Flow		NA	NA	>= 550 cfs (Drought)[4]	>= 750 cfs (Average)[4]	>= 850 cfs (Wet)[4]
Flow %	> 10% Above Target			95.6%	84.7%	65.7%
	0 -10% Above Target			0.9%	5.8%	15.8%
	0-10% Below Target			0.8%	3.5%	8.1%
	> 10% Below Target			2.7%	6.0%	10.4%

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION
INSTREAM FLOW RESULTS

Run: IP6 Full IP CC4 More Adverse

R12: Kachess River *(Kachess River Below Kachess Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		NA	NA	NA	NA
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R13: Cle Elum River *(Cle Elum River Below Cle Elum Dam)*

Flow Season (Date)		Winter	Spring	Summer		Fall
					August	
Target Flow		>= 220	>= 220	>= 220	Decrease flow by 1,000 cfs	>= 220
Flow %	> 10% Above Target	79.4%	80.7%	97.9%		27.3%
	0 -10% Above Target	5.1%	13.5%	0.4%		16.2%
	0-10% Below Target	1.3%	0.7%	0.2%		1.5%
	> 10% Below Target	14.2%	5.1%	1.5%		55.0%

R14: Tieton River *(Tieton 20.8 Below Tieton Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		November 1 to April 1			
Target Flow		>= 125 cfs		NA	NA
Flow %	> 10% Above Target	13.7%			
	0 -10% Above Target	84.8%			
	0-10% Below Target	0.0%			
	> 10% Below Target	1.5%			

R15: Bumping River *(Bumping River Below Bumping Dam)*

Flow Season (Date)		Winter	Spring	Summer	Fall
Target Flow		>=130 cfs	>=130 cfs	>=130 cfs	>=130 cfs
Flow %	> 10% Above Target	8.0%	32.4%	78.1%	11.3%
	0 -10% Above Target	89.5%	67.6%	16.1%	64.1%
	0-10% Below Target	0.3%	0.0%	0.3%	0.5%
	> 10% Below Target	2.2%	0.0%	5.5%	24.1%

R16: Upper Naches River *(Naches 36.0 at Cliffdell CLFW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
				August 1 to October 31	
Target Flow		NA	NA	Reduce flows by 70-100 cfs	
Flow %	> 10% Above Target				
	0 -10% Above Target				
	0-10% Below Target				
	> 10% Below Target				

R17: Lower Naches River *(Naches 0.1 at Yakima NRYW)*

Flow Season (Date)		Winter	Spring	Summer	Fall
		June 1 to November 1			
Target Flow		>= 550 cfs		NA	NA
Flow %	> 10% Above Target	43.1%			
	0 -10% Above Target	2.2%			
	0-10% Below Target	2.5%			
	> 10% Below Target	52.2%			

Larger percentages in cells with green shading are desirable.

Notes:

1) The target flow is included in the "0-10% Above Target" category.
2) The target is a linear ramp from 1000 to 120 cfs during the month of August.
3) When the target flow is a range of numbers, the catergory "0-10% below" includes the percent of time that the values are below the high target to 10% below the low target.

4) The target flows are based on Drought, Average and Wet Years. Results were not classified as wet, average or dry and as a result, all data was assessed against each of the drought, average and wet target flows.

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC4 More Adverse

Average KDRPP Pumping Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	346	124	25	14	-	-	-	-	139	698	724	736	171
1927	238	48	20	17	22	15	5	-	-	504	939	824	160
1928	128	18	17	22	11	-	-	-	-	-	631	821	100
1929	168	64	97	83	108	23	19	44	181	396	356	663	133
1930	325	184	95	52	18	26	98	92	318	332	308	617	149
1931	317	130	122	29	26	18	37	59	127	126	267	626	114
1932	313	24	19	17	22	15	-	-	-	-	590	815	110
1933	252	14	15	-	-	-	-	-	-	-	-	481	46
1934	205	3	-	-	-	-	-	-	-	-	-	354	34
1935	341	24	-	-	-	-	-	-	-	-	-	522	53
1936	312	89	56	7	-	-	-	-	-	259	925	811	149
1937	325	168	51	31	37	15	36	170	391	376	434	755	169
1938	314	33	21	15	10	-	-	-	-	-	457	845	102
1939	265	84	30	15	11	-	-	-	26	829	771	763	170
1940	326	97	34	22	19	15	30	183	577	662	658	727	203
1941	288	133	23	20	37	34	93	67	247	251	296	475	119
1942	186	33	28	31	21	18	47	146	330	320	429	749	141
1943	328	19	19	30	19	18	13	-	-	520	879	839	163
1944	270	46	33	21	22	20	25	142	408	430	462	642	153
1945	272	105	37	30	18	17	54	168	392	398	573	748	170
1946	316	20	19	18	15	5	-	-	-	-	548	833	107
1947	221	50	22	20	-	-	-	-	-	-	681	834	111
1948	134	21	12	0	-	-	-	-	-	-	-	-	10
1949	-	-	-	-	-	-	-	-	-	-	-	304	18
1950	156	31	2	-	-	-	-	-	-	-	-	-	12
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	255	15
1953	331	203	112	22	-	-	-	-	-	-	860	839	143
1954	216	42	7	4	-	-	-	-	-	-	-	175	27
1955	239	100	38	0	-	-	-	-	-	-	141	826	81
1956	145	21	5	-	-	-	-	-	-	-	-	-	11
1957	-	-	-	-	-	-	-	-	-	-	-	718	43
1958	329	76	23	18	-	-	-	-	-	501	903	794	161
1959	182	27	13	15	-	-	-	-	-	-	289	789	79
1960	144	30	10	-	-	-	-	-	-	-	-	165	21
1961	215	14	-	-	-	-	-	-	-	-	-	483	43
1962	226	64	24	3	-	-	-	-	-	709	905	789	166
1963	214	78	20	30	19	19	51	169	343	325	476	739	150
1964	327	18	20	15	8	-	-	-	-	-	-	633	61
1965	104	94	15	-	-	-	-	-	-	-	-	510	43
1966	277	86	30	21	26	0	-	-	-	258	975	839	153
1967	301	66	22	15	3	-	-	-	-	-	906	838	130
1968	238	59	32	16	16	-	-	-	-	65	930	802	131
1969	205	25	14	32	31	18	5	-	-	329	934	774	144
1970	232	79	29	24	15	17	6	-	184	814	964	821	194
1971	308	73	26	16	15	16	18	-	-	-	422	758	100
1972	214	23	15	12	-	-	-	-	-	-	-	-	16
1973	-	-	-	-	-	-	-	-	-	65	980	808	112
1974	300	35	12	22	5	-	-	-	-	-	-	-	23
1975	26	108	-	-	-	-	-	-	-	-	-	-	8
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	21	551	951	671	134
1978	322	34	14	17	3	-	-	-	-	323	983	812	153
1979	296	35	20	49	29	15	55	129	372	391	506	733	159
1980	322	89	37	33	23	15	41	34	453	597	844	793	199
1981	290	34	16	25	24	18	43	207	427	431	586	767	174
1982	142	31	14	20	17	-	-	-	-	-	188	819	74
1983	242	70	29	9	-	-	-	-	-	323	961	833	150
1984	312	25	40	21	21	18	5	-	485	869	873	793	210
1985	282	26	21	36	30	16	44	100	254	232	267	695	121
1986	308	31	38	20	22	15	19	136	296	280	395	701	137
1987	321	20	29	20	15	17	6	-	224	376	503	756	139
1988	386	182	37	25	18	21	58	154	336	327	481	736	167
1989	311	17	25	15	23	16	3	-	50	505	643	779	145
1990	313	35	47	16	15	9	-	-	-	536	956	837	168
1991	259	12	13	22	11	-	-	-	-	-	451	857	98
1992	343	49	25	16	6	-	-	-	408	673	692	718	178
1993	297	83	28	35	30	19	44	92	387	502	433	684	159
1994	285	91	32	20	27	15	21	88	320	305	309	598	128
1995	175	34	19	21	18	23	73	245	569	720	853	816	216
1996	108	20	13	17	17	-	-	-	-	-	603	814	96
1997	283	30	30	17	18	3	-	-	-	-	-	-	23
1998	-	-	-	-	-	-	-	-	-	-	510	856	82
1999	232	67	12	2	-	-	-	-	-	-	-	174	29
2000	236	36	-	-	-	-	-	-	-	-	-	307	35
2001	186	116	110	44	39	26	22	1	148	427	504	704	141
2002	305	64	20	15	14	-	-	-	-	-	355	856	98
2003	232	132	101	26	27	9	-	-	19	697	714	772	166
2004	280	25	16	25	28	15	49	170	421	406	662	751	173
2005	304	44	25	25	27	15	80	139	344	366	348	661	144
2006	281	25	30	15	2	-	-	-	-	-	541	833	104
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	232	54	26	17	13	7	14	34	114	235	453	621	110

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC4 More Adverse

Average KKC Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	3	32	265	13	-	-	-	-	-	19
1927	-	-	-	-	86	400	350	19	-	-	-	-	51
1928	-	-	-	271	236	304	400	142	-	23	-	-	83
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	45	-	-	-	-	-	3
1932	-	-	-	18	57	400	400	400	93	64	54	-	90
1933	-	-	77	400	400	400	235	-	-	4	65	-	94
1934	-	36	261	400	60	7	-	-	80	218	301	-	83
1935	-	-	101	400	400	133	-	-	-	42	132	-	72
1936	-	-	-	8	59	299	157	-	-	-	-	-	32
1937	-	-	-	-	-	-	183	86	-	-	-	-	16
1938	-	-	-	320	253	250	385	136	-	36	20	-	84
1939	-	-	-	-	15	271	131	-	-	-	-	-	25
1940	-	-	-	-	-	301	92	142	-	-	-	-	33
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	21	36	245	102	74	-	-	-	-	-	28
1943	-	-	-	-	-	13	400	335	-	-	-	-	45
1944	-	-	-	-	-	-	168	7	-	-	-	-	10
1945	-	-	-	-	-	48	357	12	-	-	-	-	25
1946	-	-	-	355	153	400	382	37	-	37	58	-	86
1947	-	-	111	90	400	315	336	-	-	4	-	-	74
1948	-	-	175	400	223	212	332	109	-	294	132	-	114
1949	10	23	8	33	21	138	200	-	175	77	309	1	60
1950	-	-	11	47	29	66	393	164	-	400	400	19	93
1951	48	22	77	248	110	15	-	-	-	400	399	13	81
1952	3	20	6	32	26	113	27	-	74	137	319	0	46
1953	-	-	-	-	142	224	299	-	-	42	-	-	42
1954	-	-	129	400	312	359	400	-	-	-	79	-	101
1955	-	-	-	3	14	13	134	45	44	52	196	-	30
1956	-	-	228	400	400	321	-	-	-	391	231	-	120
1957	-	41	21	31	15	162	78	-	19	99	132	-	36
1958	-	-	-	-	324	76	197	-	-	-	-	-	34
1959	-	-	-	378	400	335	357	85	-	36	7	-	95
1960	-	-	194	362	400	318	67	-	67	55	310	2	107
1961	-	-	22	8	343	323	-	-	113	68	207	-	64
1962	-	-	-	11	26	9	41	-	-	-	-	-	5
1963	-	-	-	-	-	-	365	10	-	-	-	-	22
1964	-	-	-	323	342	349	382	0	-	16	181	1	96
1965	-	-	2	11	400	395	218	-	68	69	184	-	80
1966	-	-	-	-	-	7	338	81	-	53	-	-	29
1967	-	-	-	348	400	270	57	-	-	21	-	-	65
1968	-	-	-	-	242	400	342	-	-	10	-	-	59
1969	-	-	-	-	-	-	387	249	-	39	-	-	41
1970	-	-	-	-	112	237	234	-	-	-	-	-	35
1971	-	-	-	-	138	179	400	400	79	19	43	-	76
1972	-	-	-	3	209	400	400	116	0	333	144	-	97
1973	1	14	30	310	226	76	-	-	-	-	-	-	39
1974	-	-	-	129	400	400	400	232	-	330	20	-	114
1975	-	1	8	51	85	287	147	90	-	241	45	1	58
1976	-	17	310	253	14	5	-	-	-	400	400	13	87
1977	8	21	-	-	-	36	-	-	-	-	-	-	4
1978	-	-	86	310	215	230	192	2	-	14	-	-	63
1979	-	-	-	-	-	-	93	20	-	-	-	-	7
1980	-	-	-	-	-	-	322	181	-	-	-	-	30
1981	-	-	-	-	114	103	295	8	-	-	-	-	31
1982	-	-	-	65	400	400	400	76	-	9	144	-	89
1983	-	-	-	113	194	331	173	-	-	-	-	-	48
1984	-	-	-	39	111	237	213	-	-	-	-	-	36
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	251	117	77	-	-	-	-	27
1987	-	-	-	-	181	361	301	-	-	-	-	-	50
1988	-	-	-	-	-	-	253	10	-	-	-	-	16
1989	-	-	-	-	39	263	400	-	-	-	-	-	42
1990	-	-	-	-	211	379	315	65	-	5	-	-	58
1991	-	-	-	204	357	342	365	73	-	29	13	-	82
1992	-	-	-	-	276	148	-	-	-	-	-	-	25
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	20	-	-	-	-	-	1
1995	-	-	-	-	215	354	149	-	-	-	-	-	43
1996	-	-	219	400	330	216	362	90	-	48	36	-	103
1997	-	-	-	-	72	378	400	280	48	321	180	-	102
1998	12	29	13	208	376	51	-	-	-	35	-	-	42
1999	-	-	26	400	400	400	103	-	-	-	109	-	86
2000	-	-	28	258	82	303	161	-	103	38	232	-	73
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	188	213	121	379	129	-	35	74	-	68
2003	-	-	-	-	-	127	245	-	-	-	-	-	22
2004	-	-	-	-	-	-	25	-	-	-	-	-	1
2005	-	-	-	-	-	26	315	-	-	-	-	-	20
2006	-	-	-	245	400	344	279	-	-	19	7	-	77
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1	3	27	105	147	185	200	48	12	56	64	1	51

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC4 More Adverse

Average KKC Storage Transfer Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	-	29	235	13	-	-	-	-	-	17
1927	-	-	-	-	86	400	350	19	-	-	-	-	51
1928	-	-	-	271	221	297	400	142	-	-	-	-	80
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	45	-	-	-	-	-	3
1932	-	-	-	18	57	400	400	400	93	-	-	-	83
1933	-	-	77	318	379	400	235	-	-	-	-	-	84
1934	-	-	116	-	-	-	-	-	80	51	-	-	15
1935	-	-	77	394	391	118	-	-	-	-	-	-	58
1936	-	-	-	-	-	289	157	-	-	-	-	-	27
1937	-	-	-	-	-	-	183	86	-	-	-	-	16
1938	-	-	-	320	251	243	385	136	-	-	-	-	80
1939	-	-	-	-	15	262	131	-	-	-	-	-	25
1940	-	-	-	-	-	301	92	142	-	-	-	-	33
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	21	36	245	102	74	-	-	-	-	-	28
1943	-	-	-	-	-	13	400	335	-	-	-	-	45
1944	-	-	-	-	-	-	168	7	-	-	-	-	10
1945	-	-	-	-	-	48	357	12	-	-	-	-	25
1946	-	-	-	355	153	400	382	37	-	-	-	-	80
1947	-	-	111	90	400	315	336	-	-	-	-	-	74
1948	-	-	175	391	213	198	332	109	-	-	-	-	86
1949	-	-	-	-	-	138	200	-	175	-	-	-	31
1950	-	-	-	-	-	59	393	164	-	95	-	-	43
1951	-	-	77	247	99	-	-	-	-	79	-	-	30
1952	-	-	-	-	-	105	27	-	74	34	-	-	15
1953	-	-	-	-	135	211	299	-	-	-	-	-	38
1954	-	-	129	379	297	359	400	-	-	-	-	-	94
1955	-	-	-	-	-	-	134	45	44	-	-	-	13
1956	-	-	228	394	370	320	-	-	-	90	-	-	85
1957	-	-	-	-	-	162	78	-	19	-	-	-	16
1958	-	-	-	-	323	62	197	-	-	-	-	-	33
1959	-	-	-	378	395	335	357	85	-	-	-	-	92
1960	-	-	185	341	395	307	67	-	67	-	-	-	82
1961	-	-	-	-	343	322	-	-	113	-	-	-	46
1962	-	-	-	-	-	-	41	-	-	-	-	-	2
1963	-	-	-	-	-	-	365	10	-	-	-	-	22
1964	-	-	-	323	341	346	382	0	-	-	-	-	83
1965	-	-	-	-	400	395	218	-	68	-	-	-	64
1966	-	-	-	-	-	-	338	81	-	-	-	-	25
1967	-	-	-	348	397	266	57	-	-	-	-	-	63
1968	-	-	-	-	242	397	342	-	-	-	-	-	59
1969	-	-	-	-	-	-	387	249	-	-	-	-	38
1970	-	-	-	-	112	237	234	-	-	-	-	-	35
1971	-	-	-	-	138	179	400	400	79	-	-	-	72
1972	-	-	-	2	193	400	400	116	0	-	-	-	67
1973	-	-	-	302	195	64	-	-	-	-	-	-	33
1974	-	-	-	129	400	400	400	232	-	-	-	-	93
1975	-	-	-	51	66	286	147	90	-	-	-	-	39
1976	-	-	305	167	-	-	-	-	-	101	-	-	35
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	86	310	211	230	192	2	-	-	-	-	62
1979	-	-	-	-	-	-	93	20	-	-	-	-	7
1980	-	-	-	-	-	-	322	181	-	-	-	-	30
1981	-	-	-	-	114	103	295	8	-	-	-	-	31
1982	-	-	-	65	400	400	400	76	-	-	-	-	79
1983	-	-	-	113	187	327	173	-	-	-	-	-	48
1984	-	-	-	39	111	237	213	-	-	-	-	-	36
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	251	117	77	-	-	-	-	27
1987	-	-	-	-	181	361	301	-	-	-	-	-	50
1988	-	-	-	-	-	-	253	10	-	-	-	-	16
1989	-	-	-	-	39	263	400	-	-	-	-	-	42
1990	-	-	-	-	211	373	315	65	-	-	-	-	57
1991	-	-	-	204	357	342	365	73	-	-	-	-	80
1992	-	-	-	-	272	125	-	-	-	-	-	-	23
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	20	-	-	-	-	-	1
1995	-	-	-	-	215	354	149	-	-	-	-	-	43
1996	-	-	219	400	328	211	362	90	-	-	-	-	97
1997	-	-	-	-	72	378	400	280	48	-	-	-	71
1998	-	-	-	204	376	50	-	-	-	-	-	-	37
1999	-	-	26	400	400	400	103	-	-	-	-	-	79
2000	-	-	18	253	74	303	161	-	103	-	-	-	55
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	188	213	116	379	129	-	-	-	-	61
2003	-	-	-	-	-	127	245	-	-	-	-	-	22
2004	-	-	-	-	-	-	25	-	-	-	-	-	1
2005	-	-	-	-	-	26	315	-	-	-	-	-	20
2006	-	-	-	245	383	343	279	-	-	-	-	-	74
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	-	-	23	95	141	181	200	48	12	6	-	-	42

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC4 More Adverse

Average KKC Bypass Rate (cfs)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	-	-	-	3	3	30	-	-	-	-	-	-	2
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	14	7	-	-	-	23	-	-	3
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	64	54	-	7
1933	-	-	-	82	21	-	-	-	-	4	65	-	10
1934	-	36	145	400	60	7	-	-	-	167	301	-	68
1935	-	-	23	6	9	15	-	-	-	42	132	-	14
1936	-	-	-	8	59	10	-	-	-	-	-	-	4
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	2	7	-	-	-	36	20	-	4
1939	-	-	-	-	-	9	-	-	-	-	-	-	1
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	37	58	-	6
1947	-	-	-	-	-	1	-	-	-	4	-	-	0
1948	-	-	-	9	10	14	-	-	-	294	132	-	28
1949	10	23	8	33	21	-	-	-	-	77	309	1	30
1950	-	-	11	47	29	7	-	-	-	305	400	19	50
1951	48	22	-	1	11	15	-	-	-	321	399	13	51
1952	3	20	6	32	26	8	-	-	-	103	319	0	32
1953	-	-	-	-	7	13	-	-	-	42	-	-	4
1954	-	-	-	21	16	-	-	-	-	-	79	-	7
1955	-	-	-	3	14	13	-	-	-	52	196	-	17
1956	-	-	-	6	30	1	-	-	-	301	231	-	35
1957	-	41	21	31	15	-	-	-	-	99	132	-	21
1958	-	-	-	-	0	15	-	-	-	-	-	-	1
1959	-	-	-	-	5	-	-	-	-	36	7	-	3
1960	-	-	8	20	5	11	-	-	-	55	310	2	25
1961	-	-	22	8	-	1	-	-	-	68	207	-	19
1962	-	-	-	11	26	9	-	-	-	-	-	-	3
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	1	2	-	-	-	16	181	1	12
1965	-	-	2	11	-	-	-	-	-	69	184	-	16
1966	-	-	-	-	-	7	-	-	-	53	-	-	4
1967	-	-	-	-	3	3	-	-	-	21	-	-	2
1968	-	-	-	-	-	3	-	-	-	10	-	-	1
1969	-	-	-	-	-	-	-	-	-	39	-	-	2
1970	-	-	-	-	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	19	43	-	4
1972	-	-	-	1	16	0	-	-	-	333	144	-	30
1973	1	14	30	8	31	12	-	-	-	-	-	-	6
1974	-	-	-	-	-	-	-	-	-	330	20	-	22
1975	-	1	8	0	20	1	-	-	-	241	45	1	19
1976	-	17	5	85	14	5	-	-	-	299	400	13	51
1977	8	21	-	-	-	36	-	-	-	-	-	-	4
1978	-	-	-	-	5	-	-	-	-	14	-	-	1
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	-	9	144	-	9
1983	-	-	-	-	7	3	-	-	-	-	-	-	1
1984	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	6	-	-	-	5	-	-	1
1991	-	-	-	-	-	0	-	-	-	29	13	-	3
1992	-	-	-	-	4	23	-	-	-	-	-	-	2
1993	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	1	5	-	-	-	48	36	-	6
1997	-	-	-	-	-	-	-	-	-	321	180	-	31
1998	12	29	13	3	-	1	-	-	-	35	-	-	6
1999	-	-	-	-	-	-	-	-	-	-	109	-	7
2000	-	-	10	5	8	-	-	-	-	38	232	-	18
2001	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	4	-	-	-	35	74	-	7
2003	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	17	1	-	-	-	19	7	-	3
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1	3	4	10	6	4	-	-	-	51	64	1	9

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC4 More Adverse

KRD Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	26	-	-	-	-	-	6,821	31,543	32,349	37,117	36,246	12,095	156,197
1927	26	-	-	-	-	-	10,375	43,563	45,402	59,531	58,720	18,130	235,747
1928	26	-	-	-	-	-	10,375	43,825	45,402	59,233	56,404	17,132	232,398
1929	26	-	-	-	-	-	1,925	5,759	5,545	5,412	6,470	3,724	28,860
1930	26	-	-	-	-	-	10,005	5,154	2,936	3,034	3,034	2,936	27,125
1931	26	-	-	-	-	-	1,828	3,056	2,936	3,238	4,279	2,955	18,318
1932	26	-	-	-	-	-	10,375	43,278	45,402	59,463	58,669	17,132	234,346
1933	26	-	-	-	-	-	10,412	43,972	45,402	59,531	59,978	18,172	237,493
1934	26	-	-	-	-	-	10,318	43,833	45,402	59,531	59,978	18,172	237,260
1935	26	-	-	-	-	-	10,375	43,862	45,402	59,531	59,978	18,172	237,347
1936	26	-	-	-	-	-	9,136	39,827	40,939	46,995	44,217	13,684	194,824
1937	26	-	-	-	-	-	10,375	30,561	29,605	33,012	32,981	11,321	147,882
1938	26	-	-	-	-	-	10,375	43,925	45,402	59,531	58,361	18,172	235,793
1939	26	-	-	-	-	-	7,968	37,177	38,302	43,951	42,025	13,628	183,077
1940	26	-	-	-	-	-	5,358	21,798	21,892	24,389	24,712	8,589	106,764
1941	26	-	-	-	-	-	1,412	3,034	2,936	3,034	3,034	2,936	16,411
1942	26	-	-	-	-	-	10,421	24,115	23,454	26,597	27,292	9,734	121,638
1943	26	-	-	-	-	-	10,375	43,674	45,402	59,531	59,047	18,172	236,228
1944	26	-	-	-	-	-	3,958	14,624	15,159	16,588	17,491	6,642	74,487
1945	26	-	-	-	-	-	9,424	29,003	27,151	30,328	30,733	10,603	137,268
1946	26	-	-	-	-	-	10,375	44,108	45,194	59,531	58,755	18,172	236,161
1947	26	-	-	-	-	-	10,375	43,654	45,402	58,974	56,609	18,172	233,212
1948	26	-	-	-	-	-	10,368	44,144	45,476	50,891	47,116	22,527	220,548
1949	26	-	-	-	-	-	10,375	42,897	45,108	59,531	59,978	18,172	236,087
1950	26	-	-	-	-	-	10,375	44,288	45,513	59,587	62,114	45,029	266,932
1951	21,210	-	-	-	-	-	10,375	44,288	45,181	52,660	48,736	33,112	255,561
1952	26	-	-	-	-	-	10,375	44,126	45,402	59,463	59,048	17,132	235,573
1953	26	-	-	-	-	-	10,463	43,837	45,402	58,369	57,247	18,172	233,517
1954	26	-	-	-	-	-	10,375	43,250	45,534	57,270	55,139	16,759	228,353
1955	26	-	-	-	-	-	10,414	44,104	45,402	59,531	59,978	18,172	237,628
1956	26	-	-	-	-	-	10,375	44,288	44,690	53,958	50,134	33,972	237,444
1957	26	-	-	-	-	-	10,375	41,827	45,402	59,531	59,501	18,172	234,835
1958	26	-	-	-	-	-	8,554	40,469	41,547	47,864	45,617	14,465	198,543
1959	26	-	-	-	-	-	10,375	44,177	45,402	59,531	57,248	18,172	234,931
1960	26	-	-	-	-	-	10,375	43,554	44,117	59,463	59,048	17,132	233,716
1961	26	-	-	-	-	-	10,375	43,977	45,402	59,531	59,978	18,172	237,462
1962	26	-	-	-	-	-	10,079	39,444	40,784	46,687	44,890	14,231	196,141
1963	26	-	-	-	-	-	8,754	23,275	23,644	26,008	26,563	9,436	117,706
1964	26	-	-	-	-	-	10,375	44,213	45,402	59,463	59,048	17,132	235,660
1965	26	-	-	-	-	-	10,375	44,030	45,402	59,531	59,978	18,172	237,515
1966	26	-	-	-	-	-	10,375	43,961	45,446	57,294	56,054	17,456	230,612
1967	26	-	-	-	-	-	10,122	44,301	45,402	59,484	56,108	18,172	233,615
1968	26	-	-	-	-	-	9,624	44,292	45,402	57,281	54,210	17,132	227,967
1969	26	-	-	-	-	-	10,375	43,957	45,402	59,531	57,734	18,048	235,073
1970	26	-	-	-	-	-	10,383	43,923	45,479	57,337	55,151	16,874	229,174
1971	26	-	-	-	-	-	10,375	44,288	45,103	59,531	59,978	18,172	237,474
1972	26	-	-	-	-	-	10,375	44,288	43,776	57,896	55,709	37,627	249,697
1973	26	-	-	-	-	-	8,901	42,986	43,861	50,746	48,420	15,269	210,210
1974	26	-	-	-	-	-	10,375	44,084	44,589	56,926	54,396	36,934	247,330
1975	26	-	-	-	-	-	10,376	42,908	43,319	55,530	51,816	35,025	239,000
1976	26	-	-	-	-	-	10,375	43,670	44,613	54,821	51,223	34,774	239,502
1977	26	-	-	-	-	-	1,412	3,031	2,936	3,034	3,034	2,936	16,408
1978	26	-	-	-	-	-	10,113	44,301	45,402	58,129	57,043	18,172	233,187
1979	26	-	-	-	-	-	10,182	26,073	23,944	26,372	27,260	9,612	123,468
1980	26	-	-	-	-	-	10,375	43,583	44,619	52,143	48,520	14,509	213,775
1981	26	-	-	-	-	-	7,912	32,900	33,792	38,395	37,427	12,410	162,862
1982	26	-	-	-	-	-	10,428	43,471	45,402	59,531	59,861	18,172	236,890
1983	26	-	-	-	-	-	10,122	44,301	45,402	55,986	57,115	18,053	231,005
1984	26	-	-	-	-	-	10,121	44,691	45,132	52,289	49,507	14,721	216,487
1985	26	-	-	-	-	-	10,375	23,605	16,138	17,277	18,066	7,095	92,581
1986	26	-	-	-	-	-	4,369	18,841	19,280	21,293	22,323	8,212	94,344
1987	26	-	-	-	-	-	5,465	24,196	24,896	28,050	28,008	9,871	120,511
1988	26	-	-	-	-	-	10,373	25,562	24,497	27,201	27,521	9,400	124,579
1989	26	-	-	-	-	-	10,315	29,333	30,241	33,827	33,464	11,428	148,634
1990	26	-	-	-	-	-	10,349	44,342	45,638	56,746	54,619	16,825	228,545
1991	26	-	-	-	-	-	10,375	42,139	45,402	59,531	57,248	18,172	232,893
1992	26	-	-	-	-	-	7,146	29,485	29,786	34,109	32,962	10,816	144,330
1993	26	-	-	-	-	-	10,375	21,565	13,951	15,624	16,142	6,504	84,188
1994	26	-	-	-	-	-	1,412	3,034	2,936	4,146	3,598	2,936	18,088
1995	26	-	-	-	-	-	9,952	43,868	45,285	52,971	50,089	15,532	217,723
1996	26	-	-	-	-	-	10,375	44,161	45,402	59,463	57,048	17,132	233,608
1997	26	-	-	-	-	-	10,375	44,288	44,009	53,267	49,470	33,615	235,050
1998	26	-	-	-	-	-	10,122	44,301	45,402	59,531	57,826	18,172	235,380
1999	26	-	-	-	-	-	7,007	44,319	45,575	55,757	53,366	16,334	222,384
2000	26	-	-	-	-	-	10,375	43,310	45,402	59,463	59,048	17,132	234,757
2001	26	-	-	-	-	-	1,550	3,840	2,949	3,034	3,034	2,936	17,369
2002	26	-	-	-	-	-	10,375	44,041	45,402	59,531	58,905	18,172	236,452
2003	26	-	-	-	-	-	7,079	32,954	34,076	39,050	37,022	12,512	162,719
2004	26	-	-	-	-	-	8,135	31,890	32,752	37,040	35,716	11,518	157,076
2005	26	-	-	-	-	-	9,746	12,082	7,914	8,369	9,187	4,597	51,920
2006	26	-	-	-	-	-	10,375	43,912	45,402	59,531	58,936	18,172	236,355
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	287	-	-	-	-	-	9,060	35,847	36,459	45,358	44,377	16,145	187,533

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC4 More Adverse

Roza Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	1,075	-	-	-	-	9,848	16,088	21,320	26,485	27,571	27,530	17,603	147,520
1927	1,075	-	-	-	-	9,848	33,740	41,079	49,757	49,896	48,680	31,821	265,896
1928	1,075	-	-	-	-	9,848	33,741	40,793	49,757	49,896	48,680	31,821	265,612
1929	1,075	-	-	-	-	9,847	8,458	2,029	2,339	1,916	2,843	1,428	29,935
1930	1,075	-	-	-	-	9,848	36,358	2,454	-	-	-	-	49,734
1931	1,075	-	-	-	-	9,836	23,316	19	-	168	998	24	35,437
1932	1,075	-	-	-	-	9,848	33,741	43,737	49,757	49,896	48,680	31,821	268,556
1933	1,075	-	-	-	-	9,848	33,851	40,630	49,757	49,896	48,680	31,821	265,558
1934	1,075	-	-	-	-	9,848	33,766	39,679	49,757	49,896	48,680	31,821	264,523
1935	1,075	-	-	-	-	9,848	33,813	40,275	49,757	49,896	48,680	31,821	265,165
1936	1,075	-	-	-	-	9,848	21,596	27,620	34,529	36,018	35,079	23,200	188,966
1937	1,075	-	-	-	-	9,848	33,805	22,066	23,895	24,163	24,687	15,832	155,370
1938	1,075	-	-	-	-	9,848	33,738	40,585	49,757	49,896	48,680	31,821	265,401
1939	1,075	-	-	-	-	9,848	26,188	25,785	32,133	33,396	32,853	21,187	182,465
1940	1,075	-	-	-	-	9,848	15,338	13,850	16,950	17,215	18,129	11,350	103,756
1941	1,075	-	-	-	-	9,846	5,466	-	-	-	-	-	16,387
1942	1,075	-	-	-	-	9,848	33,887	16,925	18,382	18,982	19,979	12,833	131,910
1943	1,075	-	-	-	-	9,848	33,739	40,525	49,754	49,896	48,680	31,821	265,339
1944	1,075	-	-	-	-	9,848	9,120	8,551	10,930	10,925	12,090	7,408	69,946
1945	1,075	-	-	-	-	9,848	32,666	20,994	21,697	21,991	22,812	14,446	145,529
1946	1,075	-	-	-	-	9,848	33,742	46,603	49,884	49,896	48,680	31,821	271,550
1947	1,075	-	-	-	-	9,848	33,737	40,194	49,757	49,896	48,680	31,821	265,009
1948	1,075	-	-	-	-	9,848	33,122	46,261	52,006	50,889	49,069	31,789	274,058
1949	1,075	-	-	-	-	9,848	33,739	45,337	49,622	49,896	48,680	31,821	270,018
1950	1,075	-	-	-	-	9,848	33,740	46,592	52,654	60,108	59,321	39,294	302,632
1951	24,560	-	-	-	-	9,848	33,741	46,592	52,699	52,985	50,941	33,014	304,380
1952	1,075	-	-	-	-	9,848	33,741	40,740	49,757	49,896	48,680	31,821	265,559
1953	1,075	-	-	-	-	9,848	33,719	40,177	49,757	49,896	48,680	31,821	264,974
1954	1,075	-	-	-	-	9,848	33,738	40,386	45,584	45,552	44,013	28,472	248,669
1955	1,075	-	-	-	-	9,847	33,876	40,292	49,757	49,896	48,680	31,821	265,245
1956	1,075	-	-	-	-	9,848	33,741	46,592	52,544	54,609	52,558	33,939	284,906
1957	1,075	-	-	-	-	9,848	33,739	40,844	49,757	49,896	48,680	31,821	265,661
1958	1,075	-	-	-	-	9,839	22,349	28,408	35,182	36,738	35,709	23,183	192,482
1959	1,075	-	-	-	-	9,848	33,739	40,929	49,757	49,896	48,680	31,821	265,746
1960	1,075	-	-	-	-	9,848	33,739	46,346	49,479	49,896	48,680	31,821	270,884
1961	1,075	-	-	-	-	9,848	33,737	40,725	49,757	49,896	48,680	31,821	265,540
1962	1,075	-	-	-	-	9,848	33,051	28,964	34,458	35,723	35,070	22,618	200,808
1963	1,075	-	-	-	-	9,844	31,729	15,079	18,556	18,509	19,378	12,249	126,418
1964	1,075	-	-	-	-	9,848	33,745	40,368	49,757	49,896	48,680	31,821	265,192
1965	1,075	-	-	-	-	9,848	33,739	40,450	49,757	49,896	48,680	31,821	265,266
1966	1,075	-	-	-	-	9,848	33,739	37,692	47,045	47,351	45,964	30,215	252,929
1967	1,075	-	-	-	-	9,848	27,673	39,775	49,757	49,896	48,680	31,821	258,526
1968	1,075	-	-	-	-	9,847	30,399	39,774	49,757	49,896	48,680	31,821	261,251
1969	1,075	-	-	-	-	9,848	33,740	40,493	49,757	49,896	48,680	31,821	265,311
1970	1,075	-	-	-	-	9,848	33,768	37,725	46,311	46,342	44,550	28,733	248,350
1971	1,075	-	-	-	-	9,848	33,741	46,590	50,389	49,896	48,680	31,821	272,040
1972	1,075	-	-	-	-	9,848	33,740	46,592	51,116	60,455	58,841	37,164	298,831
1973	1,075	-	-	-	-	9,848	21,627	30,413	38,140	39,229	38,156	25,126	203,614
1974	1,075	-	-	-	-	9,848	33,741	46,574	52,271	59,352	57,844	36,583	297,288
1975	1,075	-	-	-	-	9,848	33,376	45,721	51,210	56,844	54,698	34,959	287,730
1976	1,075	-	-	-	-	9,848	33,741	46,202	52,528	55,835	53,817	34,725	287,770
1977	1,075	-	-	-	-	9,846	7,267	-	-	-	-	-	18,187
1978	1,075	-	-	-	-	9,848	28,807	39,776	49,757	49,896	48,680	31,821	259,660
1979	1,075	-	-	-	-	9,848	33,463	19,245	18,823	18,799	19,949	12,579	133,781
1980	1,075	-	-	-	-	9,848	33,739	35,142	38,965	40,476	38,931	25,141	223,317
1981	1,075	-	-	-	-	9,848	28,400	22,395	27,812	28,664	28,564	18,338	165,096
1982	1,075	-	-	-	-	9,848	33,604	40,107	49,757	49,896	48,680	31,821	264,789
1983	1,075	-	-	-	-	9,848	28,287	39,771	49,753	49,679	48,416	31,531	258,359
1984	1,075	-	-	-	-	9,848	29,425	31,970	40,569	41,500	39,824	25,683	219,894
1985	1,075	-	-	-	-	9,848	33,800	19,147	11,830	11,475	12,393	7,819	107,387
1986	1,075	-	-	-	-	9,848	14,339	11,766	14,645	14,708	15,881	9,933	92,195
1987	1,075	-	-	-	-	9,848	13,841	15,756	19,676	20,159	20,603	13,085	114,041
1988	1,075	-	-	-	-	9,840	33,826	17,429	19,279	19,479	20,489	12,987	134,403
1989	1,075	-	-	-	-	9,848	33,817	19,938	24,466	24,977	25,148	16,059	155,329
1990	1,075	-	-	-	-	9,848	33,942	37,220	44,581	45,078	43,977	28,649	244,370
1991	1,075	-	-	-	-	9,848	33,777	40,522	49,757	49,896	48,680	31,821	265,377
1992	1,075	-	-	-	-	9,847	15,025	19,526	24,140	25,062	25,078	15,845	135,598
1993	1,075	-	-	-	-	9,848	33,787	17,993	9,868	10,142	10,808	6,702	100,224
1994	1,075	-	-	-	-	9,848	4,780	-	-	877	442	-	17,021
1995	1,075	-	-	-	-	9,848	33,141	33,872	40,299	41,292	39,657	25,645	224,829
1996	1,075	-	-	-	-	9,848	33,786	40,542	49,757	49,896	48,680	31,821	265,406
1997	1,075	-	-	-	-	9,848	33,741	46,592	51,587	53,735	51,791	33,557	281,927
1998	1,075	-	-	-	-	9,848	27,877	39,774	49,757	49,896	48,525	31,821	258,573
1999	1,075	-	-	-	-	9,848	28,222	38,081	44,751	43,942	42,466	27,499	235,884
2000	1,075	-	-	-	-	9,848	33,734	40,616	49,757	49,896	48,680	31,821	265,428
2001	1,075	-	-	-	-	9,848	7,611	607	11	-	-	-	19,153
2002	1,075	-	-	-	-	9,848	33,739	41,090	49,757	49,896	48,680	31,821	265,907
2003	1,075	-	-	-	-	9,848	17,935	22,437	28,084	29,215	28,976	18,585	156,154
2004	1,075	-	-	-	-	9,848	28,781	21,391	26,766	27,535	27,527	17,603	160,526
2005	1,075	-	-	-	-	9,848	33,457	8,572	4,461	4,297	5,087	3,096	69,891
2006	1,075	-	-	-	-	9,848	33,793	40,362	49,757	49,896	48,680	31,821	265,232
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	1,365	-	-	-	-	9,847	29,156	31,481	37,069	37,786	37,044	24,024	207,773

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC4 More Adverse

Wapato Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	23,894	-	-	-	-	6,904	44,345	68,652	66,063	72,202	68,885	48,433	399,377
1927	23,894	-	-	-	-	6,904	56,312	93,651	89,080	97,312	90,146	55,333	512,632
1928	23,894	-	-	-	-	6,904	56,318	93,831	89,080	97,312	90,146	55,333	512,818
1929	23,894	-	-	-	-	6,904	37,700	43,810	42,181	43,352	44,055	40,576	282,472
1930	23,894	-	-	-	-	6,904	49,833	37,525	33,498	34,425	34,831	33,935	254,844
1931	23,894	-	-	-	-	6,904	40,433	41,222	39,868	41,381	42,217	39,714	275,633
1932	23,894	-	-	-	-	6,904	56,318	95,546	89,080	97,312	90,146	55,333	514,532
1933	23,894	-	-	-	-	6,904	55,067	93,786	89,080	97,312	90,146	55,333	511,522
1934	23,894	-	-	-	-	6,904	54,676	91,152	89,080	97,312	90,146	55,333	508,497
1935	23,894	-	-	-	-	6,904	55,683	92,432	89,080	97,312	90,146	55,333	510,784
1936	23,894	-	-	-	-	6,904	46,415	76,761	74,018	81,705	76,472	48,041	434,211
1937	23,894	-	-	-	-	6,904	55,903	68,342	63,500	68,367	66,024	47,571	400,506
1938	23,894	-	-	-	-	6,904	56,318	93,445	89,080	97,312	90,146	55,333	512,431
1939	23,894	-	-	-	-	6,904	40,534	74,402	71,649	78,755	74,236	50,173	420,547
1940	23,894	-	-	-	-	6,904	42,214	59,036	56,632	60,551	59,436	45,395	354,062
1941	23,894	-	-	-	-	6,904	27,978	30,055	28,842	29,719	30,184	29,186	206,762
1942	23,894	-	-	-	-	6,904	52,825	61,653	58,050	62,542	61,291	46,111	373,270
1943	23,894	-	-	-	-	6,904	56,318	92,534	89,080	97,312	90,146	55,333	511,520
1944	23,894	-	-	-	-	6,904	40,171	52,205	50,678	53,483	53,359	43,482	324,177
1945	23,894	-	-	-	-	6,904	49,113	67,408	61,327	65,923	64,141	46,903	385,613
1946	23,894	-	-	-	-	6,904	56,306	107,075	89,359	97,312	90,146	55,333	526,330
1947	23,894	-	-	-	-	6,904	56,318	90,353	89,080	97,312	90,146	52,015	506,022
1948	23,765	-	-	-	-	6,904	53,472	103,225	91,532	98,429	90,542	55,325	523,194
1949	23,894	-	-	-	-	6,904	56,318	104,047	88,777	97,312	90,146	55,333	522,731
1950	23,894	-	-	-	-	6,904	56,318	110,491	117,655	123,857	118,505	81,083	638,708
1951	27,579	-	-	-	-	6,904	56,317	110,491	94,170	100,787	92,426	55,918	544,591
1952	23,894	-	-	-	-	6,904	56,318	94,427	89,080	97,312	90,146	55,333	513,414
1953	23,894	-	-	-	-	6,904	52,096	91,232	89,080	97,312	90,146	53,429	504,093
1954	23,894	-	-	-	-	6,904	56,318	92,608	84,952	92,427	85,456	53,715	496,274
1955	23,894	-	-	-	-	6,904	54,855	92,407	89,080	97,312	90,146	55,333	509,931
1956	23,894	-	-	-	-	6,904	56,318	110,491	100,175	102,613	94,052	56,403	550,849
1957	23,894	-	-	-	-	6,904	56,318	89,073	89,080	97,312	90,146	55,071	507,798
1958	23,894	-	-	-	-	6,904	44,402	77,779	74,664	82,515	77,107	51,135	438,400
1959	23,894	-	-	-	-	6,904	56,318	95,291	89,080	97,312	90,146	55,333	514,278
1960	23,894	-	-	-	-	6,904	56,318	100,482	89,371	97,312	90,146	55,333	519,760
1961	23,894	-	-	-	-	6,904	56,318	92,638	89,080	97,312	90,146	55,333	511,625
1962	23,894	-	-	-	-	6,904	50,955	76,480	73,948	81,372	76,467	50,863	440,883
1963	23,894	-	-	-	-	6,904	48,112	60,616	58,219	62,008	60,687	45,832	366,275
1964	23,894	-	-	-	-	6,904	56,290	93,257	89,080	97,312	90,146	55,333	512,216
1965	23,894	-	-	-	-	6,904	56,318	93,081	89,080	97,312	90,146	55,333	512,068
1966	23,894	-	-	-	-	6,904	56,318	89,256	86,397	94,450	87,415	46,823	491,457
1967	23,723	-	-	-	-	6,904	48,938	92,416	89,080	97,312	90,146	55,333	503,851
1968	23,894	-	-	-	-	6,904	46,820	92,416	89,080	97,312	90,146	54,757	501,330
1969	23,894	-	-	-	-	6,904	56,318	93,117	89,080	97,312	90,146	55,333	512,104
1970	23,894	-	-	-	-	6,904	56,054	89,275	85,671	93,316	85,998	53,843	494,953
1971	23,894	-	-	-	-	6,904	56,318	110,491	95,328	97,312	90,146	55,333	535,726
1972	23,894	-	-	-	-	6,904	56,318	110,491	102,987	109,806	100,528	58,464	569,393
1973	23,894	-	-	-	-	6,904	47,445	80,361	77,596	85,316	79,566	39,260	440,342
1974	23,651	-	-	-	-	6,904	56,318	107,002	106,899	107,557	99,371	58,063	565,764
1975	23,894	-	-	-	-	6,904	53,088	99,346	94,294	105,145	96,210	56,994	535,875
1976	23,894	-	-	-	-	6,904	56,318	105,521	94,257	103,992	95,314	56,852	543,052
1977	23,894	-	-	-	-	6,904	33,846	36,867	35,441	36,628	37,375	36,494	247,449
1978	23,894	-	-	-	-	6,904	47,752	92,416	89,080	97,312	90,146	55,333	502,837
1979	23,894	-	-	-	-	6,904	52,601	63,655	58,484	62,339	61,263	45,993	375,133
1980	23,894	-	-	-	-	6,904	56,318	85,200	78,406	86,720	80,346	52,096	469,884
1981	23,894	-	-	-	-	6,904	47,223	70,041	67,375	73,431	69,923	48,790	407,582
1982	23,894	-	-	-	-	6,904	53,353	90,698	89,080	97,312	90,146	55,333	506,720
1983	23,894	-	-	-	-	6,904	49,658	92,416	89,075	97,068	89,880	52,130	501,025
1984	23,892	-	-	-	-	6,904	47,011	82,365	79,997	87,870	81,248	52,359	461,646
1985	23,894	-	-	-	-	6,904	55,414	64,710	51,568	54,102	53,657	43,679	353,929
1986	23,894	-	-	-	-	6,904	41,202	56,347	54,352	57,735	57,173	44,707	342,314
1987	23,894	-	-	-	-	6,904	42,305	61,487	59,328	63,864	61,920	46,235	365,937
1988	23,894	-	-	-	-	6,904	53,250	62,580	58,936	63,098	61,805	46,190	376,657
1989	23,894	-	-	-	-	6,904	54,788	66,317	64,065	69,283	66,491	47,681	399,423
1990	23,894	-	-	-	-	6,904	52,832	90,030	83,962	91,893	85,416	53,797	488,729
1991	23,894	-	-	-	-	6,904	56,093	89,359	89,080	97,312	90,146	55,333	508,121
1992	23,894	-	-	-	-	6,904	44,178	66,343	63,743	69,379	66,423	47,580	388,445
1993	23,894	-	-	-	-	6,904	56,036	61,538	49,629	52,604	52,066	43,136	345,807
1994	23,894	-	-	-	-	6,904	36,493	41,197	39,868	42,183	41,623	39,430	271,593
1995	23,894	-	-	-	-	6,904	49,036	81,992	79,735	87,636	81,079	52,338	462,614
1996	23,894	-	-	-	-	6,904	55,304	93,981	89,080	97,312	90,146	55,333	511,954
1997	23,894	-	-	-	-	6,904	56,318	110,491	100,251	101,631	93,279	56,199	548,967
1998	23,894	-	-	-	-	6,904	49,808	92,416	89,080	97,312	90,146	47,311	496,871
1999	23,797	-	-	-	-	6,904	49,690	90,255	84,125	90,616	83,901	53,239	482,529
2000	23,894	-	-	-	-	6,904	56,318	90,492	89,080	97,312	90,146	55,333	509,478
2001	23,894	-	-	-	-	6,904	33,913	39,049	36,897	38,072	38,706	37,819	255,255
2002	23,894	-	-	-	-	6,904	56,318	95,376	89,080	97,312	90,146	55,333	514,363
2003	23,894	-	-	-	-	6,904	44,715	70,088	67,643	74,051	70,339	48,908	406,544
2004	23,894	-	-	-	-	6,904	47,502	68,747	66,342	72,162	68,882	48,432	402,865
2005	23,894	-	-	-	-	6,904	48,768	50,320	44,280	46,029	46,309	41,383	307,888
2006	23,894	-	-	-	-	6,904	55,989	92,849	89,080	97,312	90,146	55,333	511,507
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	23,932	-	-	-	-	6,904	51,124	81,880	77,288	83,560	78,377	51,053	454,118

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC4 More Adverse

Sunnyside Irrigation Deliveries

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	20,661	-	-	-	-	11,217	41,955	46,904	45,179	46,673	46,673	45,014	304,275
1927	26,322	-	-	-	-	11,217	45,982	59,281	60,517	61,714	61,068	51,138	377,237
1928	26,528	-	-	-	-	11,217	45,989	57,775	57,522	58,880	58,388	50,023	366,322
1929	24,785	-	-	-	-	11,217	42,257	46,673	45,167	46,673	46,673	45,014	308,458
1930	26,388	-	-	-	-	11,217	42,901	40,582	38,452	39,533	39,962	38,781	277,814
1931	26,528	-	-	-	-	11,217	42,345	46,673	45,167	46,673	46,673	44,837	310,113
1932	25,951	-	-	-	-	11,217	45,989	58,693	59,350	60,630	59,938	50,671	372,439
1933	26,528	-	-	-	-	11,217	45,312	61,043	62,856	64,316	63,490	52,217	386,979
1934	26,528	-	-	-	-	11,217	45,313	58,534	59,534	60,938	60,419	50,927	373,410
1935	13,287	-	-	-	-	11,217	45,637	59,167	60,095	61,392	60,642	50,991	362,429
1936	22,911	-	-	-	-	11,217	42,243	48,117	46,936	48,846	48,566	14,311	283,147
1937	20,948	-	-	-	-	11,217	45,660	48,710	46,996	48,732	48,887	45,889	317,038
1938	19,773	-	-	-	-	11,217	45,989	58,820	58,606	59,894	59,406	50,469	364,173
1939	23,283	-	-	-	-	11,217	38,412	48,219	46,840	48,978	48,799	45,855	311,602
1940	22,601	-	-	-	-	11,217	42,535	46,777	45,551	46,704	46,673	45,014	307,071
1941	26,528	-	-	-	-	11,217	33,411	34,926	33,543	34,573	35,062	33,792	243,051
1942	26,528	-	-	-	-	11,217	44,085	47,973	46,611	48,475	48,789	45,867	319,543
1943	26,528	-	-	-	-	11,217	45,989	58,427	58,743	60,023	59,422	50,446	370,795
1944	26,528	-	-	-	-	11,217	41,953	46,673	45,192	47,205	46,853	45,014	310,634
1945	26,528	-	-	-	-	11,217	41,865	49,706	47,614	49,348	49,595	46,152	322,025
1946	26,528	-	-	-	-	11,217	45,978	63,374	59,659	60,885	60,105	50,711	378,457
1947	26,528	-	-	-	-	11,217	45,989	54,443	54,738	56,022	55,629	31,880	336,446
1948	20,132	-	-	-	-	11,217	44,090	62,744	67,089	68,203	67,095	53,750	394,321
1949	26,528	-	-	-	-	11,217	45,989	61,627	60,869	62,416	61,564	51,365	381,575
1950	26,528	-	-	-	-	11,217	45,395	63,566	71,171	76,952	77,292	64,789	436,910
1951	36,640	-	-	-	-	11,217	45,915	64,825	67,199	69,089	67,875	54,086	416,845
1952	26,528	-	-	-	-	11,217	45,989	60,347	60,485	61,772	61,001	51,143	378,483
1953	26,528	-	-	-	-	11,217	43,560	55,252	55,317	56,642	56,091	40,224	344,831
1954	21,458	-	-	-	-	11,217	45,989	61,857	64,613	65,945	64,991	52,840	388,909
1955	26,528	-	-	-	-	11,217	45,313	61,000	62,708	63,992	63,107	52,021	385,885
1956	26,528	-	-	-	-	11,217	45,989	64,825	67,664	69,776	68,548	54,360	408,907
1957	26,528	-	-	-	-	11,217	45,989	54,859	57,312	58,643	58,219	46,534	359,300
1958	17,152	-	-	-	-	11,217	39,950	47,958	46,643	48,531	48,378	35,927	295,757
1959	19,704	-	-	-	-	11,217	45,989	60,655	60,855	62,115	61,429	51,314	373,277
1960	26,528	-	-	-	-	11,217	45,989	60,589	60,618	62,926	62,084	51,584	381,534
1961	26,528	-	-	-	-	11,217	45,989	58,338	58,968	60,377	59,836	50,656	371,908
1962	22,812	-	-	-	-	11,217	42,591	46,745	45,283	47,383	47,249	36,378	299,657
1963	22,266	-	-	-	-	11,217	41,897	47,083	45,258	46,673	46,673	45,014	306,080
1964	22,067	-	-	-	-	11,217	45,953	62,053	64,471	65,745	64,790	52,753	389,050
1965	26,528	-	-	-	-	11,217	45,989	59,635	60,460	61,768	61,012	51,137	377,746
1966	24,291	-	-	-	-	11,217	45,989	52,284	51,163	52,609	52,273	12,727	302,553
1967	15,310	-	-	-	-	11,217	43,140	57,864	57,611	58,873	58,303	49,976	352,293
1968	26,528	-	-	-	-	11,217	41,627	55,692	55,036	56,436	55,924	42,874	345,333
1969	16,259	-	-	-	-	11,217	45,989	57,418	57,039	58,438	57,962	49,810	354,131
1970	26,528	-	-	-	-	11,217	45,801	54,713	54,443	55,774	55,133	48,561	352,169
1971	26,528	-	-	-	-	11,217	45,989	64,825	66,189	66,799	65,781	53,119	400,447
1972	26,528	-	-	-	-	11,217	45,486	64,825	67,001	72,483	71,229	55,524	414,293
1973	26,528	-	-	-	-	11,217	42,178	48,356	47,285	48,950	48,810	1,411	274,736
1974	14,446	-	-	-	-	11,217	45,953	63,371	67,289	71,224	70,749	55,298	399,547
1975	26,528	-	-	-	-	11,217	43,703	59,816	64,863	70,729	69,440	54,694	400,989
1976	26,528	-	-	-	-	11,217	45,989	62,580	67,213	70,295	69,071	54,614	407,507
1977	26,528	-	-	-	-	11,217	39,579	42,108	40,499	41,855	42,644	33,405	277,835
1978	19,375	-	-	-	-	11,217	42,618	57,202	56,978	58,313	57,752	49,718	353,173
1979	26,528	-	-	-	-	11,217	43,660	46,907	45,285	47,185	46,900	45,022	312,704
1980	21,578	-	-	-	-	11,217	45,989	53,245	51,318	53,274	52,753	47,557	336,930
1981	26,528	-	-	-	-	11,217	43,380	50,009	48,805	50,803	50,666	46,649	328,057
1982	26,528	-	-	-	-	11,217	44,345	60,043	63,401	64,647	63,812	52,346	386,340
1983	26,528	-	-	-	-	11,217	43,422	54,741	53,780	55,092	54,731	33,466	332,977
1984	14,715	-	-	-	-	11,217	41,939	51,481	50,951	52,609	52,095	47,261	322,268
1985	26,528	-	-	-	-	11,217	45,260	49,913	46,401	47,733	48,215	45,548	320,816
1986	26,528	-	-	-	-	11,217	42,302	47,189	45,708	47,341	47,727	45,349	313,361
1987	26,528	-	-	-	-	11,217	41,763	47,277	45,822	47,614	47,764	45,382	313,366
1988	26,528	-	-	-	-	11,217	44,509	48,044	46,541	48,232	48,569	45,724	319,364
1989	16,711	-	-	-	-	11,217	45,163	47,451	46,260	48,086	48,137	45,544	308,569
1990	16,532	-	-	-	-	11,217	44,464	54,666	52,914	54,390	54,078	48,185	336,446
1991	25,153	-	-	-	-	11,217	45,808	55,594	58,524	59,740	59,072	50,298	365,406
1992	24,011	-	-	-	-	11,217	42,180	46,673	45,167	46,673	46,673	45,014	307,608
1993	26,528	-	-	-	-	11,217	45,753	48,037	45,419	47,064	46,694	45,014	315,727
1994	26,528	-	-	-	-	11,217	41,820	46,673	45,167	46,673	46,640	44,555	309,273
1995	26,528	-	-	-	-	11,217	41,556	52,010	52,364	54,046	53,489	47,881	339,090
1996	26,528	-	-	-	-	11,217	45,168	58,406	57,742	59,075	58,580	50,099	366,814
1997	19,049	-	-	-	-	11,217	45,989	64,825	66,394	69,407	68,228	54,245	399,353
1998	26,528	-	-	-	-	11,217	43,398	54,190	53,415	54,782	54,487	14,200	312,217
1999	19,842	-	-	-	-	11,217	44,400	62,372	64,103	65,263	64,347	52,571	384,116
2000	26,528	-	-	-	-	11,217	45,989	58,259	61,132	62,452	61,745	51,482	378,804
2001	26,528	-	-	-	-	11,217	39,561	43,578	42,023	43,378	44,047	33,532	283,865
2002	15,725	-	-	-	-	11,217	45,989	60,434	60,259	61,623	60,973	51,132	367,350
2003	26,528	-	-	-	-	11,217	41,971	46,694	45,196	47,272	47,232	45,160	311,270
2004	22,234	-	-	-	-	11,217	43,192	49,003	47,770	49,704	49,656	46,197	318,973
2005	26,528	-	-	-	-	11,217	42,199	46,865	45,167	46,673	46,673	45,014	310,336
2006	25,943	-	-	-	-	11,217	45,777	58,764	58,694	59,967	59,436	50,479	370,276
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	24,205	-	-	-	-	11,217	44,041	54,319	54,323	56,045	55,647	45,895	345,693

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC4 More Adverse

Tieton Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	869	-	-	-	-	458	806	13,828	14,879	15,372	15,372	14,246	75,830
1927	785	-	-	-	-	458	5,192	13,710	17,395	18,355	18,302	16,121	90,320
1928	869	-	-	-	-	458	5,193	13,919	17,181	17,793	17,757	15,818	88,988
1929	869	-	-	-	-	458	1,000	13,818	14,876	15,372	15,372	14,280	76,045
1930	869	-	-	-	-	458	4,620	12,599	12,664	13,020	13,162	12,307	69,700
1931	869	-	-	-	-	458	3,046	13,818	14,876	15,372	15,372	14,228	78,039
1932	869	-	-	-	-	458	5,193	13,061	17,387	18,140	18,072	15,995	89,175
1933	869	-	-	-	-	458	5,098	14,015	17,395	18,447	18,447	16,379	91,107
1934	869	-	-	-	-	458	5,032	14,089	17,390	18,201	18,171	16,064	90,273
1935	869	-	-	-	-	458	5,133	13,970	17,395	18,291	18,216	16,082	90,413
1936	869	-	-	-	-	458	1,307	13,917	15,254	15,803	15,782	8,615	72,005
1937	778	-	-	-	-	458	5,167	13,720	15,267	15,780	15,823	14,582	81,575
1938	869	-	-	-	-	458	5,193	13,971	17,319	17,994	17,964	15,940	89,708
1939	869	-	-	-	-	458	2,770	13,920	15,234	15,829	15,805	14,570	79,455
1940	869	-	-	-	-	458	1,266	13,841	14,958	15,378	15,372	14,280	76,423
1941	869	-	-	-	-	458	749	11,290	11,048	11,387	11,548	10,726	58,074
1942	869	-	-	-	-	458	4,891	13,713	15,185	15,730	15,802	14,574	81,222
1943	869	-	-	-	-	458	5,193	13,800	17,336	18,020	17,967	15,933	89,575
1944	869	-	-	-	-	458	763	13,818	14,881	15,478	15,408	14,280	75,954
1945	869	-	-	-	-	458	4,583	13,838	15,399	15,903	15,967	14,673	81,689
1946	869	-	-	-	-	458	5,191	13,807	17,177	18,191	18,106	16,006	89,806
1947	869	-	-	-	-	458	5,193	13,757	16,790	17,226	17,195	13,199	84,688
1948	869	-	-	-	-	458	4,933	14,055	17,395	18,447	18,447	16,545	91,148
1949	869	-	-	-	-	458	5,193	13,335	17,225	18,447	18,400	16,180	90,106
1950	869	-	-	-	-	458	5,193	14,249	17,576	20,637	21,193	17,272	97,446
1951	3,968	-	-	-	-	458	5,193	14,249	17,169	18,447	18,447	16,553	94,482
1952	869	-	-	-	-	458	5,193	14,100	17,395	18,366	18,289	16,122	90,792
1953	869	-	-	-	-	458	4,788	13,914	16,887	17,349	17,289	14,608	86,163
1954	869	-	-	-	-	458	5,193	14,086	17,395	18,447	18,447	16,496	91,390
1955	869	-	-	-	-	458	5,036	14,090	17,395	18,447	18,444	16,333	91,072
1956	869	-	-	-	-	458	5,193	14,249	16,838	18,447	18,447	16,559	91,058
1957	869	-	-	-	-	458	5,193	12,736	17,152	17,746	17,723	15,719	87,595
1958	780	-	-	-	-	458	1,601	13,899	15,191	15,741	15,719	11,771	75,160
1959	757	-	-	-	-	458	5,193	14,157	17,395	18,431	18,376	16,167	90,935
1960	869	-	-	-	-	458	5,193	12,994	16,475	18,447	18,422	16,232	89,089
1961	869	-	-	-	-	458	5,193	13,879	17,366	18,090	18,052	15,991	89,899
1962	869	-	-	-	-	458	4,722	13,526	14,901	15,513	15,489	12,164	77,641
1963	869	-	-	-	-	458	4,578	13,840	14,896	15,372	15,372	14,280	79,665
1964	869	-	-	-	-	458	5,191	14,180	17,395	18,447	18,447	16,483	91,469
1965	869	-	-	-	-	458	5,193	14,046	17,395	18,366	18,291	16,121	90,738
1966	869	-	-	-	-	458	5,193	13,857	16,133	16,549	16,512	10,830	80,401
1967	768	-	-	-	-	458	2,855	14,249	17,193	17,792	17,740	15,806	86,859
1968	869	-	-	-	-	458	3,820	14,246	16,843	17,308	17,255	15,272	86,071
1969	768	-	-	-	-	458	5,193	13,985	17,121	17,705	17,670	15,762	88,663
1970	869	-	-	-	-	458	5,175	14,031	16,744	17,177	17,094	15,409	86,956
1971	869	-	-	-	-	458	5,193	14,249	17,168	18,447	18,447	16,531	91,360
1972	869	-	-	-	-	458	5,193	14,249	16,163	18,447	18,447	16,572	90,396
1973	869	-	-	-	-	458	1,057	13,926	15,329	15,824	15,807	8,135	71,405
1974	757	-	-	-	-	458	5,193	13,797	16,009	18,132	18,447	16,571	89,364
1975	869	-	-	-	-	458	4,881	12,782	15,950	18,447	18,447	16,563	88,396
1976	869	-	-	-	-	458	5,193	13,544	16,920	18,447	18,447	16,562	90,438
1977	869	-	-	-	-	458	954	13,171	13,339	12,076	13,683	9,909	64,458
1978	777	-	-	-	-	458	3,212	14,249	17,113	17,681	17,627	15,737	86,854
1979	869	-	-	-	-	458	4,854	13,454	14,901	15,474	15,418	14,283	79,710
1980	869	-	-	-	-	458	5,193	13,527	16,166	16,681	16,610	15,117	84,620
1981	869	-	-	-	-	458	3,735	14,031	15,646	16,191	16,185	14,835	81,951
1982	869	-	-	-	-	458	4,881	13,712	17,395	18,447	18,447	16,407	90,616
1983	869	-	-	-	-	458	2,811	14,233	16,625	17,042	17,013	13,210	82,261
1984	791	-	-	-	-	458	3,584	14,108	16,092	16,549	16,475	15,027	83,085
1985	869	-	-	-	-	458	5,139	13,441	15,140	15,582	15,685	14,464	80,779
1986	869	-	-	-	-	458	1,289	13,856	14,992	15,505	15,586	14,396	76,950
1987	869	-	-	-	-	458	973	13,860	15,016	15,559	15,594	14,407	76,735
1988	869	-	-	-	-	458	4,947	13,770	15,170	15,681	15,758	14,525	81,177
1989	869	-	-	-	-	458	5,072	13,805	15,110	15,652	15,670	14,463	81,099
1990	869	-	-	-	-	458	4,866	14,096	16,461	16,903	16,880	15,301	85,833
1991	869	-	-	-	-	458	5,180	12,928	17,309	17,964	17,896	15,893	88,498
1992	869	-	-	-	-	458	726	13,818	14,876	15,372	15,372	14,280	75,771
1993	869	-	-	-	-	458	5,177	13,020	14,930	15,450	15,376	14,280	79,559
1994	869	-	-	-	-	458	812	13,818	14,876	15,372	15,361	14,138	75,705
1995	869	-	-	-	-	458	4,512	13,680	16,372	16,834	16,759	15,212	84,697
1996	869	-	-	-	-	458	5,129	14,153	17,213	17,832	17,796	15,840	89,289
1997	869	-	-	-	-	458	5,193	14,249	16,355	18,447	18,447	16,557	90,574
1998	869	-	-	-	-	458	2,498	14,221	16,558	16,980	16,963	10,356	78,904
1999	760	-	-	-	-	458	3,905	14,249	17,395	18,447	18,447	16,451	90,111
2000	869	-	-	-	-	458	5,193	13,463	17,395	18,447	18,411	16,207	90,443
2001	869	-	-	-	-	458	1,011	13,422	13,841	14,287	14,507	7,780	66,175
2002	823	-	-	-	-	458	5,193	14,062	17,395	18,337	18,283	16,119	90,670
2003	869	-	-	-	-	458	897	13,821	14,882	15,491	15,485	14,330	76,234
2004	869	-	-	-	-	458	3,834	13,969	15,432	15,973	15,979	14,688	81,202
2005	869	-	-	-	-	458	4,527	13,542	14,876	15,372	15,372	13,513	78,530
2006	837	-	-	-	-	458	5,175	13,953	17,331	18,009	17,970	15,943	89,675
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	894	-	-	-	-	458	4,074	13,783	16,154	16,940	16,959	14,792	84,054

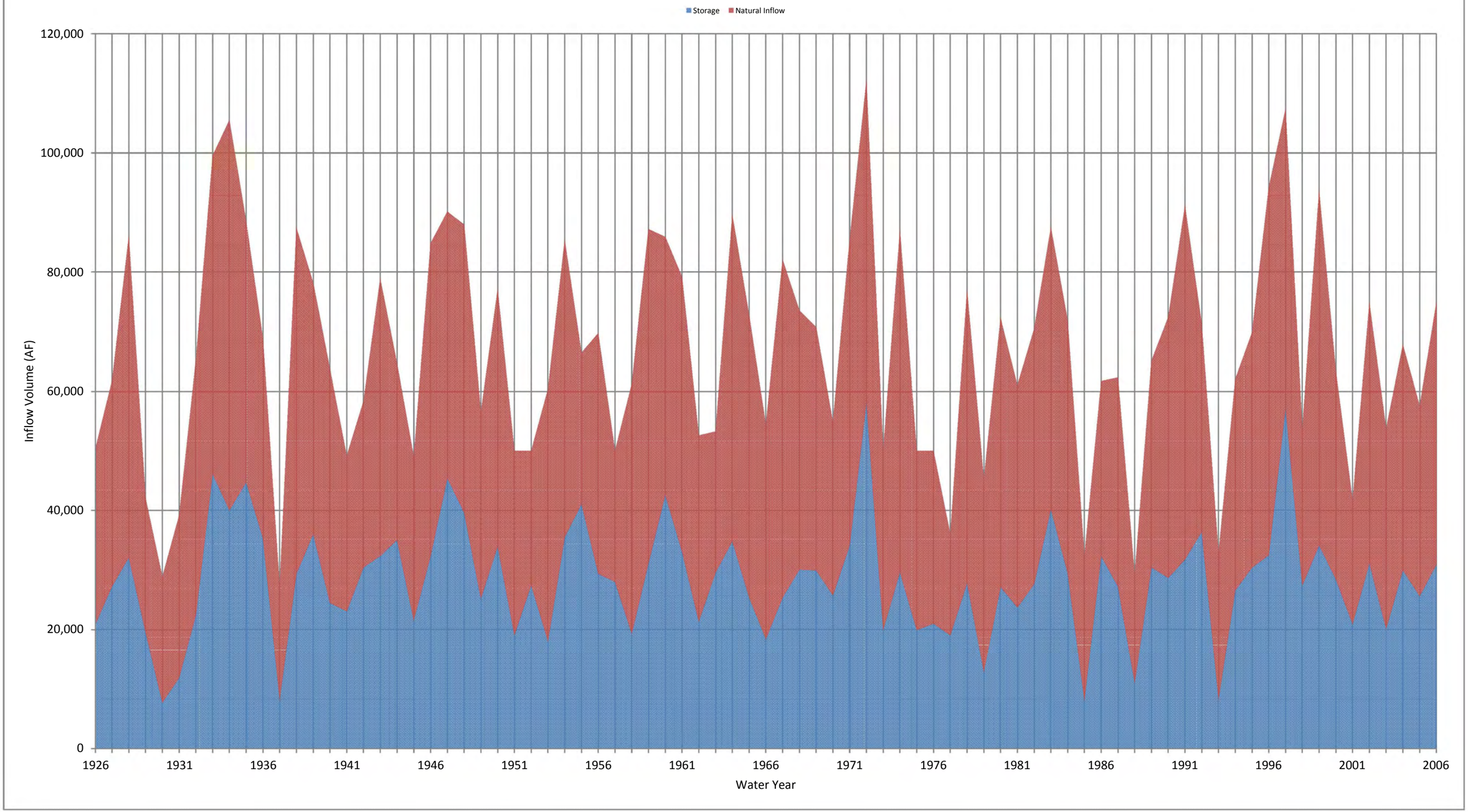
YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

Run: IP6 Full IP CC4 More Adverse

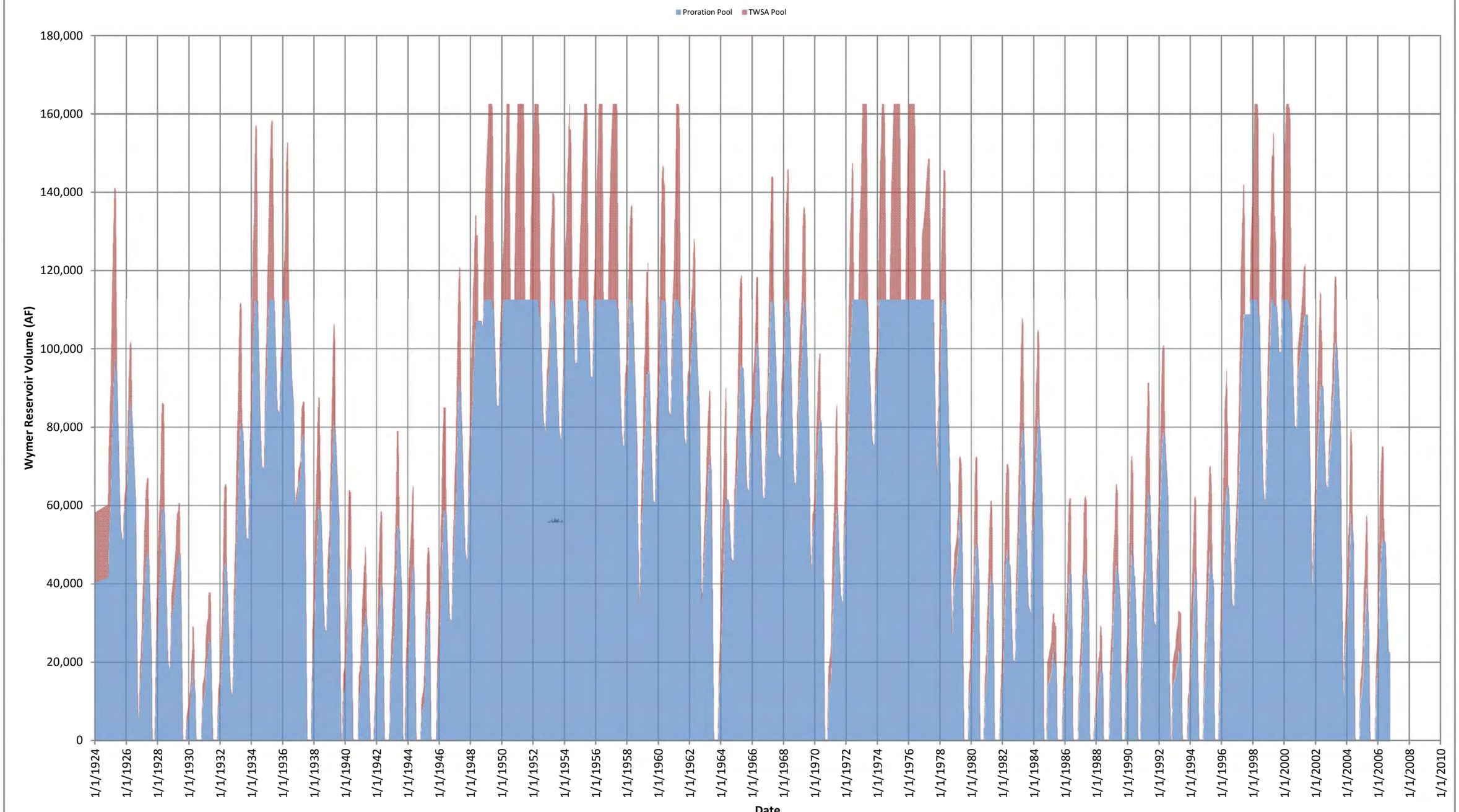
Kennewick Irrigation Deliveries [AF]

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Total
1926	5,536	-	-	-	-	20	9,869	13,395	13,121	11,427	13,468	12,611	79,446
1927	5,536	-	-	-	-	20	11,827	14,118	14,527	14,065	14,735	13,329	88,158
1928	5,536	-	-	-	-	20	11,828	14,195	14,527	14,065	14,735	13,329	88,235
1929	5,536	-	-	-	-	20	7,686	12,454	11,508	10,903	11,990	11,798	71,896
1930	5,536	-	-	-	-	20	10,690	12,452	11,508	10,903	11,990	11,798	74,897
1931	5,536	-	-	-	-	20	10,030	12,454	11,508	10,903	11,990	11,798	74,240
1932	5,536	-	-	-	-	20	11,828	13,990	14,527	14,065	14,735	13,329	88,030
1933	5,536	-	-	-	-	20	11,594	14,173	14,527	14,065	14,735	13,329	87,979
1934	5,536	-	-	-	-	20	11,578	13,665	14,527	14,065	14,735	13,329	87,455
1935	5,536	-	-	-	-	20	11,688	13,959	14,527	14,065	14,735	13,329	87,859
1936	5,536	-	-	-	-	20	10,575	13,571	14,230	13,127	14,194	12,849	84,102
1937	5,536	-	-	-	-	20	11,720	12,933	12,155	11,155	13,468	12,357	79,344
1938	5,536	-	-	-	-	20	11,828	14,124	14,527	14,065	14,735	13,329	88,165
1939	5,536	-	-	-	-	20	9,406	13,571	14,230	13,127	14,194	12,849	82,932
1940	5,536	-	-	-	-	20	8,129	12,454	11,508	10,917	12,579	11,990	73,134
1941	5,536	-	-	-	-	20	7,282	12,454	11,508	10,903	11,990	11,798	71,492
1942	5,536	-	-	-	-	20	11,125	12,862	12,155	11,120	12,579	12,125	77,522
1943	5,536	-	-	-	-	20	11,828	14,004	14,527	14,065	14,735	13,329	88,044
1944	5,536	-	-	-	-	20	7,122	12,454	11,508	10,903	11,990	11,798	71,332
1945	5,536	-	-	-	-	20	10,477	13,047	12,155	11,120	12,579	12,125	77,059
1946	5,536	-	-	-	-	20	11,825	15,063	14,404	14,065	14,735	13,329	88,977
1947	5,536	-	-	-	-	20	11,828	13,660	14,527	14,065	14,735	13,329	87,700
1948	5,536	-	-	-	-	20	11,217	14,063	14,527	14,065	14,735	13,329	87,493
1949	5,536	-	-	-	-	20	11,828	14,674	14,403	14,065	14,735	13,329	88,590
1950	5,536	-	-	-	-	20	11,828	15,543	15,985	17,629	17,780	15,757	100,078
1951	7,393	-	-	-	-	20	11,828	15,543	14,483	14,065	14,735	13,329	91,395
1952	5,536	-	-	-	-	20	11,828	14,263	14,527	14,065	14,735	13,329	88,303
1953	5,536	-	-	-	-	20	10,990	13,774	14,527	14,065	14,735	13,329	86,977
1954	5,536	-	-	-	-	20	11,828	13,892	14,245	13,127	14,194	12,849	85,691
1955	5,536	-	-	-	-	20	11,559	13,929	14,527	14,065	14,735	13,329	87,701
1956	5,536	-	-	-	-	20	11,828	15,543	14,549	14,065	14,735	13,329	89,605
1957	5,536	-	-	-	-	20	11,828	13,276	14,527	14,065	14,735	13,329	87,316
1958	5,536	-	-	-	-	20	9,903	13,571	14,230	13,127	14,194	12,849	83,429
1959	5,536	-	-	-	-	20	11,828	14,393	14,527	14,065	14,735	13,329	88,433
1960	5,536	-	-	-	-	20	11,828	14,171	13,974	14,065	14,735	13,329	87,658
1961	5,536	-	-	-	-	20	11,828	14,011	14,527	14,065	14,735	13,329	88,051
1962	5,536	-	-	-	-	20	10,740	13,412	14,230	13,127	14,194	12,849	84,108
1963	5,536	-	-	-	-	20	10,529	12,833	12,155	11,120	12,579	12,125	76,897
1964	5,536	-	-	-	-	20	11,823	14,051	14,527	14,065	14,735	13,329	88,086
1965	5,536	-	-	-	-	20	11,828	14,051	14,527	14,065	14,735	13,329	88,091
1966	5,536	-	-	-	-	20	11,828	13,812	14,468	14,065	14,735	13,329	87,793
1967	5,536	-	-	-	-	20	10,501	13,791	14,527	14,065	14,735	13,329	86,505
1968	5,536	-	-	-	-	20	10,375	13,791	14,527	14,065	14,735	13,329	86,379
1969	5,536	-	-	-	-	20	11,828	14,069	14,527	14,065	14,735	13,329	88,109
1970	5,536	-	-	-	-	20	11,771	13,780	14,462	13,686	14,194	12,849	86,298
1971	5,536	-	-	-	-	20	11,828	15,543	14,671	14,065	14,735	13,329	89,727
1972	5,536	-	-	-	-	20	11,828	15,543	14,206	14,065	14,735	13,329	89,262
1973	5,536	-	-	-	-	20	10,533	13,571	14,230	13,127	14,194	12,849	84,060
1974	5,536	-	-	-	-	20	11,828	15,083	14,558	13,930	14,735	13,329	89,019
1975	5,536	-	-	-	-	20	11,069	14,009	13,651	14,065	14,735	13,329	86,414
1976	5,536	-	-	-	-	20	11,828	14,874	14,203	14,065	14,735	13,329	88,590
1977	5,536	-	-	-	-	20	7,607	12,454	11,508	10,903	11,990	11,798	71,817
1978	5,536	-	-	-	-	20	10,354	13,791	14,527	14,065	14,735	13,329	86,358
1979	5,536	-	-	-	-	20	11,067	12,818	12,155	11,120	12,579	12,125	77,420
1980	5,536	-	-	-	-	20	11,828	13,796	14,230	13,127	14,194	12,849	85,578
1981	5,536	-	-	-	-	20	10,931	13,395	13,121	11,427	13,468	12,611	80,508
1982	5,536	-	-	-	-	20	11,256	13,726	14,527	14,065	14,735	13,329	87,194
1983	5,536	-	-	-	-	20	10,683	13,791	14,527	14,065	14,735	13,329	86,687
1984	5,536	-	-	-	-	20	10,522	13,571	14,230	13,127	14,194	12,849	84,048
1985	5,536	-	-	-	-	20	11,578	13,017	11,508	10,903	11,990	11,798	76,350
1986	5,536	-	-	-	-	20	8,038	12,454	11,508	10,903	11,990	11,798	72,248
1987	5,536	-	-	-	-	20	8,268	12,833	12,155	11,120	12,579	12,125	74,636
1988	5,536	-	-	-	-	20	11,276	12,805	12,155	11,120	12,579	12,125	77,616
1989	5,536	-	-	-	-	20	11,517	12,802	12,155	11,169	13,468	12,524	79,191
1990	5,536	-	-	-	-	20	11,222	14,083	14,230	13,127	14,194	12,849	85,260
1991	5,536	-	-	-	-	20	11,766	13,402	14,527	14,065	14,735	13,329	87,380
1992	5,536	-	-	-	-	20	9,592	12,833	12,155	11,227	13,468	12,371	77,202
1993	5,536	-	-	-	-	20	11,751	12,724	11,508	10,903	11,990	11,798	76,230
1994	5,536	-	-	-	-	20	7,233	12,454	11,508	10,903	11,990	11,798	71,443
1995	5,536	-	-	-	-	20	10,346	13,333	14,230	13,127	14,194	12,849	83,634
1996	5,536	-	-	-	-	20	11,544	14,177	14,527	14,065	14,735	13,329	87,933
1997	5,536	-	-	-	-	20	11,828	15,543	14,299	14,065	14,735	13,329	89,354
1998	5,536	-	-	-	-	20	10,735	13,791	14,527	14,065	14,735	13,329	86,739
1999	5,536	-	-	-	-	20	10,704	13,781	14,230	13,127	14,194	12,849	84,440
2000	5,536	-	-	-	-	20	11,828	13,719	14,527	14,065	14,735	13,329	87,760
2001	5,536	-	-	-	-	20	7,532	12,454	11,508	10,903	11,990	11,798	71,742
2002	5,536	-	-	-	-	20	11,828	14,410	14,527	14,065	14,735	13,329	88,450
2003	5,536	-	-	-	-	20	10,023	13,395	13,121	11,427	13,468	12,611	79,600
2004	5,536	-	-	-	-	20	10,941	13,395	13,121	11,427	13,468	12,611	80,519
2005	5,536	-	-	-	-	20	10,496	12,524	11,508	10,903	11,990	11,798	74,775
2006	5,536	-	-	-	-	20	11,741	14,031	14,527	14,065	14,735	13,329	87,985
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,559	-	-	-	-	20	10,863	13,694	13,656	13,013	13,990	12,886	83,681

Annual Wymer (IP 6 Full IP CC4 More Adverse) Inflow From Upstream Storage Releases and Natural Inflow
Water Years 1926 to 2006



Wymer Reservoir Storage by Pool Type (IP6 Full IP CC4 More Adverse)



Wymer (IP6 Full IP CC4 More Adverse)

Monthly Inflow Volume from Storage (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	20	1,730	1,964	3,711	6,550	6,352	558	0	0	0	0	0	20.9
1927	0	1,648	4,013	6,612	5,898	5,953	3,137	0	0	0	0	0	27.3
1928	0	6,298	6,693	6,645	5,998	6,301	218	0	0	0	0	0	32.2
1929	108	2,489	3,119	3,795	4,050	5,652	353	0	0	0	0	0	19.6
1930	0	1,556	1,333	1,573	1,531	1,713	60	0	0	0	0	0	7.8
1931	0	1,615	1,692	1,708	1,579	2,236	2,122	952	0	0	0	0	11.9
1932	0	1,679	1,728	4,021	6,232	6,454	2,293	0	0	0	0	0	22.4
1933	108	6,778	8,379	9,109	8,882	10,597	2,285	0	0	0	0	0	46.1
1934	61	6,788	7,703	8,189	6,716	9,084	1,510	0	0	0	0	0	40.1
1935	108	7,126	7,865	9,104	8,446	9,628	2,502	0	0	0	0	0	44.8
1936	108	2,234	3,316	6,380	8,290	10,893	4,141	0	0	0	0	0	35.4
1937	0	1,459	1,726	1,686	1,562	1,804	60	0	0	0	0	0	8.3
1938	0	3,947	6,603	6,693	5,761	6,161	218	0	0	0	0	0	29.4
1939	98	2,379	4,009	8,553	8,673	9,578	2,773	0	0	0	0	0	36.1
1940	0	1,675	3,569	6,171	6,106	6,764	218	0	0	0	0	0	24.5
1941	0	1,706	2,562	6,546	5,450	5,156	1,649	0	0	0	0	0	23.1
1942	0	3,369	6,620	6,296	5,952	6,109	2,122	0	0	0	0	0	30.5
1943	0	3,258	6,249	6,609	5,728	6,629	3,927	0	0	0	0	0	32.4
1944	0	6,196	6,481	6,548	5,636	6,376	3,816	0	0	0	0	0	35.1
1945	0	1,672	1,687	3,707	5,995	6,393	2,122	0	0	0	0	0	21.6
1946	0	3,514	6,367	6,502	5,635	6,655	3,709	0	0	0	0	0	32.4
1947	108	7,109	8,307	8,144	9,100	10,193	2,502	0	0	0	0	0	45.5
1948	0	6,170	6,576	6,669	6,083	6,038	8,104	0	0	0	0	0	39.6
1949	61	2,783	7,626	7,327	7,430	0	0	0	0	0	0	0	25.2
1950	0	1,689	6,020	6,449	5,894	6,454	7,482	0	0	0	0	0	34.0
1951	2,168	7,286	7,318	2,316	0	0	0	0	0	0	0	0	19.1
1952	2,167	7,338	8,089	8,438	1,459	0	0	0	0	0	0	0	27.5
1953	0	1,705	1,686	2,252	5,980	6,233	218	0	0	0	0	0	18.1
1954	0	2,399	6,587	6,538	5,291	6,581	8,152	0	0	0	0	0	35.5
1955	86	4,250	7,490	8,245	7,400	9,409	4,235	0	0	0	0	0	41.1
1956	0	5,926	6,510	6,596	6,190	4,168	0	0	0	0	0	0	29.4
1957	2,168	7,309	8,060	8,800	1,701	0	0	0	0	0	0	0	28.0
1958	0	1,652	1,645	2,703	5,752	6,077	1,488	0	0	0	0	0	19.3
1959	0	4,302	6,471	6,727	5,515	6,656	1,527	0	0	0	0	0	31.2
1960	108	3,838	8,090	8,087	9,276	10,545	2,668	0	0	0	0	0	42.6
1961	108	4,134	8,175	9,195	9,100	2,381	0	0	0	0	0	0	33.1
1962	3	1,661	1,743	2,108	5,823	6,541	3,464	0	0	0	0	0	21.3
1963	0	2,670	6,139	6,397	5,999	6,415	1,964	0	0	0	0	0	29.6
1964	0	2,924	6,412	6,697	5,997	6,648	6,168	0	0	0	0	0	34.8
1965	0	1,701	4,516	6,401	6,048	6,570	218	0	0	0	0	0	25.5
1966	78	2,234	2,735	3,374	3,614	4,680	1,703	0	0	0	0	0	18.4
1967	0	1,626	4,370	6,742	5,809	6,629	218	0	0	0	0	0	25.4
1968	0	4,474	6,408	6,468	6,141	6,365	218	0	0	0	0	0	30.1
1969	0	2,406	6,347	6,563	5,362	6,689	2,595	0	0	0	0	0	30.0
1970	0	1,122	2,143	6,576	5,581	6,498	3,868	0	0	0	0	0	25.8
1971	0	1,664	1,654	2,218	6,022	6,256	9,771	6,576	0	0	0	0	34.2
1972	102	6,774	8,070	8,607	8,799	10,447	8,881	6,459	0	0	0	0	58.1
1973	108	4,956	8,313	6,590	0	0	5	0	0	0	0	0	20.0
1974	0	1,673	3,470	6,565	5,896	6,563	5,493	0	0	0	0	0	29.7
1975	108	7,151	7,646	5,035	0	0	0	0	0	0	0	0	19.9
1976	2,168	7,370	8,309	3,170	0	0	0	0	0	0	0	0	21.0
1977	108	2,470	3,055	4,103	4,131	4,543	649	0	0	0	0	0	19.1
1978	0	2,146	6,680	6,311	5,904	6,574	218	0	0	0	0	0	27.8
1979	37	1,962	2,280	2,514	2,449	2,880	848	0	0	0	0	0	13.0
1980	0	1,675	3,227	6,402	5,873	6,764	3,233	0	0	0	0	0	27.2
1981	0	1,703	2,369	6,653	6,008	6,322	694	0	0	0	0	0	23.7
1982	0	1,674	4,827	6,592	6,037	6,568	1,964	0	0	0	0	0	27.7
1983	67	6,773	7,709	8,245	7,611	8,784	1,055	0	0	0	0	0	40.2
1984	0	3,788	6,448	6,411	6,102	6,526	218	0	0	0	0	0	29.5
1985	0	1,653	1,671	1,671	1,607	1,530	60	0	0	0	0	0	8.2
1986	0	5,419	6,183	6,250	5,967	6,579	1,964	0	0	0	0	0	32.4
1987	0	2,477	5,913	6,594	5,410	6,553	317	0	0	0	0	0	27.3
1988	0	1,673	1,744	1,679	1,545	2,764	1,646	0	0	0	0	0	11.1
1989	0	4,665	6,334	6,494	5,083	6,578	1,329	0	0	0	0	0	30.5
1990	0	3,632	5,843	6,505	6,055	6,434	218	0	0	0	0	0	28.7
1991	0	4,573	6,593	6,518	5,861	6,436	1,812	0	0	0	0	0	31.8
1992	108	2,472	6,376	9,124	9,307	8,907	157	0	0	0	0	0	36.4
1993	0	1,684	1,717	1,737	1,466	1,669	60	0	0	0	0	0	8.3
1994	0	649	4,682	6,500	5,863	6,473	2,418	0	0	0	0	0	26.6
1995	0	5,700	6,354	6,374	5,905	5,888	218	0	0	0	0	0	30.4
1996	0	6,288	6,387	6,662	6,258	6,704	218	0	0	0	0	0	32.5
1997	108	3,862	7,284	8,811	9,038	10,866	10,595	6,682	0	0	0	0	57.2
1998	108	7,013	8,124	8,693	3,493	0	0	0	0	0	0	0	27.4
1999	0	2,620	6,410	6,502	5,883	6,764	6,005	0	0	0	0	0	34.2
2000	64	6,821	7,588	7,708	6,282	0	0	0	0	0	0	0	28.5
2001	108	2,559	3,034	3,911	4,147	5,454	1,730	0	0	0	0	0	20.9
2002	0	2,571	6,342	6,552	5,903	6,172	3,618	0	0	0	0	0	31.2
2003	48	2,064	2,299	2,788	3,516	8,348	1,059	0	0	0	0	0	20.1
2004	0	2,907	6,273	6,501	6,055	6,608	1,646	0	0	0	0	0	30.0
2005	0	1,675	3,007	6,513	5,399	6,598	2,440	0	0	0	0	0	25.6
2006	0	5,359	6,407	6,701	5,801	6,454	218	0	0	0	0	0	30.9
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	135	3,555	5,232	5,928	5,406	5,732	2,066	255	0	0	0	0	28.3

Wymer (IP6 Full IP CC4 More Adverse)

Monthly Natural Inflow Volume (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	4,406	5,521	2,782	5,832	7,773	3,137	0	0	0	0	0	0	29.5
1927	5,334	8,575	3,119	5,119	8,053	3,175	588	549	0	0	0	0	34.5
1928	5,041	12,177	10,469	6,409	1,726	13,230	4,778	0	0	0	0	0	53.8
1929	4,986	11,705	0	0	0	3,227	598	1,973	0	0	0	0	22.5
1930	2,949	2,614	210	1,885	6,224	6,462	734	0	0	0	0	0	21.1
1931	6,241	6,573	0	7,554	2,685	1,214	2,539	438	0	0	0	0	27.2
1932	3,814	8,051	4,150	4,132	4,239	13,861	4,378	142	0	0	0	0	42.8
1933	7,575	14,807	7,387	9,156	5,693	6,475	2,290	0	0	0	0	0	53.4
1934	7,873	10,579	12,476	16,406	3,640	10,436	4,039	0	0	0	0	0	65.4
1935	6,287	12,559	7,258	8,195	5,943	3,062	429	0	0	0	0	0	43.7
1936	5,934	7,010	0	11,685	0	8,842	0	0	0	0	0	0	33.5
1937	2,723	234	3,154	0	2,202	9,867	793	0	0	0	0	0	19.0
1938	6,432	16,644	5,621	11,766	4,516	10,055	2,955	0	0	0	0	0	58.0
1939	5,782	11,073	3,538	10,557	5,512	5,663	0	0	0	0	0	0	42.1
1940	6,808	8,751	1,479	4,214	8,802	9,159	0	0	0	0	0	0	39.2
1941	6,949	8,756	3,266	3,964	665	575	1,941	0	0	0	0	0	26.1
1942	2,515	5,343	4,687	1,726	8,655	4,936	0	0	0	0	0	0	27.9
1943	3,042	14,477	2,072	1,497	1,985	8,269	15,114	0	0	0	0	0	46.5
1944	7,934	9,457	1,726	4,876	1,150	1,982	2,494	0	0	0	0	0	29.6
1945	2,850	6,453	170	4,074	6,975	6,539	409	0	0	0	0	0	27.5
1946	6,380	11,995	3,875	10,754	5,232	11,903	2,290	0	0	0	0	0	52.4
1947	7,529	7,898	5,851	3,082	11,027	6,972	2,311	0	0	0	0	0	44.7
1948	7,894	12,447	7,325	7,719	6,327	5,264	1,338	0	0	0	0	0	48.3
1949	5,664	12,240	10,931	0	2,427	0	0	0	0	0	0	0	31.3
1950	5,134	11,853	5,417	2,202	1,849	8,943	7,648	0	0	0	0	0	43.0
1951	5,766	13,983	7,465	3,699	0	0	0	0	0	0	0	0	30.9
1952	5,767	10,209	5,997	0	536	0	0	0	0	0	0	0	22.5
1953	5,716	8,071	3,401	13,283	8,628	3,168	0	0	0	0	0	0	42.3
1954	6,322	6,566	12,580	9,003	4,602	5,124	5,586	0	0	0	0	0	49.8
1955	7,312	8,274	843	4,087	2,462	1,816	521	0	0	0	0	0	25.3
1956	6,121	12,049	5,785	7,559	1,726	7,083	0	0	0	0	0	0	40.3
1957	5,766	10,485	5,712	0	0	0	0	0	0	0	0	0	22.0
1958	7,112	9,831	4,087	10,290	9,191	1,150	239	0	0	0	0	0	41.9
1959	6,218	14,599	6,103	12,611	2,146	8,638	3,300	2,380	0	0	0	0	56.0
1960	7,374	12,353	4,355	2,122	9,437	7,404	221	0	0	0	0	0	43.3
1961	6,379	17,325	271	6,925	12,096	3,062	0	0	0	0	0	0	46.1
1962	6,620	9,867	4,302	5,676	628	3,034	1,140	0	0	0	0	0	31.3
1963	4,032	7,806	1,070	2,960	5,235	1,886	693	0	0	0	0	0	23.7
1964	4,943	12,694	5,026	13,041	5,608	9,742	3,647	0	0	0	0	0	54.7
1965	6,280	13,763	4,275	5,613	10,824	5,785	793	0	0	0	0	0	47.3
1966	7,030	10,182	0	4,401	758	6,331	7,283	0	0	0	0	0	36.0
1967	7,107	9,407	6,295	15,314	10,929	7,575	0	0	0	0	0	0	56.6
1968	6,457	9,341	3,773	9,992	8,145	2,001	3,749	0	0	0	0	0	43.5
1969	6,533	10,419	6,532	1,726	0	12,017	3,581	0	0	0	0	0	40.8
1970	5,122	8,219	2,815	3,657	4,980	3,674	587	0	0	0	0	0	29.1
1971	6,605	10,812	752	9,866	9,504	4,152	5,538	4,052	0	0	0	0	51.3
1972	7,687	10,243	5,804	6,950	3,293	11,727	3,704	4,580	0	0	0	0	54.0
1973	7,448	11,064	4,265	7,256	0	0	0	0	0	0	0	0	30.0
1974	6,886	12,347	6,134	8,849	9,875	8,470	4,763	0	0	0	0	0	57.3
1975	7,805	14,608	3,320	4,329	0	0	0	0	0	0	0	0	30.1
1976	5,766	11,288	9,027	2,903	0	0	0	0	0	0	0	0	29.0
1977	7,147	8,389	0	1,256	0	146	0	0	0	0	0	0	16.9
1978	3,851	11,194	12,080	11,298	3,539	7,116	0	0	0	0	0	0	49.1
1979	6,862	8,059	2,743	0	2,968	11,677	0	0	0	0	0	0	32.3
1980	7,488	8,521	7,538	575	0	17,832	3,114	0	0	0	0	0	45.1
1981	5,256	9,705	6,704	7,208	7,092	1,227	32	0	0	0	0	0	37.2
1982	2,734	9,029	4,414	6,931	9,566	8,407	1,696	0	0	0	0	0	42.8
1983	7,867	10,043	5,650	7,462	8,143	6,660	1,402	0	0	0	0	0	47.2
1984	7,219	16,123	0	6,117	6,036	6,885	0	0	0	0	0	0	42.4
1985	6,204	12,393	0	311	1,612	3,463	0	156	0	0	0	0	24.1
1986	5,759	5,119	0	4,027	1,926	12,471	20	0	0	0	0	0	29.3
1987	2,638	11,327	1,150	2,876	6,148	10,295	564	32	0	0	0	0	35.0
1988	1,203	3,043	3,313	3,576	2,925	3,568	528	0	0	0	0	0	18.2
1989	5,851	11,403	0	10,802	1,240	4,685	632	0	0	0	0	0	34.6
1990	5,793	10,196	643	6,901	12,080	8,109	0	0	0	0	0	0	43.7
1991	7,169	15,987	5,410	6,089	9,954	6,299	8,386	0	0	0	0	0	59.3
1992	6,202	10,182	5,034	5,209	5,263	2,571	358	0	0	0	0	0	34.8
1993	6,581	12,118	114	1,468	1,028	3,162	0	0	0	0	0	0	24.5
1994	6,059	4,996	3,894	8,120	3,093	6,390	2,874	0	0	0	0	0	35.4
1995	3,478	10,935	6,158	5,550	8,576	4,688	0	0	0	0	0	0	39.4
1996	7,934	10,099	8,299	10,856	9,779	8,500	6,250	0	0	0	0	0	61.7
1997	7,826	8,571	300	6,128	7,446	13,729	2,239	3,842	0	0	0	0	50.1
1998	5,356	9,395	1,380	5,294	4,854	0	0	0	0	0	0	0	26.3
1999	5,960	15,048	9,129	8,709	12,243	8,388	0	0	0	0	0	0	59.5
2000	6,248	13,436	7,808	6,905	516	0	0	0	0	0	0	0	34.9
2001	6,921	12,180	0	0	0	589	554	524	0	0	0	0	20.8
2002	5,757	6,881	4,404	9,691	6,866	4,912	5,112	0	0	0	0	0	43.6
2003	4,746	5,773	2,145	6,946	5,794	8,242	0	0	0	0	0	0	33.6
2004	7,080	7,409	943	3,704	2,876	15,756	0	0	0	0	0	0	37.8
2005	7,016	7,006	2,029	6,169	3,081	5,437	1,210	0	0	0	0	0	31.9
2006	5,057	11,170	2,876	13,805	5,752	3,602	1,646	0	0	0	0	0	43.9
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	5,920	10,115	4,088	6,036	4,744	5,826	1,724	230	0	0	0	0	38.7

Wymer (IP6 Full IP CC4 More Adverse)

Total Monthly Inflow (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	4,426	7,251	4,747	9,543	14,323	9,489	558	0	0	0	0	0	50.3
1927	5,334	10,223	7,133	11,730	13,951	9,128	3,725	549	0	0	0	0	61.8
1928	5,041	18,475	17,161	13,054	7,724	19,531	4,996	0	0	0	0	0	86.0
1929	5,094	14,194	3,119	3,795	4,050	8,879	951	1,973	0	0	0	0	42.1
1930	2,949	4,170	1,544	3,459	7,755	8,175	793	0	0	0	0	0	28.8
1931	6,241	8,188	1,692	9,262	4,264	3,450	4,661	1,390	0	0	0	0	39.1
1932	3,814	9,730	5,878	8,152	10,471	20,315	6,671	142	0	0	0	0	65.2
1933	7,683	21,585	15,766	18,266	14,575	17,072	4,575	0	0	0	0	0	99.5
1934	7,934	17,367	20,179	24,595	10,356	19,520	5,549	0	0	0	0	0	105.5
1935	6,395	19,685	15,123	17,299	14,389	12,690	2,931	0	0	0	0	0	88.5
1936	6,042	9,245	3,316	18,065	8,290	19,735	4,141	0	0	0	0	0	68.8
1937	2,723	1,692	4,880	1,686	3,763	11,670	853	0	0	0	0	0	27.3
1938	6,432	20,591	12,224	18,459	10,277	16,215	3,174	0	0	0	0	0	87.4
1939	5,880	13,451	7,546	19,110	14,185	15,242	2,773	0	0	0	0	0	78.2
1940	6,808	10,427	5,048	10,386	14,908	15,923	218	0	0	0	0	0	63.7
1941	6,949	10,461	5,828	10,511	6,115	5,731	3,589	0	0	0	0	0	49.2
1942	2,515	8,712	11,307	8,022	14,607	11,044	2,122	0	0	0	0	0	58.3
1943	3,042	17,735	8,320	8,107	7,713	14,899	19,042	0	0	0	0	0	78.9
1944	7,934	15,653	8,207	11,425	6,786	8,357	6,311	0	0	0	0	0	64.7
1945	2,850	8,125	1,857	7,781	12,970	12,932	2,532	0	0	0	0	0	49.0
1946	6,380	15,509	10,242	17,257	10,867	18,558	5,999	0	0	0	0	0	84.8
1947	7,637	15,007	14,158	11,225	20,127	17,165	4,812	0	0	0	0	0	90.1
1948	7,894	18,617	13,900	14,387	12,410	11,302	9,443	0	0	0	0	0	88.0
1949	5,726	15,023	18,557	7,327	9,857	0	0	0	0	0	0	0	56.5
1950	5,134	13,542	11,437	8,651	7,743	15,397	15,130	0	0	0	0	0	77.0
1951	7,934	21,269	14,783	6,015	0	0	0	0	0	0	0	0	50.0
1952	7,934	17,548	14,087	8,438	1,994	0	0	0	0	0	0	0	50.0
1953	5,716	9,776	5,087	15,535	14,608	9,401	218	0	0	0	0	0	60.3
1954	6,322	8,964	19,167	15,542	9,892	11,706	13,738	0	0	0	0	0	85.3
1955	7,398	12,524	8,333	12,332	9,862	11,225	4,756	0	0	0	0	0	66.4
1956	6,121	17,975	12,295	14,155	7,916	11,251	0	0	0	0	0	0	69.7
1957	7,934	17,794	13,772	8,800	1,701	0	0	0	0	0	0	0	50.0
1958	7,112	11,483	5,733	12,993	14,943	7,227	1,727	0	0	0	0	0	61.2
1959	6,218	18,901	12,575	19,338	7,661	15,294	4,827	2,380	0	0	0	0	87.2
1960	7,482	16,191	12,445	10,209	18,713	17,949	2,889	0	0	0	0	0	85.9
1961	6,487	21,459	8,446	16,120	21,196	5,443	0	0	0	0	0	0	79.2
1962	6,623	11,528	6,045	7,784	6,451	9,575	4,604	0	0	0	0	0	52.6
1963	4,032	10,475	7,209	9,357	11,234	8,301	2,657	0	0	0	0	0	53.3
1964	4,943	15,618	11,438	19,738	11,605	16,390	9,815	0	0	0	0	0	89.5
1965	6,280	15,465	8,791	12,014	16,873	12,355	1,012	0	0	0	0	0	72.8
1966	7,108	12,415	2,735	7,775	4,372	11,011	8,986	0	0	0	0	0	54.4
1967	7,107	11,033	10,665	22,056	16,739	14,204	218	0	0	0	0	0	82.0
1968	6,457	13,815	10,181	16,460	14,287	8,366	3,967	0	0	0	0	0	73.5
1969	6,533	12,826	12,879	8,289	5,362	18,706	6,176	0	0	0	0	0	70.8
1970	5,122	9,342	4,958	10,233	10,560	10,173	4,454	0	0	0	0	0	54.8
1971	6,605	12,475	2,406	12,084	15,525	10,408	15,309	10,627	0	0	0	0	85.4
1972	7,789	17,017	13,874	15,557	12,092	22,174	12,584	11,040	0	0	0	0	112.1
1973	7,556	16,020	12,578	13,846	0	0	5	0	0	0	0	0	50.0
1974	6,886	14,020	9,604	15,414	15,770	15,033	10,256	0	0	0	0	0	87.0
1975	7,913	21,758	10,966	9,364	0	0	0	0	0	0	0	0	50.0
1976	7,934	18,658	17,336	6,073	0	0	0	0	0	0	0	0	50.0
1977	7,255	10,859	3,055	5,359	4,131	4,689	649	0	0	0	0	0	36.0
1978	3,851	13,339	18,759	17,609	9,443	13,690	218	0	0	0	0	0	76.9
1979	6,900	10,021	5,023	2,514	5,417	14,557	848	0	0	0	0	0	45.3
1980	7,488	10,196	10,765	6,978	5,873	24,595	6,347	0	0	0	0	0	72.2
1981	5,256	11,408	9,073	13,861	13,100	7,549	726	0	0	0	0	0	61.0
1982	2,734	10,703	9,240	13,523	15,602	14,975	3,660	0	0	0	0	0	70.4
1983	7,934	16,816	13,359	15,707	15,754	15,445	2,457	0	0	0	0	0	87.5
1984	7,219	19,911	6,448	12,529	12,138	13,411	218	0	0	0	0	0	71.9
1985	6,204	14,046	1,671	1,982	3,219	4,993	60	156	0	0	0	0	32.3
1986	5,759	10,538	6,183	10,276	7,892	19,050	1,984	0	0	0	0	0	61.7
1987	2,638	13,803	7,064	9,470	11,558	16,849	881	32	0	0	0	0	62.3
1988	1,203	4,716	5,057	5,255	4,470	6,332	2,175	0	0	0	0	0	29.2
1989	5,851	16,068	6,334	17,297	6,322	11,263	1,961	0	0	0	0	0	65.1
1990	5,793	13,828	6,486	13,406	18,135	14,543	218	0	0	0	0	0	72.4
1991	7,169	20,560	12,003	12,608	15,815	12,735	10,198	0	0	0	0	0	91.1
1992	6,310	12,654	11,410	14,333	14,569	11,478	515	0	0	0	0	0	71.3
1993	6,581	13,801	1,831	3,205	2,495	4,831	60	0	0	0	0	0	32.8
1994	6,059	5,645	8,576	14,619	8,956	12,863	5,291	0	0	0	0	0	62.0
1995	3,478	16,635	12,511	11,924	14,481	10,577	218	0	0	0	0	0	69.8
1996	7,934	16,388	14,686	17,519	16,037	15,203	6,468	0	0	0	0	0	94.2
1997	7,934	12,433	7,585	14,939	16,484	24,595	12,835	10,524	0	0	0	0	107.3
1998	5,464	16,408	9,504	13,987	8,347	0	0	0	0	0	0	0	53.7
1999	5,960	17,668	15,539	15,211	18,126	15,152	6,005	0	0	0	0	0	93.7
2000	6,312	20,256	15,396	14,613	6,798	0	0	0	0	0	0	0	63.4
2001	7,029	14,739	3,034	3,911	4,147	6,042	2,284	524	0	0	0	0	41.7
2002	5,757	9,452	10,746	16,243	12,769	11,084	8,730	0	0	0	0	0	74.8
2003	4,794	7,837	4,444	9,734	9,311	16,590	1,059	0	0	0	0	0	53.8
2004	7,080	10,316	7,216	10,205	8,931	22,364	1,646	0	0	0	0	0	67.8
2005	7,016	8,682	5,037	12,682	8,480	12,035	3,650	0	0	0	0	0	57.6
2006	5,057	16,529	9,283	20,506	11,554	10,055	1,865	0	0	0	0	0	74.8
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	6,055	13,670	9,319	11,964	10,151	11,558	3,790	486	0	0	0	0	67.0

Wymer (IP6 Full IP CC4 More Adverse)

Monthly Proration Pool Release (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	0	0	0	0	0	1,688	4,027	8,544	7,948	26,888	26,449	75.5
1927	5,395	0	0	0	0	0	0	554	6,756	12,168	26,334	1,968	53.2
1928	0	0	0	0	0	0	0	851	8,448	14,404	15,189	2,330	41.2
1929	0	0	0	0	0	0	0	0	6,183	26,971	14,242	23	47.4
1930	0	0	0	0	0	0	3,937	3,727	12,233	72	0	0	20.0
1931	0	0	0	0	0	0	1,056	1,422	15,744	8,874	6	0	27.1
1932	0	0	0	0	0	0	0	1,297	8,840	11,588	10,495	1,028	33.2
1933	0	0	0	0	0	0	0	1,540	2,675	12,177	11,529	1,465	29.4
1934	0	0	0	0	0	0	581	887	15,428	15,778	9,491	586	42.8
1935	0	0	0	0	0	0	0	10	4,367	12,420	10,912	956	28.7
1936	0	0	0	0	0	0	110	2,005	5,965	10,444	6,495	19,323	44.3
1937	8,879	0	0	0	0	0	0	8,157	34,477	35,033	282	0	86.8
1938	0	0	0	0	0	0	0	1,766	5,339	12,621	11,390	1,483	32.6
1939	0	0	0	0	0	0	2,418	3,872	8,535	8,297	30,730	26,912	80.8
1940	1,241	0	0	0	0	0	510	8,989	33,875	752	0	0	45.4
1941	0	0	0	0	0	0	3,460	1,264	11,864	13,201	4,261	1	34.1
1942	0	0	0	0	0	0	90	8,453	29,518	2,321	0	0	40.4
1943	0	0	0	0	0	0	0	442	3,465	9,909	31,176	9,599	54.6
1944	3	0	0	0	0	0	0	3,528	27,099	14,138	8	0	44.8
1945	0	0	0	0	0	0	0	7,416	26,295	245	0	0	34.0
1946	0	0	0	0	0	0	0	0	4,873	10,828	11,785	756	28.2
1947	0	0	0	0	0	0	1,691	5,563	10,790	14,911	11,667	2,275	46.9
1948	0	0	0	0	0	0	0	0	0	0	0	1,063	1.1
1949	0	0	0	0	0	0	0	1,958	848	11,664	11,679	883	27.0
1950	0	0	0	0	0	0	0	0	0	0	0	0	-
1951	0	0	0	0	0	0	0	0	0	0	0	0	-
1952	0	0	0	0	0	0	0	4,102	3,229	12,441	10,831	2,529	33.1
1953	0	0	0	0	0	0	176	1,771	9,580	9,831	11,499	2,627	35.5
1954	0	0	0	0	0	0	0	0	0	5,740	9,554	862	16.2
1955	0	0	0	0	0	0	273	0	2,706	4,890	11,367	749	20.0
1956	0	0	0	0	0	0	0	0	0	0	0	0	-
1957	0	0	0	0	0	0	0	2,341	6,774	14,192	10,418	3,454	37.2
1958	0	0	0	0	0	0	403	5,993	10,419	11,094	12,498	30,694	71.1
1959	6,624	0	0	0	0	0	0	921	9,117	12,363	10,301	1,526	40.9
1960	0	0	0	0	0	0	205	0	3,437	12,836	11,801	870	29.1
1961	0	0	0	0	0	0	1,074	662	7,926	14,329	11,246	1,474	36.7
1962	0	0	0	0	0	0	1,716	3,343	10,138	7,078	16,998	30,624	69.9
1963	6,227	0	0	0	0	0	2,064	6,713	36,476	27,378	125	0	79.0
1964	0	0	0	0	0	0	0	647	228	8,505	6,093	770	16.2
1965	0	0	0	0	0	0	0	1,268	6,868	11,957	11,219	1,212	32.5
1966	0	0	0	0	0	0	0	2,859	12,241	12,307	10,695	1,507	39.6
1967	0	0	0	0	0	0	157	3,249	9,247	12,156	13,896	1,504	40.2
1968	0	0	0	0	0	0	1,543	4,358	12,159	14,371	12,254	2,396	47.1
1969	0	0	0	0	0	0	217	3,643	7,006	15,388	14,453	25,210	65.9
1970	2,729	0	0	0	0	0	0	211	9,735	29,540	41,932	193	84.3
1971	0	0	0	0	0	0	0	0	2,401	11,534	8,277	1,807	24.0
1972	0	0	0	0	0	0	0	0	0	0	0	0	-
1973	0	0	0	0	0	0	843	1,610	12,069	11,188	9,021	2,258	37.0
1974	0	0	0	0	0	0	0	0	0	0	0	0	-
1975	0	0	0	0	0	0	0	0	0	0	0	0	-
1976	0	0	0	0	0	0	0	0	0	0	0	0	-
1977	0	0	0	0	0	0	0	0	4	31	18,590	15,674	34.3
1978	9,536	0	0	0	0	0	221	3,863	14,520	14,863	22,479	22,935	88.4
1979	6,285	0	0	0	0	0	717	6,255	31,191	20,290	22	0	64.8
1980	0	0	0	0	0	0	0	1,036	6,939	41,466	572	0	50.0
1981	0	0	0	0	0	0	1,612	1,600	37,069	1,930	0	0	42.2
1982	0	0	0	0	0	0	155	3,027	979	12,626	10,655	1,247	28.7
1983	0	0	0	0	0	0	1,609	6,572	15,555	11,821	10,858	1,552	48.0
1984	0	0	0	0	0	0	1,863	1,772	10,188	25,906	42,319	375	82.4
1985	0	0	0	0	0	0	2,083	1,202	16,589	2,509	0	0	22.4
1986	0	0	0	0	0	0	0	5,419	30,537	6,745	1	0	42.7
1987	0	0	0	0	0	0	682	1,281	5,117	31,945	4,101	1	43.1
1988	0	0	0	0	0	0	2,336	1,524	16,331	30	0	0	20.2
1989	0	0	0	0	0	0	568	2,257	4,662	20,423	17,148	9	45.1
1990	0	0	0	0	0	0	3,549	4,249	5,695	12,052	23,231	1,352	50.1
1991	0	0	0	0	0	0	0	755	9,478	11,093	10,965	1,455	33.7
1992	0	0	0	0	0	0	654	2,786	6,488	6,512	40,341	21,504	78.3
1993	363	0	0	0	0	0	289	592	20,285	1,550	0	0	23.1
1994	0	0	0	0	0	0	0	3,349	21,552	17,895	133	0	42.9
1995	0	0	0	0	0	0	2,587	3,353	3,170	38,980	251	0	48.3
1996	0	0	0	0	0	0	0	775	5,059	13,558	10,186	1,384	31.0
1997	0	0	0	0	0	0	0	0	0	0	0	0	-
1998	0	0	0	0	0	0	1,435	2,450	14,861	15,884	12,376	4,056	51.1
1999	0	0	0	0	0	0	0	1,409	0	3,860	7,735	370	13.4
2000	0	0	0	0	0	0	870	1,558	4,488	13,450	11,403	934	32.7
2001	0	0	0	0	0	0	0	9	0	20,286	19,246	18,890	58.4
2002	10,644	0	0	0	0	0	373	551	1,081	12,584	11,043	948	37.2
2003	0	0	0	0	0	0	418	3,991	6,572	8,484	32,578	28,093	80.1
2004	10,031	0	0	0	0	0	3,250	3,546	33,237	18,506	9	0	68.6
2005	0	0	0	0	0	0	3,665	9,014	26,038	1,148	0	0	39.9
2006	0	0	0	0	0	0	50	1,156	3,524	12,380	11,595	848	29.6
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	839	0	0	0	0	0	657	2,306	10,063	11,416	9,961	4,086	39.3

Wymer (IP6 Full IP CC4 More Adverse)

Monthly TWSA Pool Release (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	0	0	0	0	0	0	15,488	0	0	0	0	15.5
1927	0	0	0	0	0	0	0	0	19,007	0	0	0	19.0
1928	0	0	0	0	0	0	0	3,829	22,627	0	0	0	26.5
1929	0	0	0	0	0	0	0	0	12,940	0	0	0	12.9
1930	0	0	0	0	0	0	0	8,875	0	0	0	0	8.9
1931	0	0	0	0	0	0	0	7,228	4,818	0	0	0	12.0
1932	0	0	0	0	0	0	0	9,791	10,263	0	0	0	20.1
1933	0	0	0	0	0	0	0	27,178	3,444	0	0	0	30.6
1934	0	0	0	0	0	0	0	44,595	0	0	0	0	44.6
1935	0	0	0	0	0	0	0	20,914	24,846	0	0	0	45.8
1936	0	0	0	0	0	0	0	40,169	0	0	0	0	40.2
1937	0	0	0	0	0	0	0	8,390	0	0	0	0	8.4
1938	0	0	0	0	0	0	0	16,724	10,160	0	0	0	26.9
1939	0	0	0	0	0	0	0	24,058	0	0	0	0	24.1
1940	0	0	0	0	0	0	0	19,605	0	0	0	0	19.6
1941	0	0	0	0	0	0	0	15,134	0	0	0	0	15.1
1942	0	0	0	0	0	0	0	17,948	0	0	0	0	17.9
1943	0	0	0	0	0	0	0	3,999	20,264	0	0	0	24.3
1944	0	0	0	0	0	0	0	19,899	0	0	0	0	19.9
1945	0	0	0	0	0	0	0	11,165	3,926	0	0	0	15.1
1946	0	0	0	0	0	0	0	0	26,096	0	0	0	26.1
1947	0	0	0	0	0	0	0	27,733	0	0	0	0	27.7
1948	0	0	0	0	0	0	0	5,177	21,886	0	0	0	27.1
1949	0	0	0	0	0	0	0	0	50,001	0	0	0	50.0
1950	0	0	0	0	0	0	0	0	5,951	44,050	0	0	50.0
1951	0	0	0	0	0	0	0	0	50,001	0	0	0	50.0
1952	0	0	0	0	0	0	0	10,448	39,553	0	0	0	50.0
1953	0	0	0	0	0	0	0	27,210	0	0	0	0	27.2
1954	0	0	0	0	0	0	0	6,421	29,427	13,999	0	0	49.8
1955	0	0	0	0	0	0	0	0	19,703	30,298	0	0	50.0
1956	0	0	0	0	0	0	0	0	47,657	2,343	0	0	50.0
1957	0	0	0	0	0	0	0	21,210	28,791	0	0	0	50.0
1958	0	0	0	0	0	0	0	24,038	0	0	0	0	24.0
1959	0	0	0	0	0	0	0	24,740	2,089	0	0	0	26.8
1960	0	0	0	0	0	0	0	6,632	27,659	0	0	0	34.3
1961	0	0	0	0	0	0	0	39,360	10,641	0	0	0	50.0
1962	0	0	0	0	0	0	0	16,188	0	0	0	0	16.2
1963	0	0	0	0	0	0	0	16,390	0	0	0	0	16.4
1964	0	0	0	0	0	0	0	27,553	0	0	0	0	27.6
1965	0	0	0	0	0	0	0	22,397	0	0	0	0	22.4
1966	0	0	0	0	0	0	0	16,739	0	0	0	0	16.7
1967	0	0	0	0	0	0	0	31,405	0	0	0	0	31.4
1968	0	0	0	0	0	0	0	33,323	0	0	0	0	33.3
1969	0	0	0	0	0	0	0	1,858	21,832	0	0	0	23.7
1970	0	0	0	0	0	0	0	16,875	0	0	0	0	16.9
1971	0	0	0	0	0	0	0	0	26,289	0	0	0	26.3
1972	0	0	0	0	0	0	0	0	26,992	7,975	0	0	35.0
1973	0	0	0	0	0	0	0	50,001	0	0	0	0	50.0
1974	0	0	0	0	0	0	0	0	7,141	42,859	0	0	50.0
1975	0	0	0	0	0	0	0	0	31,314	18,687	0	0	50.0
1976	0	0	0	0	0	0	0	5,061	44,939	0	0	0	50.0
1977	0	0	0	0	0	0	0	35,998	0	0	0	0	36.0
1978	0	0	0	0	0	0	0	33,075	0	0	0	0	33.1
1979	0	0	0	0	0	0	0	0	13,932	0	0	0	13.9
1980	0	0	0	0	0	0	0	17,795	4,434	0	0	0	22.2
1981	0	0	0	0	0	0	0	18,761	0	0	0	0	18.8
1982	0	0	0	0	0	0	0	0	21,673	0	0	0	21.7
1983	0	0	0	0	0	0	0	26,915	0	0	0	0	26.9
1984	0	0	0	0	0	0	0	22,115	0	0	0	0	22.1
1985	0	0	0	0	0	0	0	0	9,948	0	0	0	9.9
1986	0	0	0	0	0	0	0	18,979	0	0	0	0	19.0
1987	0	0	0	0	0	0	0	19,168	0	0	0	0	19.2
1988	0	0	0	0	0	0	0	8,987	0	0	0	0	9.0
1989	0	0	0	0	0	0	0	20,029	0	0	0	0	20.0
1990	0	0	0	0	0	0	0	22,280	0	0	0	0	22.3
1991	0	0	0	0	0	0	0	13,822	14,205	0	0	0	28.0
1992	0	0	0	0	0	0	0	21,929	0	0	0	0	21.9
1993	0	0	0	0	0	0	0	0	10,093	0	0	0	10.1
1994	0	0	0	0	0	0	0	19,080	0	0	0	0	19.1
1995	0	0	0	0	0	0	0	21,484	0	0	0	0	21.5
1996	0	0	0	0	0	0	0	14,896	14,099	0	0	0	29.0
1997	0	0	0	0	0	0	0	0	25,067	7,957	0	0	33.0
1998	0	0	0	0	0	0	0	43,547	6,454	0	0	0	50.0
1999	0	0	0	0	0	0	0	19,814	11,947	10,838	0	0	42.6
2000	0	0	0	0	0	0	0	10,925	39,075	0	0	0	50.0
2001	0	0	0	0	0	0	0	12,834	0	0	0	0	12.8
2002	0	0	0	0	0	0	0	8,777	14,232	0	0	0	23.0
2003	0	0	0	0	0	0	0	16,544	0	0	0	0	16.5
2004	0	0	0	0	0	0	0	20,849	0	0	0	0	20.8
2005	0	0	0	0	0	0	0	17,718	0	0	0	0	17.7
2006	0	0	0	0	0	0	0	18,176	4,854	0	0	0	23.0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	0	0	0	0	0	0	0	15,435	10,374	2,210	0	0	28.0

Wymer (IP6 Full IP CC4 More Adverse)

Total Monthly Wymer Release (AF)

Water Year	October	November	December	January	February	March	April	May	June	July	August	September	Annual Volume [kAF]
1926	0	0	0	0	0	0	1,688	19,515	8,544	7,948	26,888	26,449	91.0
1927	5,395	0	0	0	0	0	0	554	25,763	12,168	26,334	1,968	72.2
1928	0	0	0	0	0	0	0	4,680	31,075	14,404	15,189	2,330	67.7
1929	0	0	0	0	0	0	0	0	19,123	26,971	14,242	23	60.4
1930	0	0	0	0	0	0	3,937	12,603	12,233	72	0	0	28.8
1931	0	0	0	0	0	0	1,056	8,650	20,562	8,874	6	0	39.1
1932	0	0	0	0	0	0	0	11,089	19,102	11,588	10,495	1,028	53.3
1933	0	0	0	0	0	0	0	28,718	6,118	12,177	11,529	1,465	60.0
1934	0	0	0	0	0	0	581	45,482	15,428	15,778	9,491	586	87.3
1935	0	0	0	0	0	0	0	20,924	29,213	12,420	10,912	956	74.4
1936	0	0	0	0	0	0	110	42,173	5,965	10,444	6,495	19,323	84.5
1937	8,879	0	0	0	0	0	0	16,547	34,477	35,033	282	0	95.2
1938	0	0	0	0	0	0	0	18,490	15,499	12,621	11,390	1,483	59.5
1939	0	0	0	0	0	0	2,418	27,930	8,535	8,297	30,730	26,912	104.8
1940	1,241	0	0	0	0	0	510	28,595	33,875	752	0	0	65.0
1941	0	0	0	0	0	0	3,460	16,398	11,864	13,201	4,261	1	49.2
1942	0	0	0	0	0	0	90	26,400	29,518	2,321	0	0	58.3
1943	0	0	0	0	0	0	0	4,441	23,729	9,909	31,176	9,599	78.9
1944	3	0	0	0	0	0	0	23,427	27,099	14,138	8	0	64.7
1945	0	0	0	0	0	0	0	18,581	30,221	245	0	0	49.0
1946	0	0	0	0	0	0	0	0	30,968	10,828	11,785	756	54.3
1947	0	0	0	0	0	0	1,691	33,296	10,790	14,911	11,667	2,275	74.6
1948	0	0	0	0	0	0	0	5,177	21,886	0	0	1,063	28.1
1949	0	0	0	0	0	0	0	1,958	50,848	11,664	11,679	883	77.0
1950	0	0	0	0	0	0	0	0	5,951	44,050	0	0	50.0
1951	0	0	0	0	0	0	0	0	50,001	0	0	0	50.0
1952	0	0	0	0	0	0	0	14,549	42,782	12,441	10,831	2,529	83.1
1953	0	0	0	0	0	0	176	28,982	9,580	9,831	11,499	2,627	62.7
1954	0	0	0	0	0	0	0	6,421	29,427	19,739	9,554	862	66.0
1955	0	0	0	0	0	0	273	0	22,409	35,188	11,367	749	70.0
1956	0	0	0	0	0	0	0	0	47,657	2,343	0	0	50.0
1957	0	0	0	0	0	0	0	23,552	35,564	14,192	10,418	3,454	87.2
1958	0	0	0	0	0	0	403	30,031	10,419	11,094	12,498	30,694	95.1
1959	6,624	0	0	0	0	0	0	25,660	11,206	12,363	10,301	1,526	67.7
1960	0	0	0	0	0	0	205	6,632	31,097	12,836	11,801	870	63.4
1961	0	0	0	0	0	0	1,074	40,022	18,567	14,329	11,246	1,474	86.7
1962	0	0	0	0	0	0	1,716	19,531	10,138	7,078	16,998	30,624	86.1
1963	6,227	0	0	0	0	0	2,064	23,102	36,476	27,378	125	0	95.4
1964	0	0	0	0	0	0	0	28,200	228	8,505	6,093	770	43.8
1965	0	0	0	0	0	0	0	23,664	6,868	11,957	11,219	1,212	54.9
1966	0	0	0	0	0	0	0	19,598	12,241	12,307	10,695	1,507	56.3
1967	0	0	0	0	0	0	157	34,654	9,247	12,156	13,896	1,504	71.6
1968	0	0	0	0	0	0	1,543	37,681	12,159	14,371	12,254	2,396	80.4
1969	0	0	0	0	0	0	217	5,501	28,838	15,388	14,453	25,210	89.6
1970	2,729	0	0	0	0	0	0	17,086	9,735	29,540	41,932	193	101.2
1971	0	0	0	0	0	0	0	0	28,690	11,534	8,277	1,807	50.3
1972	0	0	0	0	0	0	0	0	26,992	7,975	0	0	35.0
1973	0	0	0	0	0	0	843	51,611	12,069	11,188	9,021	2,258	87.0
1974	0	0	0	0	0	0	0	0	7,141	42,859	0	0	50.0
1975	0	0	0	0	0	0	0	0	31,314	18,687	0	0	50.0
1976	0	0	0	0	0	0	0	5,061	44,939	0	0	0	50.0
1977	0	0	0	0	0	0	0	35,998	4	31	18,590	15,674	70.3
1978	9,536	0	0	0	0	0	221	36,937	14,520	14,863	22,479	22,935	121.5
1979	6,285	0	0	0	0	0	717	6,255	45,123	20,290	22	0	78.7
1980	0	0	0	0	0	0	0	18,831	11,373	41,466	572	0	72.2
1981	0	0	0	0	0	0	1,612	20,361	37,069	1,930	0	0	61.0
1982	0	0	0	0	0	0	155	3,027	22,653	12,626	10,655	1,247	50.4
1983	0	0	0	0	0	0	1,609	33,487	15,555	11,821	10,858	1,552	74.9
1984	0	0	0	0	0	0	1,863	23,887	10,188	25,906	42,319	375	104.5
1985	0	0	0	0	0	0	2,083	1,202	26,537	2,509	0	0	32.3
1986	0	0	0	0	0	0	0	24,398	30,537	6,745	1	0	61.7
1987	0	0	0	0	0	0	682	20,449	5,117	31,945	4,101	1	62.3
1988	0	0	0	0	0	0	2,336	10,511	16,331	30	0	0	29.2
1989	0	0	0	0	0	0	568	22,287	4,662	20,423	17,148	9	65.1
1990	0	0	0	0	0	0	3,549	26,529	5,695	12,052	23,231	1,352	72.4
1991	0	0	0	0	0	0	0	14,577	23,683	11,093	10,965	1,455	61.8
1992	0	0	0	0	0	0	654	24,715	6,488	6,512	40,341	21,504	100.2
1993	363	0	0	0	0	0	289	592	30,378	1,550	0	0	33.2
1994	0	0	0	0	0	0	0	22,429	21,552	17,895	133	0	62.0
1995	0	0	0	0	0	0	2,587	24,837	3,170	38,980	251	0	69.8
1996	0	0	0	0	0	0	0	15,671	19,158	13,558	10,186	1,384	60.0
1997	0	0	0	0	0	0	0	0	25,067	7,957	0	0	33.0
1998	0	0	0	0	0	0	1,435	45,997	21,315	15,884	12,376	4,056	101.1
1999	0	0	0	0	0	0	0	21,223	11,947	14,699	7,735	370	56.0
2000	0	0	0	0	0	0	870	12,483	43,563	13,450	11,403	934	82.7
2001	0	0	0	0	0	0	0	12,844	0	20,286	19,246	18,890	71.3
2002	10,644	0	0	0	0	0	373	9,328	15,314	12,584	11,043	948	60.2
2003	0	0	0	0	0	0	418	20,534	6,572	8,484	32,578	28,093	96.7
2004	10,031	0	0	0	0	0	3,250	24,394	33,237	18,506	9	0	89.4
2005	0	0	0	0	0	0	3,665	26,731	26,038	1,148	0	0	57.6
2006	0	0	0	0	0	0	50	19,332	8,378	12,380	11,595	848	52.6
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	839	0	0	0	0	0	657	17,741	20,437	13,626	9,961	4,086	67.3

IP6 Full Integrated Plan CC4 More Adverse - End of Month Reservoir Storage

Year	Keechelus Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,303	10,138	38,918
1926	64,930	81,834	79,091	58,193	19,761	8,279	6,378	5,640	4,153	13,163	17,914	36,927
1927	69,724	89,077	80,956	79,960	65,362	46,223	14,924	7,980	7,200	12,280	41,813	72,326
1928	90,753	77,057	96,386	85,908	59,317	37,296	11,737	8,097	4,816	12,704	11,965	10,526
1929	9,996	10,641	31,678	52,986	60,777	51,578	31,288	12,224	8,260	7,453	5,787	13,352
1930	10,917	24,621	42,536	49,569	50,425	34,318	17,439	8,787	5,256	9,033	10,342	9,416
1931	34,041	38,900	66,215	75,243	68,549	63,144	54,444	36,857	35,085	33,108	42,481	59,461
1932	78,715	91,628	119,605	137,181	88,958	60,968	32,259	11,201	8,634	10,384	53,456	98,779
1933	107,590	89,818	81,948	77,753	67,310	50,494	25,990	10,003	12,463	29,925	52,979	130,644
1934	124,264	122,471	152,147	150,458	124,080	87,478	47,092	11,596	8,542	33,398	53,651	86,019
1935	101,760	86,820	85,715	94,303	78,525	59,992	31,931	10,586	7,179	10,178	12,060	24,215
1936	68,478	66,920	80,956	73,597	43,669	22,622	10,026	7,800	6,970	4,449	2,968	23,837
1937	19,269	17,781	43,728	86,558	70,664	53,646	34,920	13,680	11,020	12,575	48,147	77,320
1938	93,151	80,070	85,224	89,932	68,066	46,327	18,064	9,024	5,431	10,336	13,444	36,913
1939	74,113	79,385	80,441	72,003	30,785	11,671	10,601	7,044	4,842	8,751	11,510	46,389
1940	52,523	75,460	80,990	80,854	55,914	30,595	11,271	6,974	3,651	5,736	9,125	32,676
1941	51,685	44,213	42,318	33,762	35,242	21,991	10,554	7,694	10,815	15,820	25,467	79,605
1942	82,441	77,168	79,622	77,822	65,958	54,288	38,418	16,824	12,507	10,348	31,242	59,771
1943	59,675	64,586	83,736	114,881	75,620	56,020	22,935	10,153	6,900	13,371	11,272	32,604
1944	58,594	62,986	67,733	80,078	76,299	55,306	31,161	11,260	10,465	9,693	16,656	12,161
1945	45,149	62,525	80,416	80,714	72,278	53,990	33,995	11,273	16,374	23,752	43,135	72,660
1946	83,910	81,318	84,884	81,537	66,663	51,262	24,649	10,025	7,902	13,106	24,085	78,696
1947	93,524	80,139	81,659	77,619	44,943	25,796	10,673	8,027	6,771	30,563	64,586	83,555
1948	83,924	84,679	80,736	82,004	93,090	71,914	28,144	10,795	8,648	11,319	35,084	64,084
1949	61,419	65,179	84,011	104,222	106,259	78,911	46,921	12,099	8,770	15,390	26,364	58,835
1950	55,673	62,121	80,406	110,256	125,302	112,509	65,472	26,559	21,279	26,447	55,326	85,921
1951	79,836	101,567	101,592	134,832	147,599	117,461	65,024	23,110	16,425	24,261	31,154	57,331
1952	54,515	74,703	83,738	113,534	105,879	83,083	47,389	11,887	7,370	3,077	2,849	8,286
1953	57,362	79,898	84,649	79,655	56,701	33,763	10,980	9,305	6,897	8,757	26,736	85,455
1954	86,992	92,408	82,231	79,401	64,462	51,858	30,437	11,299	8,545	7,710	22,856	33,219
1955	56,478	60,055	60,434	79,195	80,209	73,489	46,121	14,693	10,766	22,582	53,492	106,639
1956	106,332	83,807	90,457	121,809	117,983	92,537	39,808	10,476	7,089	15,575	17,536	67,329
1957	64,454	65,862	80,698	106,096	88,903	64,689	30,896	10,168	6,499	8,831	13,624	41,082
1958	76,030	81,772	79,778	79,458	30,648	10,907	8,144	5,217	3,257	10,987	39,496	81,533
1959	99,137	81,254	81,138	82,420	62,972	43,526	15,198	9,322	18,042	34,037	66,616	92,326
1960	90,079	90,880	80,918	101,517	97,441	76,854	45,881	12,336	8,991	12,683	38,723	39,573
1961	73,933	95,434	101,454	113,100	96,577	69,739	38,860	10,697	7,923	11,918	13,671	36,278
1962	61,329	59,270	71,256	76,064	45,412	17,407	9,455	8,126	6,266	10,494	31,024	55,255
1963	61,704	75,520	80,440	78,526	60,534	42,714	28,325	11,546	9,393	15,673	39,099	70,515
1964	92,246	79,781	80,472	80,004	66,321	62,318	36,714	12,145	10,838	11,015	21,592	53,647
1965	85,917	95,858	80,492	98,995	88,811	68,254	36,682	11,563	8,206	11,314	13,616	23,106
1966	46,234	50,047	72,664	89,180	57,134	30,893	10,687	8,508	6,363	12,368	19,289	76,029
1967	95,189	82,360	81,711	78,465	59,167	37,903	11,900	7,902	4,327	12,013	13,186	45,798
1968	77,912	94,786	89,683	78,454	46,345	27,075	10,365	10,251	9,121	12,504	26,711	58,989
1969	57,060	53,931	79,259	102,710	70,281	48,346	15,217	9,294	12,252	10,206	13,255	41,640
1970	78,860	79,668	80,345	78,808	55,503	32,883	11,314	8,576	7,903	11,990	16,398	25,793
1971	65,179	81,517	81,163	89,428	86,437	73,176	48,368	18,712	16,935	22,213	37,136	59,724
1972	79,782	85,167	98,694	105,246	102,282	76,053	30,274	10,533	13,306	11,124	17,465	79,659
1973	91,469	77,778	78,661	66,656	31,413	11,224	8,170	4,577	3,477	5,834	23,999	64,259
1974	94,115	90,505	87,677	98,611	76,106	59,905	16,467	8,188	4,826	3,636	12,056	40,567
1975	79,912	80,108	79,981	80,224	86,932	61,718	19,594	11,866	8,072	15,848	40,204	91,935
1976	118,796	122,944	137,790	154,803	145,017	111,599	61,118	23,004	18,164	15,089	10,030	9,003
1977	10,104	10,211	19,142	11,326	13,150	8,287	5,839	4,727	4,333	4,202	22,594	78,562
1978	88,010	80,209	81,382	80,108	53,780	30,326	10,870	8,729	14,859	12,551	24,033	33,484
1979	26,399	29,551	59,464	78,846	71,735	53,161	36,172	12,266	9,671	11,990	10,755	45,570
1980	42,782	48,299	76,092	98,879	63,851	36,300	11,894	8,929	7,297	5,022	16,007	55,800
1981	62,765	83,167	80,636	79,868	60,659	46,745	25,856	10,159	10,388	17,131	24,558	61,756
1982	90,937	101,352	96,248	83,864	68,234	60,998	35,407	10,672	8,119	11,118	14,638	47,854
1983	80,857	81,002	83,732	67,691	30,615	11,116	10,863	8,926	7,613	6,998	42,106	39,752
1984	82,345	80,088	83,903	65,327	42,479	16,241	9,005	6,786	3,930	6,234	16,410	20,663
1985	17,638	15,065	19,984	61,849	61,764	51,786	38,919	23,096	19,684	26,896	30,576	24,869
1986	58,438	75,136	80,804	81,376	68,908	51,734	38,430	16,877	15,759	14,443	43,735	43,518
1987	66,719	79,628	85,929	77,084	51,617	31,317	14,262	8,155	4,631	2,393	5,903	16,540
1988	37,269	46,171	74,313	78,746	69,717	53,297	36,459	14,039	11,317	17,519	43,606	45,638
1989	80,071	80,210	83,050	79,187	50,134	29,010	11,384	8,762	5,506	7,474	22,628	40,482
1990	80,565	80,047	87,541	83,450	47,082	29,362	10,226	8,240	4,768	10,851	56,206	69,811
1991	80,212	94,717	79,840	86,113	67,251	46,808	17,072	9,600	5,588	5,424	16,182	46,422
1992	75,315	83,903	77,733	63,006	22,910	8,685	8,221	6,590	4,865	4,398	12,010	24,816
1993	24,449	23,796	51,301	74,275	74,740	59,016	36,050	12,828	9,204	10,385	11,181	18,979
1994	53,482	54,199	74,858	77,923	63,641	46,842	30,193	12,426	8,965	13,130	14,779	44,781
1995	69,458	86,926	80,212	76,210	52,794	26,799	10,880	8,626	5,099	15,449	38,871	81,900
1996	83,277	88,148	79,418	89,514	71,521	49,483	19,839	9,325	7,434	16,288	24,452	35,379
1997	75,859	80,218	99,223	114,987	110,049	78,722	34,309	10,939	9,873	19,818	38,286	68,365
1998	90,344	80,091	97,363	89,227	59,721	35,073	10,748	6,751	3,085	6,230	28,693	95,301
1999	104,401	92,294	82,948	77,207	68,743	53,823	32,874	11,264	7,473	10,367	42,251	78,647
2000	80,049	79,914	80,444	101,444	92,786	71,793	41,923	11,302	7,896	11,173	11,790	10,147
2001	16,229	13,160	19,276	28,823	18,440	11,424	8,614	7,545	4,986	7,629	27,846	58,279
2002	86,299	81,628	80,244	90,456	69,965	54,673	26,748	9,405	5,883	5,022	7,633	14,696
2003	42,066	61,524	84,533	77,472	39,936	16,174	9,693	6,824	4,681	20,646	28,470	37,836
2004	59,520	62,586	77,692	76,782	60,981	42,593	21,429	12,371	12,130	12,817	18,032	43,886
2005	73,867	71,320	86,486	76,944	67,820	49,247	31,848	12,522	9,276	11,641	27,224	59,996
2006	99,642	95,810	80,418	76,837	63,245	43,672	15,707	8,178	6,681	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC4 More Adverse - End of Month Reservoir Storage

Year	Kachess Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	-40,785	-40,492	-12,932
1926	20,784	52,051	77,893	72,841	46,965	-9,220	-51,000	-94,987	-137,343	-142,104	-135,756	-121,656
1927	-85,248	-55,359	-12,834	37,295	40,016	10,761	-31,150	-88,084	-134,538	-133,288	-107,702	-70,521
1928	-15,466	2,178	64,634	109,851	110,980	71,727	18,443	-39,560	-87,888	-86,292	-83,736	-84,196
1929	-84,142	-87,861	-68,522	-47,735	-34,946	-42,740	-66,169	-87,302	-126,436	-144,620	-152,802	-146,059
1930	-141,665	-126,715	-103,878	-83,796	-77,806	-95,342	-114,666	-132,839	-169,126	-181,957	-183,932	-186,282
1931	-165,784	-155,446	-127,984	-100,717	-99,351	-103,065	-109,674	-125,712	-160,627	-170,575	-159,160	-141,072
1932	-110,322	-80,971	667	64,396	84,937	58,654	14,498	-35,921	-82,727	-93,683	-54,413	3,473
1933	64,869	96,590	141,476	171,050	160,412	127,403	80,326	17,429	-24,311	-18,051	5,752	135,203
1934	200,441	206,606	238,663	232,833	211,762	164,500	101,719	27,875	-20,444	-15,270	8,167	53,859
1935	124,761	158,377	180,378	193,154	176,109	140,476	86,161	18,052	-31,980	-46,420	-45,416	-35,605
1936	10,617	16,137	68,658	85,952	73,404	35,666	-16,851	-73,029	-119,195	-138,405	-146,806	-128,553
1937	-125,151	-120,103	-88,068	-26,234	-18,298	-35,367	-57,267	-83,298	-126,748	-141,364	-110,508	-78,949
1938	-14,108	7,639	47,161	105,437	109,208	76,319	29,332	-28,898	-78,696	-87,645	-81,602	-59,854
1939	-12,693	2,765	41,999	55,857	35,310	-1,935	-50,986	-97,531	-142,733	-156,479	-155,965	-127,771
1940	-113,256	-85,063	-33,471	-18,225	-9,409	-42,356	-81,713	-121,428	-164,047	-177,549	-178,894	-155,206
1941	-130,728	-130,976	-125,266	-123,292	-118,190	-130,833	-145,364	-163,217	-184,905	-187,703	-175,631	-135,892
1942	-116,106	-85,401	-62,933	-44,038	-42,903	-57,473	-75,498	-100,759	-144,814	-164,085	-136,555	-113,692
1943	-105,251	-93,355	-70,804	8,793	32,422	8,715	-32,213	-85,574	-134,996	-144,274	-141,086	-128,595
1944	-106,916	-96,726	-86,432	-53,337	-45,063	-67,689	-93,162	-120,981	-156,856	-170,901	-167,246	-163,102
1945	-135,314	-114,718	-87,736	-39,151	-32,191	-52,228	-75,718	-110,157	-148,723	-158,089	-139,186	-107,655
1946	-46,758	-25,095	33,503	83,970	90,110	66,198	20,268	-33,981	-81,972	-87,055	-77,793	-17,981
1947	15,815	55,191	100,453	144,394	121,628	80,082	17,563	-41,587	-88,942	-74,989	-46,555	-539
1948	52,429	84,102	109,941	158,456	182,695	182,182	161,974	111,659	33,914	24,461	46,220	85,469
1949	89,206	102,053	144,524	192,441	190,323	159,883	95,915	31,040	-18,633	-21,136	-6,488	24,709
1950	30,580	45,723	74,994	149,742	197,049	205,760	184,949	134,858	49,891	33,074	59,057	99,234
1951	138,679	174,209	180,601	215,192	228,065	218,991	187,464	143,255	77,920	83,966	96,019	120,006
1952	123,147	139,116	167,637	210,026	202,602	166,025	106,008	34,857	-15,966	-35,849	-46,097	-42,037
1953	3,821	47,743	80,462	112,766	104,309	62,429	5,526	-51,569	-100,991	-109,782	-94,382	-26,375
1954	30,319	70,392	108,731	161,060	151,459	125,550	84,398	36,987	-10,845	-23,156	-12,082	-1,926
1955	27,197	38,437	46,782	82,236	98,882	83,623	37,416	-9,363	-57,043	-50,564	-23,507	51,363
1956	101,894	129,196	179,219	224,996	217,391	206,811	183,260	133,310	66,342	66,207	72,210	108,165
1957	111,561	120,466	159,677	199,946	185,307	136,083	72,631	6,985	-43,105	-58,706	-52,909	-29,879
1958	9,198	56,805	68,464	99,124	70,593	24,430	-30,355	-85,335	-131,569	-132,739	-102,654	-63,184
1959	2,565	34,529	78,178	128,256	127,804	93,131	41,773	-18,006	-55,306	-51,058	-20,750	29,141
1960	73,824	122,564	161,159	195,638	192,584	164,076	107,906	41,393	-10,142	-17,374	7,840	14,040
1961	53,290	119,371	173,753	187,671	178,910	147,701	90,251	21,420	-29,862	-36,688	-33,026	-9,730
1962	20,713	25,647	43,655	65,891	53,185	7,479	-42,698	-96,512	-142,231	-148,326	-128,334	-102,769
1963	-87,501	-67,252	-55,181	-9,892	-11,912	-31,117	-49,208	-77,591	-121,117	-133,592	-111,038	-81,877
1964	-18,755	12,471	58,854	113,135	110,749	96,716	57,714	9,865	-36,095	-37,697	-28,564	1,467
1965	40,446	98,149	141,676	190,987	180,499	148,247	88,966	19,578	-30,313	-41,041	-37,789	-27,868
1966	-7,403	-578	24,459	91,800	86,166	42,208	-16,157	-75,342	-124,683	-134,258	-124,720	-84,003
1967	-10,870	33,631	72,544	84,349	77,076	46,957	2,573	-56,479	-105,851	-110,240	-104,678	-75,830
1968	-36,544	12,749	63,688	98,356	81,192	48,064	-5,545	-59,078	-104,116	-110,654	-96,097	-67,782
1969	-61,625	-58,370	-22,042	47,570	62,086	28,611	-20,159	-76,705	-118,179	-127,882	-125,379	-105,625
1970	-74,305	-55,467	-18,378	18,836	16,363	-11,535	-60,248	-119,136	-165,600	-178,110	-173,426	-163,215
1971	-121,303	-88,379	-62,279	649	62,798	51,578	14,439	-26,041	-67,653	-70,911	-54,688	-27,405
1972	3,745	33,717	103,379	162,308	176,346	170,910	150,275	92,856	33,417	10,919	17,717	56,841
1973	115,718	130,265	147,514	143,056	116,298	59,332	-4,476	-63,927	-110,668	-125,264	-109,254	-71,014
1974	-21,348	21,805	69,827	137,215	160,225	159,913	145,446	86,996	19,212	-1,241	5,010	29,703
1975	74,829	89,585	128,672	158,510	180,375	174,554	153,836	104,729	37,632	39,316	60,190	147,965
1976	200,226	211,375	229,406	238,020	228,602	214,571	184,839	138,544	73,867	43,072	41,226	37,428
1977	37,027	36,053	41,150	30,232	30,959	-1,944	-35,092	-92,254	-129,574	-146,872	-129,645	-60,274
1978	-4,611	17,866	54,137	77,636	67,941	32,397	-20,192	-78,913	-119,078	-134,641	-121,463	-109,502
1979	-107,538	-97,531	-59,547	-19,182	-14,149	-35,346	-57,545	-87,893	-131,355	-146,576	-148,027	-120,326
1980	-113,458	-102,644	-67,965	-6,372	5,404	-24,829	-60,483	-111,844	-157,296	-174,516	-159,095	-131,549
1981	-113,105	-74,963	-59,543	-20,192	-23,748	-42,953	-68,197	-103,597	-146,544	-147,596	-137,664	-106,085
1982	-61,935	917	49,123	94,500	100,932	77,215	36,682	-11,736	-59,088	-68,619	-62,507	-31,670
1983	22,359	51,539	94,546	107,446	82,865	38,735	-20,384	-78,135	-125,539	-142,287	-112,167	-107,444
1984	-62,552	-45,171	-7,250	9,317	5,332	-27,847	-79,923	-132,899	-179,927	-192,909	-177,519	-165,805
1985	-159,365	-154,986	-145,421	-109,633	-99,101	-110,050	-123,328	-139,322	-180,508	-186,954	-178,500	-176,416
1986	-147,117	-126,020	-80,961	-63,800	-51,040	-67,908	-83,069	-106,531	-145,037	-161,801	-132,211	-125,415
1987	-99,193	-64,711	-10,262	18,064	9,819	-13,661	-35,740	-65,931	-110,523	-133,819	-139,294	-120,789
1988	-99,720	-86,084	-56,762	-17,738	-10,478	-28,335	-46,878	-75,711	-118,183	-127,773	-105,327	-96,869
1989	-59,607	-50,009	-11,316	37,366	25,191	-3,336	-33,320	-72,034	-117,854	-132,641	-115,652	-104,782
1990	-60,171	-23,910	26,900	60,424	50,816	18,659	-33,124	-90,904	-140,242	-145,962	-103,908	-79,018
1991	-36,030	18,191	50,923	109,074	109,386	76,763	29,013	-28,691	-79,369	-98,782	-83,511	-57,555
1992	-19,239	23,553	40,589	39,709	18,437	-23,977	-63,676	-105,410	-146,769	-162,729	-156,991	-147,306
1993	-140,705	-136,412	-113,669	-82,109	-71,143	-90,012	-118,995	-143,978	-184,039	-198,558	-199,599	-183,848
1994	-148,940	-141,875	-111,623	-99,963	-102,492	-119,566	-137,084	-155,346	-190,404	-196,490	-188,372	-158,982
1995	-129,489	-82,514	-39,461	-17,426	-21,811	-54,140	-97,065	-149,000	-197,133	-191,082	-164,594	-99,640
1996	-39,091	10,016	34,003	89,636	95,242	63,081	17,808	-38,080	-85,253	-91,177	-82,120	-65,443
1997	-28,634	-8,179	56,747	129,961	173,037	171,092	150,362	101,540	39,255	33,795	51,837	79,142
1998	129,287	164,032	197,839	191,861	159,183	100,033	27,564	-32,767	-83,433	-93,095	-72,341	-13,102
1999	56,563	98,716	144,094	159,690	155,044	125,531	85,088	39,214	-11,133	-21,157	7,622	47,664
2000	88,435	102,142	146,252	188,861	180,657	152,733	98,045	31,479	-18,458	-23,745	-26,571	-28,577
2001	-21,753	-21,631	-13,202	-1,108	459	-6,837	-31,794	-61,565	-103,261	-117,247	-100,738	-71,661
2002	-19,277	6,314	29,773	93,194	102,310	75,474	32,425	-22,250	-72,794	-85,336	-87,440	-83,420
2003	-57,379	-32,013	25,357	50,170	33,502	-2,075	-43,901	-87,276	-132,945	-135,365	-119,820	-102,413
2004	-76,960	-67,553	-35,588	-27,145	-30,510	-51,879	-75,864	-112,781	-153,822	-167,775	-158,171	-137,208
2005	-105,347	-100,234	-70,868	-31,180	-28,220	-47,187	-67,894	-88,778	-127,520	-139,673	-120,358	-91,114
2006	-20,103	31,551	64,137	103,132	99,052	67,428	23,524	-33,876	-82,252	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP6 Full Integrated Plan CC4 More Adverse - End of Month Reservoir Storage

Year	Cle Elum Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,306	14,860	68,166
1926	140,109	199,371	237,854	265,617	250,897	180,950	124,611	51,087	26,665	31,745	47,097	79,312
1927	145,411	188,842	216,818	301,503	369,075	353,260	251,094	142,418	112,849	126,256	198,018	260,428
1928	329,178	330,143	445,555	451,443	443,820	297,674	120,272	35,289	23,962	39,026	46,275	46,984
1929	43,542	37,385	67,655	118,509	171,325	168,826	111,597	38,713	13,068	9,981	10,213	30,042
1930	35,760	65,417	111,779	209,774	241,255	211,984	149,951	76,252	52,049	35,181	35,419	33,882
1931	79,690	102,904	179,988	247,286	268,311	218,204	119,900	31,502	13,392	21,438	44,109	72,393
1932	120,165	157,613	280,834	450,948	429,977	309,623	145,265	61,131	51,658	45,160	196,530	310,379
1933	336,271	349,119	375,830	438,588	437,688	333,765	161,917	30,375	14,546	51,590	117,440	412,470
1934	422,190	393,450	451,398	448,159	397,682	250,756	87,736	14,331	9,886	60,144	130,865	237,701
1935	330,217	352,750	377,240	436,801	433,612	305,097	127,627	20,917	9,039	12,836	16,946	37,269
1936	133,700	130,495	214,170	279,564	271,045	150,899	37,206	10,859	8,536	5,823	7,191	59,177
1937	58,623	62,789	109,335	276,232	318,644	267,369	153,941	28,410	11,338	14,735	93,042	145,184
1938	240,182	242,348	285,020	435,050	438,884	303,024	118,434	27,350	16,377	21,640	43,960	93,865
1939	188,844	211,668	251,835	300,088	264,988	148,398	94,152	21,874	8,865	15,315	24,836	102,467
1940	127,062	178,616	279,394	331,866	340,700	272,352	158,185	47,306	18,612	20,687	28,839	87,976
1941	135,198	130,866	147,430	163,096	169,465	132,680	79,187	23,359	14,667	26,311	55,409	144,197
1942	168,238	196,007	222,906	304,787	310,961	249,286	110,088	18,299	8,134	7,228	61,363	99,977
1943	100,899	105,342	145,125	336,609	370,599	315,370	225,758	116,984	87,939	92,881	93,179	121,033
1944	160,877	177,054	192,795	262,831	285,409	237,144	149,621	49,523	26,129	23,568	40,645	48,270
1945	125,540	177,800	221,887	290,937	328,755	250,068	111,548	17,880	13,292	28,559	65,690	122,566
1946	192,908	210,791	293,061	388,129	447,851	337,067	170,293	74,695	64,822	62,110	65,769	172,667
1947	214,541	243,095	325,199	407,229	375,509	223,944	63,828	12,212	8,818	68,317	145,791	209,062
1948	269,812	297,763	316,701	393,361	435,646	381,057	199,753	49,955	26,235	29,787	64,494	115,983
1949	105,634	117,817	174,697	302,437	392,554	321,101	155,518	30,093	11,341	16,500	56,011	146,048
1950	147,340	163,390	198,991	340,472	449,375	436,137	301,986	116,393	81,551	89,055	148,489	229,747
1951	266,578	318,014	314,342	441,947	450,264	391,443	226,678	63,742	35,397	54,020	74,130	111,194
1952	100,090	107,244	138,203	290,025	374,505	280,706	124,192	20,100	8,445	5,135	6,426	26,363
1953	140,685	227,045	265,413	328,146	346,212	218,360	67,729	17,462	9,022	13,188	61,565	192,349
1954	267,364	314,737	347,141	430,981	431,008	386,835	249,213	82,238	50,183	44,914	82,686	93,832
1955	140,106	160,455	158,132	209,128	307,248	334,488	218,192	88,184	78,016	101,320	147,059	215,248
1956	263,086	262,213	307,652	431,406	451,082	416,331	240,484	74,597	47,557	60,276	67,054	171,870
1957	160,878	157,737	191,718	341,024	378,309	259,790	97,408	15,590	7,839	12,306	26,766	70,606
1958	146,883	221,747	236,913	300,049	274,782	147,931	46,362	12,146	7,366	18,644	107,186	193,638
1959	306,960	316,401	357,536	451,480	434,035	287,883	111,136	20,638	21,416	43,358	118,502	219,804
1960	241,817	285,763	322,216	451,468	430,277	319,969	139,671	23,807	10,141	17,011	72,538	75,337
1961	149,308	243,951	333,618	410,246	435,756	295,959	122,433	19,423	8,655	17,444	24,736	68,155
1962	121,990	123,950	156,839	242,875	218,314	106,080	45,209	13,261	9,630	16,595	81,752	121,166
1963	143,240	187,892	220,050	287,991	300,988	223,990	111,927	18,178	8,474	21,714	68,723	116,929
1964	217,769	238,500	281,418	373,504	401,740	342,480	174,652	43,086	22,216	25,475	46,064	94,796
1965	167,413	251,996	293,254	436,262	423,958	281,940	115,346	18,857	9,776	16,333	31,911	56,335
1966	84,650	87,717	131,065	306,422	318,471	183,172	55,084	13,104	7,614	20,785	48,990	157,712
1967	289,111	344,371	385,629	395,820	402,755	292,052	113,241	49,300	38,497	42,001	55,687	148,225
1968	224,347	297,783	393,950	433,614	389,872	235,077	72,981	21,627	12,811	19,084	56,929	114,850
1969	113,682	107,240	166,329	342,895	376,790	265,081	128,427	58,561	33,801	34,454	43,677	83,745
1970	136,870	161,640	199,578	264,883	303,158	276,131	173,357	42,504	18,539	24,417	39,769	52,805
1971	131,779	180,096	192,701	312,760	450,468	416,082	261,406	167,111	157,474	163,866	185,897	218,424
1972	264,491	288,887	374,108	429,892	451,323	417,090	246,453	72,635	46,213	37,889	53,746	166,916
1973	235,352	228,418	252,194	258,308	238,395	113,544	19,583	8,198	7,476	12,457	40,602	102,492
1974	178,798	223,783	262,521	406,025	449,197	413,285	286,379	107,093	76,635	66,310	89,843	138,021
1975	216,480	220,375	255,625	304,377	426,167	430,363	257,508	87,917	63,546	75,527	117,348	259,356
1976	325,497	351,602	386,334	450,898	450,013	371,467	201,483	51,985	26,060	17,960	14,585	16,783
1977	24,949	22,069	26,830	26,275	38,956	14,177	7,706	4,862	5,959	10,440	63,624	191,641
1978	263,090	283,306	374,738	439,556	390,348	235,277	90,449	23,760	16,728	11,867	38,888	50,295
1979	46,473	53,160	143,359	231,473	275,425	215,720	100,765	16,522	8,077	16,779	16,541	86,532
1980	85,733	87,415	151,854	328,799	358,490	314,888	187,332	39,486	15,978	8,956	49,520	99,234
1981	140,062	209,761	243,579	321,361	340,945	260,909	113,616	19,114	10,836	18,776	48,825	99,797
1982	175,488	275,344	318,693	379,166	444,299	395,972	208,508	70,381	60,408	62,310	70,632	171,591
1983	263,793	304,921	387,348	385,072	336,969	185,154	56,470	13,870	9,200	9,851	83,757	83,080
1984	170,885	197,281	285,761	292,681	283,765	244,531	158,397	37,602	12,637	13,706	42,684	55,843
1985	61,130	63,685	88,066	214,653	271,620	250,860	131,397	28,031	10,183	35,408	52,426	42,342
1986	94,422	140,462	238,043	269,237	288,907	224,063	100,956	17,558	11,286	12,887	95,062	96,845
1987	133,430	172,806	255,569	316,277	293,697	233,081	142,261	26,289	9,438	5,568	11,876	57,136
1988	101,592	133,779	224,529	306,804	337,575	248,626	113,163	18,431	10,485	25,840	89,569	106,294
1989	177,865	195,971	234,769	323,831	297,179	204,214	130,562	25,229	9,332	13,191	54,606	74,835
1990	171,187	216,672	308,841	380,459	339,902	208,292	96,784	24,716	9,121	23,065	192,592	245,533
1991	310,095	380,183	396,600	451,480	446,261	304,893	127,533	33,290	20,077	11,250	50,203	96,646
1992	168,280	235,163	270,004	285,689	263,432	210,903	151,548	66,335	44,607	22,766	45,437	60,809
1993	67,081	70,469	114,186	209,902	295,068	264,828	172,469	72,550	45,788	40,461	39,628	79,931
1994	148,305	149,915	233,969	283,108	287,376	238,928	166,662	81,612	58,218	54,327	63,490	123,932
1995	196,611	270,753	319,574	386,443	434,143	373,932	225,720	65,945	34,089	57,336	142,963	260,588
1996	323,490	366,214	393,760	451,480	430,395	294,548	111,411	30,047	21,161	36,383	49,880	59,505
1997	116,259	142,481	225,937	370,133	450,913	419,768	245,375	75,112	48,665	58,027	92,213	118,441
1998	174,152	198,322	283,012	310,949	303,406	172,851	36,337	9,879	5,745	10,632	85,588	202,660
1999	306,513	351,831	387,555	431,917	440,911	399,071	248,434	89,887	56,740	53,034	144,865	250,237
2000	290,000	288,283	339,022	451,408	446,401	330,622	150,520	25,893	9,526	16,580	14,846	14,774
2001	24,238	19,304	32,531	71,067	93,980	90,848	40,197	10,736	6,627	16,299	64,260	109,146
2002	192,154	224,366	248,284	405,713	437,334	324,397	140,570	34,525	21,670	10,602	18,993	37,237
2003	87,822	141,888	235,175	280,009	252,783	148,567	92,346	20,303	9,928	38,502	74,383	102,668
2004	129,353	140,921	237,641	299,191	322,762	258,880	112,422	19,114	9,981	12,826	37,520	74,792
2005	127,794	128,516	214,476	286,410	308,214	257,275	163,633	69,536	33,634	23,785	63,474	125,761
2006	264,908	330,442	351,286	438,595	429,319	290,633	111,430	26,925	19,484	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC4 More Adverse - End of Month Reservoir Storage

Year	Bumping Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	121,599	116,673	125,281
1926	136,963	161,844	173,281	180,300	178,394	149,107	62,076	20,428	13,804	10,526	12,706	23,344
1927	48,677	57,896	66,135	85,058	115,063	137,425	78,428	26,961	21,370	19,346	32,700	46,350
1928	66,518	68,981	99,663	118,943	153,622	152,364	133,377	75,990	69,623	66,687	64,291	65,706
1929	64,230	60,731	63,621	53,503	64,844	28,212	10,102	1,709	1,397	1,450	1,248	2,867
1930	1,599	5,762	15,170	30,343	33,062	25,065	4,525	1,479	1,358	2,165	1,933	1,697
1931	10,758	13,423	26,889	34,601	32,618	27,468	5,968	1,517	1,361	3,745	2,790	10,691
1932	28,522	44,537	81,798	112,086	138,280	141,246	132,774	75,832	69,882	64,621	89,374	119,626
1933	165,988	169,875	177,131	180,300	180,300	180,300	169,449	157,638	151,996	149,712	154,115	189,451
1934	176,760	176,578	189,966	180,300	179,878	172,934	149,922	136,638	130,331	134,304	154,476	169,999
1935	169,999	179,798	189,851	180,300	180,300	170,170	147,365	134,475	128,049	120,312	115,996	111,323
1936	131,860	130,880	143,977	158,080	170,771	158,849	117,857	37,584	27,290	18,654	11,692	23,724
1937	20,128	16,629	25,360	43,617	32,699	23,849	4,617	1,627	1,330	2,374	20,146	43,880
1938	65,277	67,443	87,980	115,352	140,685	141,609	124,789	81,793	75,426	68,634	68,376	74,893
1939	96,414	109,521	123,294	144,121	158,373	149,255	62,442	21,697	15,333	7,793	2,784	13,234
1940	24,671	59,845	87,023	65,344	28,704	18,301	1,679	1,477	1,326	2,306	2,762	7,989
1941	20,040	21,873	23,164	25,604	27,387	21,584	4,403	1,503	1,364	1,586	2,076	13,766
1942	18,008	30,671	40,201	38,270	33,864	27,267	11,679	2,047	1,326	1,699	19,169	24,703
1943	26,055	26,277	40,420	98,381	124,452	134,746	73,550	24,365	18,236	15,429	12,051	13,896
1944	22,319	33,169	43,622	44,482	31,376	26,984	5,334	1,492	1,548	1,277	3,236	1,969
1945	18,481	40,751	56,185	54,269	33,108	22,785	2,398	1,373	1,508	2,369	7,427	28,148
1946	51,022	60,130	82,388	97,557	127,932	132,638	125,161	78,606	72,477	70,870	71,201	103,236
1947	122,789	136,007	158,696	180,300	180,300	170,462	147,518	86,336	77,665	84,825	100,474	130,419
1948	151,878	159,562	165,588	170,763	178,324	179,483	165,315	156,350	150,262	146,505	153,273	162,004
1949	161,512	161,345	170,905	179,951	180,300	175,291	153,832	140,730	134,654	131,274	140,055	160,346
1950	168,462	169,999	169,999	159,650	179,647	180,300	167,478	155,870	149,860	148,145	163,557	171,378
1951	170,712	177,999	170,391	171,570	178,639	172,655	150,574	139,540	133,233	141,288	145,508	169,999
1952	169,999	171,093	171,332	180,084	180,300	171,425	150,036	135,516	129,090	121,902	115,535	115,104
1953	158,515	179,511	189,879	180,300	180,300	177,228	163,759	87,685	79,498	73,492	78,551	111,816
1954	135,366	139,586	142,353	156,178	176,500	180,300	170,097	163,824	157,864	152,142	158,706	164,793
1955	169,999	179,882	176,957	180,090	180,300	180,300	169,881	147,117	141,405	148,776	157,490	170,780
1956	170,327	170,327	169,999	169,920	180,175	179,974	164,029	153,199	146,951	145,426	145,406	166,865
1957	168,034	169,311	186,038	180,292	180,300	171,568	151,206	133,332	125,812	118,674	116,830	122,732
1958	140,748	168,406	174,063	180,300	179,381	166,708	106,995	32,001	23,432	18,917	39,743	67,966
1959	113,467	116,966	129,325	149,318	169,240	165,216	149,963	117,990	113,884	117,865	145,475	169,999
1960	170,085	182,451	188,629	180,295	180,300	173,978	156,346	141,697	135,330	131,779	148,440	150,285
1961	169,999	183,155	189,825	180,300	180,300	169,558	146,324	131,081	124,774	119,988	115,860	122,255
1962	142,853	150,684	159,723	180,133	180,300	168,594	90,533	27,556	19,642	14,520	33,562	35,837
1963	41,064	63,612	72,835	63,524	33,303	25,027	3,330	1,438	1,312	2,684	10,023	10,884
1964	34,618	38,637	48,844	60,700	80,622	95,687	91,003	81,914	76,202	70,005	70,647	83,067
1965	105,387	130,768	152,534	177,585	180,300	169,251	146,047	130,751	124,503	117,682	115,702	114,829
1966	116,349	115,405	129,670	156,744	179,433	172,031	133,194	53,780	43,427	37,519	40,314	63,925
1967	113,545	133,039	150,194	153,467	167,117	170,901	150,846	74,120	67,575	66,952	66,686	77,201
1968	98,414	134,033	162,317	176,003	180,300	168,710	141,506	62,097	55,592	51,524	60,637	74,718
1969	79,206	78,373	89,072	127,571	163,296	155,231	105,801	31,019	25,100	18,627	15,890	21,215
1970	36,156	40,099	54,118	68,697	87,451	77,618	20,464	5,843	1,592	2,263	3,958	4,938
1971	28,918	55,465	57,924	70,797	102,769	118,552	117,496	65,836	60,302	55,503	58,128	62,186
1972	78,050	82,735	108,621	118,281	152,589	168,734	159,342	149,275	145,486	139,163	137,563	150,352
1973	169,999	171,075	179,253	180,300	180,238	171,048	142,344	59,858	49,266	41,848	49,341	67,050
1974	93,244	111,182	123,664	147,664	158,484	175,106	167,792	157,848	151,898	145,419	147,819	157,104
1975	169,999	172,228	175,286	170,741	180,300	179,954	169,875	159,207	153,435	152,882	160,386	170,479
1976	170,566	176,014	176,547	179,714	180,239	179,605	166,821	157,225	151,632	145,569	139,709	133,560
1977	131,962	129,011	132,454	136,441	139,454	124,262	40,373	3,061	1,590	2,253	16,721	50,477
1978	73,781	81,668	104,787	122,043	140,182	134,884	92,928	29,628	23,481	16,638	15,841	20,071
1979	17,223	15,057	37,931	50,288	33,254	23,042	2,900	1,493	1,358	2,950	1,838	19,732
1980	19,424	18,500	34,671	72,873	98,882	42,740	13,176	1,820	1,462	1,392	12,914	37,571
1981	48,270	71,429	83,296	80,276	31,695	22,304	11,282	2,254	1,478	2,032	2,687	11,665
1982	20,089	46,747	60,705	74,425	110,396	130,803	121,793	100,787	94,599	89,336	86,658	93,545
1983	116,603	132,486	155,544	172,265	180,300	172,359	132,529	53,421	45,534	37,047	54,641	55,195
1984	77,884	88,678	111,367	125,422	141,040	85,081	24,412	14,806	8,617	4,199	10,312	10,681
1985	8,508	4,898	6,681	28,697	45,025	30,170	8,822	1,764	1,387	5,155	9,073	5,371
1986	16,030	23,527	52,488	48,588	33,843	24,229	5,656	1,562	1,645	2,303	18,343	18,343
1987	20,557	25,888	52,697	73,929	98,462	53,953	13,365	1,680	1,361	1,098	1,973	13,323
1988	15,536	19,277	41,843	53,750	35,707	20,035	2,366	1,497	1,425	1,950	19,231	20,522
1989	42,227	45,781	58,509	80,526	98,726	85,384	23,697	6,631	1,628	2,009	16,329	18,680
1990	44,381	59,876	85,332	116,869	137,775	132,348	76,190	26,346	20,217	15,922	38,593	49,661
1991	64,787	104,052	123,482	150,735	173,424	174,435	165,015	121,654	115,227	105,898	111,768	117,547
1992	133,657	151,949	167,444	176,369	175,208	114,011	31,759	13,223	7,034	1,780	6,563	6,423
1993	4,121	1,984	15,964	34,165	34,972	25,248	7,599	1,534	1,396	1,606	1,359	1,892
1994	13,503	12,004	31,126	39,242	31,693	24,263	3,159	1,451	1,310	3,826	4,541	23,786
1995	42,356	76,622	96,851	103,735	100,554	29,741	9,398	3,061	1,419	3,521	21,428	54,569
1996	76,644	117,816	139,583	164,277	180,300	173,539	157,050	102,010	95,762	92,088	92,467	94,126
1997	112,142	123,083	147,678	164,774	180,123	180,118	168,178	158,745	153,806	149,380	153,783	155,750
1998	169,999	174,492	189,966	180,300	180,300	172,029	149,036	88,190	77,539	70,903	84,708	110,041
1999	158,924	179,306	189,630	178,925	180,300	180,216	169,846	161,136	154,710	149,258	169,999	170,667
2000	170,428	172,530	182,737	180,300	180,300	175,595	153,885	141,757	135,509	130,322	126,150	121,477
2001	121,227	121,196	127,283	100,478	109,599	36,048	12,465	1,807	1,513	2,446	17,958	29,948
2002	54,604	64,601	75,177	99,271	134,196	142,084	128,587	94,243	88,055	80,998	76,507	79,448
2003	89,348	114,450	137,262	149,758	156,265	143,250	56,932	19,996	13,391	10,370	16,063	28,176
2004	48,897	54,082	76,710	84,420	56,358	24,216	7,087	2,035	1,435	1,886	2,909	2,508
2005	17,049	15,883	23,692	33,034	31,653	25,563	4,865	1,503	1,333	1,607	6,609	12,328
2006	73,692	90,520	97,284	111,862	132,584	135,749	118,927	69,287	62,920	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

IP6 Full Integrated Plan CC4 More Adverse - End of Month Reservoir Storage

Year	Rimrock Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,349	143	21,228
1926	44,778	84,265	123,141	149,307	153,075	120,182	79,257	45,404	70	11,071	19,964	42,222
1927	77,209	104,422	125,205	162,202	197,994	197,949	167,841	130,176	59,747	68,656	97,078	117,676
1928	131,452	142,298	196,742	197,944	198,000	192,140	176,310	106,238	3,413	6,762	10,728	18,913
1929	23,739	24,184	41,462	61,513	92,439	100,143	97,348	88,631	28,943	825	15	7,362
1930	8,233	16,195	33,350	61,743	71,716	70,797	67,558	55,618	13,837	3,766	1,347	28
1931	23,462	31,737	43,515	82,462	96,636	88,601	83,101	71,384	17,395	10,319	16,397	33,675
1932	58,147	75,615	136,365	189,130	197,994	196,568	180,045	119,888	21,383	6,890	46,262	97,358
1933	131,304	147,494	175,717	197,996	198,000	198,000	184,881	129,503	59,863	43,957	53,636	174,845
1934	177,552	183,081	198,000	198,000	197,148	185,024	173,727	98,676	478	16,733	47,477	89,412
1935	129,025	161,291	196,646	198,000	198,000	191,390	181,164	115,048	17,984	3,475	3,396	3,320
1936	38,921	45,560	65,913	91,864	102,195	98,139	67,678	0	50	1,540	13	20,173
1937	21,956	23,400	50,885	88,590	119,380	125,601	121,731	91,414	15,926	1,530	33,525	58,796
1938	108,478	122,640	161,992	197,871	198,000	194,763	179,616	105,540	4,548	4,146	5,798	24,244
1939	60,829	83,599	124,734	153,254	165,969	153,893	107,720	65,262	7,765	5,044	3,513	36,354
1940	55,968	101,483	150,673	177,057	190,214	180,191	161,782	122,823	56,139	31,448	32,405	45,809
1941	69,113	75,666	84,942	92,838	97,290	90,248	85,424	70,262	50,109	36,738	40,503	79,302
1942	98,609	114,493	133,135	155,267	171,391	169,933	166,086	124,653	41,822	8,937	42,408	56,120
1943	67,495	82,324	111,653	166,799	197,916	198,000	166,436	130,270	53,999	41,019	43,628	50,701
1944	73,758	88,172	105,306	117,298	126,615	117,919	112,194	99,491	49,359	31,558	33,871	35,448
1945	64,141	87,189	113,076	142,041	163,715	159,065	151,573	95,602	30,200	4,323	17,394	37,439
1946	83,616	103,721	150,205	186,667	198,000	196,561	180,045	119,297	18,660	10,430	17,370	89,187
1947	118,947	145,883	195,380	198,000	196,794	190,580	160,107	63,231	80	23,397	50,860	78,222
1948	127,228	153,193	163,713	196,291	197,961	196,278	187,432	144,041	83,300	87,396	104,750	129,025
1949	129,025	142,465	164,271	197,348	197,993	194,227	185,979	147,515	54,366	39,986	55,556	84,640
1950	98,536	115,864	136,097	146,252	196,811	198,000	184,266	137,385	16,783	6,883	38,658	85,634
1951	125,232	169,329	153,201	187,690	197,902	194,915	182,289	146,531	57,348	53,434	65,216	109,794
1952	116,620	141,863	164,780	197,584	197,995	191,920	183,562	129,719	30,595	1,797	12	8,380
1953	65,451	112,269	144,550	170,133	195,317	195,580	168,436	81,021	96	4,444	16,096	69,774
1954	102,547	133,037	158,739	197,849	198,000	198,000	187,532	167,107	93,907	75,469	87,308	101,758
1955	129,025	146,327	158,317	187,912	198,000	198,000	187,532	146,100	45,593	49,007	74,505	122,404
1956	129,025	141,369	143,920	177,896	197,746	198,000	186,900	144,072	48,121	29,456	35,109	81,716
1957	87,804	97,412	142,544	187,216	198,000	192,357	181,801	94,764	46	5,092	5,732	25,962
1958	58,243	103,839	118,576	144,012	161,979	147,853	105,367	36,925	43	10,104	44,331	85,405
1959	130,022	154,176	193,159	197,970	198,000	194,354	179,491	95,052	23,056	27,781	66,081	114,288
1960	129,025	163,494	195,601	197,957	198,000	194,651	186,585	137,424	41,256	19,881	51,458	58,468
1961	90,564	171,759	197,717	197,997	198,000	192,511	183,555	114,819	13,351	8,546	9,378	27,517
1962	56,232	69,006	85,177	125,186	145,899	151,559	108,198	42,220	99	7,591	39,655	47,894
1963	61,053	97,985	112,947	140,874	156,321	147,646	142,389	98,134	15,014	9,059	24,811	31,944
1964	67,730	81,422	100,544	132,841	172,734	194,752	183,789	143,516	61,979	52,943	56,057	99,713
1965	137,405	176,074	196,829	197,996	197,997	191,418	181,700	112,649	13,017	4,461	6,962	11,081
1966	22,149	28,814	61,894	109,034	139,242	134,551	105,990	24,720	57	10,426	19,894	59,246
1967	111,695	155,347	192,117	197,996	198,000	194,988	178,056	112,892	14,663	18,187	23,042	48,374
1968	75,921	129,377	178,506	198,000	197,961	193,511	163,334	84,422	61	12,530	36,311	61,705
1969	75,294	82,292	127,116	175,240	198,000	192,031	166,429	103,966	67,586	69,546	69,584	89,233
1970	123,482	139,921	180,072	197,994	198,000	187,381	153,340	124,829	47,871	28,441	32,578	44,233
1971	101,909	146,505	144,110	156,576	197,410	198,000	184,961	129,221	39,326	16,887	26,506	44,891
1972	80,800	104,766	155,947	180,073	197,878	198,000	187,082	134,219	54,360	45,781	47,590	91,185
1973	125,741	134,072	154,307	170,487	175,253	161,405	88,461	2,250	46	5,007	19,337	39,812
1974	100,193	147,677	152,887	185,653	197,768	198,000	187,437	146,460	47,024	29,799	36,566	64,475
1975	103,151	120,534	145,190	169,336	197,996	197,763	187,532	159,235	66,452	48,817	61,789	129,025
1976	130,774	156,243	176,577	197,645	198,000	198,000	186,104	146,194	55,449	52,814	49,880	44,474
1977	44,284	43,834	53,015	53,876	50,646	17,041	66	143	57	2,706	25,149	100,103
1978	129,025	149,080	187,448	198,000	198,000	191,680	160,630	90,706	49,113	37,300	41,196	53,924
1979	55,645	61,810	111,369	142,306	177,996	176,499	171,585	114,497	28,407	7,555	4,504	46,796
1980	52,268	59,184	103,640	148,669	178,862	163,757	151,673	113,303	37,126	9,779	34,393	78,356
1981	101,353	143,672	163,481	195,654	197,513	194,841	172,798	108,086	30,472	27,855	31,969	51,523
1982	74,088	113,464	151,894	181,665	198,000	196,481	180,045	127,360	25,110	5,949	8,348	28,393
1983	78,567	109,501	160,966	189,223	197,992	189,380	145,307	62,675	46	2,990	33,939	39,780
1984	89,093	121,057	167,849	192,770	198,000	193,062	160,072	132,638	57,268	37,534	55,535	64,081
1985	69,184	72,072	83,139	119,181	162,838	169,675	164,880	136,821	71,126	52,127	62,043	63,255
1986	84,569	99,065	150,899	172,471	188,974	185,002	173,251	119,459	48,795	21,446	52,844	58,440
1987	67,909	80,960	133,286	163,010	183,706	169,524	154,655	118,093	38,184	3,076	128	26,507
1988	36,960	46,320	86,779	125,405	151,526	150,707	145,392	100,751	17,037	6,474	37,678	43,273
1989	71,373	82,647	101,401	139,233	158,820	153,070	128,272	92,592	13,092	1,992	22,840	29,481
1990	80,700	114,799	163,375	198,000	198,000	195,622	161,922	104,149	12,889	9,915	43,867	64,711
1991	99,083	157,896	196,534	197,994	198,000	196,582	179,873	108,565	6,199	3,673	24,317	37,414
1992	65,268	98,065	118,951	141,291	142,572	114,402	75,746	50,938	8,274	1,826	9,900	17,072
1993	20,045	22,530	49,769	81,766	113,227	112,210	109,143	99,845	41,409	14,288	8,549	21,335
1994	50,462	57,626	87,755	107,889	120,243	111,140	104,665	93,870	42,357	7,835	16,206	56,726
1995	83,719	134,091	182,666	198,000	197,786	188,272	175,026	138,081	61,370	47,310	79,228	129,025
1996	129,025	184,458	196,228	197,978	198,000	193,841	179,354	109,212	2,597	10,918	18,931	28,647
1997	65,970	99,736	143,902	168,776	197,653	198,000	187,360	143,666	58,421	65,183	79,375	86,323
1998	114,792	128,010	171,605	187,552	198,000	187,210	151,119	28,064	46	3,512	34,382	79,637
1999	129,025	169,252	197,372	197,986	198,000	197,727	187,532	167,250	97,214	79,745	112,683	131,398
2000	131,099	146,213	169,947	197,983	197,997	195,036	187,282	141,348	44,671	22,180	21,412	20,222
2001	26,134	32,854	43,691	52,125	60,515	46,590	31,361	0	69	5,578	33,586	54,984
2002	108,109	136,711	166,840	197,693	198,000	195,762	179,928	113,556	14,128	791	20	14,902
2003	39,744	77,176	124,564	148,860	164,889	154,400	111,664	69,167	8,692	10,750	23,940	44,538
2004	77,742	99,820	157,065	195,536	197,996	188,831	171,924	103,909	29,919	7,131	9,858	14,961
2005	41,954	44,953	56,799	70,104	72,682	63,137	57,516	46,675	52	354	18,856	37,241
2006	96,823	139,086	165,337	197,997	198,000	194,653	177,439	104,946	4,161	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC4 More Adverse - End of Month Reservoir Storage

Year	Wymer Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	55,740	62,991	67,737
1926	77,280	91,603	101,092	99,962	80,447	71,903	63,955	37,068	10,619	10,558	20,781	27,914
1927	39,644	53,595	62,723	66,448	66,442	40,680	28,512	2,178	211	5,251	23,726	40,888
1928	53,941	61,665	81,196	86,191	81,511	50,436	36,033	20,844	18,514	23,608	37,802	40,921
1929	44,716	48,765	57,644	58,595	60,568	41,446	14,475	233	210	3,159	7,329	8,873
1930	12,331	20,086	28,261	25,117	12,515	282	210	210	210	6,451	14,638	16,330
1931	25,592	29,856	33,306	36,911	29,651	9,090	216	210	210	4,024	13,755	19,632
1932	27,785	38,256	58,571	65,242	54,296	35,194	23,606	13,111	12,083	19,766	41,350	57,116
1933	75,381	89,956	107,028	111,603	82,885	76,767	64,590	53,062	51,596	59,530	76,897	97,075
1934	121,670	132,026	151,546	156,513	111,031	95,603	79,826	70,335	69,749	76,143	95,828	110,951
1935	128,250	142,639	155,329	158,259	137,335	108,123	95,703	84,791	83,835	89,877	99,121	102,438
1936	120,502	128,792	148,527	152,558	110,385	104,420	93,976	87,482	68,158	62,003	63,696	68,575
1937	70,261	74,024	85,695	86,548	70,001	35,524	492	210	210	6,642	27,233	39,457
1938	57,916	68,193	84,408	87,582	69,092	53,593	40,972	29,582	28,099	33,979	47,430	54,976
1939	74,086	88,271	103,513	103,868	75,938	67,404	59,107	28,377	1,465	7,031	17,458	22,506
1940	32,891	47,799	63,722	63,431	34,836	962	210	210	210	7,159	17,620	23,449
1941	33,959	40,074	45,805	45,934	29,537	17,673	4,472	211	210	2,725	11,437	22,743
1942	30,765	45,372	56,416	58,449	32,049	2,531	210	210	210	3,252	20,987	29,307
1943	37,414	45,127	60,025	79,066	74,625	50,896	40,987	9,812	213	8,144	23,797	32,003
1944	43,428	50,214	58,571	64,881	41,454	14,356	218	210	210	3,060	11,186	13,042
1945	20,823	33,793	46,725	49,256	30,676	455	210	210	210	6,590	22,098	32,340
1946	49,596	60,463	79,021	85,020	85,020	54,052	43,224	31,439	30,682	38,319	53,326	67,483
1947	78,709	98,835	116,000	119,121	85,826	75,036	60,125	48,459	46,184	54,078	72,694	86,595
1948	100,982	113,392	124,694	134,136	128,959	107,074	107,074	107,074	106,011	111,736	126,759	145,316
1949	152,643	162,500	162,500	162,500	160,542	109,694	98,030	86,351	85,468	90,602	104,144	115,581
1950	124,231	131,974	147,371	162,500	162,500	156,550	112,500	112,500	112,500	120,434	141,703	156,485
1951	162,500	162,500	162,500	162,500	162,500	112,500	112,500	112,500	112,500	120,434	137,981	152,068
1952	160,506	162,500	162,500	162,500	147,951	105,170	92,728	81,898	79,369	85,085	94,861	99,949
1953	115,483	130,091	139,492	139,535	110,553	100,973	91,142	79,643	77,016	83,338	92,303	111,469
1954	127,011	136,903	148,608	162,346	155,925	126,498	106,760	97,206	96,345	103,742	116,266	124,599
1955	136,931	146,792	158,017	162,500	162,500	140,092	104,904	93,537	92,789	98,910	116,884	129,179
1956	143,334	151,249	162,500	162,500	162,500	114,843	112,500	112,500	112,500	120,434	138,227	151,999
1957	160,799	162,500	162,500	162,500	138,949	103,385	89,193	78,776	75,322	82,433	93,916	99,649
1958	112,641	127,584	134,811	136,135	106,104	95,685	84,591	72,094	41,400	40,994	59,895	72,470
1959	91,807	99,468	114,761	119,589	96,309	85,103	72,740	62,439	60,913	68,395	84,586	97,031
1960	107,240	125,953	143,902	146,585	139,953	108,857	96,021	84,220	83,350	89,837	111,296	119,742
1961	135,861	157,057	162,500	161,426	121,405	102,839	88,510	77,264	75,790	82,413	93,941	99,986
1962	107,770	114,221	123,796	126,684	107,153	97,015	89,937	72,939	42,315	40,121	50,596	57,805
1963	67,162	78,396	86,697	87,290	64,188	27,712	335	210	210	5,153	20,770	32,208
1964	51,946	63,551	79,941	89,755	61,556	61,329	52,824	46,731	45,962	52,241	67,706	76,497
1965	88,511	105,383	117,738	118,749	95,085	88,218	76,261	65,041	63,829	70,936	83,352	86,087
1966	93,861	98,233	109,244	118,231	98,633	86,392	74,086	63,391	61,883	68,991	80,023	90,689
1967	112,745	129,483	143,687	143,747	109,094	99,847	87,691	73,795	72,292	78,748	92,563	102,744
1968	119,203	133,490	141,856	144,280	106,599	94,441	80,070	67,817	65,421	71,954	84,779	97,658
1969	105,946	111,308	130,014	135,972	130,471	101,633	86,245	71,793	46,583	48,975	58,317	63,275
1970	73,508	84,068	94,241	98,695	81,609	71,874	42,335	403	210	6,815	19,290	21,696
1971	33,779	49,304	59,712	75,021	85,648	56,958	45,424	37,147	35,340	43,129	60,146	74,020
1972	89,577	101,669	123,843	136,427	147,467	120,475	112,500	112,500	112,500	120,056	136,076	148,654
1973	162,500	162,500	162,500	161,662	110,052	97,984	86,796	77,776	75,517	82,404	96,424	106,028
1974	121,442	137,212	152,245	162,500	162,500	155,359	112,500	112,500	112,500	120,413	142,170	153,136
1975	162,500	162,500	162,500	162,500	162,500	131,187	112,500	112,500	112,500	120,434	139,092	156,427
1976	162,500	162,500	162,500	162,500	157,439	112,500	112,500	112,500	112,500	119,755	130,614	133,669
1977	139,029	143,159	147,848	148,498	112,500	112,496	112,465	93,875	78,202	72,517	85,856	104,615
1978	122,223	131,666	145,356	145,353	108,416	93,896	79,034	56,555	33,621	34,236	44,257	49,280
1979	51,794	57,211	71,768	71,899	65,644	20,521	232	210	210	7,698	17,894	28,658
1980	35,636	41,508	66,104	72,451	53,620	42,247	782	210	210	5,466	16,873	25,946
1981	39,807	52,907	60,456	59,570	39,209	2,141	210	210	210	2,944	13,647	22,887
1982	36,410	52,012	66,987	70,492	67,465	44,812	32,186	21,531	20,285	28,219	45,035	58,393
1983	74,101	89,854	105,299	106,147	72,661	57,106	45,285	34,427	32,875	40,094	60,005	66,453
1984	78,981	91,119	104,530	102,885	78,998	68,810	42,904	585	210	6,414	20,460	22,131
1985	24,113	27,332	32,325	30,302	29,256	2,719	210	210	210	5,969	16,506	22,689
1986	32,965	40,857	59,907	61,891	37,493	6,957	211	210	210	2,848	16,651	23,715
1987	33,184	44,742	61,591	61,790	41,373	36,256	4,312	211	210	1,413	6,129	11,186
1988	16,442	20,912	27,244	27,082	16,571	240	210	210	210	6,060	22,129	28,462
1989	45,758	52,081	63,343	64,736	42,450	37,788	17,366	219	210	6,002	19,830	26,316
1990	39,722	57,857	72,400	69,069	42,540	36,845	24,793	1,562	210	7,379	27,939	39,942
1991	52,549	68,364	81,099	91,296	76,719	53,037	41,943	30,978	29,523	35,833	48,487	59,896
1992	74,229	88,798	100,276	100,136	75,422	68,934	62,422	22,082	579	6,796	20,597	22,429
1993	25,633	28,128	32,959	32,729	32,138	1,760	210	210	210	6,269	11,913	20,489
1994	35,109	44,065	56,927	62,218	39,790	18,237	343	210	210	3,687	20,323	32,834
1995	44,758	59,239	69,815	67,447	42,610	39,441	461	210	210	8,144	24,531	39,217
1996	56,735	72,771	87,974	94,443	78,772	59,615	46,057	35,871	34,487	42,421	54,854	62,439
1997	77,377	93,861	118,456	131,291	141,815	116,748	108,791	108,791	108,791	114,255	130,663	140,166
1998	154,153	162,500	162,500	161,065	115,069	93,754	77,870	65,494	61,437	67,398	85,065	100,604
1999	115,815	133,941	149,093	155,098	133,876	121,929	107,231	99,496	99,125	105,437	125,693	141,089
2000	155,702	162,500	162,500	161,630	149,147	105,584	92,135	80,733	79,798	86,827	101,566	104,600
2001	108,511	112,658	118,700	120,984	108,665	108,665	88,380	69,134	50,244	45,358	54,810	65,555
2002	81,798	94,567	105,651	114,007	104,679	89,366	76,782	65,739	64,792	69,586	77,423	81,867
2003	91,600	100,911	117,500	118,140	97,606	91,034	82,550	49,972	21,880	18,928	29,244	36,459
2004	46,664	55,595	77,959	76,355	51,961	18,725	219	210	210	7,226	15,908	20,945
2005	33,627	42,107	54,142	54,127	27,396	1,358	210	210	210	5,267	21,796	31,079
2006	51,584	63,138	73,193	75,007	55,675	47,297	34,918	23,322	22,474	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

YAKIMA RIVER BASIN RIVERWARE MODELING
INTEGRATED PLAN IMPLEMENTATION

IP6 Full Integrated Plan CC4 More Adverse - End of Month Reservoir Storage

Year	Total Reservoir Storage [Acre-Feet]											
	January	February	March	April	May	June	July	August	September	October	November	December
1925	NA	NA	NA	NA	NA	NA	NA	NA	NA	153,512	164,313	308,398
1926	484,845	670,968	792,351	826,220	729,540	521,201	285,276	64,641	-82,032	-65,043	-17,295	88,064
1927	295,417	438,472	539,004	732,465	853,953	786,297	509,649	221,629	66,839	98,500	285,633	467,146
1928	656,376	682,322	984,175	1,050,280	1,047,250	801,638	496,171	206,897	32,441	62,495	87,326	98,854
1929	102,081	93,845	193,537	297,370	415,007	347,464	198,640	54,208	-74,559	-121,752	-128,210	-83,562
1930	-72,824	5,367	127,219	292,751	331,167	247,105	125,018	9,507	-96,416	-125,361	-120,254	-124,929
1931	7,759	61,375	221,929	375,786	396,414	303,442	153,955	15,758	-93,184	-97,941	-39,629	54,781
1932	203,012	326,679	677,840	1,018,984	994,443	802,252	528,447	245,243	80,914	53,138	372,560	686,732
1933	881,404	942,854	1,059,130	1,177,291	1,126,595	966,729	687,155	398,011	266,153	316,663	460,819	1,139,688
1934	1,222,877	1,214,212	1,381,720	1,366,264	1,221,581	956,295	640,021	359,451	198,541	305,453	490,465	747,941
1935	984,011	1,081,675	1,185,158	1,260,817	1,203,881	975,248	669,950	383,869	214,105	190,258	202,103	242,960
1936	504,079	518,784	722,200	841,614	771,469	570,594	309,891	70,696	-8,191	-45,936	-61,246	66,933
1937	65,086	74,520	226,935	555,310	593,088	470,623	258,434	52,042	-86,924	-103,507	111,585	285,688
1938	550,897	588,334	751,786	1,031,225	1,023,935	815,634	511,208	224,390	51,185	51,091	97,405	225,038
1939	481,593	575,209	725,816	829,191	731,363	528,685	283,036	46,723	-104,463	-112,545	-95,864	93,178
1940	179,858	378,141	628,331	700,328	640,958	460,044	251,414	57,362	-84,109	-110,213	-88,143	42,693
1941	179,268	181,717	218,394	237,943	240,731	153,344	38,677	-60,187	-107,740	-104,522	-40,738	203,720
1942	281,956	378,310	469,348	590,558	571,320	445,833	250,983	61,274	-80,814	-132,620	38,613	156,186
1943	186,288	230,301	370,154	804,529	875,634	763,748	497,452	206,010	32,291	26,570	42,840	121,640
1944	252,060	314,868	381,595	516,234	516,090	384,019	205,367	40,995	-69,145	-101,745	-61,652	-52,213
1945	138,820	287,341	430,552	578,066	596,341	434,134	224,006	16,182	-87,138	-92,496	16,557	185,498
1946	414,294	491,327	723,062	922,879	1,015,574	837,779	563,638	280,081	112,572	107,780	153,958	493,289
1947	644,325	759,150	977,387	1,126,663	1,005,002	765,900	459,813	176,677	50,576	186,190	387,851	587,314
1948	786,253	892,691	961,371	1,135,011	1,216,676	1,117,988	849,693	579,874	408,370	411,205	530,581	701,881
1949	699,438	751,360	900,908	1,138,899	1,227,971	1,039,108	736,194	447,828	275,967	272,616	375,642	590,159
1950	624,822	689,071	807,858	1,068,872	1,310,684	1,289,256	1,016,651	683,564	431,864	424,038	606,789	828,399
1951	943,537	1,103,618	1,082,627	1,313,730	1,364,969	1,207,964	924,529	628,679	432,823	477,403	550,009	720,393
1952	724,877	796,519	888,190	1,153,752	1,209,232	998,328	703,916	413,977	238,903	181,147	173,586	216,046
1953	541,317	776,557	904,444	1,010,536	993,393	788,333	507,572	223,546	71,539	73,437	180,868	544,488
1954	749,598	887,064	987,804	1,187,814	1,177,355	1,069,042	828,438	558,661	395,999	360,821	455,741	516,276
1955	659,736	731,948	758,640	901,060	1,027,140	1,009,992	764,046	480,268	311,525	370,031	525,923	795,613
1956	913,998	938,162	1,053,747	1,288,528	1,326,877	1,208,496	926,980	628,154	428,560	437,375	475,543	747,946
1957	753,530	773,288	923,175	1,177,074	1,169,768	927,871	623,136	339,614	172,412	168,629	203,959	330,153
1958	543,743	760,152	812,605	939,077	823,487	593,515	321,105	73,048	-56,071	-33,094	187,998	437,827
1959	743,959	802,794	954,098	1,129,032	1,088,360	869,214	570,301	287,436	182,006	240,379	460,510	722,589
1960	812,070	971,105	1,092,424	1,273,461	1,238,555	1,038,386	732,410	440,877	268,927	253,817	430,295	457,445
1961	672,955	970,727	1,158,867	1,250,741	1,210,948	978,307	669,933	374,704	200,630	203,622	224,562	344,461
1962	510,887	542,777	640,445	816,834	750,264	548,134	300,633	67,589	-64,280	-59,004	108,255	215,189
1963	286,720	436,153	517,788	648,313	603,421	435,973	237,099	51,915	-86,714	-79,309	52,389	180,603
1964	445,553	514,361	650,074	849,938	893,722	853,282	596,696	337,257	181,101	173,982	233,501	409,187
1965	625,078	858,227	982,523	1,220,575	1,166,652	947,328	645,001	358,439	189,018	179,686	213,753	263,569
1966	355,840	379,637	528,996	871,412	879,079	649,248	362,883	88,161	-5,338	15,831	83,790	363,598
1967	711,415	878,231	1,025,881	1,053,845	1,013,209	842,648	544,307	261,530	91,502	107,660	146,485	346,512
1968	559,254	802,218	1,029,999	1,128,707	1,002,269	766,879	462,711	187,136	38,889	56,942	169,271	340,139
1969	369,564	374,774	569,748	931,959	1,000,924	790,934	481,961	197,927	67,142	53,927	75,344	193,483
1970	374,572	449,929	589,977	727,913	742,083	634,351	340,561	63,020	-89,485	-104,184	-61,432	-13,750
1971	240,261	424,509	473,331	705,232	985,529	914,346	672,094	391,987	241,722	230,687	313,126	431,840
1972	596,444	696,941	964,591	1,132,227	1,227,884	1,151,262	885,925	572,018	405,283	364,932	410,158	693,607
1973	900,779	904,109	974,429	980,469	851,650	614,537	340,877	88,732	25,115	22,285	120,449	308,627
1974	566,444	732,165	848,820	1,137,668	1,204,280	1,161,567	916,021	619,084	412,095	364,334	433,465	583,005
1975	806,871	845,331	947,256	1,045,687	1,234,271	1,175,539	900,845	635,453	441,638	452,823	579,009	955,187
1976	1,108,359	1,180,679	1,269,154	1,383,579	1,359,311	1,187,740	912,865	629,452	437,672	394,260	386,044	374,917
1977	387,354	384,337	420,440	406,648	385,665	274,319	131,358	14,415	-39,434	-54,755	84,300	465,125
1978	671,518	743,794	947,848	1,062,696	958,667	718,461	413,718	130,465	18,723	-22,050	42,752	97,550
1979	89,997	119,258	364,343	555,630	609,905	453,597	254,108	57,095	-83,633	-99,603	-96,495	106,962
1980	122,385	152,262	364,395	715,298	759,109	575,103	304,373	51,904	-95,223	-143,901	-29,388	165,358
1981	279,151	485,973	571,904	716,538	646,273	483,988	255,566	36,227	-93,160	-78,858	-15,977	141,542
1982	335,078	589,836	743,650	884,112	989,326	906,280	614,621	318,996	149,431	128,312	162,804	368,106
1983	636,280	769,303	987,435	1,027,843	901,402	653,850	370,069	95,184	-30,272	-45,307	162,281	176,816
1984	436,636	533,051	746,160	788,401	749,613	579,877	314,865	59,519	-97,264	-124,822	-32,119	7,594
1985	21,209	28,066	84,774	345,049	471,403	395,161	220,900	50,600	-77,918	-61,400	-7,875	-17,890
1986	139,308	253,027	501,180	569,762	567,085	424,077	235,437	49,135	-67,342	-107,874	94,424	115,446
1987	222,605	339,314	578,808	710,153	678,675	510,470	293,114	88,496	-56,699	-120,271	-113,285	3,903
1988	108,078	180,375	397,946	574,050	600,618	444,571	250,712	59,217	-77,710	-69,929	106,886	147,320
1989	357,688	406,681	529,757	724,879	672,501	506,130	277,961	61,399	-88,086	-101,972	20,580	85,011
1990	356,384	505,340	744,389	908,271	816,115	621,129	336,790	74,111	-93,037	-78,830	255,289	390,639
1991	570,695	823,403	928,478	1,086,692	1,071,042	852,517	560,449	275,396	97,245	63,296	167,446	300,371
1992	497,510	681,431	774,997	806,200	697,980	492,958	266,020	53,757	-81,410	-125,164	-62,484	-15,758
1993	624	10,494	150,511	350,729	479,001	373,050	206,476	42,989	-86,032	-125,549	-126,968	-41,222
1994	151,920	175,933	373,012	470,417	440,252	319,845	167,938	34,224	-79,343	-113,684	-69,034	123,077
1995	307,412	545,117	709,657	814,410	806,076	604,045	324,419	66,924	-94,946	-59,322	142,425	465,660
1996	630,079	839,424	930,966	1,087,329	1,054,231	834,106	531,520	248,386	76,189	106,922	158,465	214,652
1997	418,971	531,200	791,943	1,079,921	1,253,590	1,164,448	894,374	598,792	418,811	440,459	546,157	648,188
1998	832,727	907,446	1,102,285	1,120,954	1,015,680	760,950	452,673	165,611	64,420	65,580	246,095	575,140
1999	871,240	1,025,339	1,150,692	1,200,824	1,176,875	1,078,297	831,004	568,247	404,130	376,684	603,113	819,702
2000	915,713	951,583	1,080,902	1,281,627	1,247,288	1,031,363	723,789	432,511	258,943	243,337	249,192	242,643
2001	274,586	277,541	328,279	372,369	391,658	286,737	149,224	27,657	-39,821	-39,936	97,721	246,251
2002	503,688	608,186	705,968	1,000,334	1,046,484	881,756	585,041	295,218	121,733	81,662	93,137	144,731
2003	293,201	463,936	724,391	824,410	744,981	551,350	309,284	78,986	-74,372	-36,169	52,280	147,264
2004	285,216	345,450	591,478	705,139	659,547	481,367	237,217	24,858	-100,146	-125,889	-73,944	19,884
2005	188,944	202,545	364,728	489,438	479,545	349,393	190,178	41,669	-83,016	-97,018	17,602	175,290
2006	566,546	750,546	831,654	1,003,431	977,874	779,432	481,945	198,782	33,467	NA	NA	NA
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA