

# Yakima River Basin Integrated Water Resource Management Plan – YRBWEP Workgroup Update

March 9, 2016



*Presented by:*

**Tom Tebb**, Washington Department of Ecology, Office of Columbia River

**Wendy Christensen**, Bureau of Reclamation



# Plan Overview

## YAKIMA RIVER BASIN INTEGRATED WATER RESOURCE MANAGEMENT PLAN

### Structural & Operational Changes

1. Raise the Cle Elum Pool by three feet to add 14,600 ac-ft in storage capacity.
2. Modify Kittitas Reclamation District canals to provide efficiency savings.
3. Construct a pipeline from Lake Keechelus to Lake Kachess to reduce flows and improve habitat conditions during high flow releases below Keechelus and to provide more water storage in Lake Kachess for downstream needs.
4. Decrease power generation at Roza Dam and Chandler power plant to support outmigration of juvenile fish.
5. Make efficiency improvements to the Wapatox Canal.

### Enhanced Water Conservation

1. Implement an agricultural water conservation program designed to conserve up to 170,000 acre-feet of water in good water years.
2. Create a fund to promote water use efficiency basin-wide using voluntary, incentive-based programs. Focus on outdoor uses as top priority.

### Habitat/Watershed Protection & Enhancement

1. Protect ~70,000 acres of land by acquiring high elevation portions of the watershed and forest and shrub steppe habitat.
2. Evaluate potential Wilderness, Wild and Scenic River, and National Recreation Area designations to protect streams and habitat.
3. Create a habitat enhancement program to address reach-level floodplain restoration priorities and restore access to key tributaries.

### Market Reallocation

Employ a water market and/or a water bank to improve water supply in the Yakima River basin. Market reallocation would be conducted in two phases:

The near-term phase would continue existing water marketing and banking programs in the basin, but take additional steps to reduce barriers to water transfers.

The long-term program would focus on facilitating water transfers between irrigation districts. This would allow an irrigation district to fallow land within the district and lease water rights for that land outside the district.



### Reservoir Fish Passage

#### Provide fish passage at:

1. Clear Lake
2. Cle Elum
3. Bumping
4. Tieton (Rimrock)
5. Keechelus
6. Kachess

### Surface Water Storage

1. Build a 162,500 ac-ft off-channel surface storage facility at Wymer on Lmuma Creek.
2. Access an additional 200,000 ac-ft of water by tapping into inactive storage at Lake Kachess.
3. Construct a new dam at Bumping Reservoir to increase capacity to 190,000 ac-ft.
4. Begin appraisal of potential projects to transfer water from the Columbia River to the Yakima Basin.

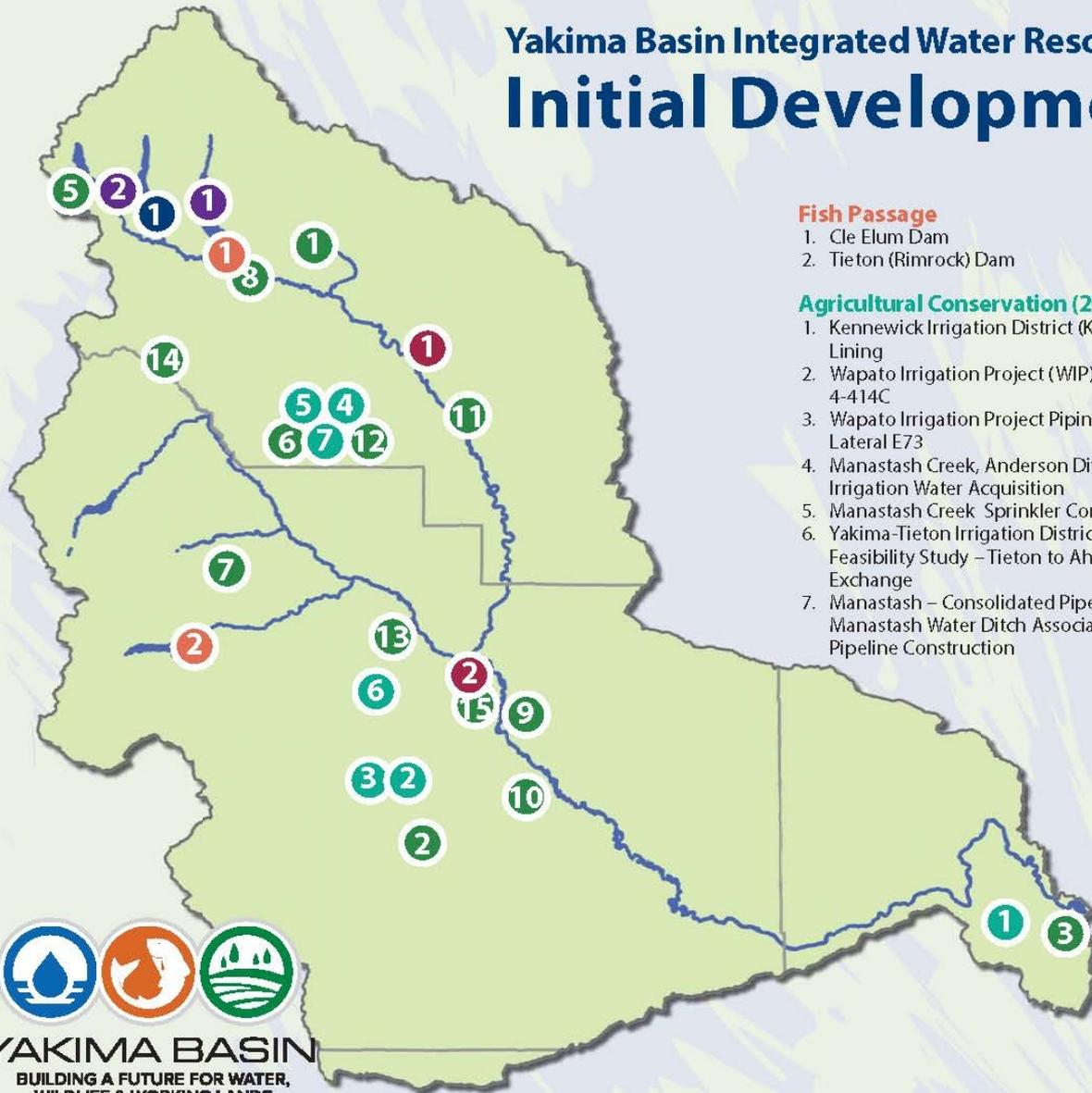
### Groundwater Storage

1. Construct pilot projects to evaluate recharging shallow aquifers via groundwater infiltration. Full scale implementation may follow.
2. Build an aquifer storage and recovery facility allowing Yakima City to withdraw water from the Naches River during high flow periods and store it underground for use during low flow periods.

Page 4-1130-11



# Yakima Basin Integrated Water Resources Management Plan Initial Development Projects



## Fish Passage

1. Cle Elum Dam
2. Tieton (Rimrock) Dam

## Agricultural Conservation (2013-2015)

1. Kennewick Irrigation District (KID) Division IV Lining
2. Wapato Irrigation Project (WIP) Piping Lateral 4-414C
3. Wapato Irrigation Project Piping Satus East Lateral E73
4. Manastash Creek, Anderson Diversion Irrigation Water Acquisition
5. Manastash Creek Sprinkler Conversions
6. Yakima-Tieton Irrigation District (YTID) Feasibility Study – Tieton to Ahtanum Exchange
7. Manastash – Consolidated Pipeline & Manastash Water Ditch Association (MWDA) Pipeline Construction

## Structural and Operational Changes

1. Cle Elum Pool Raise
2. Keechelus to Kachess Conveyance

## Surface Water Storage

1. Kachess Drought Relief Pumping Plant

## Water Bank/Exchange Programs Basin Wide

## Groundwater Storage

1. Upper Kittitas Aquifer Storage and Recovery
2. Yakima City Aquifer Storage and Recovery

## Habitat Enhancement (2013-2015)

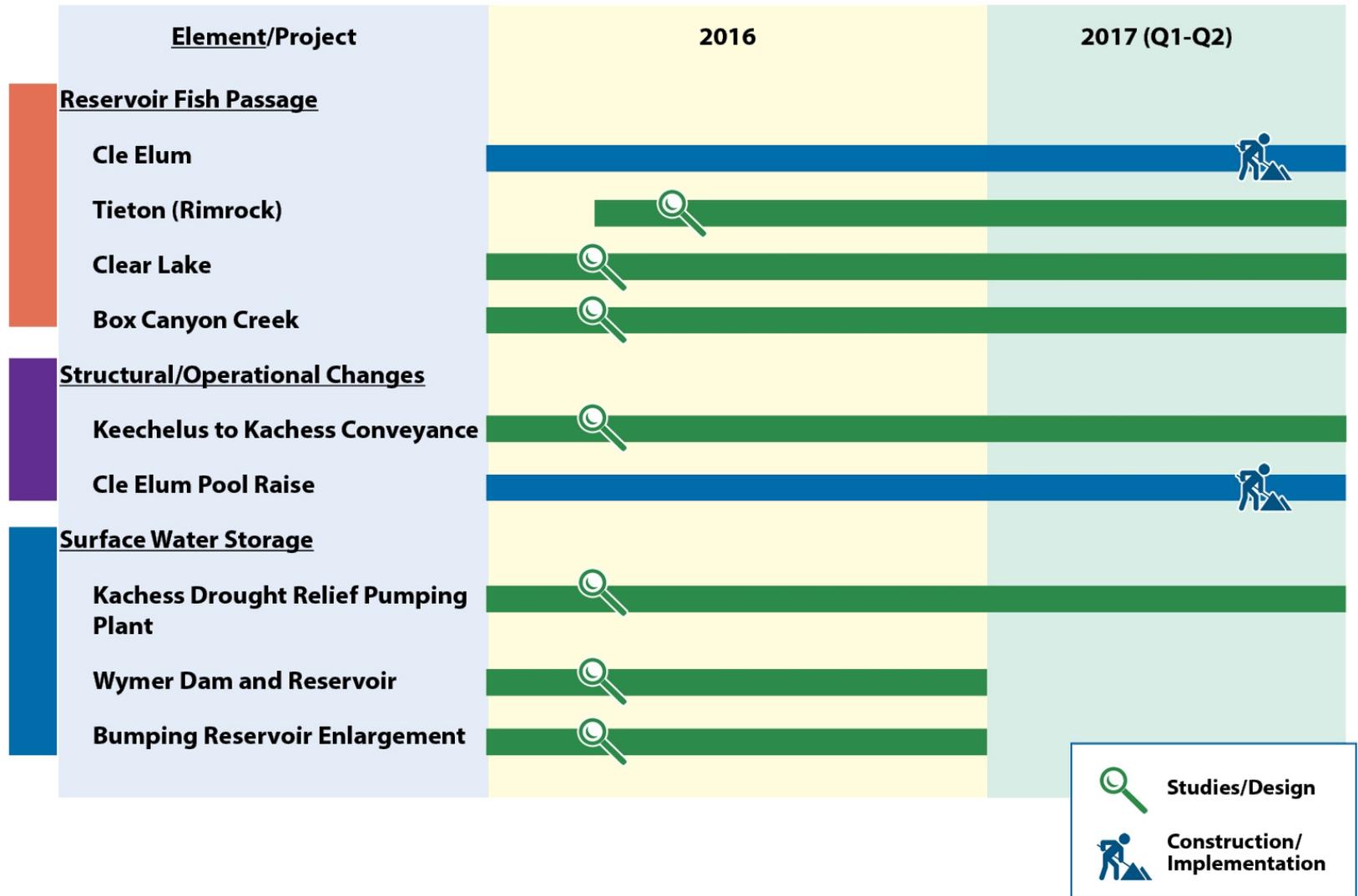
1. Teanaway Acquisition
2. Toppenish Fan
3. Bateman Island Causeway Modification Conceptual Design
4. Bull Trout Habitat Improvements
5. Gold Creek Habitat Assessment and Conceptual Design
6. Reed Diversion design Barrier Removal
7. Little Rattlesnake Road De-commissioning
8. Cle Elum River Side Channel Restoration Project, Phase 2
9. Gap-to-Gap Property Acquisitions
10. Upper Wapato Riparian Restoration
11. Ellensburg Water Company / Coleman Creek Restoration
12. Reed Diversion Barrier Removal
13. Trout Meadows Acquisition / Enhancement
14. Manastash/ Little Naches Land Acquisition
15. Gap-to-Gap Outfall Relocation



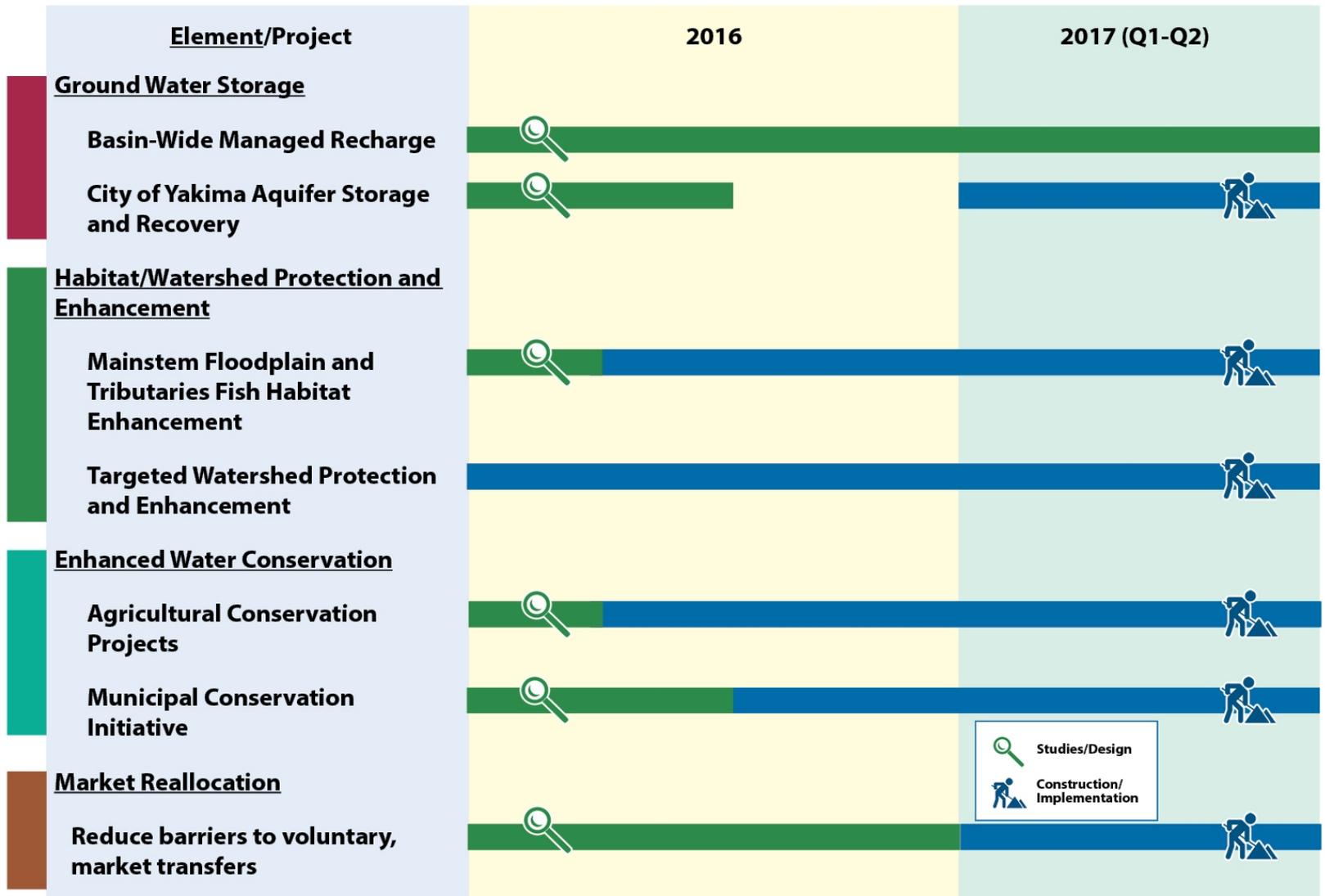
**YAKIMA BASIN**  
BUILDING A FUTURE FOR WATER,  
WILDLIFE & WORKING LANDS



# Yakima Basin Integrated Plan – Ongoing Activities (2016-2017)



# Yakima Basin Integrated Plan – Ongoing Activities (2016-2017)



# *Questions?*

For further information on the web:

<http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/>

<http://www.ecy.wa.gov/programs/wr/cwp/YBIP.html>

