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Montana



Northwest Power and Conservation Council

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Idaho

August 3, 2021

MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Karl Weist, Oregon Staff

SUBJECT: Update on Fish and Wildlife Program accomplishments of Soil and Water Conservation Districts

BACKGROUND:

Presenter: Herb Winters, District Manager, Gilliam Soil and Water Conservation District

Summary: Three Soil and Water Conservation Districts in Oregon (Gilliam, Wasco and Wheeler) will present a summary of their accomplishments in implementing Conservation Reserve Enhancement Program (CREP) enrollments, the establishment of riparian buffers and partnerships with fish and wildlife managers to implement passage projects and water savings in the John Day Basin.

Relevance: The Council's 2014/2020 Fish and Wildlife Program Part 6, Section II Investment Strategy identified a series of emerging priorities for implementation, one of which was to "continue efforts to improve floodplain habitat." Protection of riparian areas on private lands is a strategy identified in both the John Day and Fifteenmile Creek subbasin plans.

Background: Soil and Water Conservation Districts throughout the Pacific Northwest have served as critical partners for managers to address fish and wildlife limiting factors on private lands. Today's presentation will highlight the accomplishments of three districts in Oregon.

The three SWCD projects in Wasco, Gilliam, and Wheeler Counties in Oregon, funded since 2001 and 2002, implement cost-effective floodplain restoration by protecting riparian buffer areas through enrollments in CREP under the Natural Resources Conservation Service. By protecting riparian areas in critical ESA-habitat corridors in the John Day and 15 Mile Creek Basins before they degrade, Bonneville saves money by not having to spend implementation dollars on costly projects repairing already degraded habitat.

Other SWCDs, not presenting today, implement program strategies in a variety of fashions. Jefferson County SWCD formed a partnership with ODFW in Trout Creek in 1998 to restore passage and protect and restore floodplain habitat for steelhead in that Deschutes River tributary. The partners restored function to more than 13.2 miles of stream channel and floodplain habitat, removed 24 seasonal irrigation barriers, and eliminated two passage barriers, opening an additional six miles of habitat to migrating adult steelhead.

In the Grande Ronde, Union SWCD sponsored significant habitat restoration work through the Grande Ronde Model Watershed in Catherine Creek (CC37, CC44 and Red Mill Reach) and partnered in projects since the 1990s. Wallowa SWCD performed CREP enrollments and habitat enhancement work through the Model Watershed program.

As part of the Willamette Wildlife Mitigation Program, SWCDs purchased property or placed conservation easements on lands for wildlife protection. Three SWCD's own wildlife mitigation parcels – Yamhill SWCD, two properties owned, two in process, one proposed for funding; Polk SWCD, two properties owned; and Clackamas SWCD, one property owned. Total acreage for the three Districts currently stands at 1281 owned with another 738 acres proposed and in process.

More Info: <http://www.wascoswcd.org/> <http://www.wheelerswcd.org/>
<https://www.jeffswcd.org/about>
<https://yamhillswcd.org/>
<https://www.polkswcd.com/>
<https://conservationdistrict.org/>
<http://unionswcd.org/> <https://www.grmw.org/data/database/>

Note: The Oregon portion of this agenda item also includes a presentation on **Mid-Columbia Riparian Buffer Projects**, which is only available as a Prezi presentation.

See this link: <https://prezi.com/view/bX3AIjUTNaDecUFXNGzg/>

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August 3, 2021

MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Steve West, Idaho Staff

SUBJECT: Update on Fish and Wildlife Program accomplishments of Soil and Water Conservation Districts in Idaho

BACKGROUND:

Presenters:

- Karma Bragg, District Manager, Custer Soil and Water Conservation District
- Bob Minton, Lemhi Soil and Water Conservation District.
- Ken Stinson, District Manager, Latah Soil and Water Conservation District
- Lynn Rasmussen, District Manager, Nez Perce Soil and Water Conservation District

Summary: Four Soil and Water Conservation Districts in Idaho, will present a summary of their accomplishments with specific emphasis placed on establishing riparian buffer zones, private landowner relations and overall objectives within the basin.

Relevance: The Council's 2014/2020 Fish and Wildlife Program Part 6, Section II Investment Strategy identified a series of emerging priorities for implementation, one of which was to "continue efforts to improve floodplain habitat."

Background: Soil and Water Conservation Districts throughout the Pacific Northwest have served as critical partners for managers to address fish and wildlife

limiting factors on private lands. Today's presentation will highlight the accomplishments of four districts in Idaho.

The four SWCD projects in Lemhi, Custer, Latah, and Nez Perce Counties in Idaho, implement habitat actions benefitting ESA listed species as mitigation for the hydroelectric systems. Projects implemented by the districts involve irrigation efficiency, riparian plantings, floodplain reconnection, barrier removal and habitat protection to name a few.

Two other SWCD's, Idaho and Lewis Counties, do implement projects on private lands but do not have access to mitigation funding and are not presenting today.

A key component of success for the districts has been the private landowner relations. The majority of spawning for Chinook salmon within the Upper Salmon Basin occurs on private land. Work in the Clearwater basin is focused primarily on wild steelhead on private lands in the Potlatch River and Lapwai Creek watersheds. Without the continued support of these agricultural producers, the districts wouldn't be able to implement the habitat actions.

More Info:

[Conservation the Idaho Way | Lemhi Conservation District \(Lemhi CD\)](#)

[Custer Soil & Water Conservation District - Home \(custerdistrict.org\)](#)

[Latah Soil & Water Conservation District - Home \(www.latahswcd.org\)](#)

[Nez Perce Soil & Water Conservation District - Home \(www.nezperceswcd.org\)](#)

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August 3, 2021

MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Stacy Horton, Washington Staff

SUBJECT: Update on Fish and Wildlife Program Accomplishments of Soil and Water Conservation Districts

BACKGROUND:

Presenters: Aneesha Dieu, District Manager, Columbia Conservation District will be presenting on Tucannon Stream and Riparian Restoration.

Megan Stewart, District Coordinator for the Asotin County Conservation District will present on the work conducted as part of the Asotin County Enhancement and Restoration Project.

Summary: As the 2014 Columbia River Basin Fish and Wildlife Program notes, partnerships and collaboration at local scales can make management actions sustainable, effective, and efficient. Local implementors can provide unique opportunities that extend the reach of the benefits of habitat work. The Soil and Water Conservation Districts (SWCD) have been an important connection to the land and their work has provided benefits for fish and wildlife habitats, utilizing teamwork and cooperation to produce successful outcomes.

Aneesha Dieu, Tucannon Stream and Riparian Restoration

The work conducted by the Columbia Conservation District (CCD) and others in the Tucannon River watershed is important for its support of the only remaining population of spring Chinook (*Oncorhynchus tshawytscha*) in the lower Snake River, as well as Snake River fall Chinook, Snake River summer steelhead, and bull trout. Implementation of projects is

guided by assessment tools and planning designed to restore Tucannon River geomorphic and ecological processes. Aneesha will brief the Council on some of the restoration actions to date to restore a healthy floodplain and naturally functioning river channel.

Megan Stewart, Asotin County Enhancement and Restoration Project

Restoration efforts by the Asotin County Conservation District (ACCD) engages partners in strategies that will protect and maintain natural processes, remove barriers, and reconnect habitats. ACCD builds on prior improvements, with a goal to expand efforts that improve spawning and rearing conditions for ESA-listed salmon, steelhead, bull trout and Pacific lamprey. Not only does the ACCD provide important coordination, collaboration, and habitat improvement projects, they have also provided cost share of over \$7M to the effort.

Relevance: The 2014 Columbia River Basin Fish and Wildlife Program calls for the identification and protection of aquatic areas and conditions to restore and enhance productive habitats. Where possible, reconnection of habitat aquatic areas, riparian zones, floodplains, side channels, and uplands is especially important.

More Info:

Tucannon Basin Habitat Restoration – Geomorphic Assessment and Restoration Prioritization. Anchor QEA, 2021.

https://snakeriverboard.org/wp-content/uploads/2021/02/Tucannon_GARP_Report_FINAL_2021-01-26.pdf

A photograph of a stream in winter. The water is dark and turbulent, flowing over a large rock in the center. The banks are covered in snow and littered with fallen branches and logs. Bare trees line the stream, and the sky is overcast.

Columbia Conservation District

Tucannon Stream and Riparian
Restoration

1994-018-06

Tucannon Stream and Riparian Restoration 1994-018-06

Who We are

Where we Started

Methods Unique to the
District

Progress to Date

Continuation of Goals &
Adaptive Management

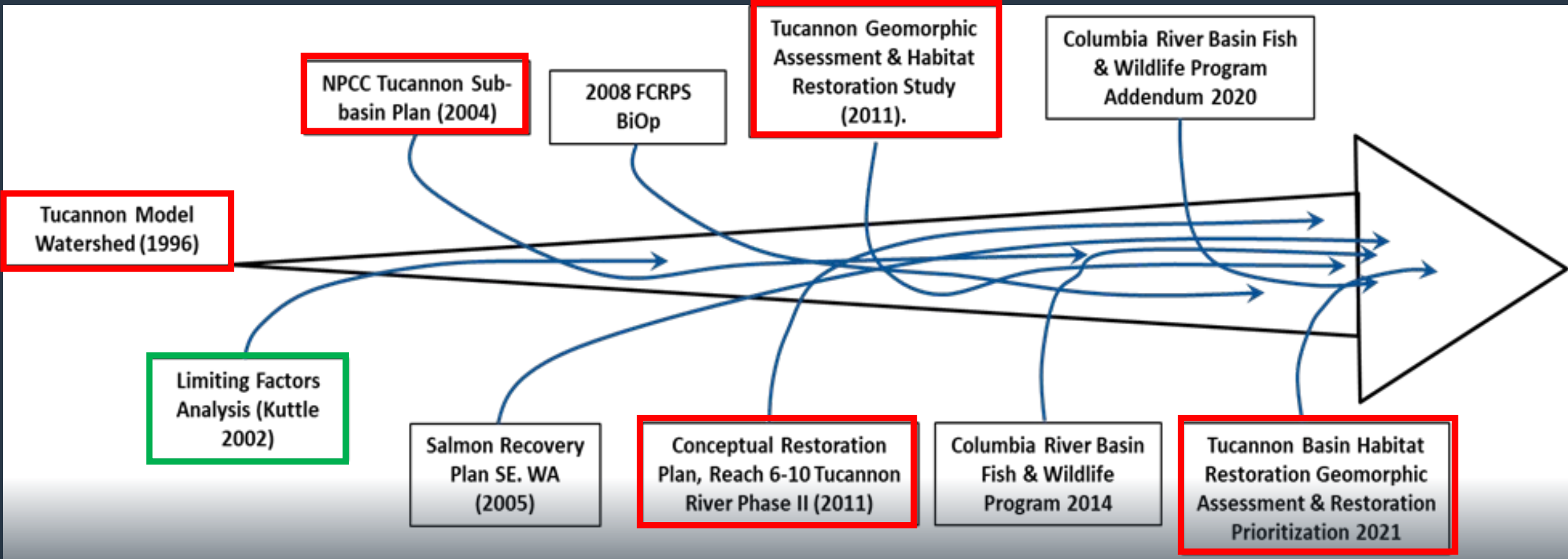
Who We Are

- Trusted
- Non-regulatory
- Understanding
- Innovative
- No “one-shoe-fits-all”
- Voluntary Solutions



Where We Started

1997, Draft Tucannon River Model Watershed Plan, "Strategy For Salmon", NRCS Stream Team.
 1999-2000, Tucannon River Water Quality Monitoring, WSU Water Center.
 2001, Limiting Factor Study, Washington State Conservation Commission.
 1998, 1999, 2002, 2004, Instream Habitat Project Evaluation Reports contracted-WDFW SRL.
 2003-2011, provided 16 additional temperature monitors to WDFW Snake River Labs for continued data collection from May to October. Data showed decreasing water temperature from a high of 76 degrees in 1990-1992 to a high of 65 degrees in 2006-2011.
 2004, Tucannon Subbasin Plan.
 2005, Tucannon River Model Watershed Plan Milestone Assessment, Parametrix.
 2006, Tucannon River Temperature Study Draft June 30, HDR.
 2008-2011, Cobble Embeddedness & Percent Fines Project-Tucannon River & Tributaries, USFS.
 2010, LiDAR assessment on 51 miles of the Tucannon River Basin, Watershed Sciences.
 2011, Geomorphic Assessment & Habitat Restoration Study, Tucannon River, Anchor QEA.
 2011, Conceptual Restoration Plan, Reaches 6 To 10 Tucannon River Phase II, Anchor QEA.
 2011, Design Restoration Feature Prioritization, Tucannon River Reach 2, Anchor QEA.
 2012, Integrated Species Restoration Prioritization Tucannon River, Anchor QEA.
 2012, Conceptual Restoration Plan, Reaches 3 & 4 Tucannon River RM 4.5 - 13.4, Anchor QEA.
 2013, Conceptual Restoration Plan, A system wide approach to habitat restoration on the Tucannon River, Anchor QEA.
 2021, Tucannon Basin Habitat Restoration Prioritization and Conceptual Restoration Plan, Anchor QEA 2021.



Who We Collaborate With



- Bonneville Power Administration & Programmatic
- Landowners
- Washington State Conservation Commission
- Snake Salmon Recovery Board
- Recreation and Conservation Office
- Confederated Tribes of Umatilla & Nez Pierce Tribes
- Washington State Department of Fish and Wildlife
- Washington State Department of Ecology
- US Forest Service

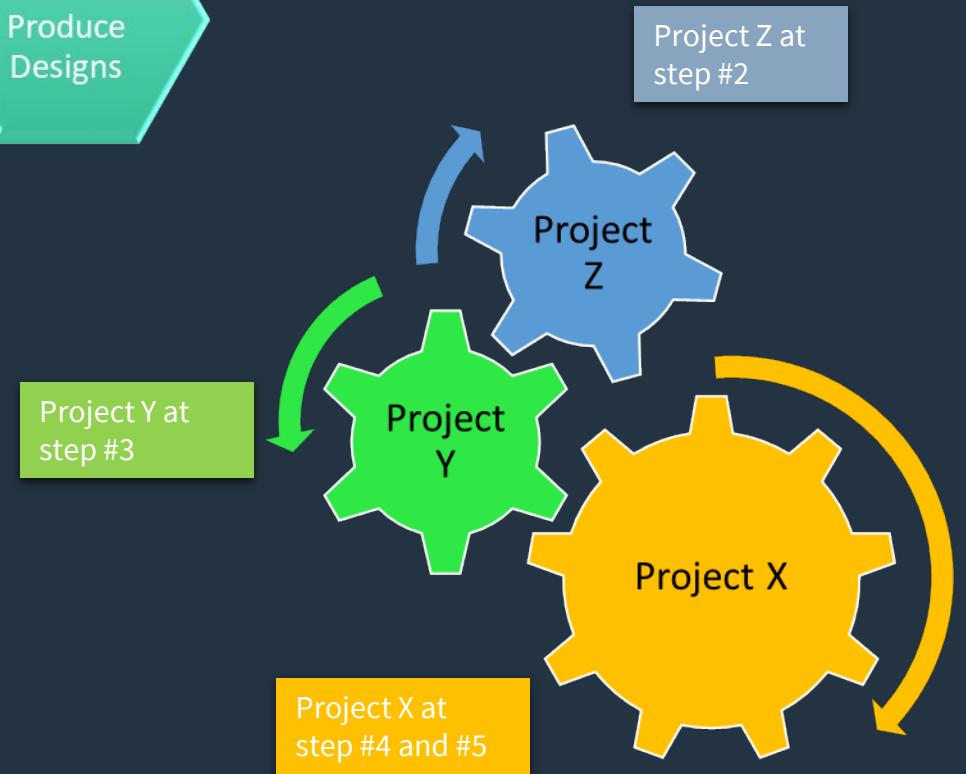


Private Landowners

- Majority of Projects are on Private Lands
- Multiple Opportunities
- Lasting Relationships
- Trustworthy
- Community Outreach & Education

Methods

- Consecutive Projects Year to Year
- Mediators between Landowner and Funding Source
- Backbone for Restoration Opportunities



Progress To Date and Our Future Prospects

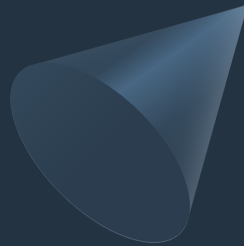
- CREP
- Irrigation Efficiencies
- Natural Resource Investment (NRI)
- Volunteer Stewardship Program (VSP)



Progress To Date

1994-2004

- Improved ~7 miles of stream
- Created ~140 pools
- Removal of 27 fish Screens
- Reduced Conventional Tillage by 7051 acres
- Increased Riparian Buffers ~1200 acres
- Planted close to 230,000 trees and shrubs
- Built ~22 miles of access control fencing

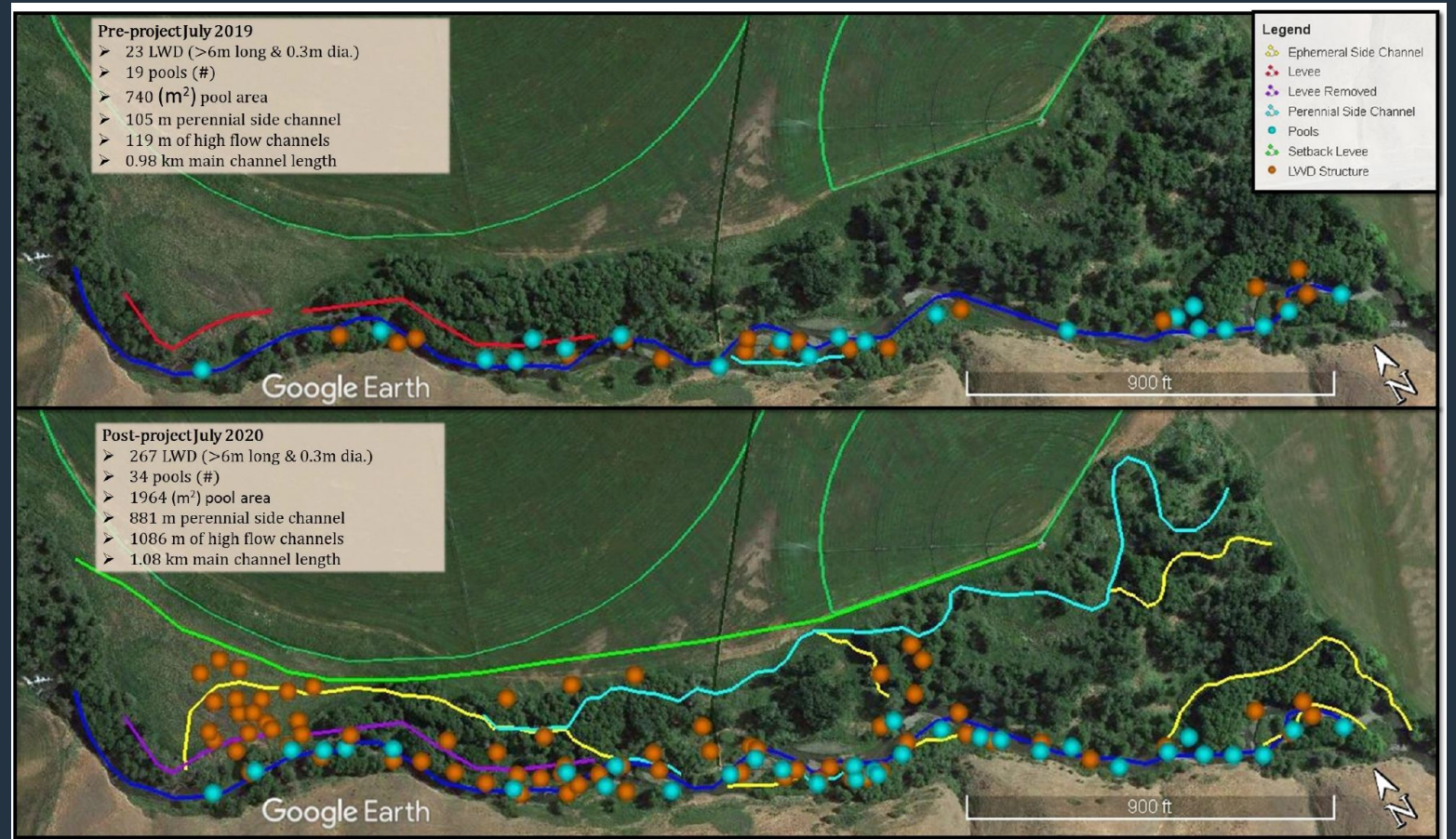


PA 32 Restoration Project

- Reconnection of ~27 acres of Floodplain
- Removal of ~670' levee
- Placement of 54 LWD structures instream and on the floodplain

Benefits Increase:

- Perennial side channels by 776'
- 255 LWD key pieces
- 57 jams
- 15 pools and pool size by 1224 m²



Cost Benefit Analysis

Funding Sources:

- BPA, SRFB via RCO, WSCC, WSDOE, USDA, landowner

Allocation:

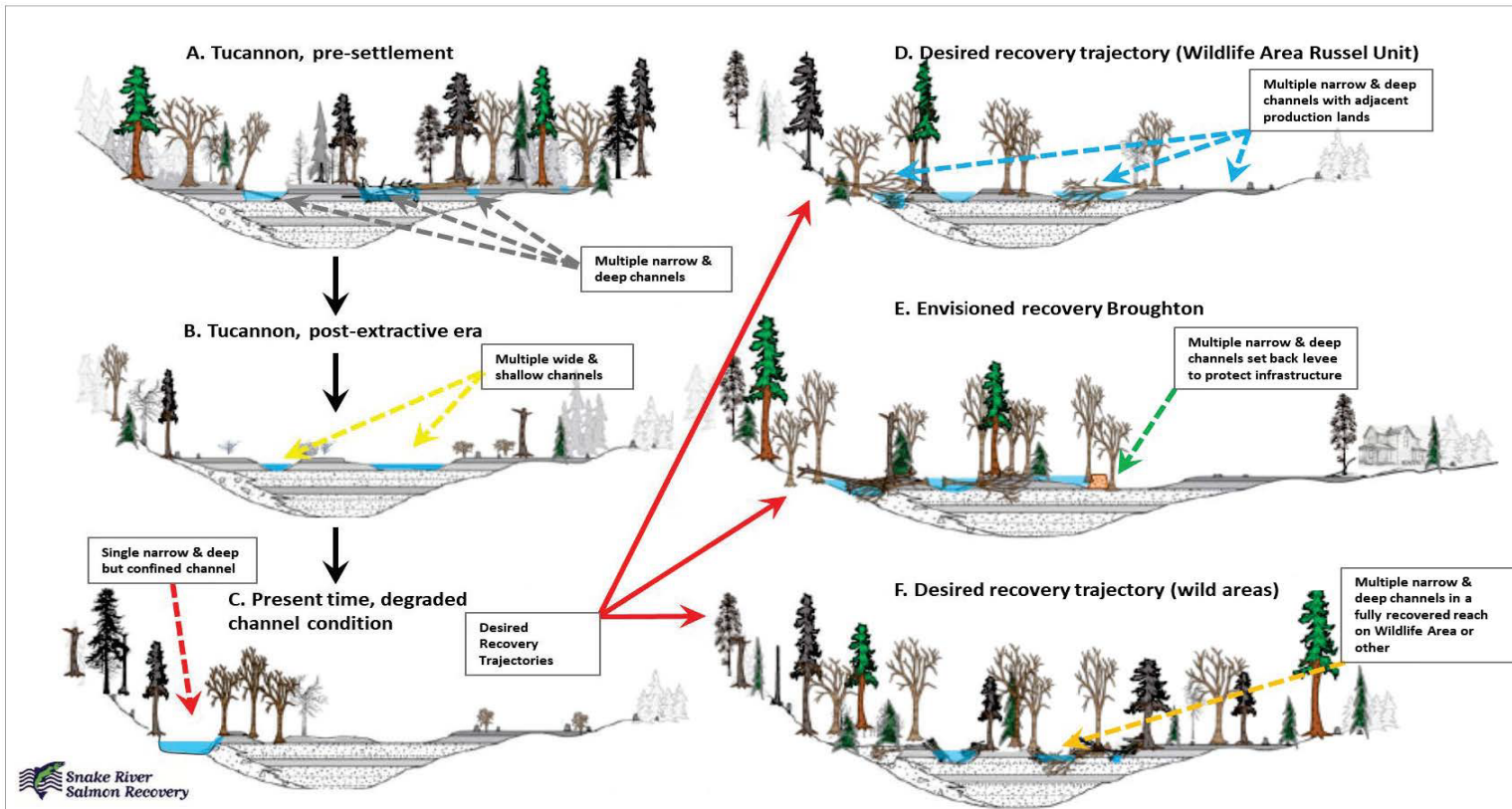
- 2/3 Habitat Restoration Activities
- 1/3 Operational Costs

Total Cost Share: \$5,098,803

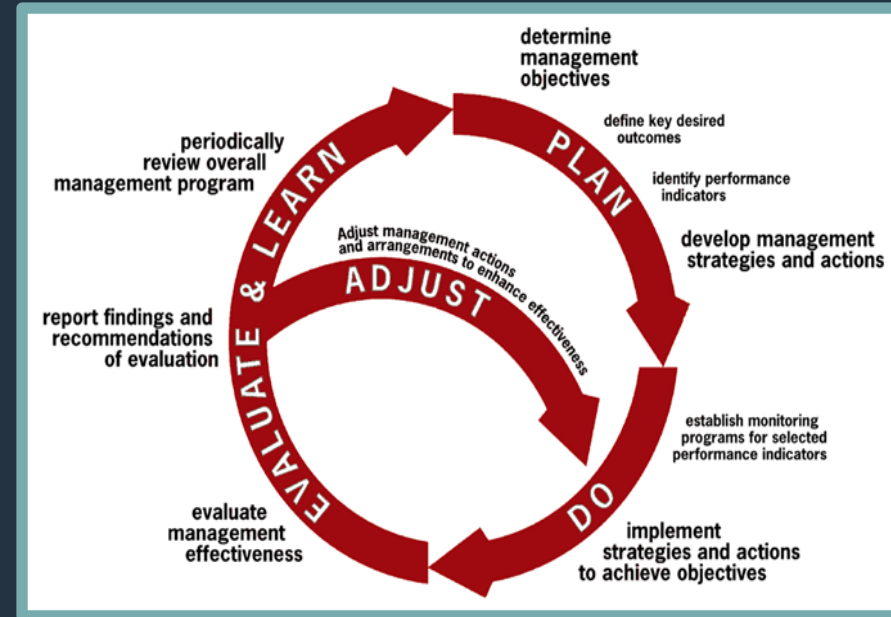
- 94-04: \$2,580,294
- 05-06: \$354,457
- 07-20: \$2,164,052



Continuation of Goals & Adaptive Management



This model illustrates an idealized cross section of the Tucannon River floodplain and riparian forests over time since pre-settlement. Sections A and B illustrate changes that had occurred through the period of degradation with wide, shallow river channels, and Section C illustrates a modified condition with a single, narrow channel that has confinement and recovering riparian habitat. Sections D and E illustrate desired recovery trajectories for three different land types that all benefit salmon and steelhead. Section D illustrates working lands where occasional flooding is possible, Section E illustrates working lands with infrastructure protection setback levee, and Section F illustrates a full wild land restoration. Source: Kris Buelow, Snake River Salmon Recovery Board, via email communication.





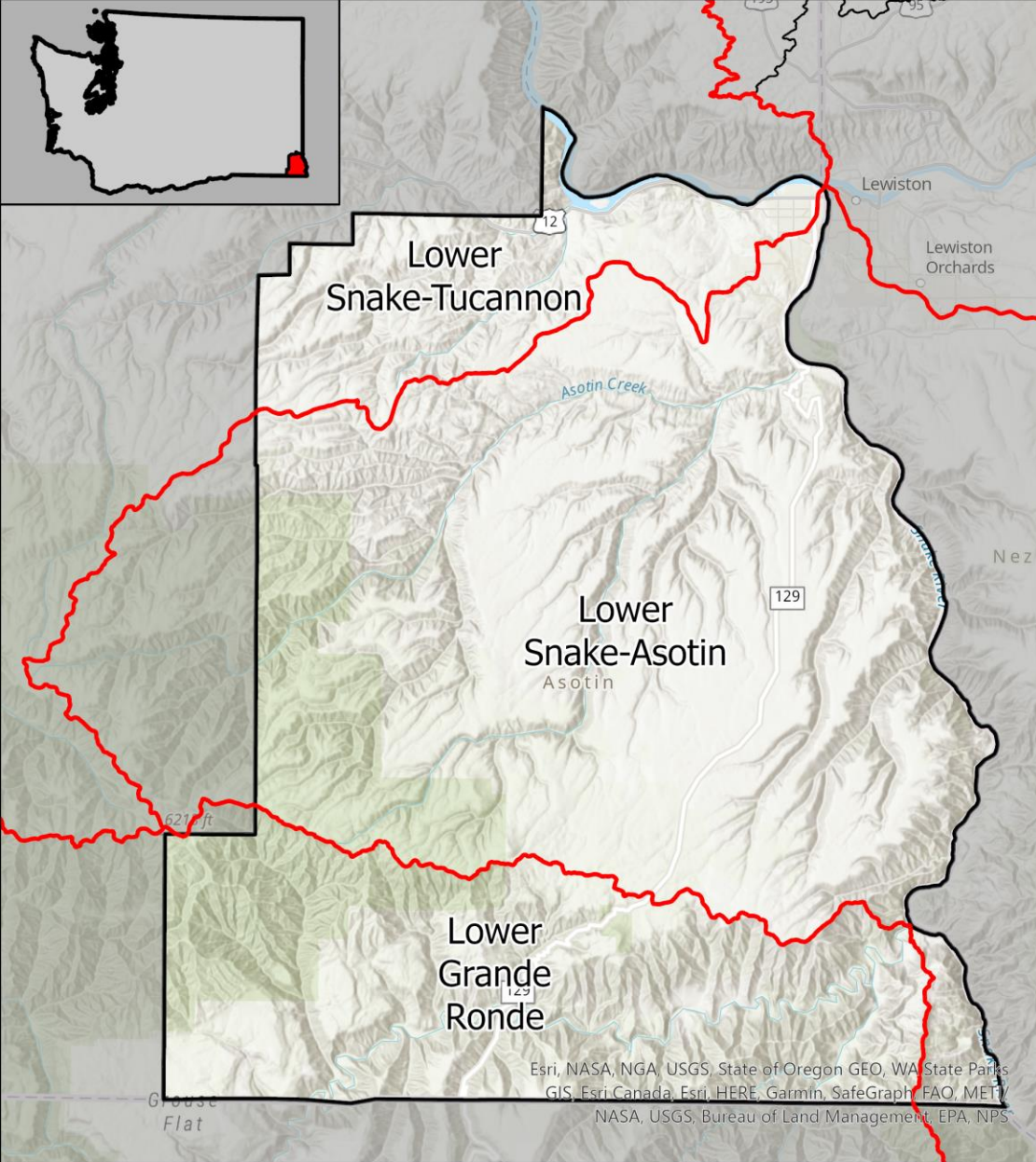
Thank You for Listening & for the Continued
Support in Restoring the Tucannon Watershed

Asotin County Conservation District

Megan Stewart, District Coordinator

PROJECT: 1994-018-05



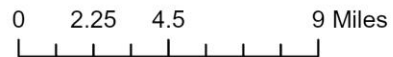


Conservation in Asotin County

- Ridge Top to Ridge Top Restoration
 - Instream
 - Riparian
 - Rangeland
 - Cropland
 - Forestland

Project Proposal Location

5/1/2021



Past Restoration Efforts - Cropland

Direct Seed – Residue Management



Farmland Conversion –
Perennial Cover
Establishment

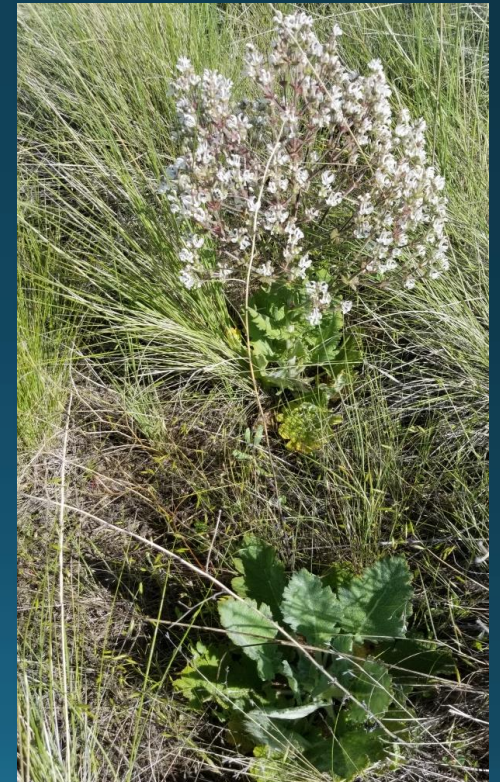
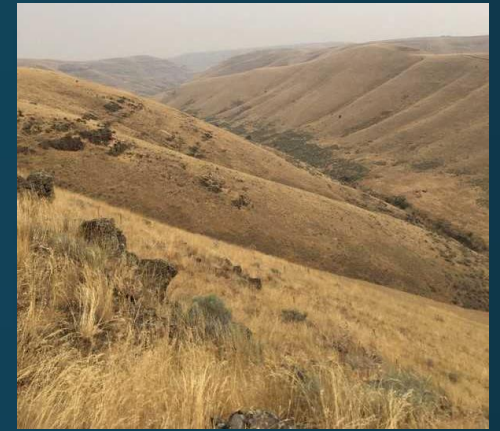


Erosion Control
Structures – Sediment
Basin, Terraces,
Grassed Waterways



Past Restoration Efforts - Rangeland

- Grazing Management
- Livestock Water Developments
- Fencing
- Weed Control
- Grass Planting



Past Restoration Efforts – Livestock Feeding

- Alternative Water Developments
- Feed Area/Corral Relocation
- Heavy Use Feed Pads
- Manure Containment





Past Restoration Efforts - Forestland

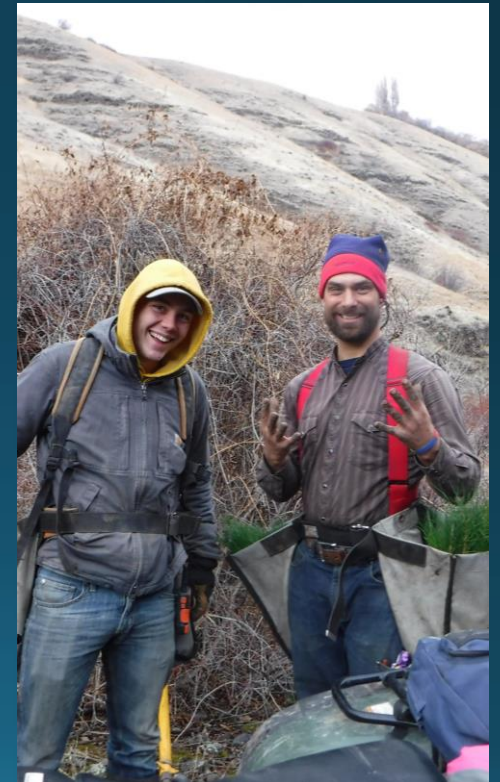
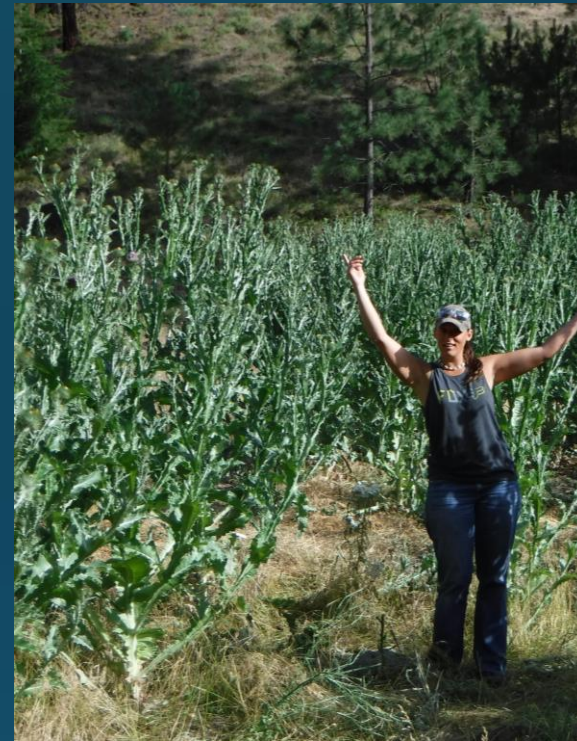
- Thinning – Pruning
- Fuel Reduction
- Timber Health

Past Restoration Efforts - Riparian

Planting – Trees, shrubs and grass

Fencing – Livestock exclusion

Weed Control



Past Restoration Efforts - Stream



Habitat



Stream
Crossing
Access



Passage



What's to come...

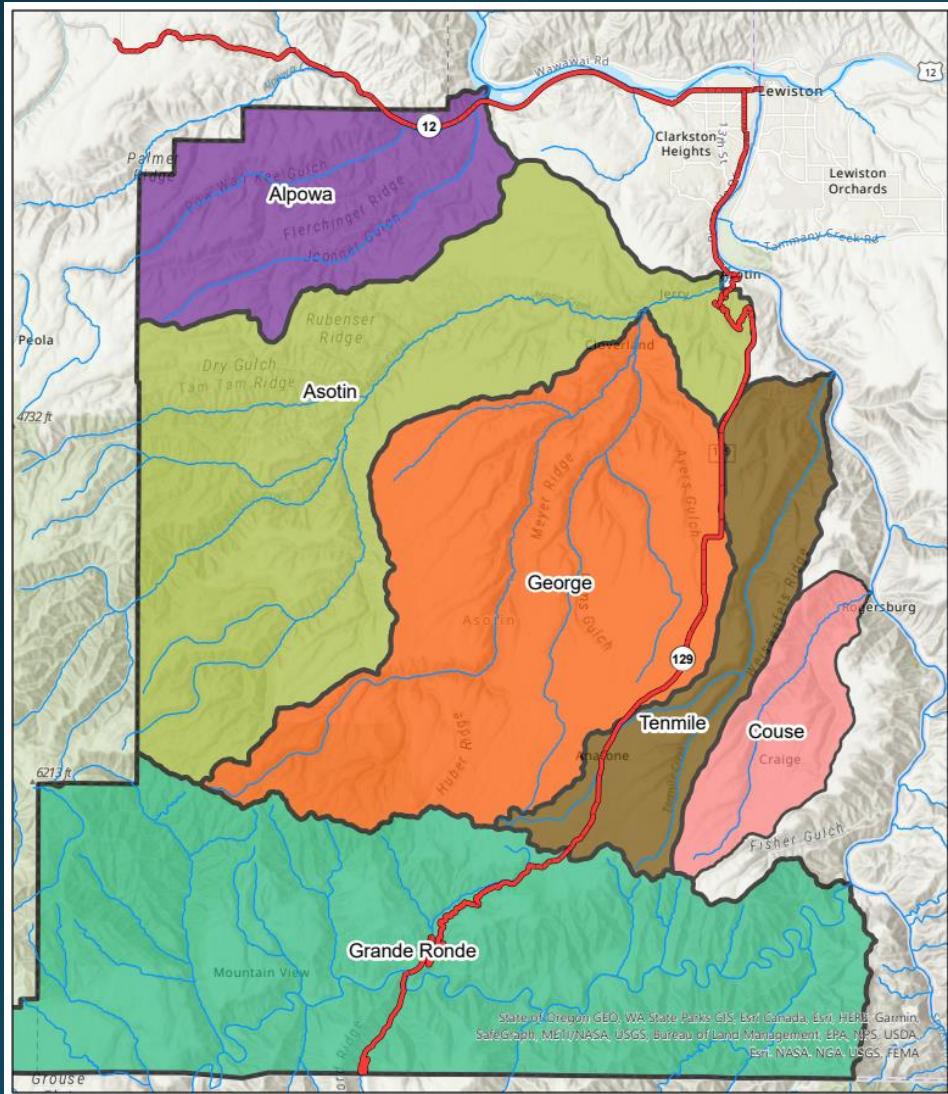


Continuation of restoration
efforts



Shift in focus areas

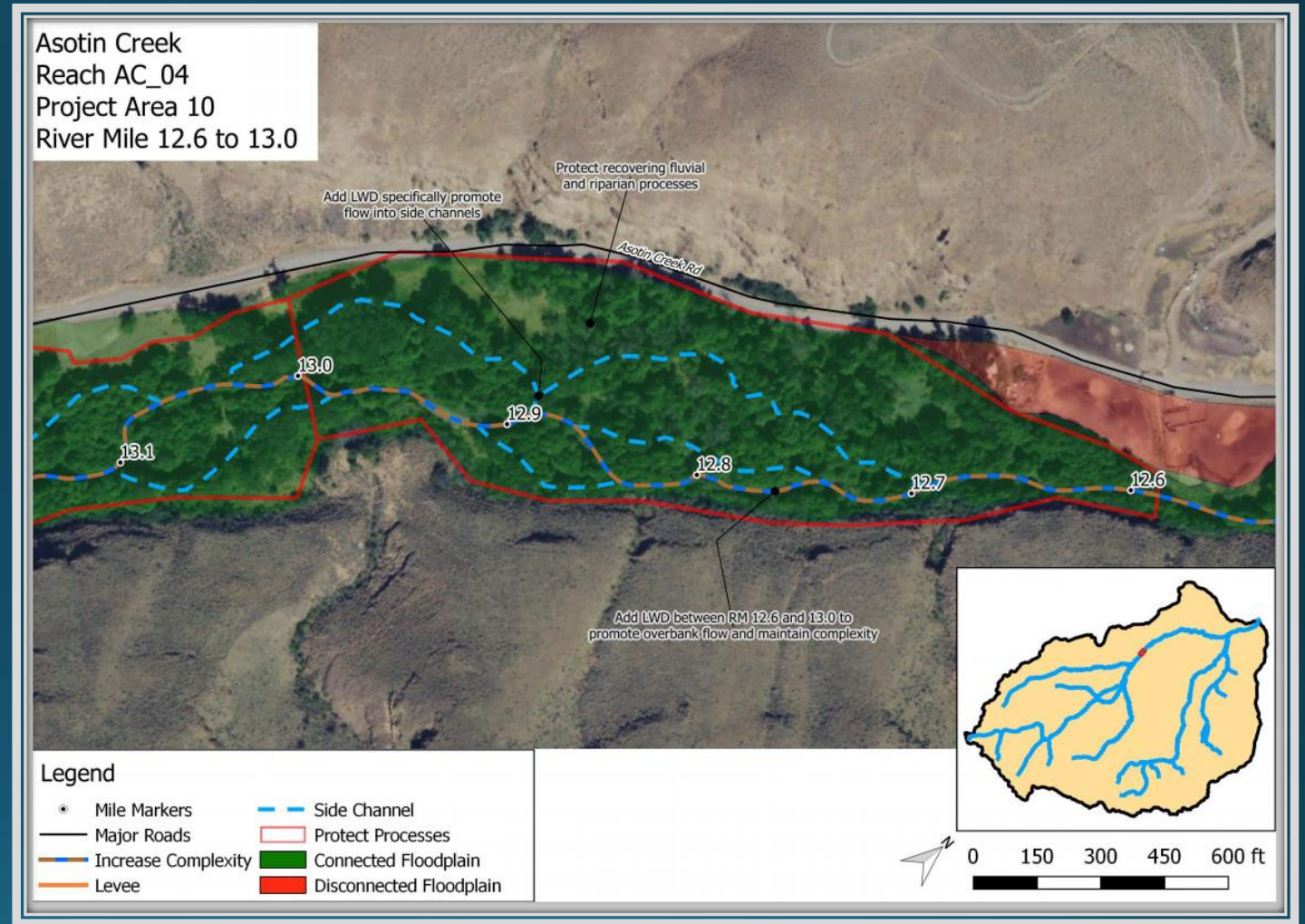
Geomorphic Assessments



- Two Phases:
 1. Asotin, George, Tenmile, Couse, Alpowa
 2. Grande Ronde
- Evaluation of Conditions
 - Identify current limiting factors
- Restoration Strategies
 - Protect and maintain natural processes
 - Remove barriers and reconnect habitat
 - Restore long-term processes
 - Restore short-term processes

Conceptual Restoration Plans

- Guide to future restoration
- Prioritization of project areas in each watershed
- 100+ project areas identified
 - Current Condition
 - Reach Type
 - Limiting Factors
 - Fish Species & Life Stages



Fish Species, Location and Usage



Steelhead

Asotin County Watersheds

Migration, Spawning, Rearing, Holding



Spring Chinook
Summer Chinook

Asotin & Alpowa Creeks
Grande Ronde River

Migration, Spawning, Rearing, Overwintering



Fall Chinook

Asotin Creek
Grande Ronde River

Migration, Spawning



Bull Trout

Asotin & George Creeks
Grande Ronde River

Migration, Spawning, Rearing



Pacific Lamprey

Asotin Creek

Migration, Spawning, Rearing

Habitat Goals & Objectives - Instream

Main Channel

- Improve complexity on ~68,000 feet of stream
- 2,500+ low tech and engineered structures
- Focus on pool development

Side Channel

- Connect ~6,000 feet of side and flood channels
- 200+ structures installed
- Promote habitat complexity

Floodplain

- 50+ acres connected at the 2-year event

Habitat Goals & Objectives - Riparian

Riparian protection and enhancement

- 125+ acres
- 42,000+ feet of stream with livestock exclusion

18+ alternative water developments

4 stream crossings

Weed management plans

- 16 plans
- +120 acres

Riparian forest buffer enhancement

- 36,000 native trees and shrubs
- 10 acres native grass

Habitat Goals & Objectives - Upland

Residue Management – Direct Seed or Perennial Cover

- 95% cropland currently – goal of 98%
- 2,000 new acres

Rangeland Assessments

- 12 assessments & grazing plans
- 8,000 acres – rangeland improved

Weed Management

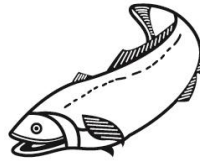
- 40 weed management plans
- Resulting in 3,600 acres treated



PARTNERS IN CONSERVATION



**ASOTIN COUNTY
CONSERVATION DISTRICT**



Assisting, protecting, and restoring Asotin County's natural resources.



*Snake River
Salmon Recovery*



*Washington
Department of
FISH and
WILDLIFE*



Thank you!

