Brian Albott Fish Barrier Removal Board
Mill Creek Site Tour

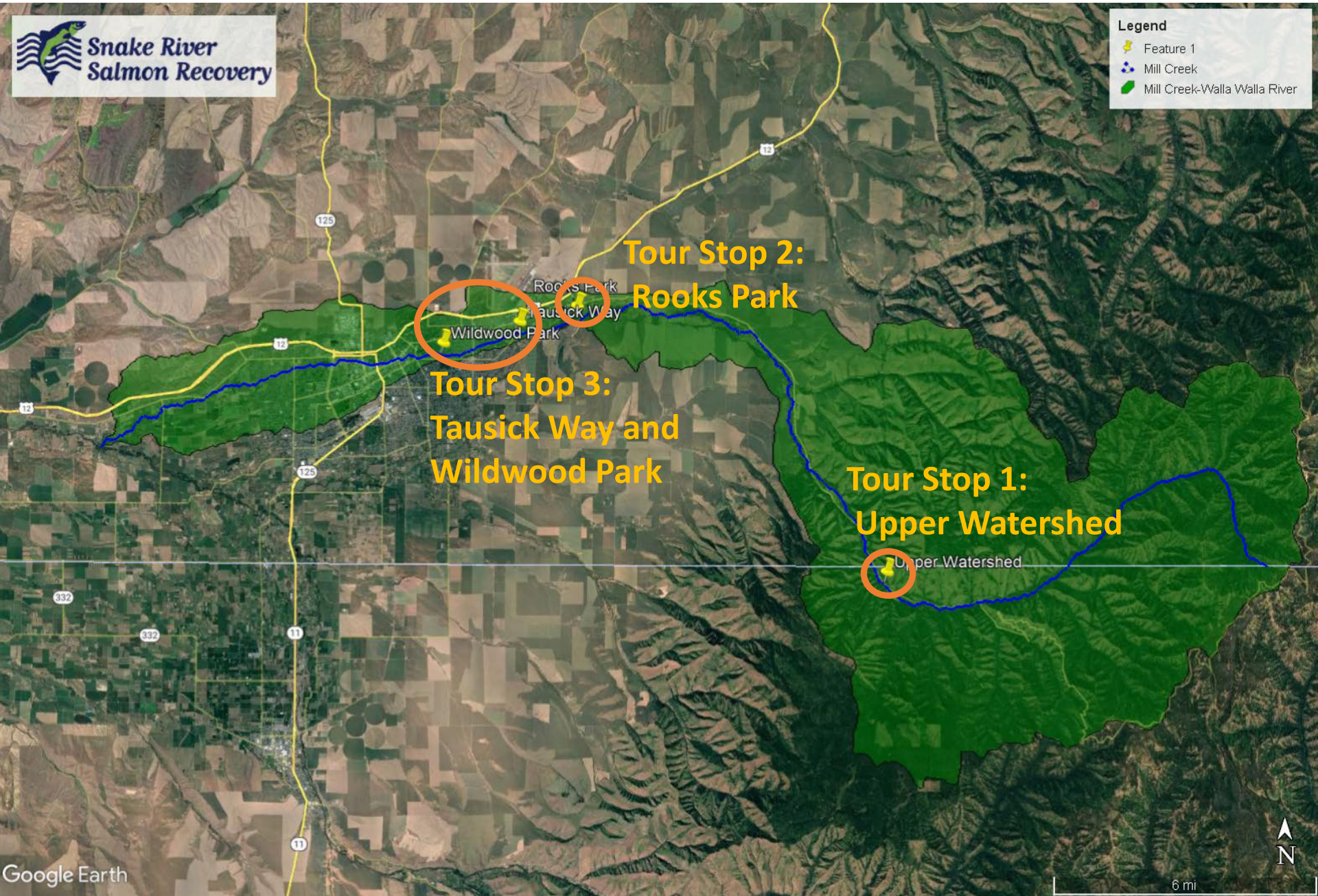
Thursday, September 29, 2022: 8:30 a.m. to 1:45 p.m.
Water and Environmental Center Atrium
640 Water Center Drive: Walla Walla Community College, Walla Walla, WA

Purpose of Meeting:	*The intent of this project tour is for the Board to have an opportunity to see the past, current, and future fish passage efforts in Mill Creek. Mill Creek is the Snake River Salmon Recovery Region priority watershed for fish passage.*	
Time	**Agenda Topic**	**Materials**
8:30-8:45 a.m. (15 mins)	**Welcome and Introductions –** *Joy Juelson, Triangle Associates, Chair Tom Jameson, WDFW, and John Foltz, SRSRB.* • *640 Water Center Drive Walla Walla, WA 99362* • Board, staff, and tour participant introductions • Overview of the tour • Coffee and bathrooms • Load up in vans	Agenda Meeting Packet
9:15-10:15 a.m. (60 mins)	**Tour Stop 1: Upper Watershed** **Mill Creek: The Big Picture** – *Steve Martin, WDFW; Mike Lambert, CTUIR; John Foltz, SRSRB* • ESA Southeast Washington and Mill Creek • Walla Walla Water 2050 • Mill Creek Watershed Habitat, Passage, and Flow Enhancement Project Activities • CTUIR Spring Chinook Salmon Reintroduction Program	
11:00-11:45 a.m. (45 mins)	**Tour Stop 2: Rooks Park** – *Bret Walters and Cindy Boen, USACOE* • *215 Looking Glass Rd, Walla Walla, WA 99362* • USACE Flood Channel Purpose and History • Bennington Diversion Dam and Fish Ladder	
11:45 a.m.-12:30 p.m. (45 mins)	**Lunch – Rooks Park** *Provided with RSVP*	

12:40-1:40 p.m. (60 mins)	**Tour Stop 3: Tausick Way and Wildwood Park**
	Mill Creek Fish Passage Work in Concrete Flume and Weir Sections – *Brian Burns and Morgan Morris, Tri-State Steelheaders Regional Fisheries Enhancement Group*
	• Tausick Way – Fish Passage Weir Section
	  ○ *500 Tausick Way, Walla Walla, WA 99362*
	• Wildwood Park – Concrete Flume Fish Passage
	  ○ *20 S Division St, Walla Walla, WA 99362*	

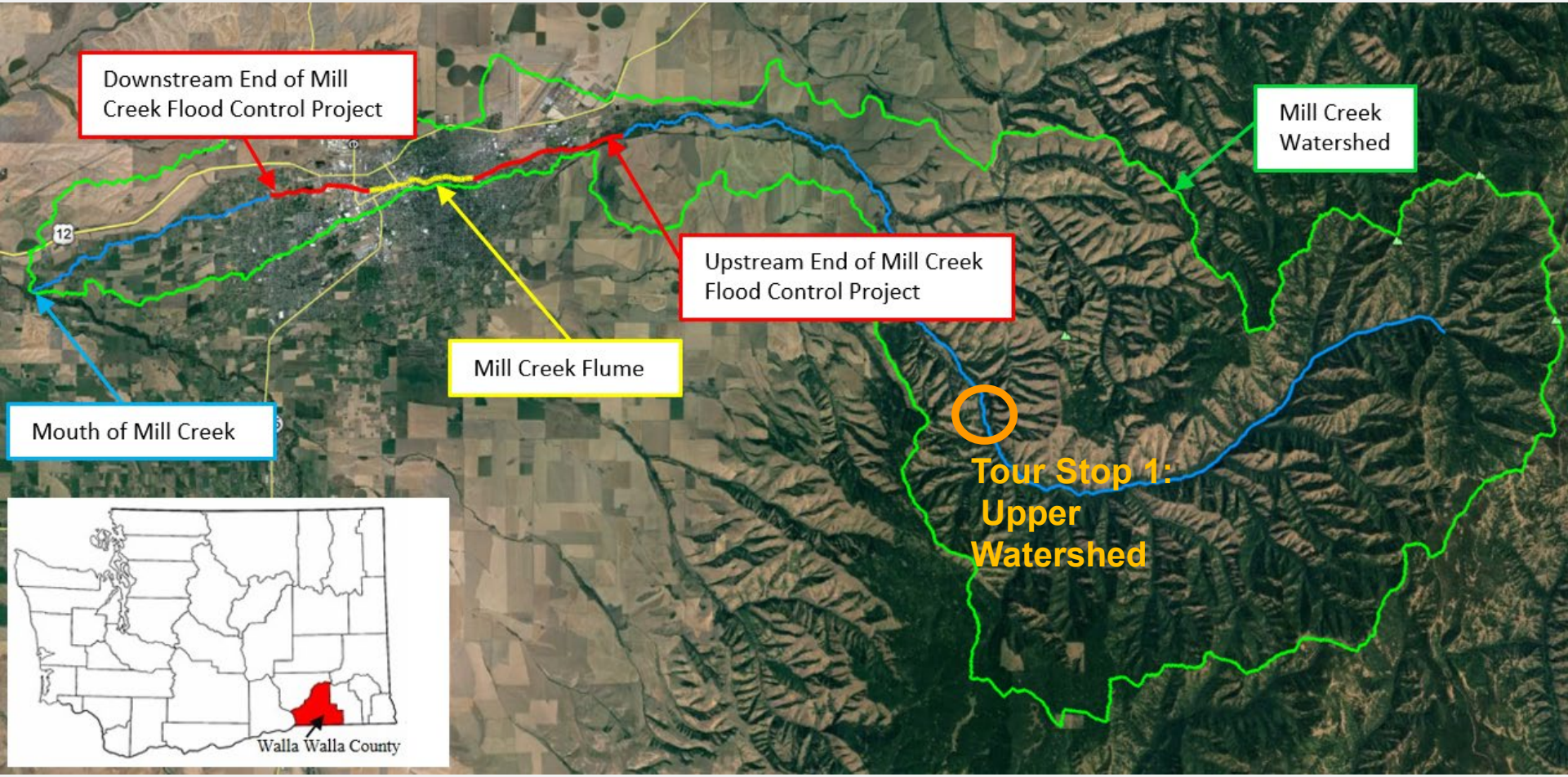
1:45 p.m.	**Wrap-up and adjourn**	

Walla Walla Watershed: Mill Creek



Tour Stop 1: Upper Watershed

Mill Creek: The Big Picture



Tour Stop 1: Upper Watershed

Mill Creek Flow Restoration

Project Description:

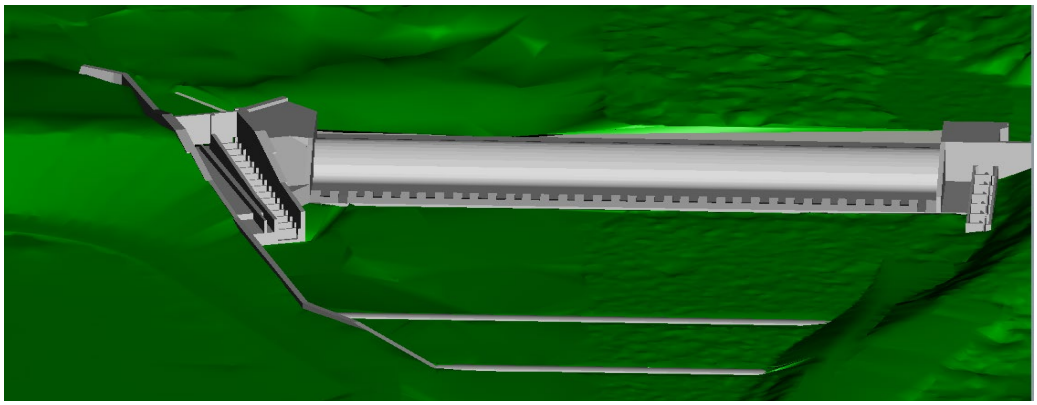
The Umatilla Tribes, WDFW, Washington Water Trust, and other basin stakeholders are collaborating with the City of Walla Walla to improve its municipal water supply system and restore instream flows. Mill Creek is the primary water source for the City, and its pristine upper watershed has been closed to all public access since 1918 to protect the City's water supply.

The City diverts its water from Mill Creek high in the watershed, at river mile 25.2, and the resulting lack of flows below the City's diversion disconnects Mill Creek's pristine headwater habitat from the remainder of the basin. However, by expanding the City's ability to inject and store water underground during the winter, this project will allow the City to switch from surface diversions to stored water during the summer and restore flows in Mill Creek during the critical low-flow period.

The City already has restored 8 cfs instream as a result of this project, and additional upgrades over the next decade have the potential to return more than 20 cfs to Mill Creek. This restoration of instream flows below the City's diversion will enhance passage, spawning, and rearing habitat for reintroduced spring Chinook salmon and threatened bull trout and Mid-Columbia summer steelhead.

Tour Stop 2: Rooks Park
Mill Creek: Bennington Diversion Dam Fish Ladder

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**



PROJECT DESCRIPTION

The current fish ladder at the Mill Creek Diversion Dam, constructed in 1982, is located on the left bank (south shore). The ladder does not meet current NOAA Fisheries passage criteria, including hydraulic standards.
A new ladder will be constructed on the right bank (north shore). The existing ladder on the left bank will remain in place for redundancy.
The new fish ladder will include:

- A vertical slot fish ladder design with 15 vertical slots, 1 entrance slot, and 1 exit slot.
- A bypass channel for a downstream fish passage route and flow control
- Two bypass gates: one that is 10.5’ wide and one that is 3’ wide and 3.5’ tall which will allow for flushing of accumulated sediment
- A downstream adult barrier to dissipate energy an prevent false attraction
- Longer length, more steps, and Improved attraction flow
- Designed to also pass Bull Trout

SCHEDULE & BUDGET

Anticipated Construction Contract award: 2Q FY 23. Construction Duration 12-18 months
$8.7 million (BIL/IIJA Funds)

RELATED CORPS PROJECTS AT MILL CREEK

Division Works Fish Ladder Replacement

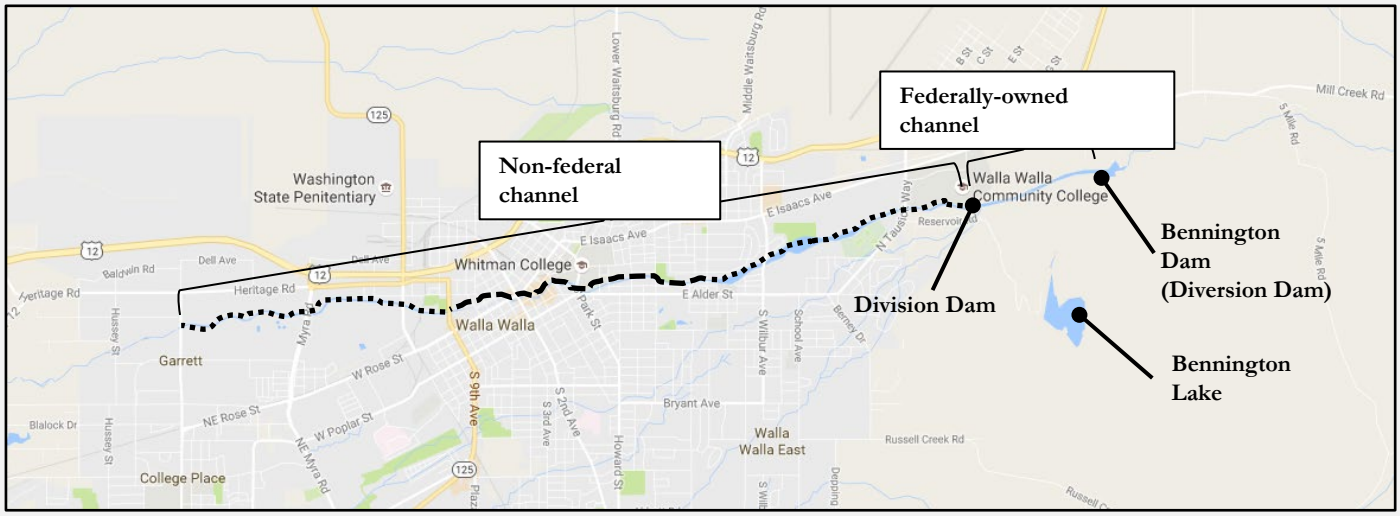
- Replaced ladder with a new 12” vertical slot fish ladder.
- The head differentials within the ladder were reduced from 1.35 ft down to 0.7 ft eliminating potential velocity barrier within the old ladder.
- Completed summer/fall 2020.

Mill Creek Low Flow Channel

- Notching of weirs in the Federal Channel (approx. .9 miles immediately below the Diversion Dam)
- Expect design finalization in FY 23. Construction anticipated in FY 24-25

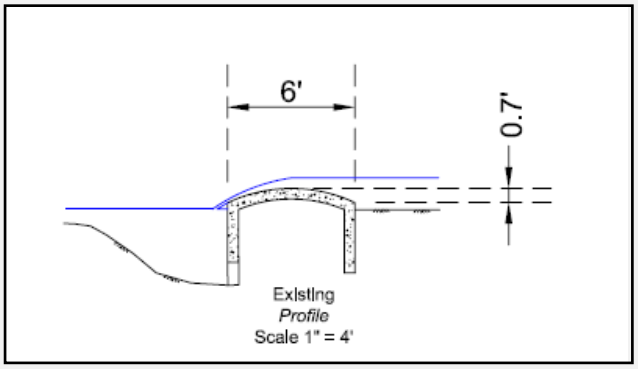
Tour Stop 2: Rooks Park

Mill Creek Flood Control Channel

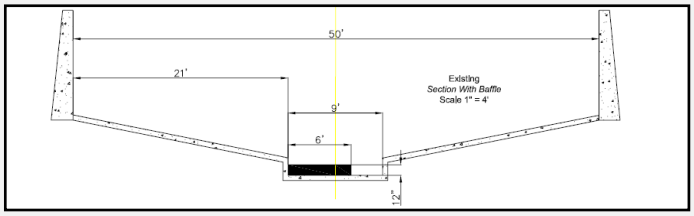


Two Channel Types

Channel-spanning Stabilizers (Sills)
263 total



Concrete Flume
2.2 miles



Tour Stop 3: Tausick Way and Wildwood Park

Mill Creek Fish Passage Enhancement (Tri-State Steelheaders)

Project Description:

Flood control measures on Mill Creek in Walla Walla include four miles of levee confined channel with regularly spaced energy dissipating weirs and two miles of concrete lined channel. The 2009 Mill Creek Barrier Assessment identified and described barriers within the flood control project for Endangered Species Act (ESA) listed steelhead and bull trout and for reintroduced spring Chinook.

In the concrete channel, depth and velocity conditions present barriers to migrating adults and prevents volitional passage of juveniles. The levee section also presents barriers to juvenile passage. By mid-May, adults and juveniles can become trapped in the flood control channel where they can experience lethal temperatures.

These passage issues are considered imminent threats in the Snake River Salmon Recovery Plan. Upstream of the flood control infrastructure is a critical and under-utilized area for spawning and rearing of ESA listed species. Restoring fish passage to upper Mill Creek is an essential component of recovery for Mid-Columbia summer steelhead, as well as providing good to excellent habitat for other native fish and reintroduced spring Chinook.

Tour Stop 3: Tausick Way and Wildwood Park

Mill Creek Fish Passage Enhancement:

Mill Creek Sills Passage: Single Drop Structure

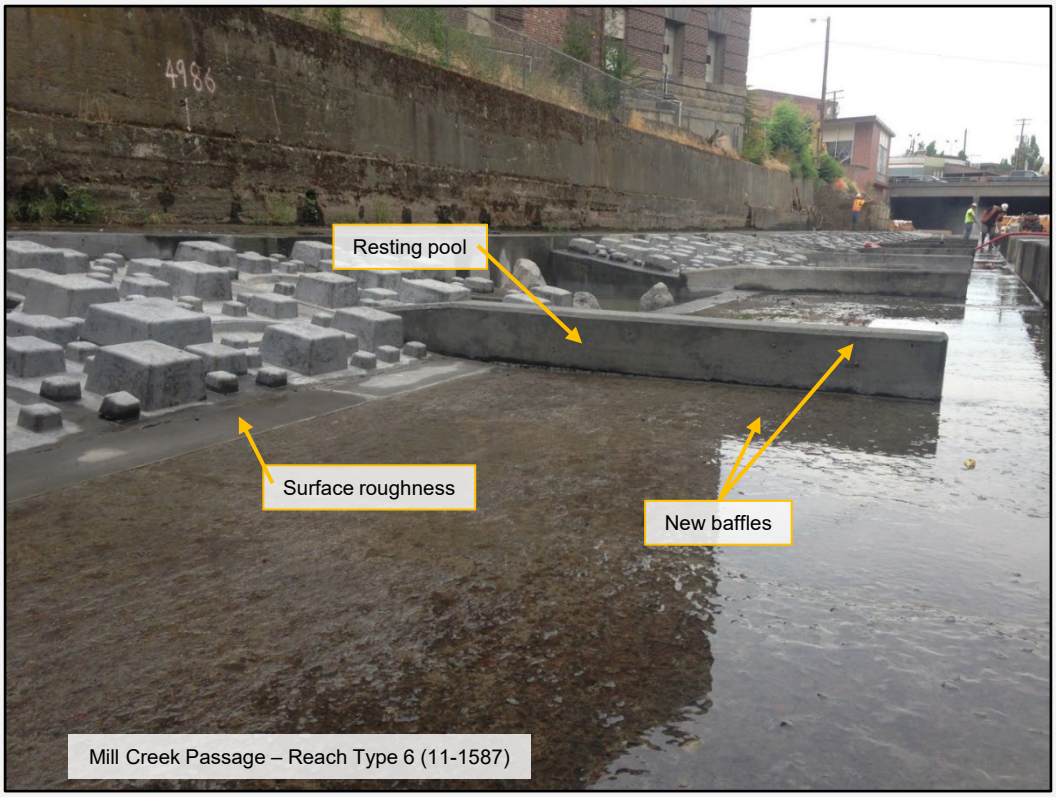
Passage Design Concept:

- Add channel roughness – slows the water
- Add resting pools – recover when fatigued
- Remodel baffles – eliminate “supercritical” flow

Tour Stop 3: Tausick Way and Wildwood Park

Mill Creek Fish Passage Enhancement:

Passage Design Concept:



Mill Creek Passage – Gose St Design Assessment

Site Photo: View upstream to fishway and Gose St bridge