

Technical Projects Update

YRBWEP Workgroup Meeting
June 4, 2014



Overview

- **Keechelus-to-Kachess Conveyance**
- **Kachess Drought Relief Pumping Plant**
- **Bull Trout Enhancement**
- **Wymer Dam and Reservoir**
- **Bumping Dam & Reservoir Enlargement**
- **Cle Elum Pool Raise**
- **Cle Elum Dam Fish Passage Facilities**
- **Tieton Dam Fish Passage Facilities Study**
- **Clear Lake Fish Passage**
- **Groundwater Storage – City of Yakima Aquifer Storage & Recovery (ASR)**
- **Groundwater Storage – Basinwide Analysis**
- **Manastash Creek Conservation & Tributary Enhancement**
- **Habitat Enhancement and Agricultural Conservation Projects**
- **Teanaway Community Forest**



Keechelus-to-Kachess Conveyance and Kachess Drought Relief Pumping Plant



KKC and KDRPP

- **Two alternatives under consideration for each project**
- **Additional field exploration in summer 2014 for revised KKC tunnel routes**
- **Feasibility Design Report and Economics Report under development**
- **Draft Environmental Impact Statement in progress**



Bull Trout Enhancement



Box Canyon

- **Three optional designs at the Box Canyon Creek Area**
- **Meeting in June**
- **Enhancement package – working with WDFW, USFWS, NMFS, USFS, and YN on plan for other creeks**



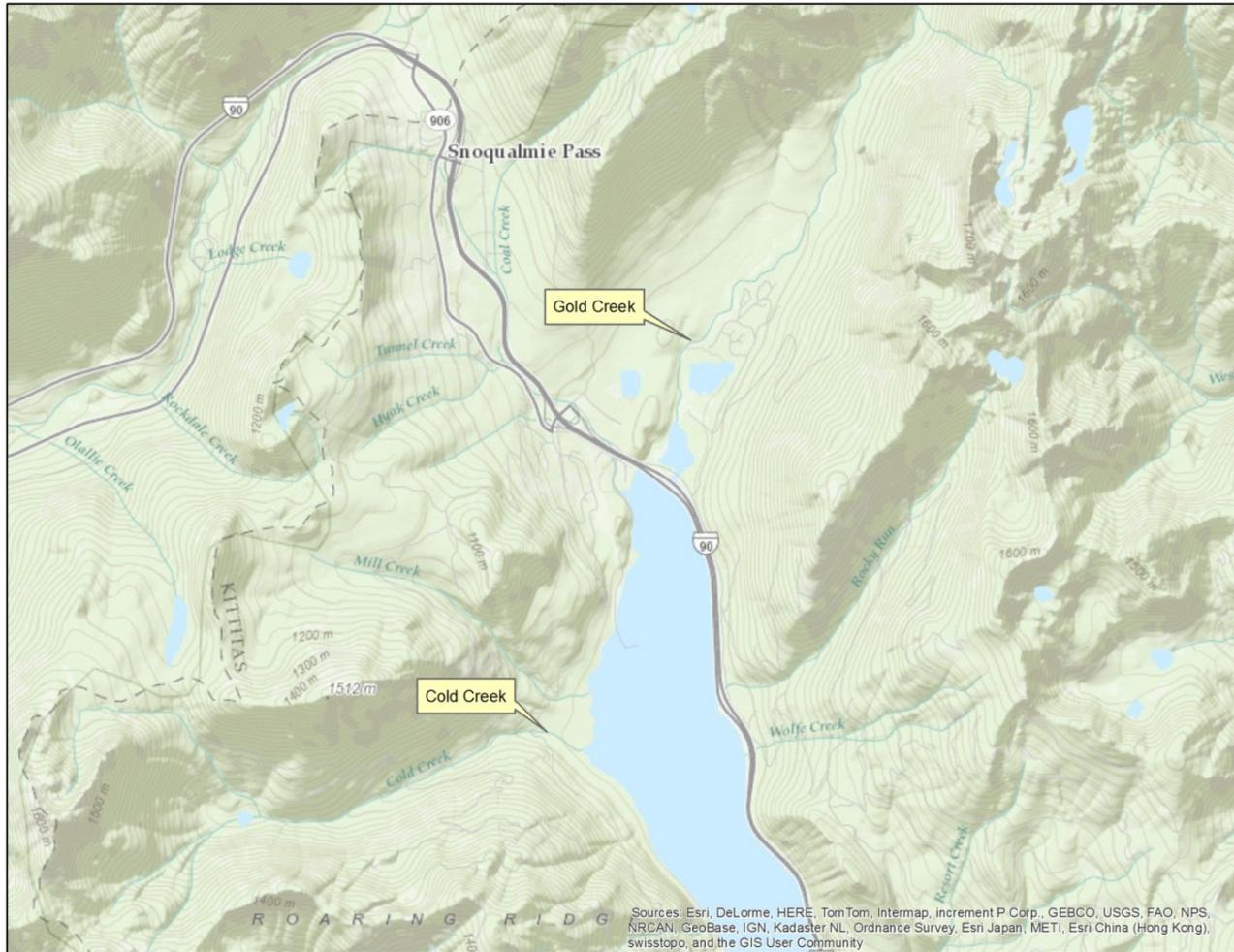
Kachess Reservoir



- **Kachess River**
- **Mineral Creek**
- **Box Canyon Creek**



Keechelus Reservoir



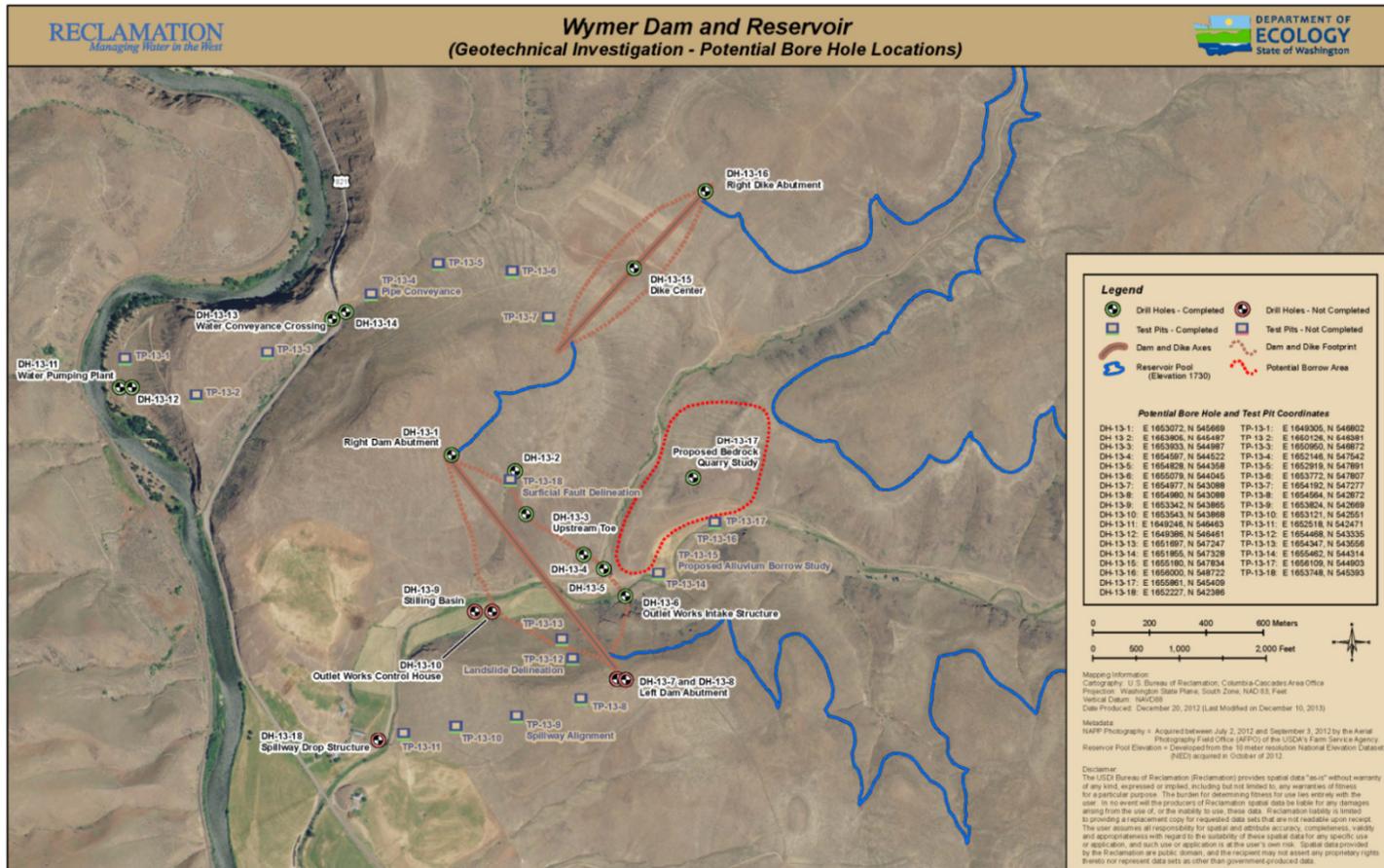
- **Gold Creek**
- **Cold Creek**
- **Other Small Tributaries**



Wymer Dam and Reservoir



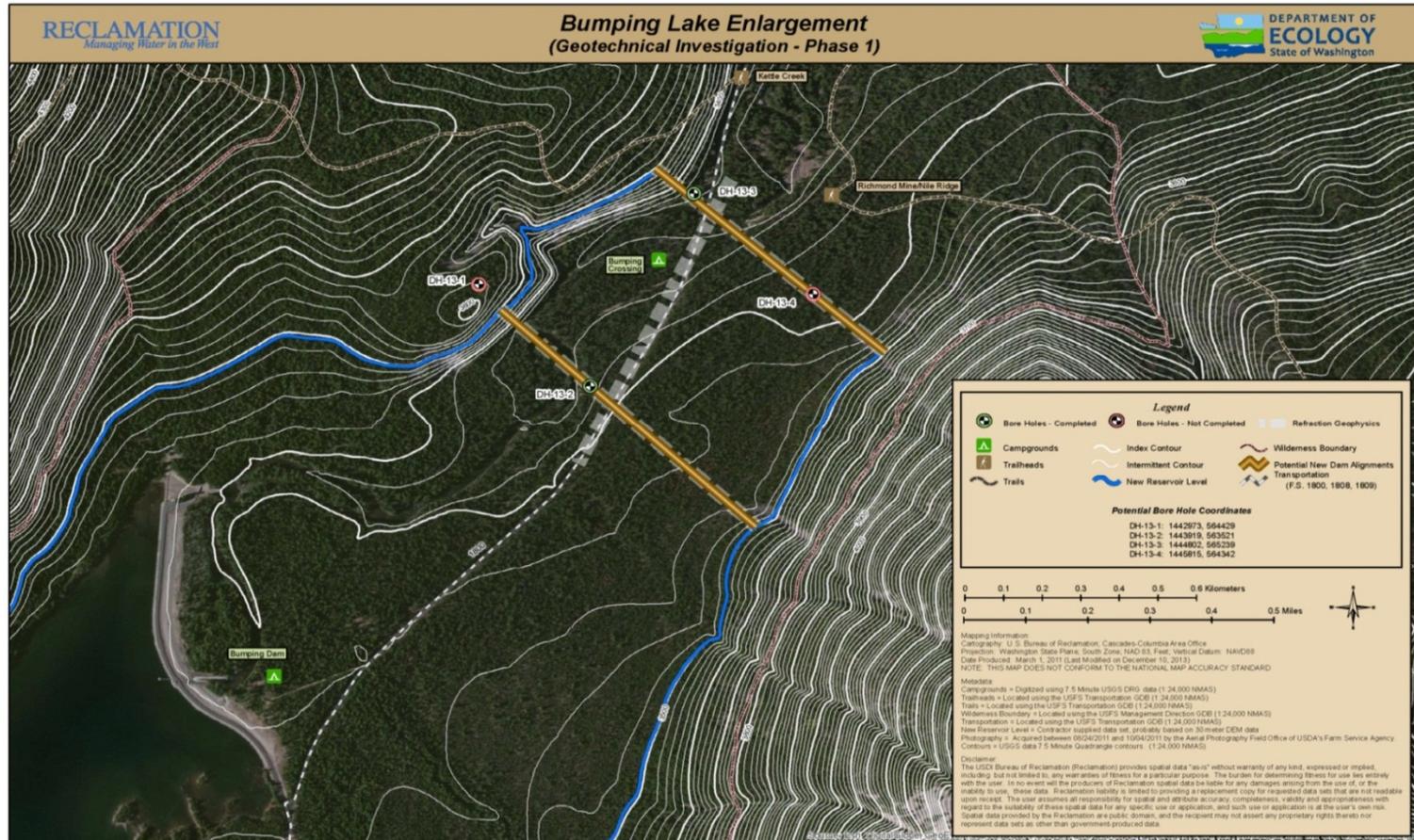
Geotechnical drilling completed; processing core data



Bumping Dam & Reservoir Enlargement



Geotechnical drilling to begin in June



Cle Elum Pool Raise



Cle Elum Pool Raise

- **Final design under development**
- **Environmental Impact Statement in process**
- **Meeting with landowners in process**



Cle Elum - Before Shoreline Protection

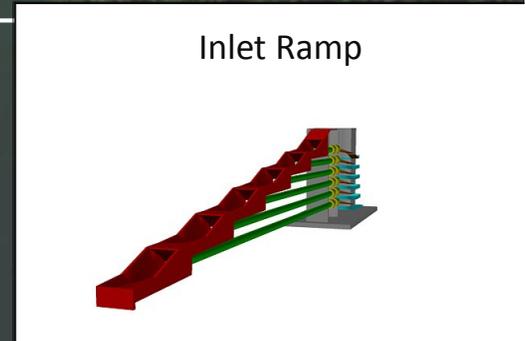
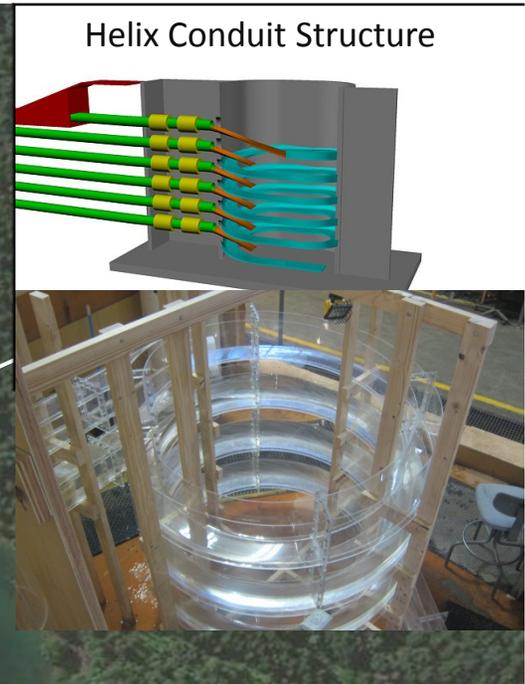
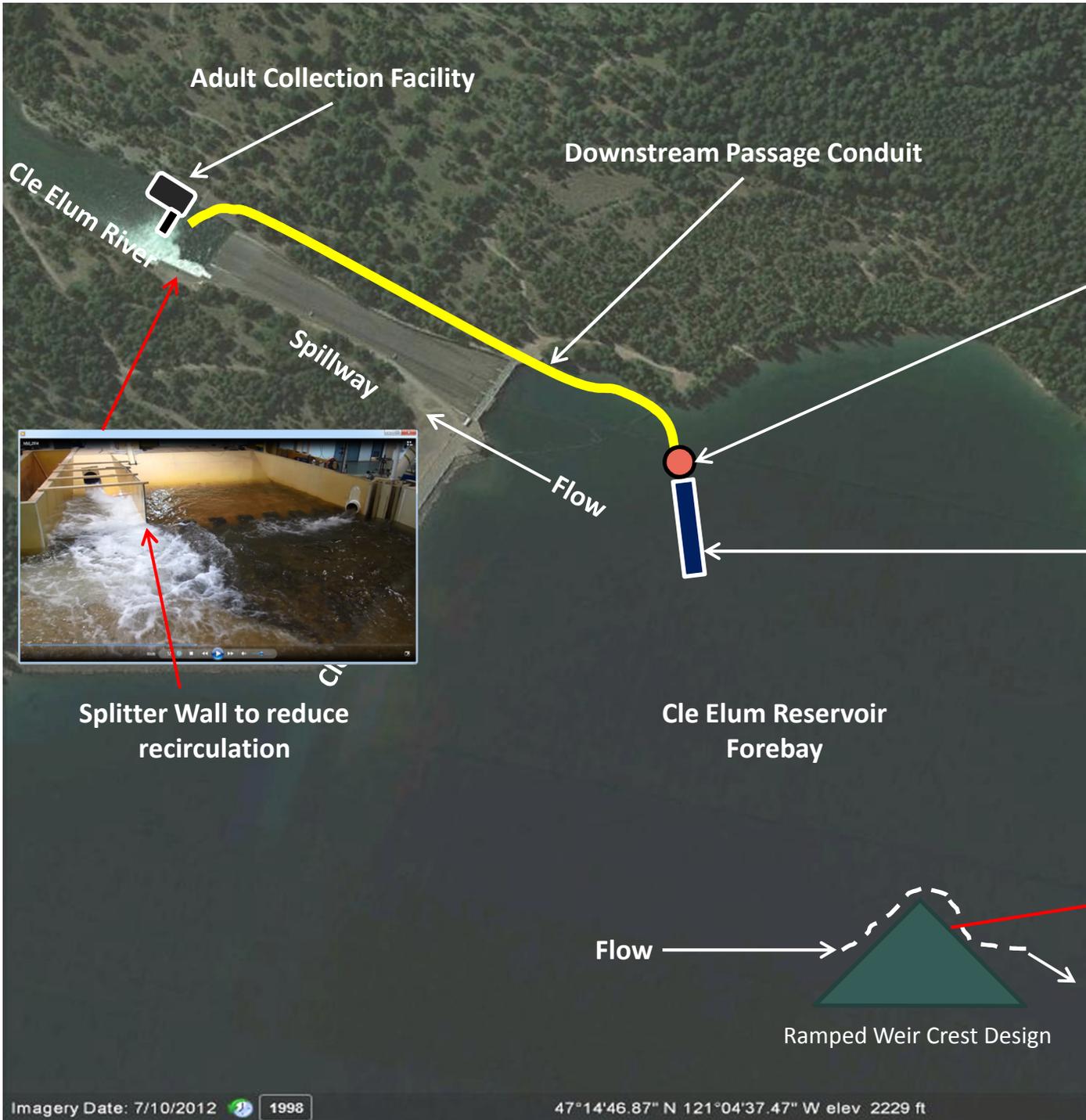


Cle Elum – After Shoreline Protection



Cle Elum Dam Fish Passage Facilities





The Yakima Storage Dams Fish Passage Core Team met with the TSC Modeling & Design Team in Denver April 23-24

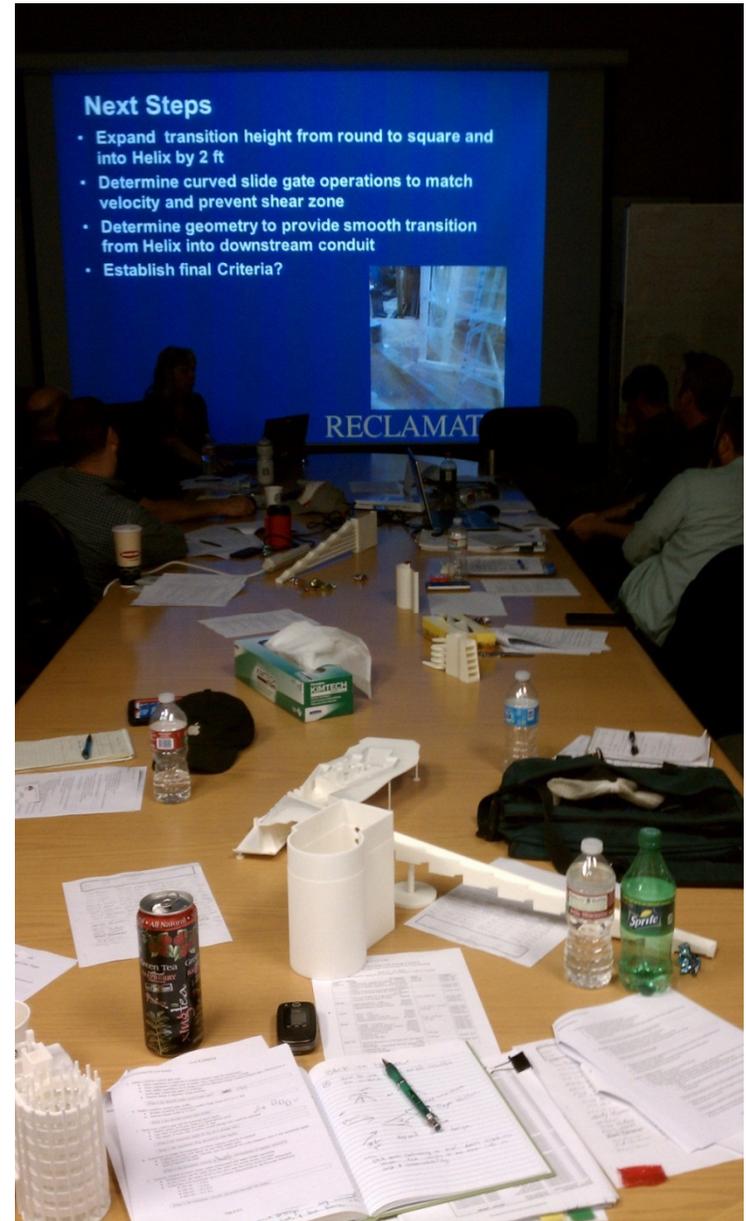


Core Team members had the opportunity to see both the upstream and downstream physical models



Key biological fish design criteria was reviewed, discussed, and agreed upon by the Core Team for the:

- Juvenile Intake
- Helix
- Tunnel
- Juvenile outfall pipe & splitter wall (tailrace)
- Adult collection facility



Tieton Dam Fish Passage Facilities Study



Tieton Dam Fish Passage Facilities Study

- **Statement of work being prepared**
 - **Deliverables:**
 - **Appraisal Assessment Report**
 - **Drawings**
 - **Cost Estimate**
 - **Environmental Impacts**



Tieton Dam



Clear Lake Fish Passage



Clear Lake Fish Passage

- **Study progress – 2 more years of data collecting**
 - 2012 report posted to Integrated Plan website
 - 2013 report posted to Integrated Plan website



Groundwater Storage – City of Yakima Aquifer Storage & Recovery (ASR)



City of Yakima ASR

- **Programmatic framework technical memorandum completed and available on Reclamation website**
- **Testing of Gardner well begins June 2014**
- **Pending permit approval, begin recharging winter 2014/2015**

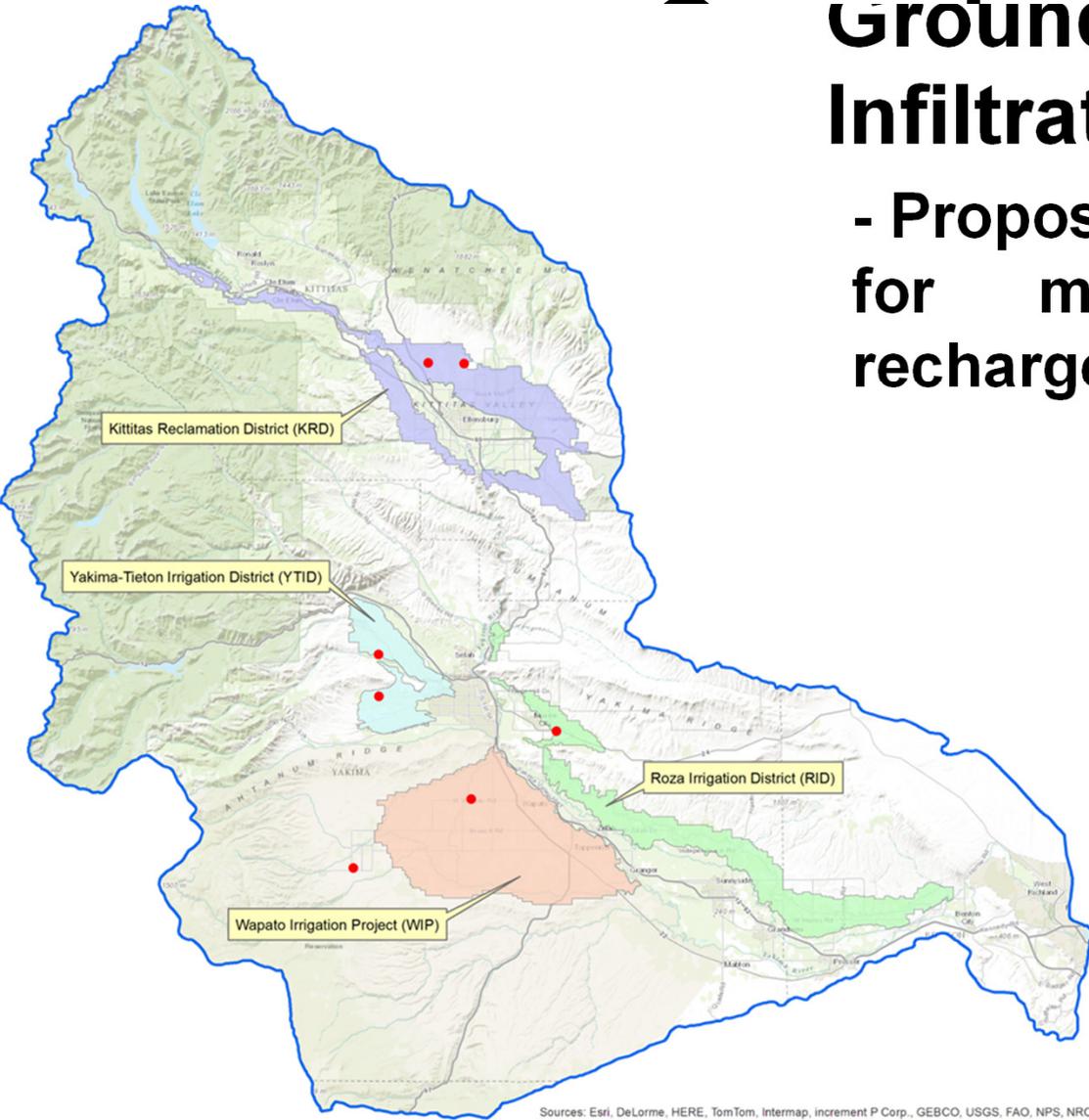


Groundwater Storage Basinwide Analysis



Groundwater Infiltration

- Proposed areas for managed recharge modeling



Sources: Esri, DeLorme, HERE, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community



Manastash Creek Conservation & Tributary Enhancement



Manastash Creek Conservation & Tributary Enhancement

- **Project is complete and operational**
 - **Delivering water**
 - **Conserved water being put into the creek**



Manastash Creek Conservation & Tributary Enhancement – Before



Manastash Creek Conservation & Tributary Enhancement – After



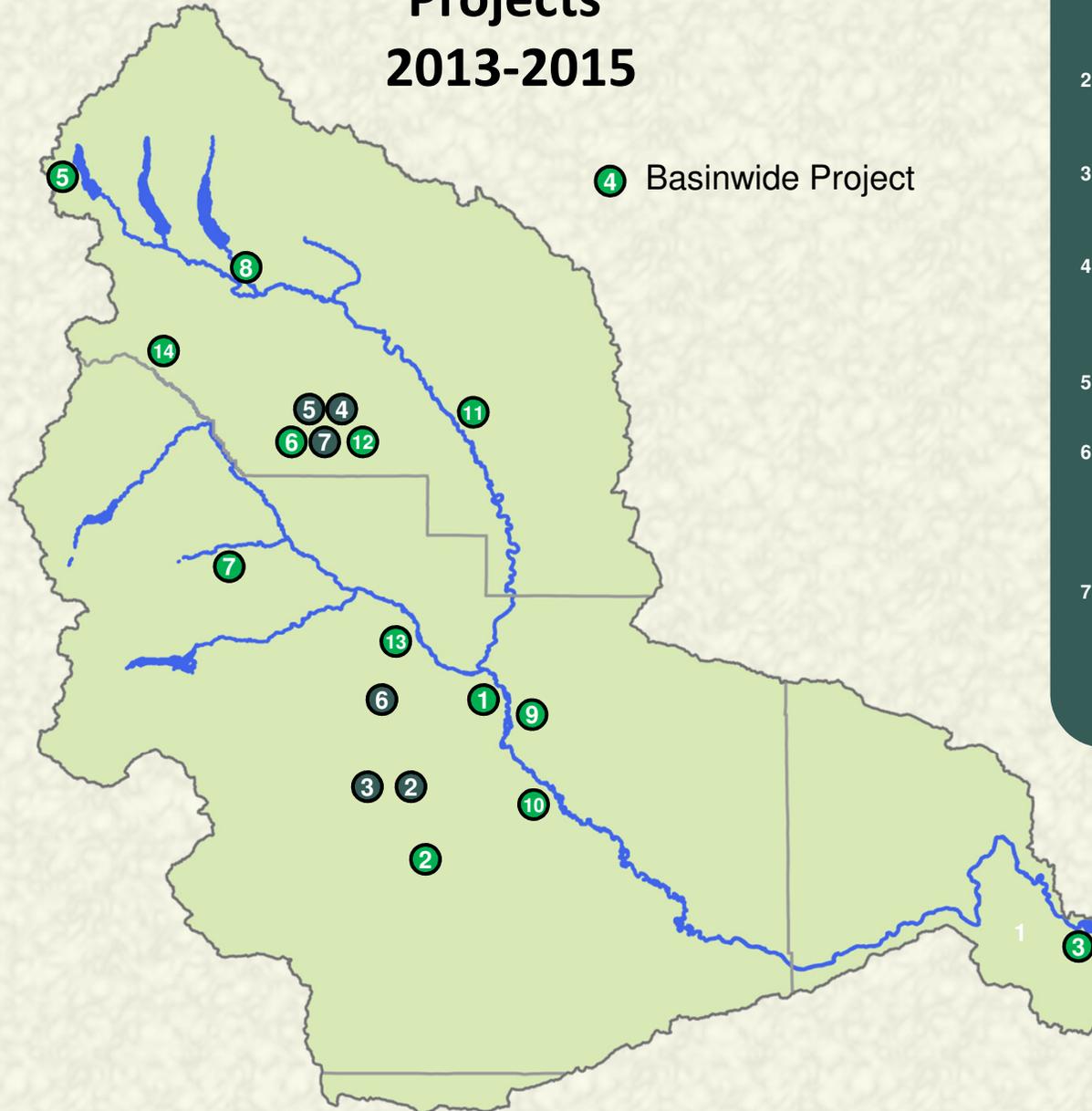
Habitat Enhancement and Agricultural Conservation Projects



Yakima Integrated Plan Habitat Enhancement and Agricultural Conservation Projects 2013-2015

Habitat Enhancement Projects

- 1 Gap to Gap Outfall Relocation
- 2 Toppenish Fan
- 3 Bateman Island Causeway Modification Conceptual Design
- 4 Bull Trout Task Force Habitat Improvements
- 5 Gold Creek Habitat Assessment and Conceptual Design
- 6 Reed Diversion Removal
- 7 Little Rattlesnake Road Decommissioning
- 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 Plum Creek / Little Naches Land Acquisition



4 Basinwide Project

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

Habitat Enhancement and Agricultural Conservation Projects

- **Habitat Subcommittee developing draft list of projects for funding.**
- **Out-of-Stream Water Needs Subcommittee developing criteria for ranking conservation projects**
- **Subgroup being convened to work on municipal water conservation**



Roza Reach Study



Roza Reach Study

- **The 2014 field season is finished.**
- **Four paired releases were made between 900 and 2500 cfs.**
- **Preliminary results for 2014 will be presented at the Yakima Basin Science & Management Conference, June 18-19 at CWU.**



Teanaway Community Forest



Teanaway Community Forest

- **Advisory Committee began meeting March 2014**
- **Charged with making recommendations to WDFW and WDNR on strategic plan for TCF**

