

RECLAMATION

Managing Water in the West

2010 Yakima Basin

Science & Management Conference

Yakima River Basin Study

June 16, 2010

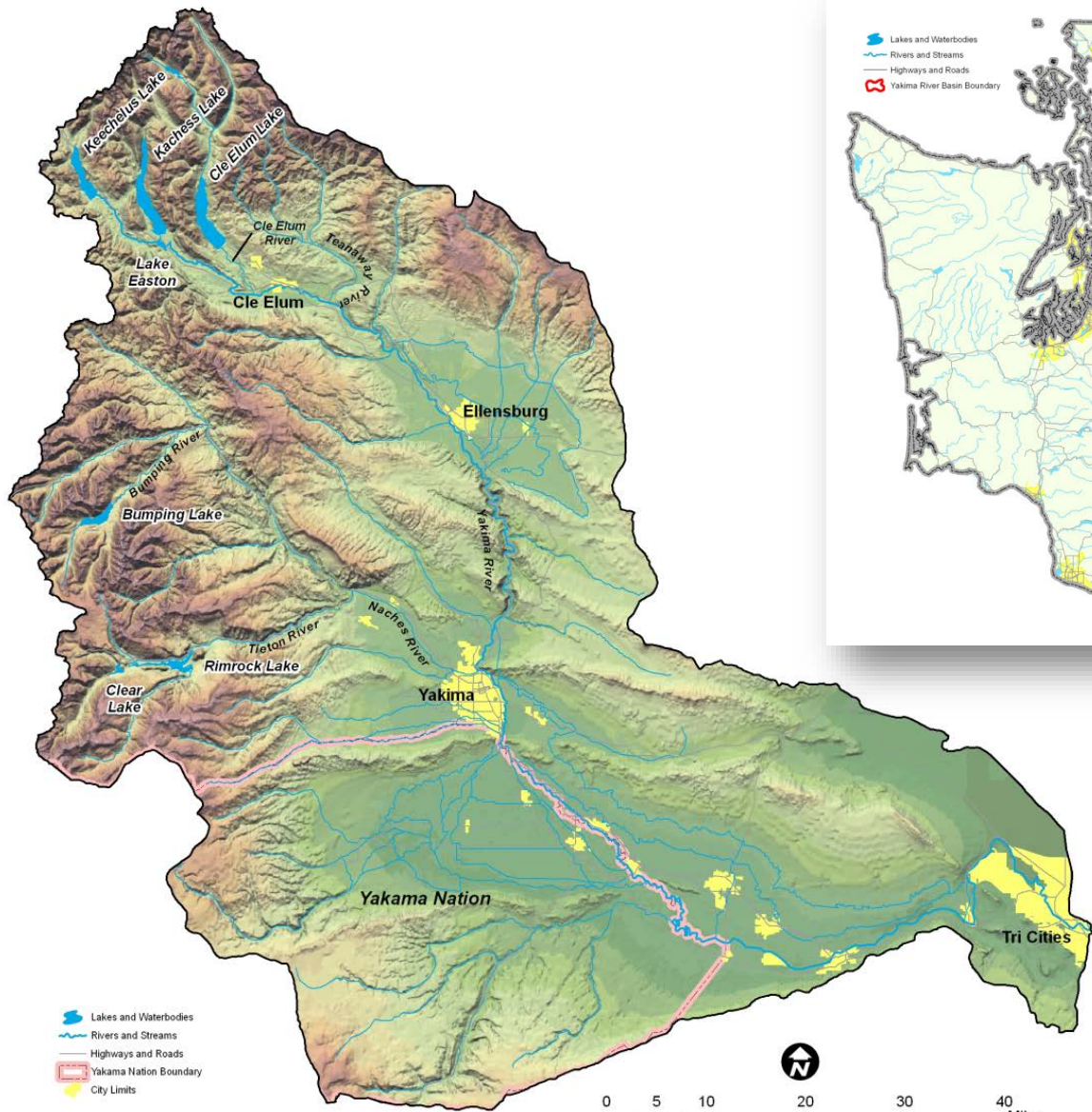
Joel Hubble, Technical Projects Biologist

Columbia-Cascades Area Office

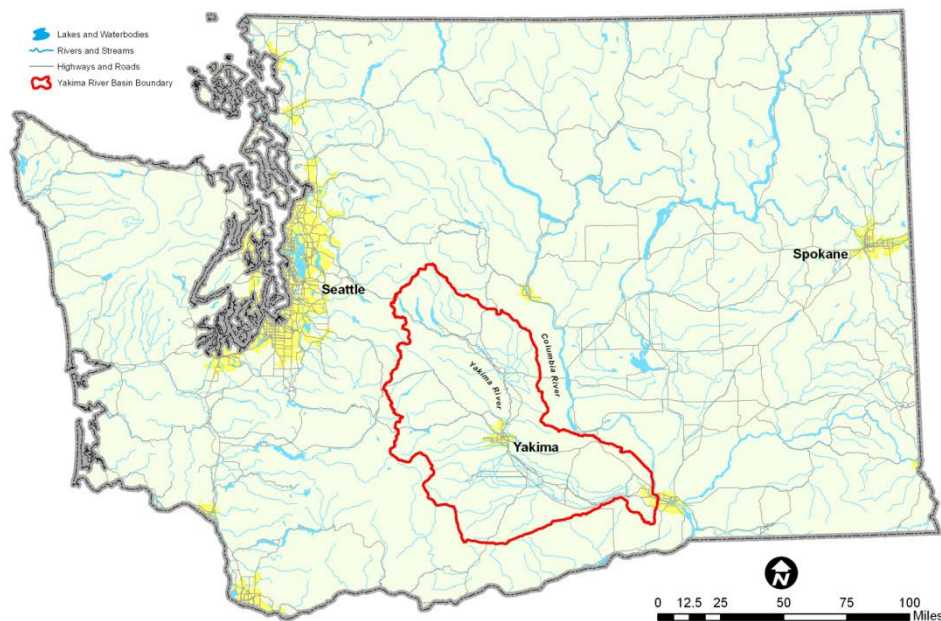
Pacific Northwest Region



**U.S. Department of the Interior
Bureau of Reclamation**



This reference graphic is intended for informational purposes only. It is meant to assist in feature location relative to other landmarks. Geographic features may have been intentionally simplified in an attempt to provide a more readable product. No representation is made as to the accuracy of this document.



Yakima River Basin Location

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Yakima River Basin Background

- **Surface water over-appropriated**
- **Droughts in 1992, 1993, 1994, 2001, and 2005**
- **Pro-ratable irrigation districts reduced to as little as 37% of allotments**
- **Instream flows greatly reduced by out-of-stream diversions**
- **Climate change effects – less snow, earlier runoff**

Yakima River Basin Background

- **Historic salmon and steelhead run size about 800,000 fish**
- **Average run size last 10-15 years about 15,000 – 20,000 fish**
- **Native sockeye and summer Chinook extirpated**
- **Native coho once extirpated, now reestablished**
- **Spring and fall Chinook seriously reduced**
- **Steelhead ESA Threatened species**
- **Bull trout ESA Threatened species**

YRBWEP Feasibility Study

- **Study authorized in 1979**
- **Objectives:**
 - **Provide supplemental water for presently irrigated lands**
 - **Provide water for new lands within the Yakama Reservation**
 - **Provide water for increased instream flows for aquatic life**
 - **Develop a comprehensive plan for efficient management of basin water supplies**
- **Study was not completed**

YRBWEP Phases 1 and 2 Implemented

- **Phase 1 authorized in 1984**
 - Rebuilding fish ladders
 - Constructing fish screens on river diversions
 - Work proceeded through the 1990s

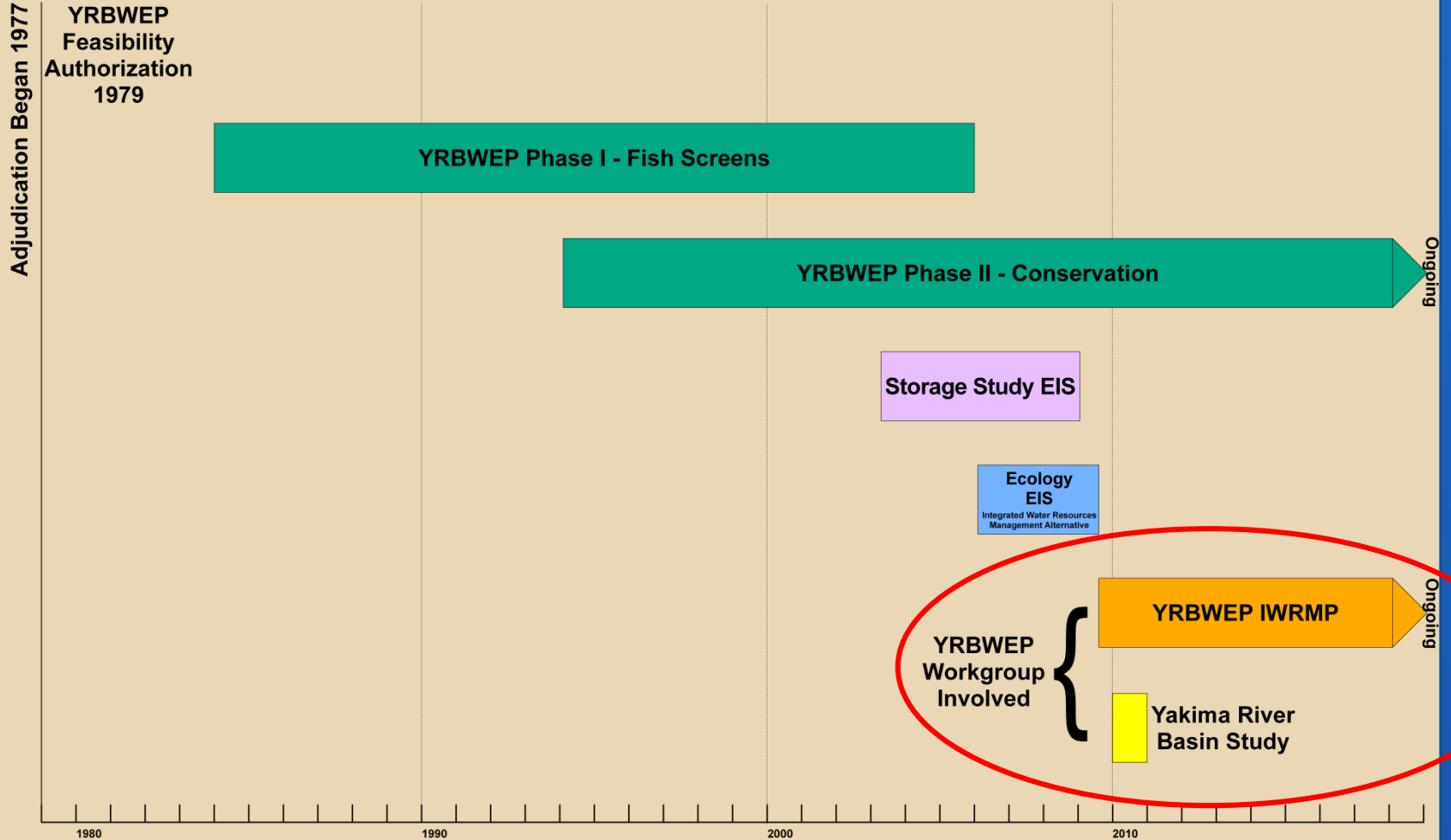
- **Phase 2 authorized in 1994**
 - Water conservation and acquisition (cost shared)
 - Conduct water needs studies for fish & current irrigators
 - Make improvements to the Wapato Irrigation Project (WIP)
 - Develop interim plan for managing basin water supplies

Yakima River Basin Water Storage Feasibility Study

- Authorized in February, 2003
- Wash. Dept. of Ecology cost shared & cooperated
- Limited to looking at additional storage for:
 - T&E fish
 - Irrigated agriculture
 - Municipal water supply
- Focused on potential Black Rock Reservoir
- Out of sequence - should have been part of YRBWEP Phase III
- Ecology took a separate path in 2008

Ecology's Separate Process

- **Separate SEPA evaluation**
- **Finalized SEPA with Integrated Water Resource Management Plan (IWRMP)**
- **IWRMP became framework of YRBWEP 2009 Workgroup**



YRBWEP 2009 Workgroup

- **Public meetings every 2 weeks from June - December**
- **Participants**
 - **Yakama Nation**
 - **Federal, State, county, and city governments**
 - **Environmental organizations**
 - **Irrigation districts**
- **Goal: Achieve consensus on preliminary Integrated Water Resource Management Plan**

Integrated Water Resource Management Plan (IWRMP)

- **Seven elements:**
 - **Fish Passage at existing reservoirs**
 - **Structural and operational changes to existing facilities**
 - **New or expanded storage reservoirs**
 - **Groundwater storage**
 - **Fish habitat enhancements**
 - **Enhanced conservation**
 - **Market-based reallocation of water resources**

Yakima River Basin Study

- **Objectives:**
 - **Achieve consensus around a set of strategies for addressing water supply and streamflow imbalances as well as other aquatic resource issues;**
 - **A plan to move forward with a solution to the basin water shortages – Final IWRMP**
 - **Affordable and adaptable program that can adjust to future needs of the basin to accommodate climate change and population growth**

Yakima River Basin Study

Plan of Study

- **Evaluate benefits and impacts of the IWRMP**
- **Demand and Supply Analysis including climate change impacts**
- **Analyze impacts to water and power infrastructure**
- **Develop elements to supply adequate water in the future**
- **Input from YRBWEP Workgroup during Basin Study**

Yakima River Basin Study

Coordination and Public Involvement

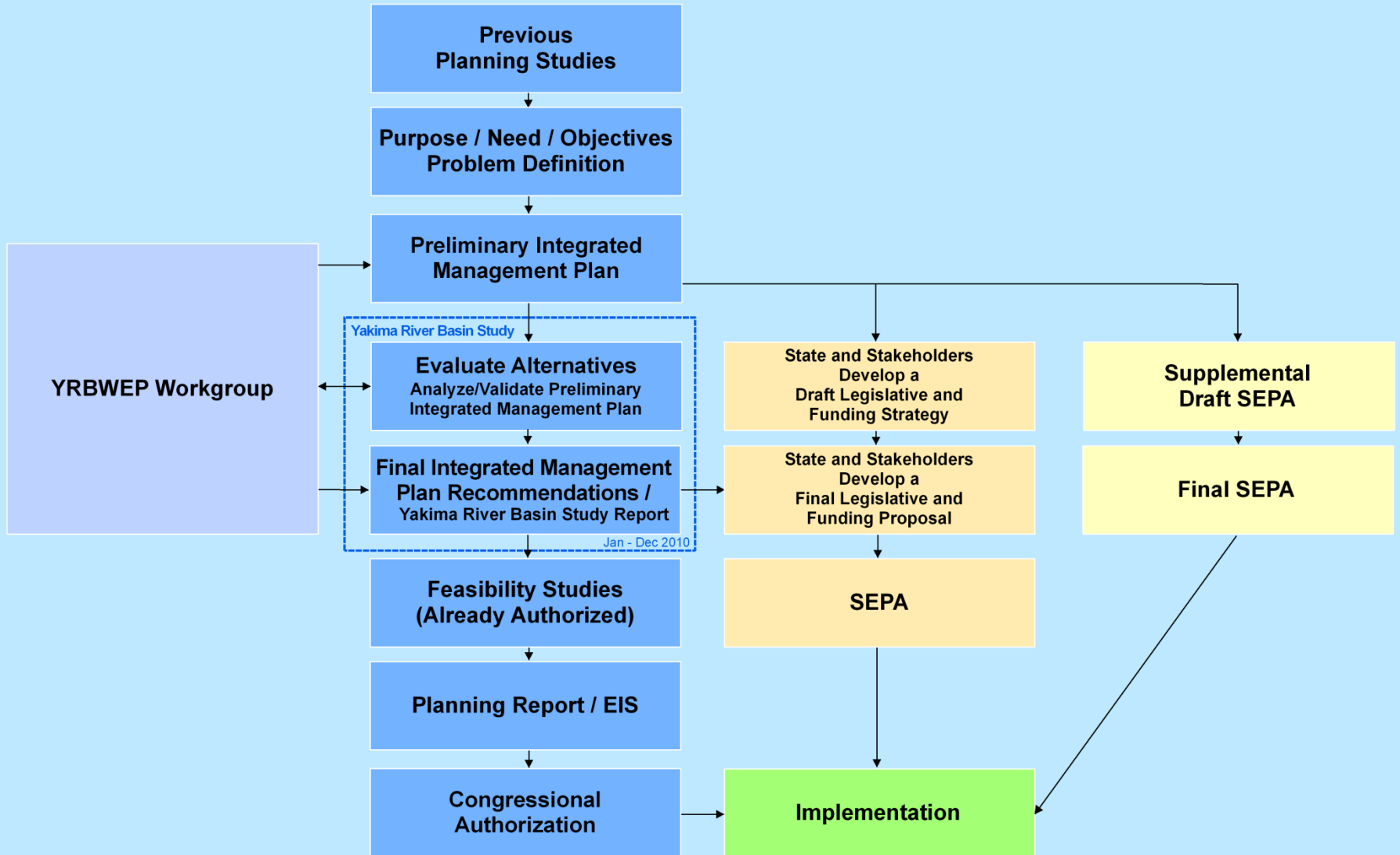
- **Coordination with USGS**
 - Existing models – groundwater/DSS
 - Climate change
- **Coordination – NOAA, USFWS, USFS**
- **Yakama Nation involvement**
- **Stakeholder involvement via YRBWEP Workgroup**
- **Public Meetings at key milestones in Basin Study**
- **Website, e-mail mailing list, video**

Yakima River Basin Study

Schedule

- **Complete initial steps – February 2010**
 - **Intergovernmental Agreement**
 - **Plan of Study**
 - **Public Involvement Plan**
- **Evaluation and Analysis – January – December 2010**
- **Decision Document - November 2010**
- **Complete study – March 2011**

YAKIMA BASIN INTEGRATED WATER RESOURCE MANAGEMENT PLAN



Questions?

- Basin Study Website:

<http://www.usbr.gov/WaterSMART/basin.html>

- Yakima River Basin Website:

<http://www.usbr.gov/pn/programs/yrbwep/>

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