



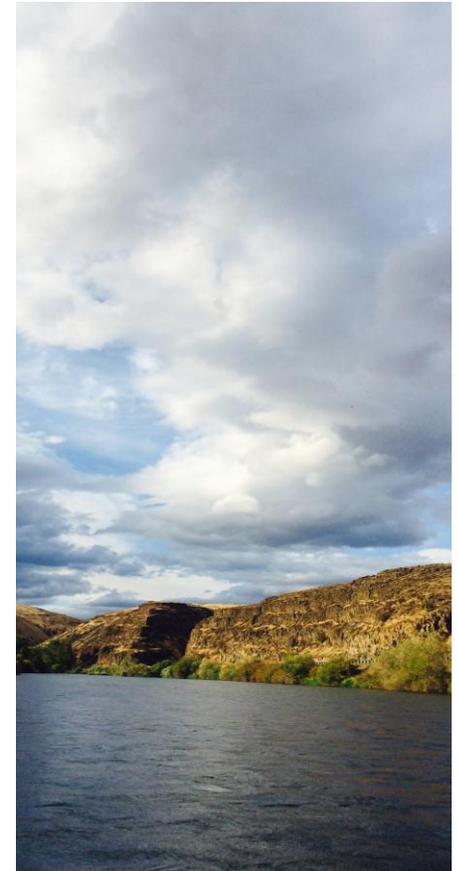
# Yakima Basin Integrated Plan Columbia River Policy Advisory Group

October 15, 2015

Presented by G. Thomas Tebb  
Office of Columbia River  
Washington State Dept of Ecology

# Yakima Basin Water Management

- Managed by Bureau of Reclamation
- Five reservoirs
  - Capacity: 1 million acre-feet
  - Average annual runoff: 3.3 million acre-feet
- Irrigation deliveries:
  - 1.7 million acre-feet
- Snowpack functions as 'sixth reservoir'



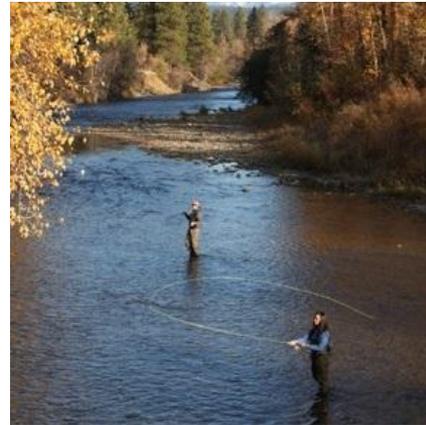
# The Yakima Basin Integrated Plan

A balanced package of actions focusing on seven key elements:

- Fish Passage
- Habitat Enhancement
- Modifying Existing Structures and Operations
- Surface Storage
- Market-Based Reallocation
- Groundwater Storage
- Enhanced Water Conservation

To address:

- Climate change, snowpack decline
- Over-appropriation of existing water
- Reduced & extirpated fisheries



# Initial Development Phase

- First 10 year phase of 30 year plan
- Projects most critical for drought resilience, species protection/recovery & habitat conservation
- Advances all seven plan elements
- Represents just under 1/3 of estimated plan costs
  - Approximately \$900 million



# Initial Development Phase Goals

Costs are preliminary based on studies to date

- Cle Elum Reservoir pool raise  
\$18 million
- Cle Elum Reservoir Fish Passage  
\$125 million
- Kachess Drought Relief Pumping Plant  
TBD – water user funded
- Keechelus-Kachess conveyance  
TBD - water user funded
- Evaluation, design & construction of  
second fish passage facility at Tieton Dam  
\$100 million
- Habitat and land acquisitions (Teaway  
community forest)  
\$100 million
- Aquifer Storage and Recovery  
\$6 million
- Agricultural Conservation  
\$85 million
- Water Marketing  
\$.5 million

# Funding Moving Forward – 2015-2017



- 2013 WA State Budget: \$137 million for YBIP implementation in 2013-2015
  - \$99 million - Teanaway purchase
  - \$1 million - Teanaway management
  - \$32 million - Ecology funded IP projects
  - \$5 million - Kittitas County infrastructure/facilities
- 2015 WA State Budget: \$30 million for YBIP implementation in 2015-2017
  - \$9.5 million – Water Supply Projects
  - \$9,5 million – Fisheries Projects
  - \$5 million – Water Conservation Projects
  - \$5 million – Habitat Projects
  - \$1 million – Groundwater Storage & Market Reallocation
- Federal Appropriated Funding
  - FY 15 - \$4.27 million – Cle Elum Fish Passage
  - FY 16 -17 – funding for fish passage & water supply reliability

# Habitat / Watershed Protection

- 13-15 budget \$102,719,000
- 15-17 budget \$ 5,000,000
- 50,000 acres of Teanaway lands purchased
- Seek protective designations on public lands and waters
- Mainstem Floodplain and Tributaries Fish Habitat Enhancement Program

Before



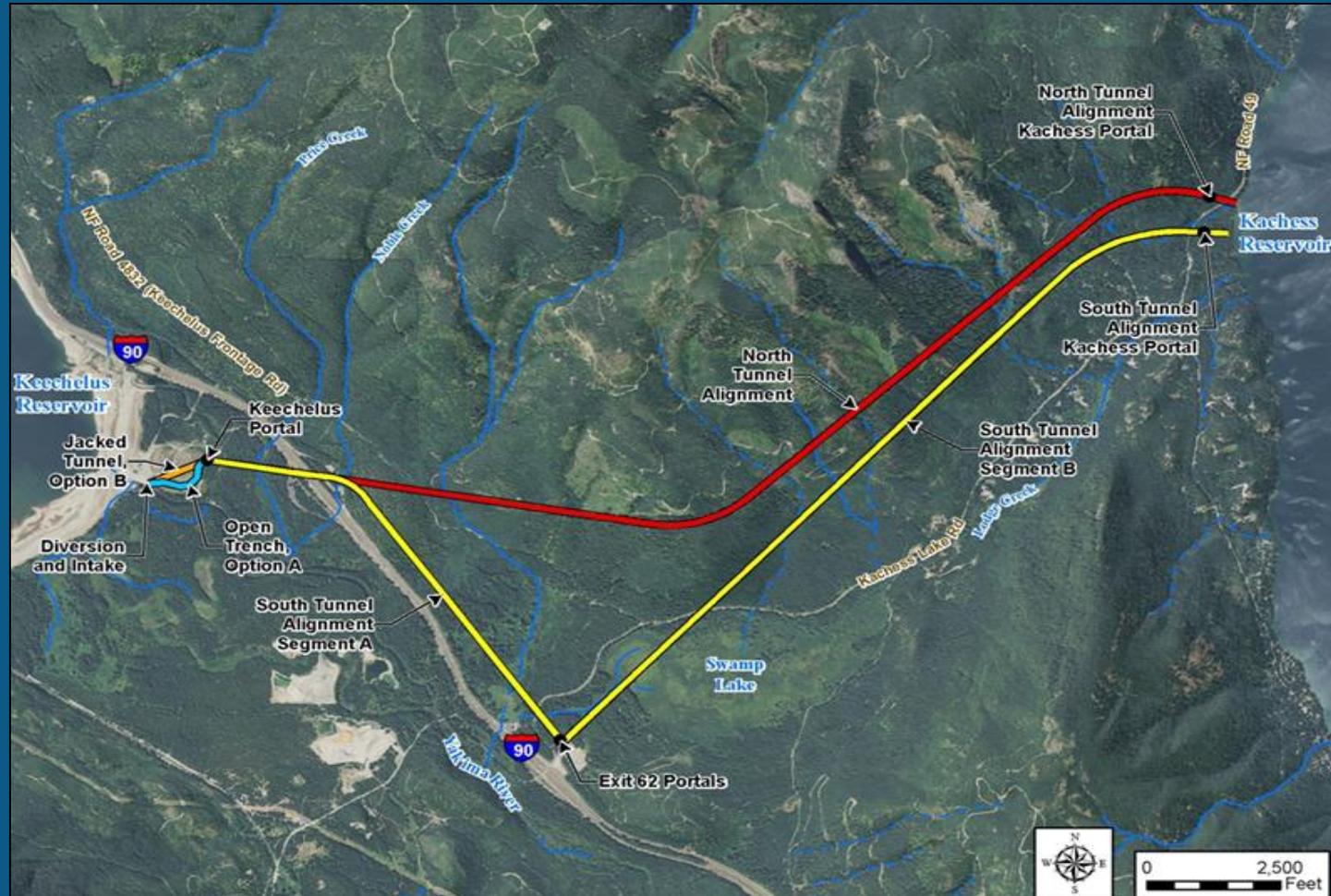
After



Habitat Restoration

# Operational Modifications

- 13-15 budget \$3,750,000
- 15-17 budget \$7,100,000
- Keechelus to Kachess Pipeline
- Subordination of Power Generation



# Fish Passage

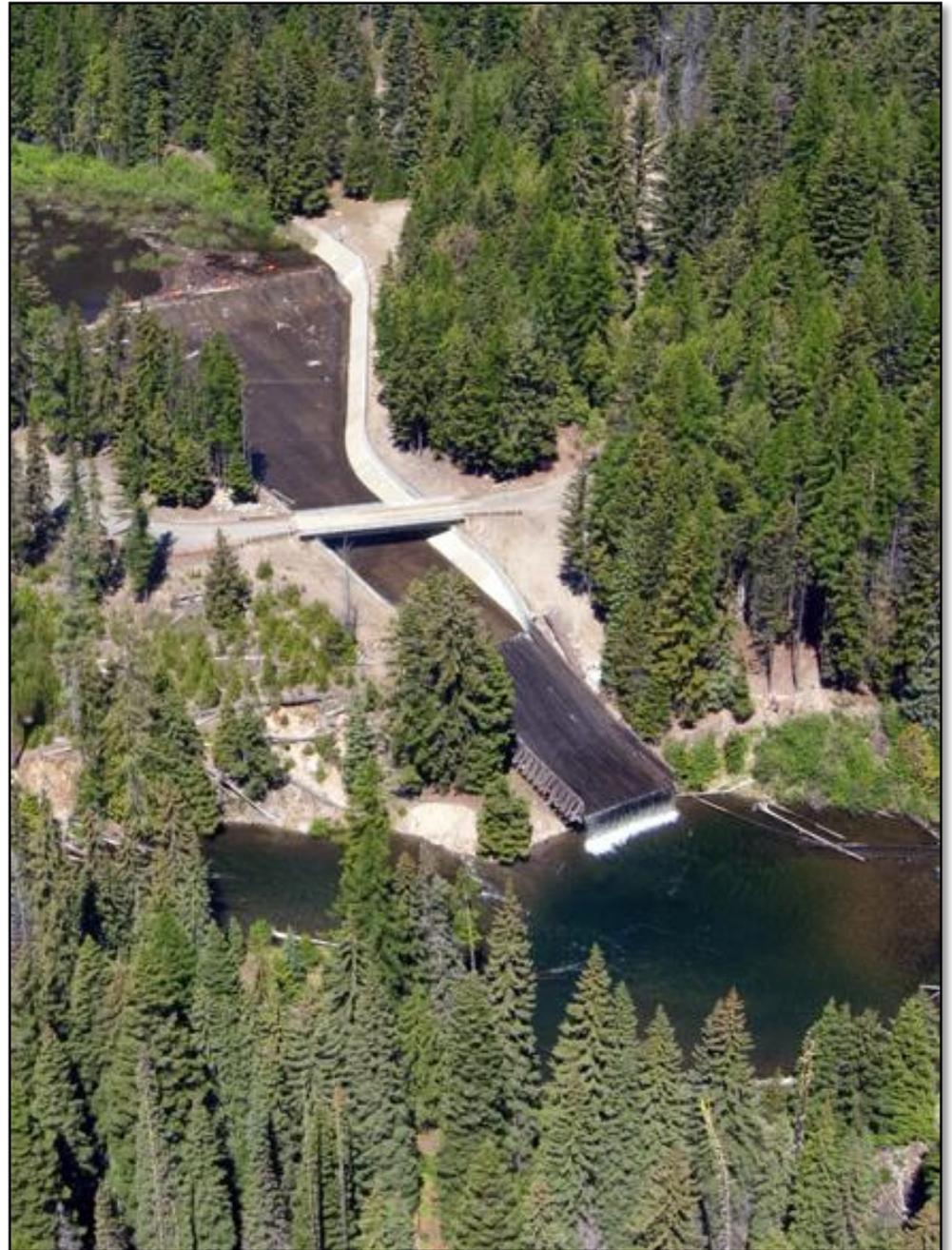
- 13-15 budget \$10.1 million
- 15-17 budget \$ 9.5 million
- Cle Elum Dam Fish Passage
  - Groundbreaking August 27, 2015
- Tieton Dam Fish Passage
- Sockeye Salmon Reintroduction



Photo credit: Roger Satnik, KR D

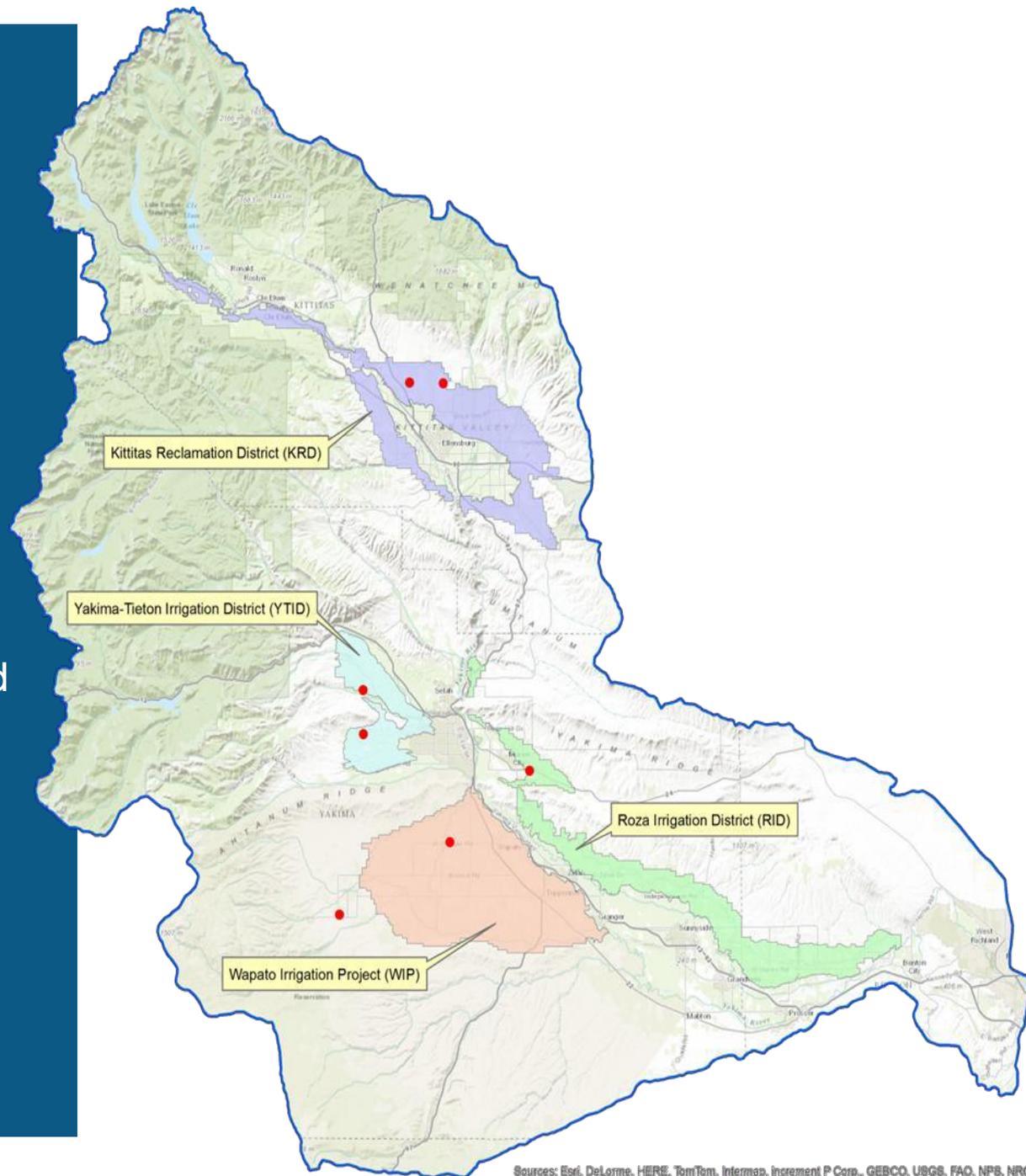
# Surface Storage

- 13-15 budget \$18.1 million
- 15-17 budget \$ 2.4 million
- Cle Elum Pool Raise
- Kachess Inactive Storage
- Wymer Reservoir
- Bumping Reservoir Enlargement



# Groundwater Recharge & Storage

- 13-15 budget \$600,000
- 15-17 budget \$500,000
- Managed recharge modeling
- Pilot projects on KRD and WIP
- Groundwater Aquifer Storage and Recovery; City of Yakima



# Enhanced Water Conservation

- 13-15 budget \$2.5 million
- 15-17 budget \$5 million
- Municipal and Agricultural Conservation Elements
- Conservation goals through irrigation efficiencies
- Improved Instream flows
- Reduced maintenance and pumping costs

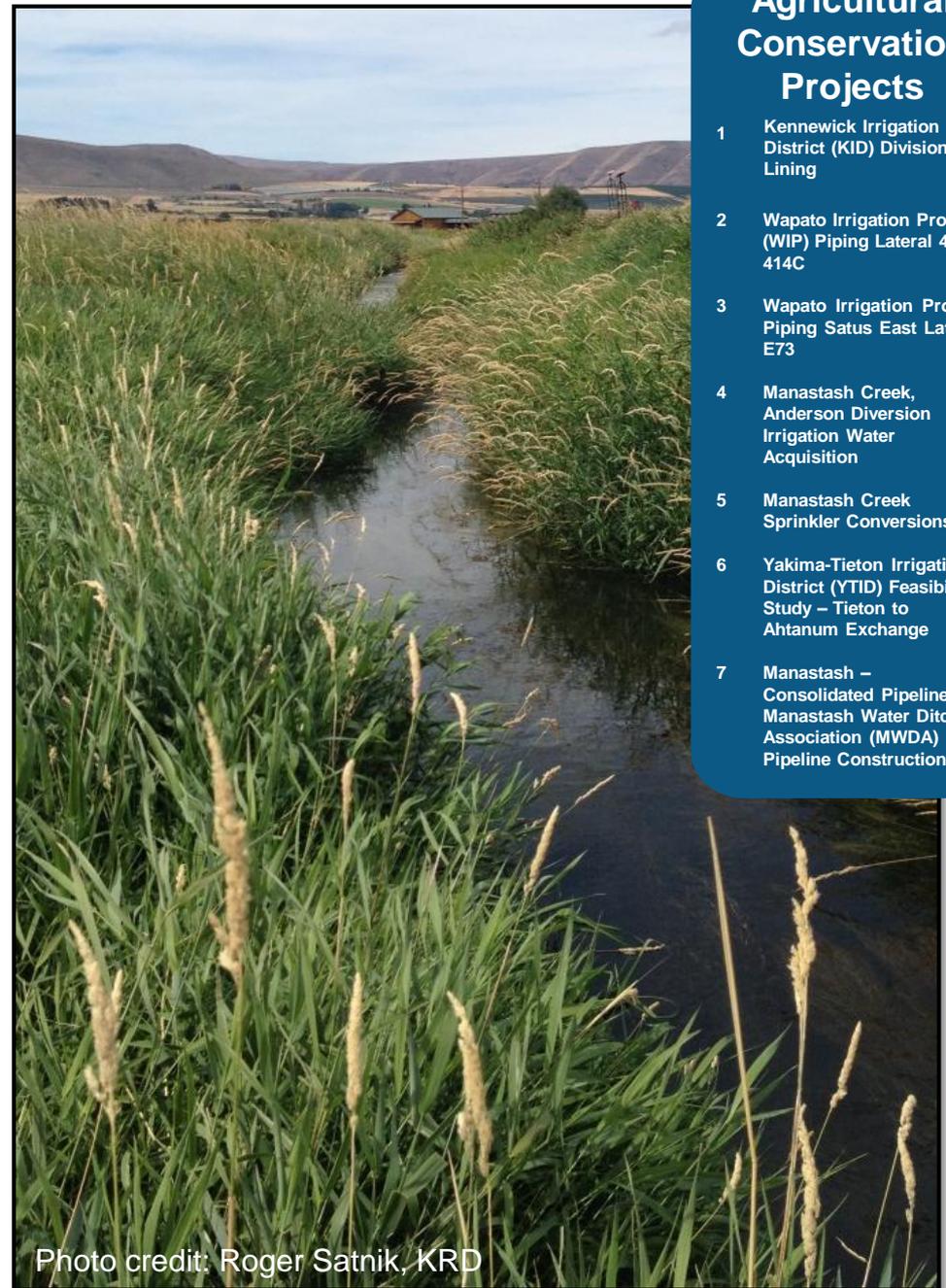


Photo credit: Roger Satnik, KRD

## Agricultural Conservation Projects

- 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

# Market-Based Reallocation

- 13-15 budget \$350,000
- 15-17 budget \$500,000
- 2015 Drought Declaration enabled DOE to lease water from willing sellers
- Further investments are planned to develop the mechanics and incentives for large scale water market transactions



# Initial Development Phase Schedule

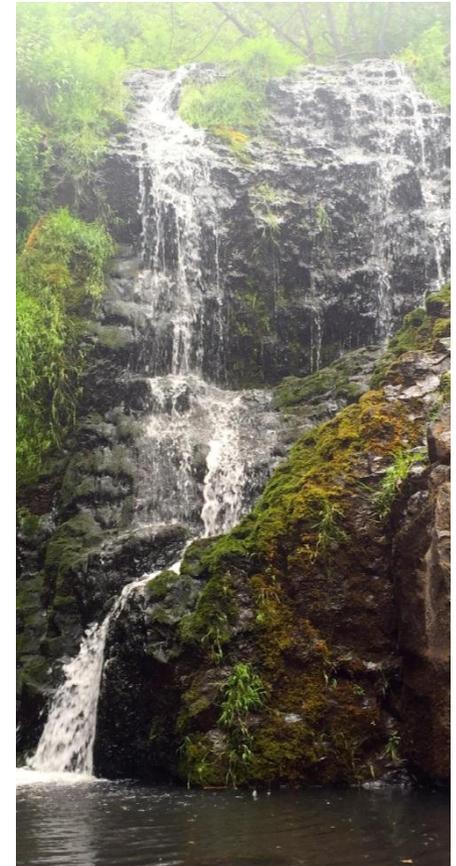
- Kachess Drought Relief Pumping Plant and Keechelus-to-Kachess Conveyance
  - Draft EIS – currently responding to comments
  - Final EIS – 2016
- Cle Elum Pool Raise
  - Final EIS – March 2015
  - Record of Decision – April 2015
  - Radial Gate Raise – 2016
  - Shoreline Protection- 2016-2021
- Cle Elum Dam Fish Passage Facilities
  - Groundbreaking – August 2015
  - Helix vault – October 2016



# Federal Legislative Reauthorization

The Yakima River Basin Water Enhancement Project Act of 2015 (S. 1694)

- Introduced June 25, 2015
- Cosponsored by Senators Maria Cantwell and Patty Murray (D-Wash.)
- Based on
  - YBIP
  - Work done during YRBWEP I and II
  - Extensively modified through negotiation within the Implementation Committee
  - Revised by Senate Energy and Natural Resources Committee staff in consultation with Bureau of Reclamation
- Endorses the YBIP and authorizes its Initial Development Phase
- Allows for cost-sharing
  - 50/50 state and non-state sources
  - Irrigation districts and water users to fund infrastructure projects with interest





# Thank You!

- Questions?

