



Yakima River Basin Study

Volume 1 – Proposed Integrated Plan

Volume 2 – Technical Memoranda

Overview
March 9, 2011

Integrated Plan Summary

Support Document

- Approved by all but two Workgroup members on 12/17/2010
 - Sets up Implementation Subcommittee
 - Summarizes Integrated Plan elements and actions
 - Includes brief characterization of needs, benefits (water supply, instream flows and fisheries), costs, and preliminary schedule
- Provides the **substance** for the Proposed Integrated Plan (Volume 1 of the Yakima River Basin Study)



Yakima River Basin Study

Volume 1 – Proposed Integrated Water Resource Management Plan

1.0 Introduction and Purpose

- Integrated Plan is a Proposal from the Workgroup
- Yakima River Basin Study
- YRBWEP history/previous studies and accomplishments
- YRBWEP Workgroup efforts

2.0 Water Needs

- Out of stream needs
 - Yakima Project = 70% supply to proratable districts
 - Future M&I, domestic = approx. 50,000 AF
- Instream needs – Priority flow objectives by reach (Table 2-2)
- Fisheries – restoration needs
- Climate change potential effects on needs (2040)
 - Changes in flow timing and magnitudes
 - Potential to increase consumptive use from longer growing season for crop and landscape vegetation

3.0 Proposed Integrated Plan

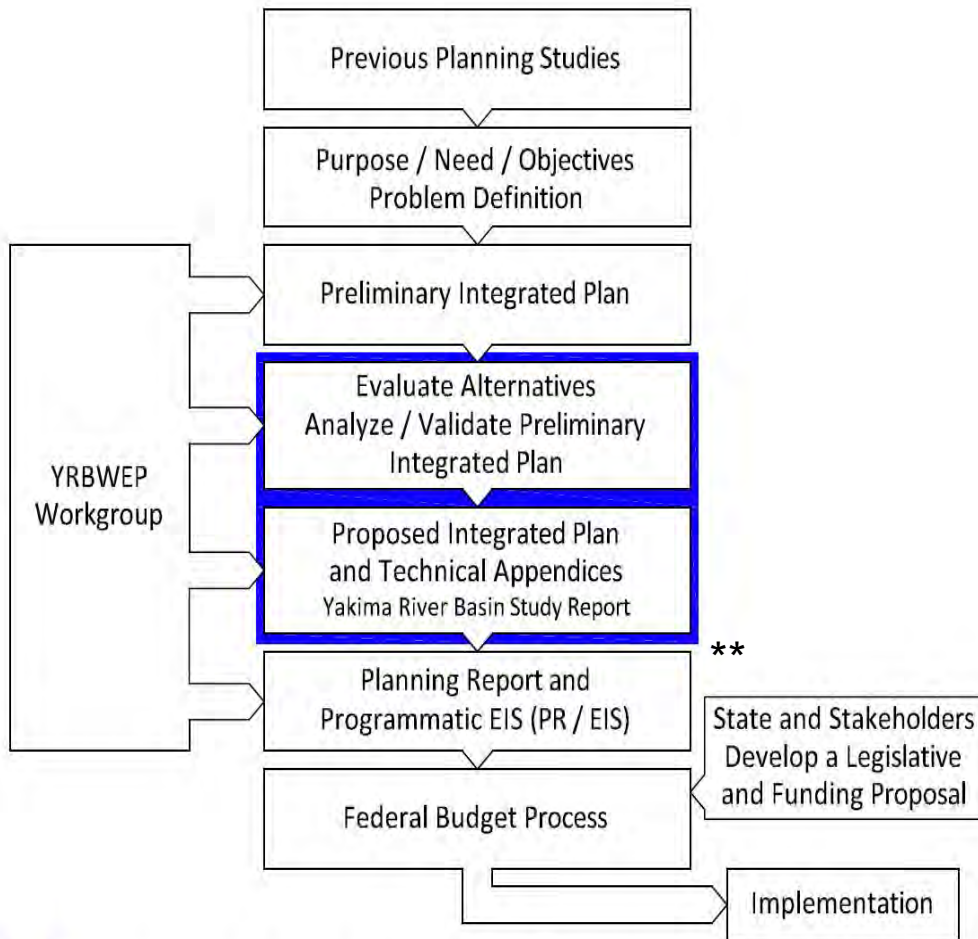
- 7 Elements and action descriptions
 - Proposed updated fish passage description
 - Targeted watershed protections and enhancements
- Cost estimate - \$3.3 to 5.9 billion (may change slightly)
- Preliminary schedule (20+ year implementation)
 - Watershed protections and enhancements not incorporated
 - Funding and other uncertainties will lead to schedule adjustments in implementation

4.0 Expected Outcomes

- Hydrologic Modeling Results Future with and without Integrated Plan
- Water supply
- Stream flow and mainstem habitat (*watershed enhancement benefits not yet characterized*)
- Potential climate change effects on supply (2040)
- Fish production (*#s slightly increased*)
 - Anadromous species
 - Bull trout
- Economic outcomes

5.0 Implementation Considerations

- For each of the 7 elements
 - Potential barriers
 - Mitigation strategies
- Instream flow management framework
 - Upper Yakima
 - Lower Yakima
 - Tributaries
- Periodic reviews and adjustments



■ Yakima River Basin Study (Current Step in Process)

** Workgroup Implementation Subcommittee activated for steps following Yakima River Basin Study

Comments on Integrated Plan
due 3/18.

Send to Ben Floyd
(bfloyd@anchorqea.com)

cc:

Wendy Christensen
(gchristensen@usbr.gov),

Derek Sandison
(dsan461@ecy.wa.gov)

Andrew Graham
(andrew.graham@hdrinc.com)



Yakima River Basin Study

Volume 2 – Technical Memoranda

Volume 2 – Technical Memoranda

- TM 1 Yakima River Basin Water Resources
- TM 2.1 Water Needs for Out-of-Stream Uses
- TM 2.2 Economic Effects of Yakima Basin Integrated Water Resources Management Plan
- TM 3 Instream Flow Needs
- TM 4.1 Fish Passage at Cle Elum, Bumping, and Clear Lake Dams
- TM 4.2 Wapatox Canal Conveyance Improvements
- TM 4.3 Roza/Chandler Power Subordination
- TM 4.4 KRD Modifications
- TM 4.5 Cle Elum Pool Raise
- TM 4.6 Keechelus to Kachess Pipeline
- TM 4.7a Wymer Dam and Reservoir
- TM 4.7b Preliminary Assessment of Wymer Reservoir & Downstream Conveyance and Energy Recovery
- TM 4.7c Thorp to Wymer Conveyance
- TM 4.8 Bumping Lake Enlargement Dam Planning Design Summary Update
- TM 4.9 Lake Kachess Inactive Storage
- TM 4.10 Agricultural Water Conservation
- TM 4.11 Municipal and Domestic Conservation Scenarios
- TM 4.12 Market-Based Reallocation of Water Resources
- TM 4.13 Groundwater Infiltration Appraisal-Level Study
- TM 4.14 Mainstem Floodplain Restoration
- TM 4.15 Columbia River Water Pump Exchange Feasibility Study Scope of Work
- TM 5.2 Environmental, Policy and Legal Barriers
- TM 5.3 Costs of the Integrated Water Resources Management Plan
- TM 6 Modeling of Reliability and Flows
- TM 7 Fish Benefits Analysis

No review period – any technical corrections due by 3/31.