



Contact: Wendy Christensen, Columbia-Cascades Area Office, (509) 575-5848, ext. 203

Tom Tebb, Washington State Department of Ecology, (509) 575-3989

# Meeting Notes - Yakima River Basin Water Enhancement Project Workgroup

December 14, 2016 Yakima Arboretum, Yakima, WA

# Welcome, Introductions and Agenda Overview

Ben Floyd, Anchor QEA, welcomed the Yakima River Basin Water Enhancement Project (YRBWEP) Workgroup members and other attendees, led introductions, and provided an overview of the agenda. These notes summarize the YRBWEP Workgroup presentations and the public comments. For more detail, please see the full presentations which are available on the project website: http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html.

Ben introduced Wendy McDermott, American Rivers' Director for Puget Sound and Columbia River Basin, who is their new representative on the YRBWEP Workgroup. Wendy Christensen also introduced Elayne Hovde with the Natural Resource Conservation Service (NRCS), who will replace Jerry Jacoby (retired) on Reclamation's YRBWEP team.

## **Implementation Committee Update**

Tom Tebb, Washington State Department of Ecology (Ecology) Office of Columbia River, provided an update on the Implementation Committee. In September, Implementation Committee members traveled to Washington, DC to meet with Congressional staff, Department of the Interior staff, the Environmental Protection Agency, senior staff with the Senate Committee on Energy and Natural Resources, and others.

Peter Dykstra, Watershed Land Conservation Subcommittee Chair, provided an update on the Integrated Plan's proposed Federal legislation that was included in the energy bill (S.2012, Energy Policy Modernization Act of 2012). The energy bill was stalled in the conference committee prior to the end of the 2016 congressional session. Peter said that the Implementation Committee will try to move the legislation forward in the next session. Moving a bill through Congress often takes time, but the legislation process has been positive. The Implementation Committee appreciates the efforts by Senator Cantwell, Congressman Newhouse, and others to move the legislation forward.

## **Public Input:**

Chuck Klarich, Yakima Basin Storage Alliance (YBSA): President Obama recently signed the Water Infrastructure Investment Bill. Does this bill provide any funding opportunities for the Integrated Plan?

• This bill is an update to the Water Resources Development Act, which is mainly directed at U.S. Army Corps of Engineers activities. It does not include any specific funding for the Integrated Plan. However, it includes some funding for on-reservation water infrastructure projects, which the Yakama Nation may pursue for the Wapato Irrigation Project.

**Ann Lewis, Yakima Basin Coalition**: Seventeen conservation groups in the basin sent a joint letter to the Congressional Conference Committee regarding concerns with the Integrated Plan. Portions of the plan are valuable, but the big projects at existing lakes should not be carried out. Ann provided a copy of this letter for the record.

• This letter will be posted on Reclamation's website.

## Hydrologic Modeling for 2015 Drought Conditions and Lower River

Steve Thurin, HDR Inc., provided a summary of the Yakima River basin hydrologic modeling update. HDR recently updated Reclamation's Yakima RiverWare model to better simulate conditions in the lower Yakima River (below the Parker gage to the river's mouth), and the impacts of the baseline, existing conditions and Integrated Plan scenarios on water available to Kennewick Irrigation District (KID). Building on prior modeling efforts, HDR, in consultation with Reclamation, made the following modifications to the model:

- Incorporated recent operational adjustments in reach-by-reach flow objectives
- Applied target flow requirements at Prosser
- Modified simulation of Chandler Diversion to include hydropumps
- Modified lower river return flows from irrigation districts, based on USGS groundwater model
- Modified irrigation efficiency parameters for lower river irrigators
- Extended the simulation period through 2015
- Recalibrated the lower river portions of model
- Modified future Integrated Plan water conservation project assumptions

Comparison of measured conditions with simulated conditions shows that the model is well calibrated to replicate lower river flows and KID deliveries. Compared to existing conditions, the modeling results suggest that Integrated Plan conservation projects alone would reduce return flows to the lower river during drought years. However, implementation of the Integrated Plan water supply projects would increase return flows during drought years. Andrew Graham, HDR, noted that the Integrated Plan is based on using a balanced approach, so that conservation projects would be implemented concurrently with water storage projects, instead of before water storage projects. Steve noted the water supplied by the Cle Elum Pool Raise (CEPR) project is for instream flow purposes. Next steps include studying modeling conditions under the adverse climate scenario, preparing a written report, and continuing discussions with KID and the YRBWEP Workgroup subcommittees.

## **Workgroup Discussion:**

**Bob Hall, YBSA**: Are the changes in the model due to better information about the Yakima River system?

• Yes, the updated model uses more recent data on water use and groundwater and surface water interactions, and provides a more accurate representation of the Yakima River system

**Rick Dieker, Yakima-Tieton Irrigation District:** Does the model assume that the water saved due to the Integrated Plan conservation actions will contribute to streamflows?

• No, the model assumes that saved water would be held in storage until allocated for streamflow or irrigation use.

**Seth Defoe, KID, and Jason McShane, Lower River Subgroup Chai**r: KID appreciates that Reclamation has carried out this additional modeling effort. By improving our understanding of the Yakima River system, stakeholders will be better able to manage water in the basin. KID recognizes that this is an iterative process and looks forward to continued discussions with Reclamation and Workgroup members.

**Phil Rigdon, Yakama Nation**: Conservation is an important part of the Wapato Irrigation Project's initiatives moving forward. Future efforts will look at how the saved water would be allocated.

**Tom Ring, Yakama Nation:** In some cases, conservation water has been slated for specific fish flow or irrigation uses.

**Scott Revell, Roza Irrigation District**: Have you looked how water is reused, for example, water used by Roza that is returned to the river and used downstream by KID?

• This is captured in the model, however is not quantified. Some water is put to beneficial use multiple times as it moves through the system.

#### **Public Input:**

**Bill Campbell, Lake Kachess Homeowners Association:** The application of good science to drive public policy should always be welcomed, and we should thank Mr. Thurin for his effort as a first step. A summary of his presentation could be, "if you change the assumptions of a model you will get different results." Unless we know what assumptions changed, and why, we cannot evaluate these findings, and so I request a copy of the changed assumptions and the rationale for these changes in the RiverWare model.

• A model report containing this and other information will be made available in 2017.

The presentation of model estimates are misleading and impossible to interpret as absolute numbers. The estimates are in fact "point estimates" that must be presented as confidence intervals to allow the reader to know the range of error. Please update tables that show model estimates to provide confidence intervals rather than absolute values.

• Model results presented are not point estimates, but rather simplified summaries of many hundreds of thousands of numbers for each simulated scenario. Estimates of confidence intervals could be produced for certain results.

The estimate of additional water (kAF) provided by Kachess Drought Relief Pumping Plant (KDRPP) and Keechles to Kachess Conveyance (KKC) projects should be stated in absolute and relative (percentage) terms to allow for comparison with cost of achieving this additional water. It appears a very small amount of water will be provided at a very high price; these items should be quantified.

• A report containing this and other information will be made available in 2017.

Miles McPhee, Citizen: How does the change in return flows affect water temperature?

• The model does not simulate water temperatures. Evaluation of water temperatures is being done through other efforts.

Chuck Klarich, YBSA: Does the model consider recharge return to domestic wells?

• The return flows used in the YAKRW model are based on USGS groundwater modeling that includes the effects of pumping and recapture of return flows by domestic wells. Changes in pumping and changes in recapture are not included in the modeling, although this could potentially be incorporated in a future iteration of the model.

#### **Reed Diversion Dam Removal**

Anna Lael, Kittitas County Conservation District, provided an update on the Reed Diversion dam removal project. Removal of the diversion dam began in early November and was completed by early December. The diversion dam was a barrier for fish trying to migrate up Manastash Creek. Anna showed a time-lapse video of the dam-removal and channel-restoration process. The removal makes approximately 26 miles of stream habitat available for fish. This project is part of a larger effort to restore Manastash Creek that started in 2001. Numerous restoration projects have been implemented on Manastash Creek in the past 15 years, and efforts accelerated in 2013 when Reclamation and Ecology funded a water conservation project on KRD's 13.8 Lateral as the first construction project of the Integrated Plan. The Workgroup recognized Anna for her leadership sustained over many years on the various Manastash projects. Anna thanked the Workgroup for their support, noting that the Reed Diversion removal would not have been possible without the Integrated Plan.

## **Public Input:**

None.

# **Washington DC Leadership Group Tour and Meeting Recap**

Tom Tebb and Wendy Christensen provided a summary of the Washington DC Leadership Group tour and meeting on October 12-13, 2016. The DC Leadership Group includes representatives of the DC offices of the following federal agencies: NRCS, U.S. Forest Service (USFS), U.S. Fish and Wildlife Service, National Marine Fisheries Service, Bonneville Power Administration, Bureau of Indian Affairs, Bureau of Land Management, U.S. Army Corps of Engineers, and Reclamation. The purpose of the DC Leadership Group is to help regional leadership address National policy issues related to the Integrated Plan implementation, identify potential funding opportunities, and coordinate across relevant Federal agencies. The DC Leadership Group toured the Yakima River basin Integrated Plan projects and met with the Implementation Committee.

On October 12, the DC Leadership Group and Implementation Committee participated in the Cle Elum Fish Passage ribbon cutting ceremony, viewed the sockeye salmon spawning at Cooper Bridge, toured the Cle Elum Fish Hatchery, and toured the Kittitas Reclamation District (KRD) tributary supplementation site. On October 13, the group toured the Yakama Nation's Wapato Irrigation Project water conservation projects, the Toppenish Fan restoration project, and the Lamprey Research and Reintroduction project. The group also participated in a half-day workshop where they discussed updates to the DC Leadership Group Charter, site visit observations, water conservation and efficiencies in the Yakima River basin, and the transition to the new presidential administration. The group discussed the Western Watershed Enhancement Partnership Proclamation (signed during this event) and the Department of the Interior's Natural Resource Investment Center, Roza and Kittitas Reclamation District, Memorandum of Understanding (MOU) signed by Michael Connor and Roza and KRD board members – Jim Willard and Mark Hanson, respectively. The group also had an opportunity to engage in a roundtable discussion about the DC Leadership Group's role, the Integrated Plan accomplishments to-date, and future opportunities.

The DC Leadership Group provided several suggestions for future efforts, such as emphasizing existing water conservation to better illustrate that the basin cannot rely on conservation alone. Moving forward, the DC Leadership Group will implement the changes to the charter and work with the Implementation Committee to transition to the new administration.

## **Public Input:**

**David Ortman, Sierra Clu**b: At these meetings he hears that the Integrated Plan is a "National model." He does not agree.

• The statement that the Integrated Plan is a national model was reiterated multiple times during the October 12 and 13 DC Leadership Group meeting by several members of the group, many whom have worked with other basins across the United States.

The notes from the Workgroup's September meeting should state that ECONorthwest was selected to work for the Economic Subcommittee because ECONorthwest had determined the outcomes before performing the study.

• This is one interpretation of the intent of what was said at the September meeting. A more accurate description based on communications with Bob Hall is that the Economic Subcommittee felt ECONorthwest was the most qualified because of their familiarity with the Integrated Plan and basin economics from their prior work, and also understood how to describe economic effects for the targeted audiences of the report being prepared under the guidance of the subcommittee. The notes will be updated to reflect this understanding.

The Economic Subcommittee's report will have little credibility because ECONorthwest was the consultant that prepared the original Integrated Plan "four accounts" economic analysis.

The presentation on hydrologic modeling results should show the results in non-drought years, not just in drought years.

• Today's presentation was a high-level summary. The report on the hydrologic modeling work will include more detailed results and results from all years.

Aquifer storage projects could be added to the Yakima RiverWare model to evaluate alternative water supply options.

Mr. Ortman provided a copy of the *Alpine Lake Protection Society Newsletter*, which, in part, documents the Society's opposition to elements of the Integrated Plan.

• This information will be posted on Reclamation's website.

Chris Maykut, Friends of Bumping Lake: The Economic Committee's upcoming report continues to rely on the prior four-accounts-analysis, which was flawed. The analysis must include negative impacts, such as the loss of 1,000 acres of ancient forest that the Washington State University (WSU) report said was worth \$1.8 billion. Recreational opportunities lost at Bumping Lake will not be replaced, so the economic analysis should not assume that they will be. Salmon returns will be diminished due to high water temperatures, so the full benefits estimated will not actually materialize.

These comments will be shared with the Economic Committee. Additional detailed environmental reviews would be conducted to address site-specific environmental impacts and needed mitigation related to the new dam and enlarged reservoir. It is during these reviews that specific effects to recreational access, campground use, marina use, summer housing use, cultural resources, fish and wildlife habitat, land and shoreline use, transportation, etc., would be identified, evaluated, and appropriate mitigation measures defined for implementation prior, during, and after construction.

Miles McPhee, Citizen: Miles provided a letter documenting the concerns with the Economic Subcommittee Report. It is important that the Economic Subcommittee's Report consider the negative economic impacts that the Integrated Plan would have on the passive use of Bumping Lake and the loss of recreation on the Bumping Lake area. The report should also adjust the assumptions for expected salmon returns, since higher water temperatures in the Lower Columbia River are likely to reduce the number of returning salmon in future years, as seen in 2015.

• These comments will be posted on Reclamation's website.

**Raelene Gold, Seattle Audubon:** The Federation of Western Outdoor Clubs has adopted Resolution 2016-20. The resolution supports of water conservation, water efficiency, water banking, and viable fish passage activities. The resolution opposes new irrigation dams that threaten wilderness areas. A copy of the resolution was provided for the record.

• This resolution will be posted on Reclamation's website.

Bill Campbell, Lake Kachess Homeowners Association: Bill read from comments he had prepared for the record. The YRBWEP Workgroup has not been listening to public comments and feedback on the Integrated Plan (this comment is not directed at individuals, and he recognizes Teresa Merriman's efforts to discuss the KDRPP with members of the Kachess homeowners group). Discussions with the DC Leadership Group excluded impacted parties, such as local property owners. All the favorable statements made about the Integrated Plan leave out the adverse effects and the people who will be harmed. Ecology's Integrated Plan website makes misleading and inaccurate claims concerning the Potter LLC study of private property values in the Lake Kachess area. These must be corrected in all communications about this study. In addition, the affected private property owners should be engaged

in an effort to conduct a new study of effects KDRPP and KKC will have on property values. Bill provided documentation of his concerns for the record.

• Reclamation and Ecology have heard and appreciate these comments at this and prior meetings. Responses to all concerns and comments, and decisions on mitigation will be provided through the NEPA/SEPA process. Thank you for your patience in this matter.

## **Technical Work Update**

#### **Bull Trout Enhancement**

Richard Visser, Reclamation, shared a Bull Trout update. Bull Trout were listed as threatened under the Endangered Species Act in 1998. The Bull Trout Enhancement (BTE) Plan was developed to address declining Bull Trout populations in the Yakima River basin. The BTE Plan would be implemented as part of a balanced approach with the KDRPP and KKC action alternatives. The plan is not intended as mitigation for the KDRPP or KKC actions. Instead, it is intended to enhance Bull Trout populations through fish habitat and passage improvement projects. The BTE Plan was recently updated to include watershed health projects identified by the USFS. The updated BTE Plan will be incorporated in the KDRPP and KKC Supplemental Draft Environmental Impact Statement (Draft SEIS). The BTE MOU was signed in October 2015 by the Yakama Nation, Ecology, Washington State Department of Fish and Wildlife, USFS. U.S. Fish and Wildlife Service, and Reclamation. The first BTE MOU coordination meeting will be on December 15, 2016.

#### **KDRPP** and KKC

Teresa Merriman, Reclamation, provided an update on the KDRPP and KKC. Reclamation, Ecology, and HDR, in collaboration with Roza Irrigation District, are working on the floating pumping plant option for the KDRPP. In addition, they are working on the Draft SEIS, which is expected to be available for public comment during the summer 2017.

### **Cle Elum Pool Raise**

Walter Larrick, Reclamation, reported progress on the Cle Elum Pool Raise (CEPR) project. The CEPR will include modifications of five radial gates, provide shoreline protection, and land acquisition. The final *CEPR EIS Record of Decision* was signed in June 2015. The radial gate modification contract was awarded in September 2015. Reclamation anticipates that construction will be completed by March 2017. In September 2016, Reclamation finished rebuilding two dikes, improvements that were needed to meet dam safety requirements. The shoreline protection contracts are being prepared, and Reclamation is working with the USFS and landowners. Reclamation anticipates awarding the shoreline contract for the USFS facilities in 2017.

#### **Cle Elum Dam Fish Passage**

Walter gave a brief presentation on progress of the Cle Elum Dam fish passage facility. Construction of the road and bridge was competed in October 2016. The construction of the deep vault (secant pile) will start in spring 2017. Walter provided an update on an upstream passage technology that could be used at Cle Elum Dam. The Yakama Nation in cooperation with Reclamation, worked with Whooshh Innovations TM to test the technology at Roza Dam in June 2016 and at Prosser Dam in October 2016.

The technology will be tested at Cle Elum Dam in July 2017. Walter showed a video on the Whooshh<sup>TM</sup> fish passage technology that was tested at Roza Dam.

## **Public Input:**

None.

## **Rural Water Supply Update**

This agenda item was not discussed, due to a lack of time.

## **Executive Committee, Subcommittees and Subgroups**

This agenda item was abbreviated, due to a lack of time. Ben Floyd noted the Economic Subcommittee is making progress, and a draft report will be produced in early 2017. Danielle Squeochs and Tom Ring announced that a groundwater subcommittee has been formed, and its first meeting is being scheduled for January. Those interested can contact Danielle or Ben for more information.

## **Workgroup Roundtable Discussion:**

**Seth Defoe:** Requested more information about an Oregon State University professor's email that a glacial recharge study is underway.

**Bob Hall, Yakima Basin Storage Alliance, YBSA**: Water storage in the Yakima River basin is inadequate and the last storage was constructed in 1933. Additional storage is essential for fish and people. Additional storage will be important for economic development, agriculture, transportation industries, and manufacturing jobs in the basin. The solution is in this group, and YBSA remains fully committed to the Workgroup and the Integrated Plan.

## **Recognition of Walter Larrick**

Walter will be retiring at the end of 2016. Wendy Christensen, Reclamation, and Tom Tebb, Ecology, recognized Walter for his contribution to the Yakima River basin and the Integrated Plan. Walter's leadership, enthusiasm, and dedication has contributed greatly to the success of the Integrated Plan. Workgroup members John Easterbrooks, Dale Bambrick, Dave Fast, Urban Eberhart, and Scott Revell recalled many instances of Walter's contributions to water management over several decades, including that he was the first biologist to work for the Yakima Basin Joint Board. They thanked Walter for his contribution and wished him a happy retirement.

## **Upcoming meetings**

Ben Floyd announced the Workgroup meeting dates in 2017.

- March 8 (Ellensburg)
- June 21 (Union Gap),
- September 20 (Prosser)
- December 13 (Union Gap)

We have outgrown the Yakima Arboretum meeting room and will move to Ecology's office (1250 Alder St. Union Gap, WA 98903) for meetings in the central basin.

#### **Attendance**

## **Workgroup Members in Attendance:**

Dale Bambrick, National Marine Fisheries Service

Dave Brown, City of Yakima

Wendy Christensen, Bureau of Reclamation - Columbia-Cascades Area Office

Alex Conley, Yakima Basin Fish & Wildlife Recovery Board

Ron Cowin, Sunnyside Valley Irrigation District

Seth Defoe, Kennewick Irrigation District

Rick Dieker, Yakima-Tieton Irrigation District

Peter Dykstra, YRBWEP Chair of Watershed Land Conservation Subcommittee

Urban Eberhart, Kittitas Reclamation District

David Fast, Yakama Nation - Yakima/Klickitat Fisheries Project

Paul Jewell, Kittitas County

Mike Livingston, Washington State Department of Fish and Wildlife

Wendy McDermott, American Rivers

Lisa Pelly, Washington Water Project, Trout Unlimited

Scott Revell, Roza Irrigation District and Chair of YRBWEP Water Use Subcommittee

Phil Rigdon, Yakama Nation

Rick Roeder, Washington State Department of Natural Resources

Tom Tebb, Washington State Department of Ecology - Office of Columbia River

Jeff Tayer, Chair of YRBWEP Habitat Subcommittee

Jeff Thomas, U.S. Fish & Wildlife Service, Mid-Columbia River Fishery Office

Amanda Velasquez, Okanogan-Wenatchee National Forest, Cle Elum Ranger District

#### **Other Attendees**

Bob Anderson, Geosyntec

David Bowen, Washington State Department of Ecology

Lori Brady, Sunnyside Valley Irrigation District

Bill Campbell, Lake Kachess Homeowners Association

Debbie Carlson, Bonneville Power Administration

David Child, Yakima Basin Joint Board

Dan Church, Bureau of Reclamation - Columbia-Cascades Area Office

Rocco Clark, Bureau of Indian Affairs - Yakama Agency

Tony Coluccio, Frank Coluccio Construction

Stuart Crane, Yakama Nation

Susan Crawford, Bureau of Reclamation - Columbia-Cascades Area Office

Jane Creech, Washington State Department of Ecology

Charlie de la Chapelle, Yakima Basin Storage Alliance

Jeanne Demorest, Bureau of Reclamation - Columbia-Cascades Area Office

Karen Dera, Bureau of Reclamation - Columbia-Cascades Area Office

Melissa Downes, Washington State Department of Ecology

John Easterbrooks, Washington State Department of Fish and Wildlife

Jack and Beneitta Eaton, Landowners

Kevin Eslinger, Kittitas Reclamation District

Ben Floyd, Anchor QEA

Joel Freudenthal, Yakima County

Don Gatchalian, Yakima County

Raelene Gold, Seattle Audubon, LWVWA

Andrew Graham, HDR Engineering, Inc.

Sean Gross, NOAA Fisheries

Bob Hall, Yakima Basin Storage Alliance/Yakima Auto Dealers

Justin Harter, NSID

Perry Harvester, Washington State Department of Fish and Wildlife

Tim Hill, Washington State Department of Ecology

Elayne Hovde, NRCS

John Hutchins, Harbor Engineers, Inc.

Stan Isley, Washington State Department of Ecology/Reclamation Building

Justin Jacob, Wapato Irrigation Project

Chuck Klarich, Yakima Basin Storage Alliance

Anna Lael, Kittitas County Conservation District

Walter Larrick, Bureau of Reclamation - Columbia-Cascades Area Office

Ann Lewis, Yakima Basin Coalition

Katie Lewis, Yakima Basin Coalition

Edward Lisowski

Chris Lynch, Bureau of Reclamation - Columbia-Cascades Area Office

Robert Main, Kittitas Reclamation District

Steve Malloch, Western Water Futures LLC (alt. for American Rivers)

Chris and Samantha Maykut, Friends of Bumping Lake

Doug Mayo, Self-Employed

Patrick McGuire, Kennewick Irrigation District

David McKenzie, Kennewick Irrigation District

Miles McPhee, Friends of Bumping Lake

Jason McShane, Kennewick Irrigation District

Dale Meck, CBEC Eco Engineering

Jean Mendoza, Friends of Toppenish Creek

Teresa Merriman, Bureau of Reclamation - Columbia-Cascades Area Office

Jim Milton, Yakima-Tieton Irrigation District

Pat Monk, U.S. Fish & Wildlife Service

Tom Myrum, Washington State Water Resources Association

David Ortman, Sierra Club

Sage Park, Washington State Department of Ecology

Sarah Pistorese, HDR Engineering, Inc.

Colleen Rauert, Washington State Department of Ecology

Joye Redfield-Wilder, Washington State Department of Ecology

Tom Ring, Yakama Nation

Jill Scheffer, Fonterra

Mike Schwisow, Schwisow & Associates

Jonathan Smith, Yakima County Development Association

Danielle Squeochs, Washington State Department of Ecology

Chad Stuart, Bureau of Reclamation – Yakima Field Office

Steve Thurin, HDR Engineering, Inc.

Gary Torretta, USFWS -Naches

Richard Visser, Bureau of Reclamation - Columbia-Cascades Area Office

## Where to Find Workgroup Information

Meeting materials, notes, presentations, and materials submitted during public comment for the Workgroup meetings will be posted on Reclamation's project website:

(http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html). A list of information sources, many of which are available online, is also posted on the website.

If anyone needs help finding an information source, contact those listed at the top of page 1 of these notes or Ben Floyd at Anchor QEA, Kennewick office, (509) 491-3151, or bfloyd@anchorqea.com.