

Habitat Projects

YRBWEP Workgroup Meeting
June 3, 2015



Kittitas Reclamation District – Tributaries Flow Enhancement



KRD Tributaries Flow Enhancement

- KRD's main canal crosses several streams
- Agreements in place to enhance stream flows in drought conditions between canal and river
 - Agreement parties – KRD, Ecology and Reclamation
 - WDFW and Yakama Nation are consulted
- Water delivered the entire irrigation season*
- Stream flow managed by Ecology
- No impact to downstream water rights/supply

*Subject to canal being operational and streams benefiting from flow





Stream Crossings



KRD Canal Crossing at Big Creek



KRD Canal Crossing at SpexArth Creek



Existing and New 2015 Agreements

- Existing agreements and understandings continue to enhance flows
 - Manastash Creek
 - Taneum Creek
- 2015 – Five additional streams added (10 cfs)
 - Tucker Creek (1 cfs)
 - Big Creek (4 cfs)
 - Little Creek (2 cfs)
 - SpexArth Creek (1 cfs)
 - Tillman Creek (2 cfs)



Facilities



Testing the new facilities at
Little Creek



Flow meter at Big Creek

Tributaries Flow Enhancement Testing



Big Creek

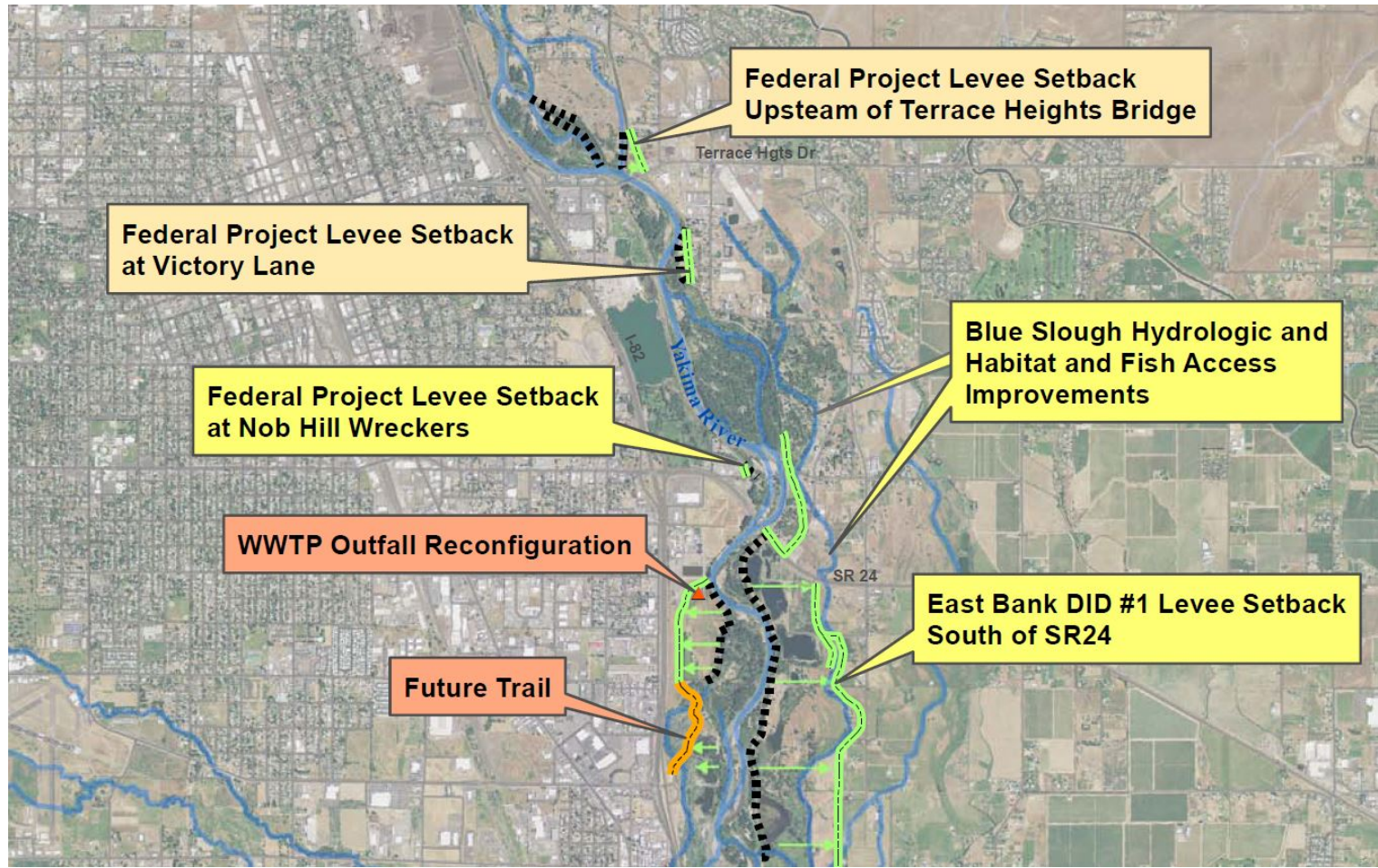


Little Creek

City of Yakima WWTP Outfall - Gap to Gap Floodplain Restoration



Selah to Union Gap (Gap to Gap) Proposed Improvements



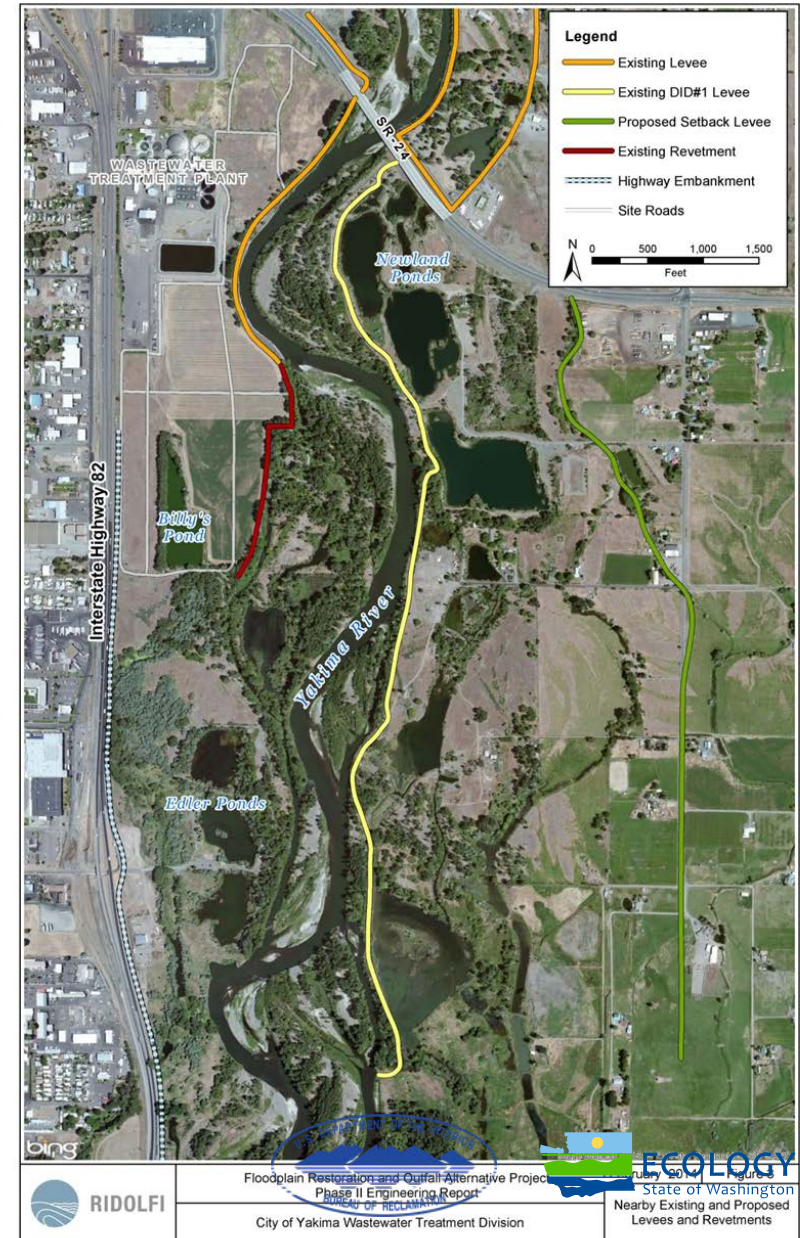
Treatment Plant Outfall – Prior Conditions

- Outfall constrained floodplain reconnection/restoration
- Relocation needed to allow Diking Improvement District (DID) 1 levee setback



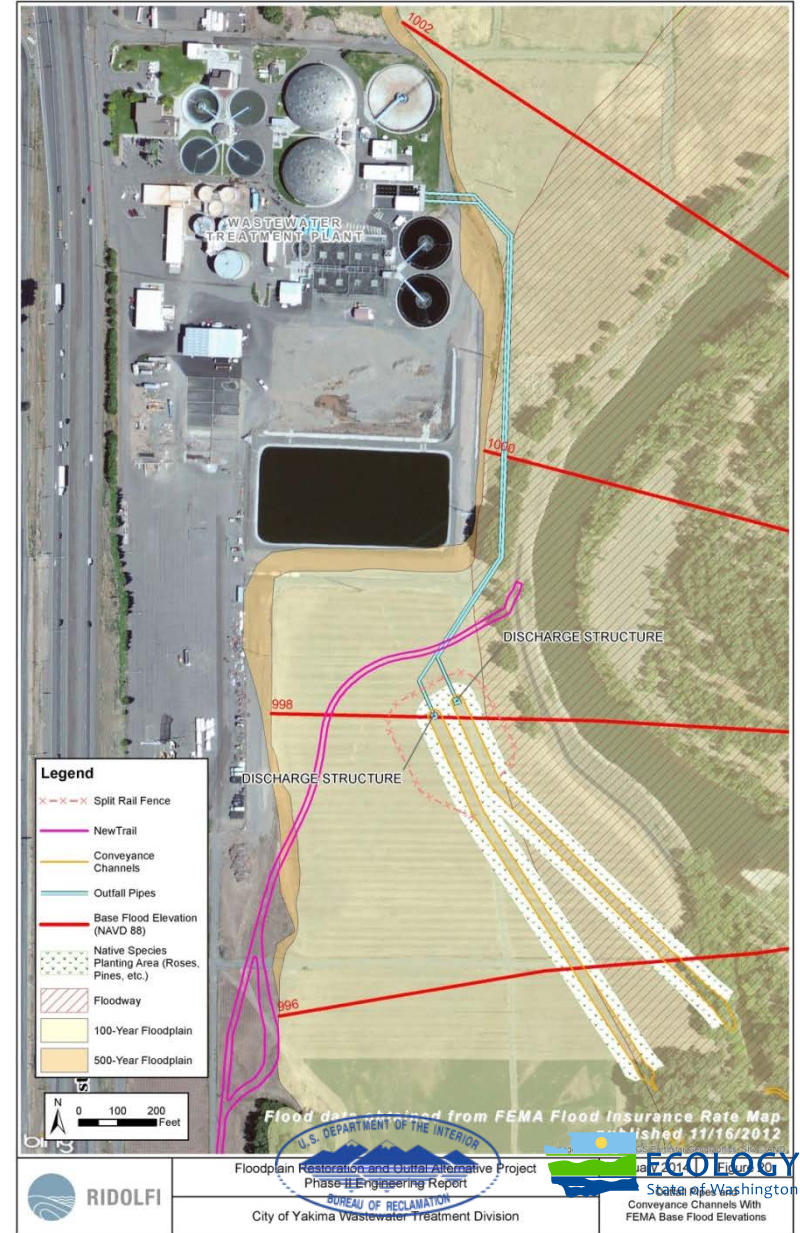
Existing and DID 1 Setback Proposal

- Existing levees constrain channel and limit river functions
- Limit off-channel spawning and rearing habitat

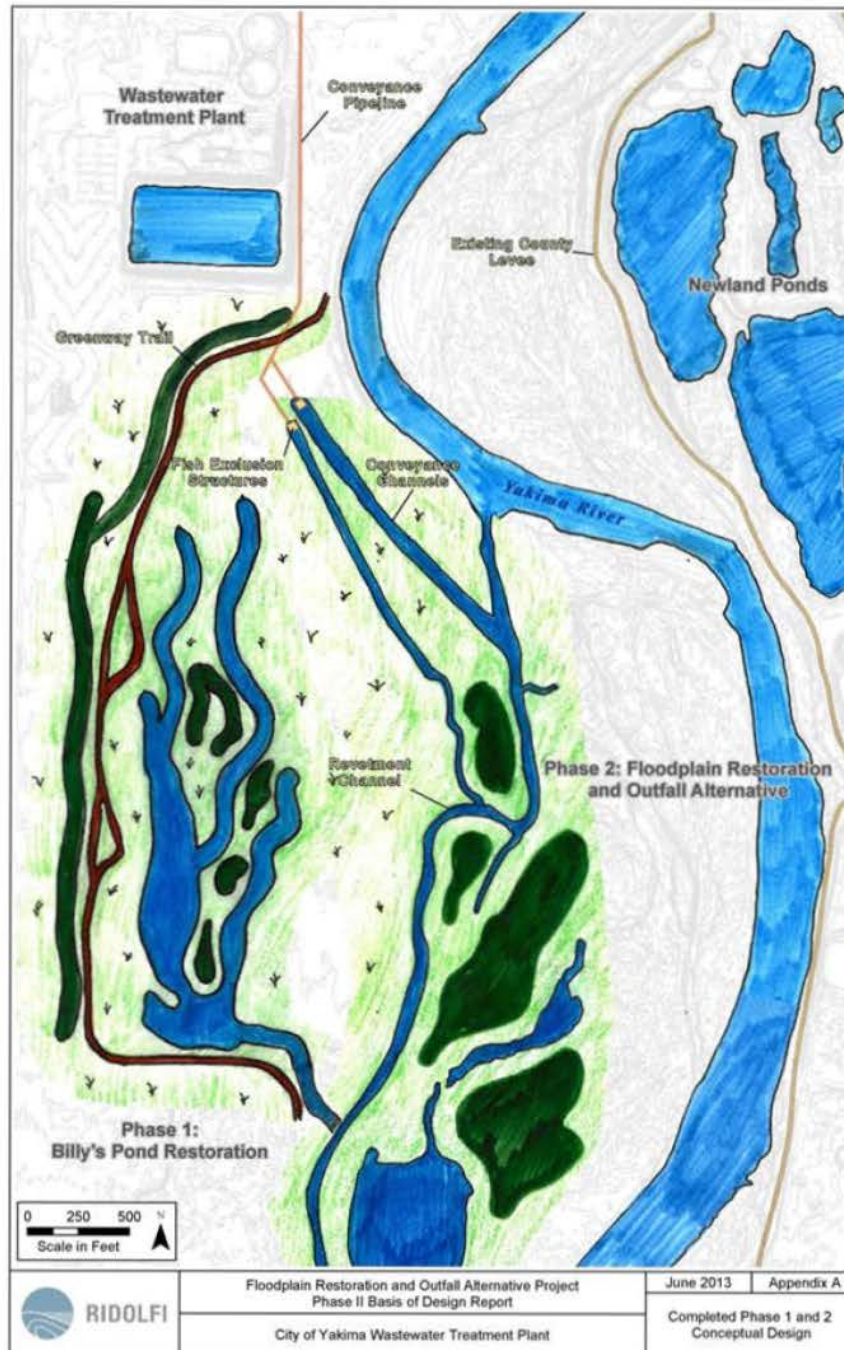


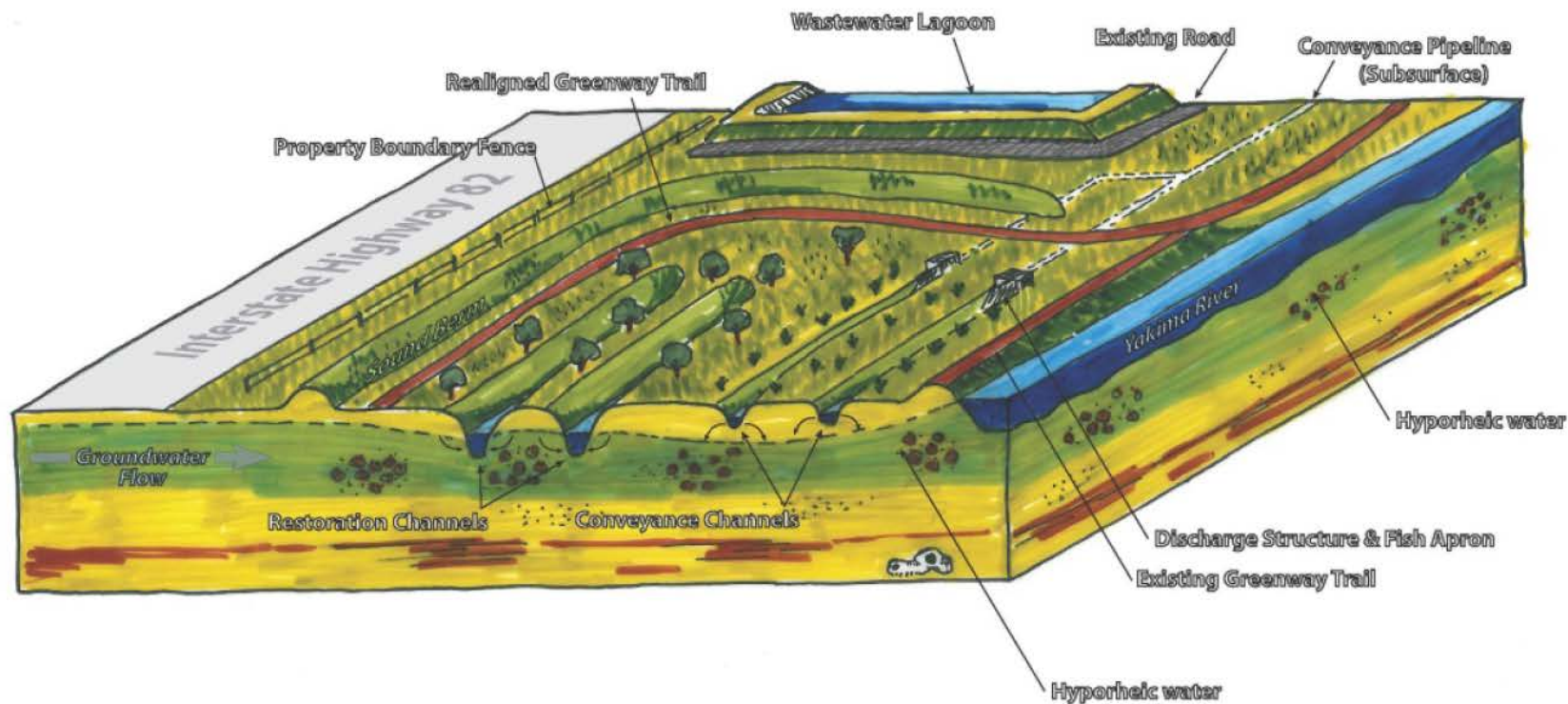
Existing and DID 1 Setback Proposal

- Relocate existing WWTP outfall
- Remove approximately 2,000 feet of armored revetment to allow floodplain reconnection south of WWTP
- Outfall now a series of subsurface and daylighted channels to convey treated wastewater to the Yakima River
- Conveyance system reconnects Billy's Pond with spring-fed channels and wetlands
- Relocate trail immediately south of the SR 24 bridge
- Remove associated culvert(s), re-vegetate the reconnected floodplain, and place wood habitat structures



Conceptual Improvements





*Conceptual Figure -- Not to Scale
Vertical dimension exaggerated for clarity*



RIDOLFI

Floodplain Restoration and Outfall Alternative Project
Phase II: Engineering Report

City of Yakima Wastewater Treatment Plant

February 2014

Figure 25

Phase II
Conceptual Block Diagram

Status

- \$1.3 million in Integrated Plan funding provided through State Legislature to City in 2013
- Design completed in 2013 and 2014
- Construction completed in 2015



New Outfall and Conveyance Channels



New Side Channels and Wetlands Restoration



Benefits

- Increase spawning and rearing habitat
- Improve water quality in a key juvenile and adult migration corridor,
 - reduce river temperatures
 - reduce nutrient-related water quality problems
- Increase floodplain storage
- Other restoration improvements can now be made
- Species benefitted include steelhead, bull trout, spring Chinook, rainbow and cutthroat trout, sockeye, coho salmon, and lamprey

