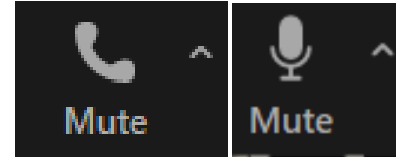


# **Columbia Basin Collaborative Habitat Work Group**

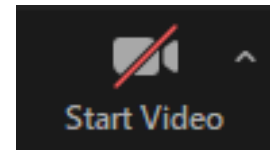
**December 12th, 2022**

# Zoom Features

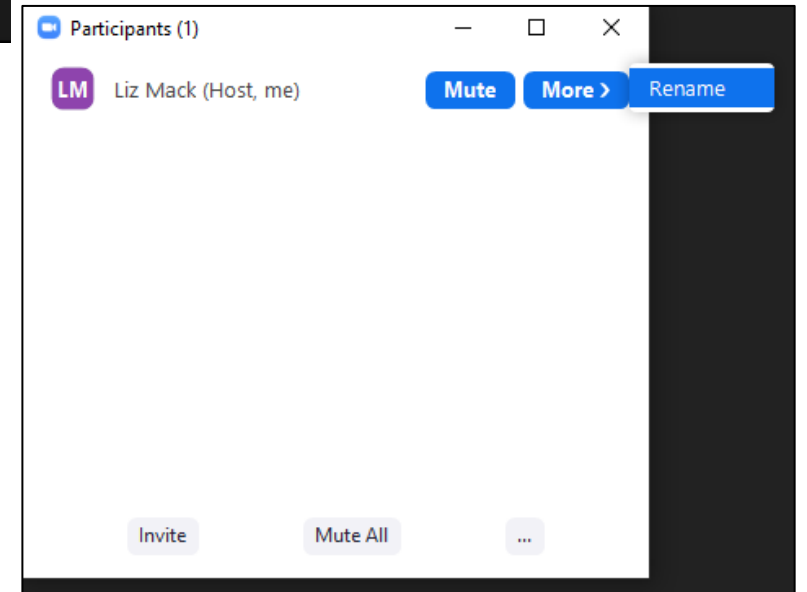
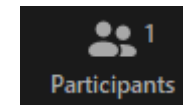
Keep yourself on mute when not speaking.



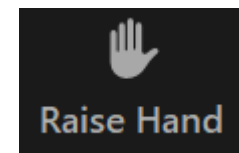
Use video, if possible, to promote face to face communication.



If needed rename yourself in the participant panel.

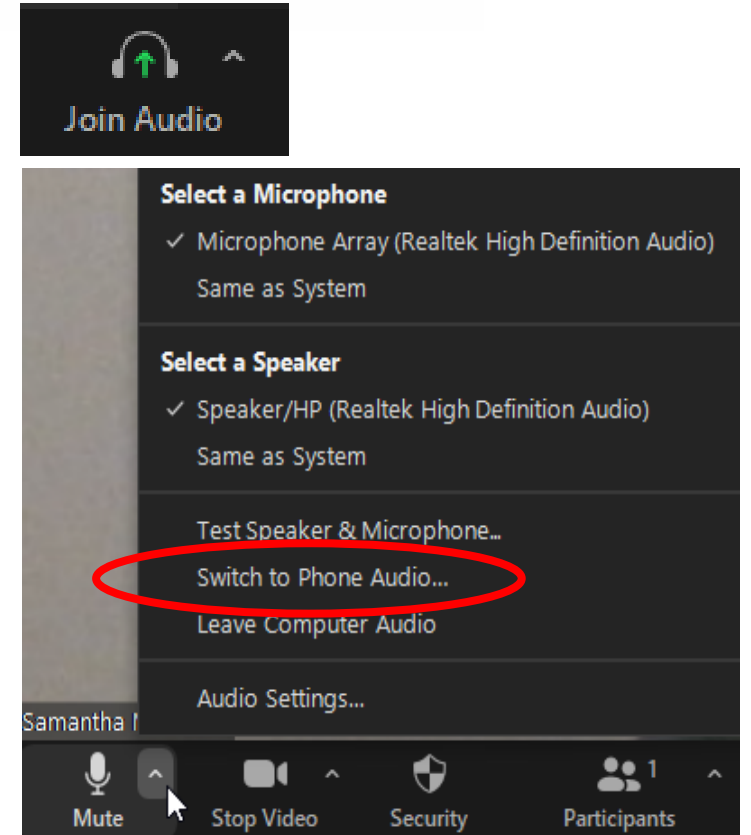


Find your raise hand function at the bottom of your screen



# Zoom Features

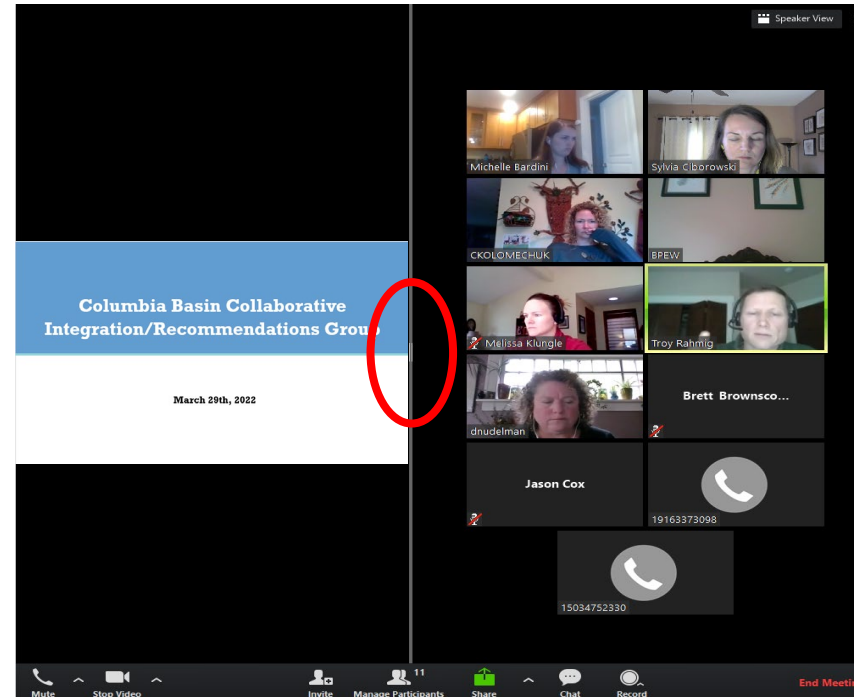
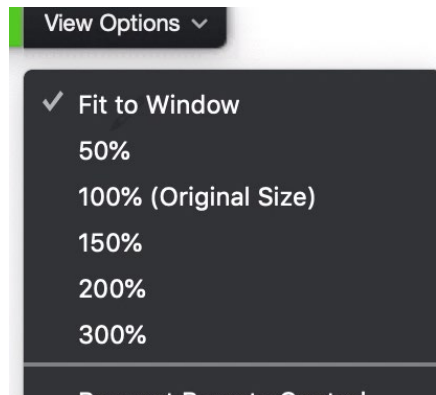
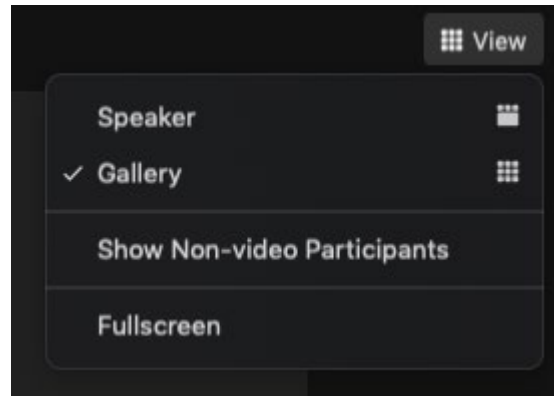
- If you have not **connected your audio**, click on the “Join Audio” at the bottom left of your screen.
- To **switch to phone**, click the arrow next to the microphone icon and select “Switch to Phone Audio”.
- If you have joined by browser, please click “Audio Settings”



*For technical support, please contact Colin Johnson*

# Zoom Features

Adjust view options



*For technical support, please contact Colin Johnson*



# **Welcome, Agenda Review, and Updates**

# Collaboration

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**Focus on your interests, not positions**

**Invent options for mutual gain**

**Separate the people from the problem**



# Meeting Guidelines

- Honor the agenda
- Listen to understand and ask questions to clarify
- Balance speaking time
- Don't pile on
- Be present



# Agenda Review

Time (PT)	Topic
12:00 – 12:10 pm	Welcome, Agenda Review, and Updates
12:10 – 12:20 pm	Work Plan Review
12:20 – 12:35 pm	Estuary Habitat Discussion Resources and Gaps
12:35 – 12:50 pm	Tributary Habitat Discussion Resources and Gaps
12:50 – 1:20 pm	Presentation
1:20 – 1:30 pm	Break
1:30 – 2:00 pm	General Recommendations for Habitat
2:00 pm – 2:50 pm	Develop Short Term Recommendations – highest priority stocks
2:50 pm – 3:00 pm	Confirm Next Steps, Upcoming Meeting Topics, and Summary

# **Work Plan Review**

# Habitat Work Plan

Meeting	Goals
<b>Kick off</b>	Introduction to CBC Estuary and Tributary Habitat Work Group <ul style="list-style-type: none"><li>• Come to shared understanding of the assignment from the I/RG and information available from the CBPTF</li><li>• Identify existing forums, gaps, and funding needs and sources</li><li>• Start developing work plan</li></ul> Assess gaps in existing forums, science, and funding
<b>Meeting 2:</b>	Finalize work plan <ul style="list-style-type: none"><li>• Clarify request from the I/RG</li><li>• Further identify priority habitat programs, locations, responsible entities and limiting factors</li><li>• Further understand challenges and opportunities to habitat restoration efforts</li></ul>
<b>Meeting 3:</b>	Develop short term recommendations <ul style="list-style-type: none"><li>• Identifying priority areas for restoration and protection related actions</li><li>• Identify implementers, partners, and collaborators in the work</li><li>• Identify challenges and potential solutions</li></ul>
<b>Meeting 4:</b>	Develop long term recommendations <ul style="list-style-type: none"><li>• Finalize short term recommendations to go the Science Integration Work Group and the I/RG</li><li>• Overview of successful long-standing programs</li></ul>

# **Estuary Habitat Discussion**

## **Recap of Resources and Gaps**

# **Tributary Habitat Discussion**

## **Recap of Resources and Gaps**



# Presentations

Today's Panel of Presenters:

- Patty Dornbusch – NOAA Fisheries
- Emmit Taylor – Nez Perce Tribe
- Tracy Bowerman – Upper Columbia Salmon Recovery Board

## 2020 CRS TRIBUTARY HABITAT PROGRAM



# Overview

- Program Purpose, Scale, and Scope
- Implementation Framework
- Evolution of Program
- Implementation Considerations



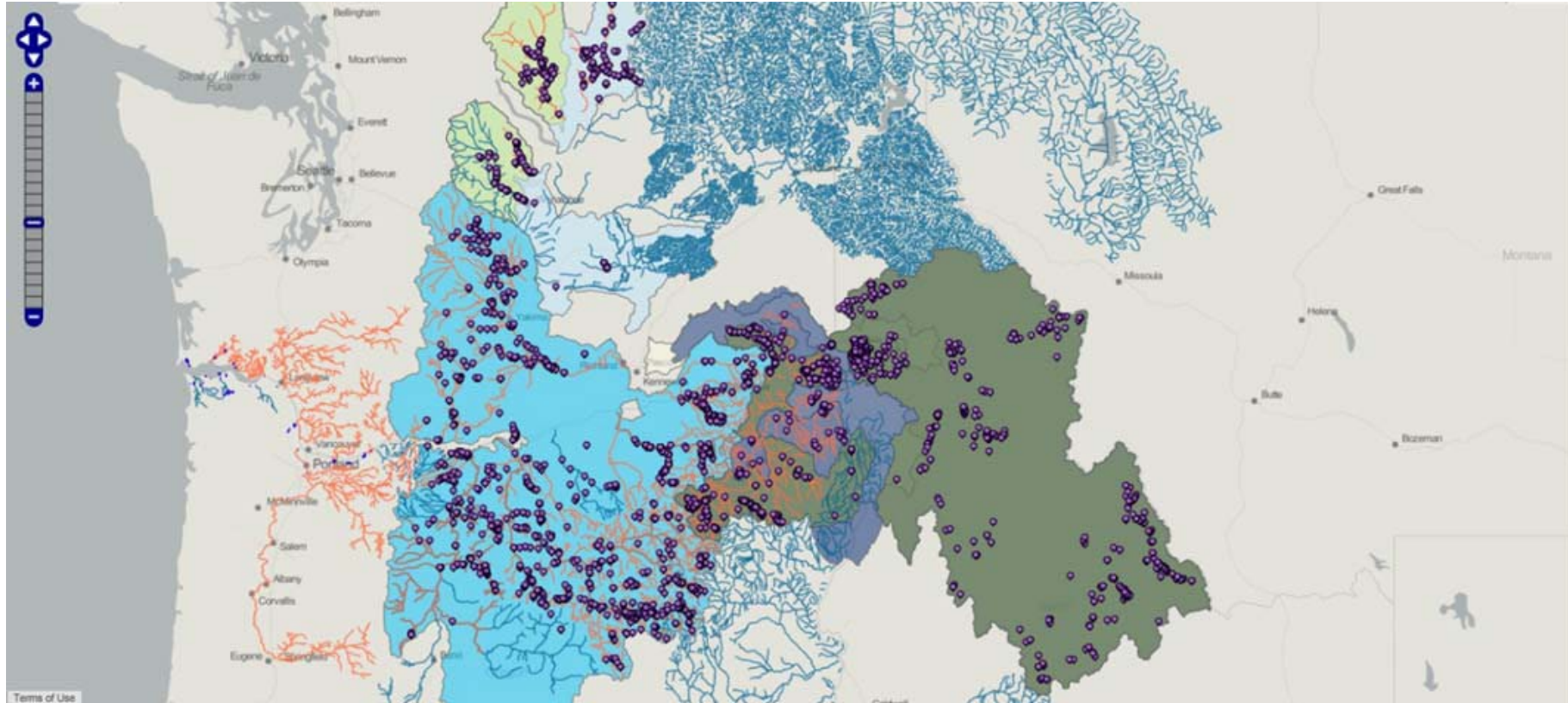


# Program Purpose

- Help “address uncertainty related to residual adverse effects of CRS management on the listed salmon and steelhead that migrate through the CRS, including uncertainty regarding such effects in the face of climate change”
- Mitigate for CRS effects by improving survival in fresh-water habitat and, ultimately, improving population abundance, productivity, spatial structure, and diversity.



# Program Scale



<https://www.cbfish.org/Map.mvc/Display/29>

# Program Scale: Cumulative Metrics

2007-2018, for 4 stocks (ESU/DPS)

Action Type	SR SP/SU CHK	SR STD	UCR SP CHK	UCR STD
Acre feet water protected	84,075	84,565	23,709	40,373
Riparian acres protected	3,221	3,342	315	421
Riparian acres improved	6,651	7,791	435	1,610
Miles enhanced or newly accessible	1,301	1,364	117	231
Miles protected	184	227	10	19
Screens Installed	85	85	12	98

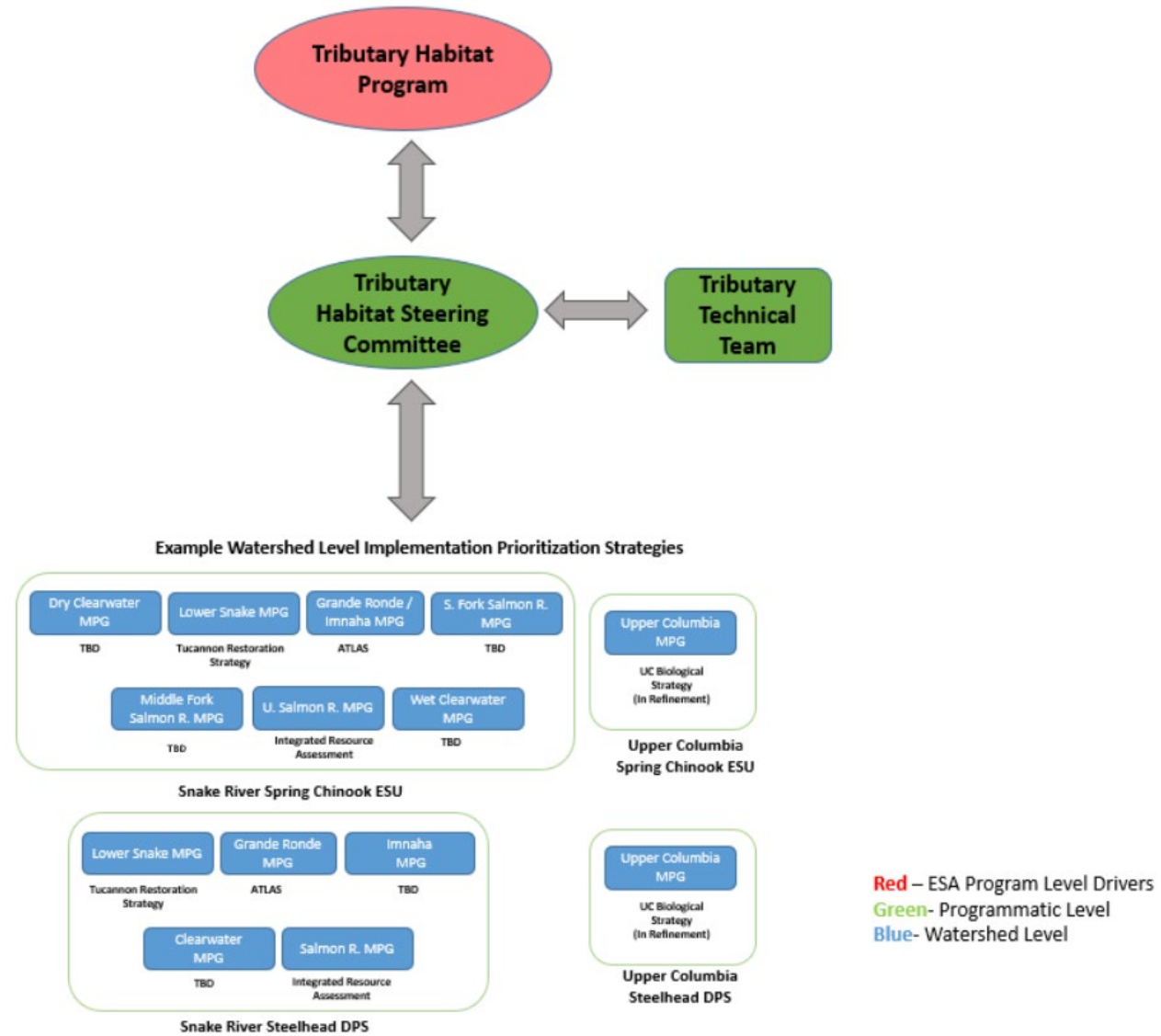
# Program Scale: Funding

- Approx. \$240 million BPA funding + \$10 million BOR funding annually
- Most projects include multiple funding sources (BPA/BOR, PCSRF, other funding)
- If more project funding were available, would need more staff, design, permitting capacity.





# Program Framework





# Reporting and Analysis

- Five-Year Implementation Plan (Actions planned 2020-2025)
- Annual reporting on actions implemented
- Five Year Comprehensive Review
  - Analyzes actions implemented
  - Recommends Adaptive Management Actions



# Program Evolution: Opportunistic to Strategic

- **Goal: Continue to improve efficiency, pace, and effectiveness of tributary habitat action implementation**
- **Implementation oversight:**
  - Informal initially to Tributary Habitat Steering Committee (THSC)
  - Stronger links to recovery plans and ESA recovery goals
- **Scientific input:**
  - Expert panels to Tributary Technical Team (TTT)
  - Improved understanding of types and amounts of actions that will move the needle
  - Improved tools for prioritizing actions and evaluating outcomes
- **Reporting and analysis**
  - Longer time frame (5 vs 3 years)
  - Greater emphasis on identifying best tools to evaluate program benefits and on adaptive management
- **Relationships and communications**
  - Information sharing among local groups and from TTT & NWFSC to THSC and local groups
  - Incorporate lessons learned from other successful programs

# Implementation Considerations

- **Technical**

- What MPGs and populations to focus on.
- How to ensure actions are being identified and prioritized based on best available information.
- How to evaluate program benefits.

- **Relationships/Communications**

- Communication between program level and local level implementers
- How to disseminate technical information & enhance dialog

# Questions?







*Nez Perce Tribe*  
*Department of Fisheries Resources Management*  
*Watershed Division*



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# Columbia Basin Collaborative Habitat Workgroup

December 12, 2022



*Nez Perce Tribe*  
*Department of Fisheries Resources Management*  
*Watershed Division*



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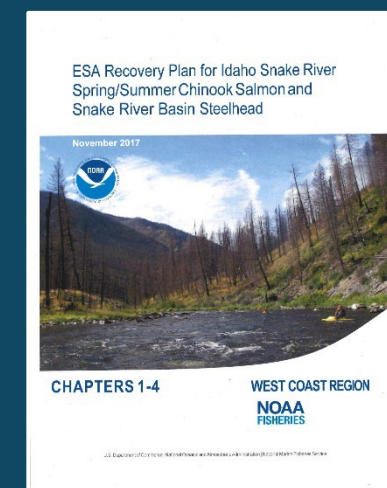
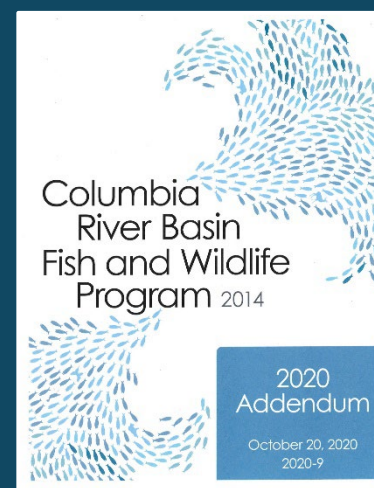
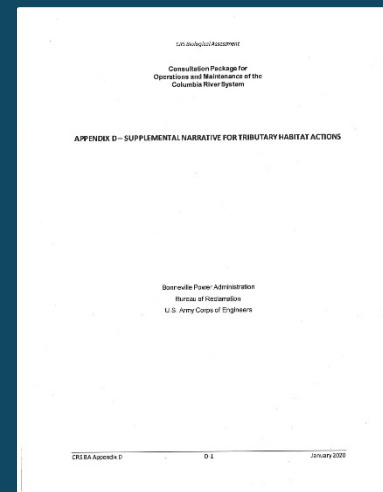
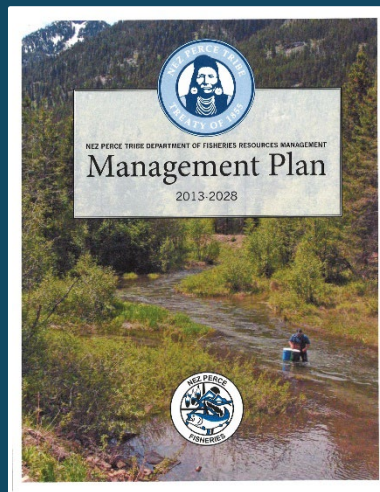
## Focus Questions

- How your organization goes about identifying and prioritizing projects
- How your organization gets funding and implement projects
- 1-3 projects that the Tribe is developing – either new projects or existing projects that you believe are the most effective to habitat restoration and protection



# NPT DFRM Focus Watershed Restoration Program

- Overall Goals
  - Implement the goals and directions provided in the NPT Department of Fisheries Resources Management 2013-2028 Management Plan
  - Work with:
    - BPA in implementation of its Fish and Wildlife Program and FCRPS/CSRO commitments
    - NPCC and the implementation of their Fish and Wildlife Program
    - NOAA Fisheries Recovery Plans
  - Facilitate and coordinate an organized and efficient watershed/aquatic ecosystem restoration and protection program throughout the NPT Treaty Territory
  - Lead a team of professional and technical staff





# Nez Perce Tribe



## Department of Fisheries Resources Management

**Department of  
Fisheries  
Resource  
Management**

**Administration**

**Production**

**Watershed**

**Research**

**Resident Fish**

**Conservation  
Enforcement**

- Bonneville Power Base Funding
- \$6.1 million

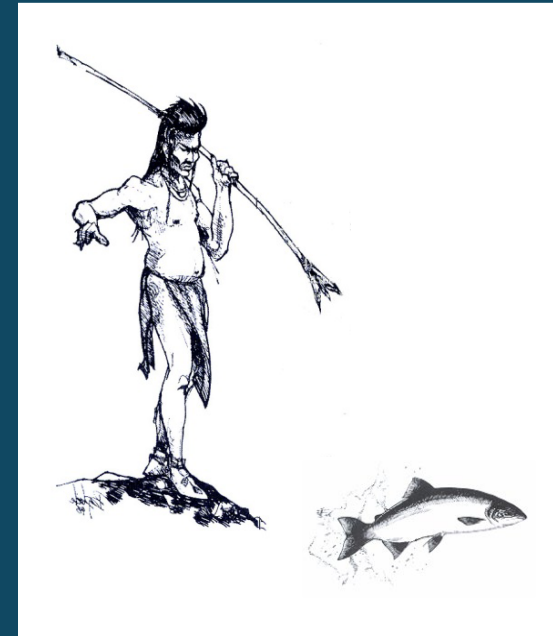


# 2018-2020 Non-BPA Cost Share

#	Grantor	Amount
1	Grande Ronde Model Watershed	\$686,553
2	Idaho Office of Species Conservation Pacific Coastal Salmon Recovery Funds	\$380,000
3	National Fish and Wildlife Foundation	\$216,300
4	Nez Perce Tribe Snake River Basin Adjudication	\$261,000
5	Oregon Watershed Enhancement Board	\$295,372
6	Resource Legacy Fund	\$100,000
7	Trout Unlimited	\$8,223
8	US Army Corps of Engineers	\$931,875
9	US Bureau of Indian Affairs	\$165,000
10	US Bureau of Land Management	\$49,012
11	US Bureau of Reclamation	\$99,943
12	US Forest Service - Boise National Forest	\$208,806
13	US Forest Service - Nez Perce–Clearwater National Forests	\$1,817,683
14	US Forest Service - Payette National Forest	\$275,128
15	Washington Department of Transportation	\$482,876
16	Washington Snake River Salmon Recovery Board	\$4,570,676
17	Western Organization of Resource Councils	\$9,000
N/A	<b>TOTAL</b>	<b>\$10,557,447</b>
N/A	<b>3-YEAR ANNUAL AVERAGE</b>	<b>\$3,519,149</b>



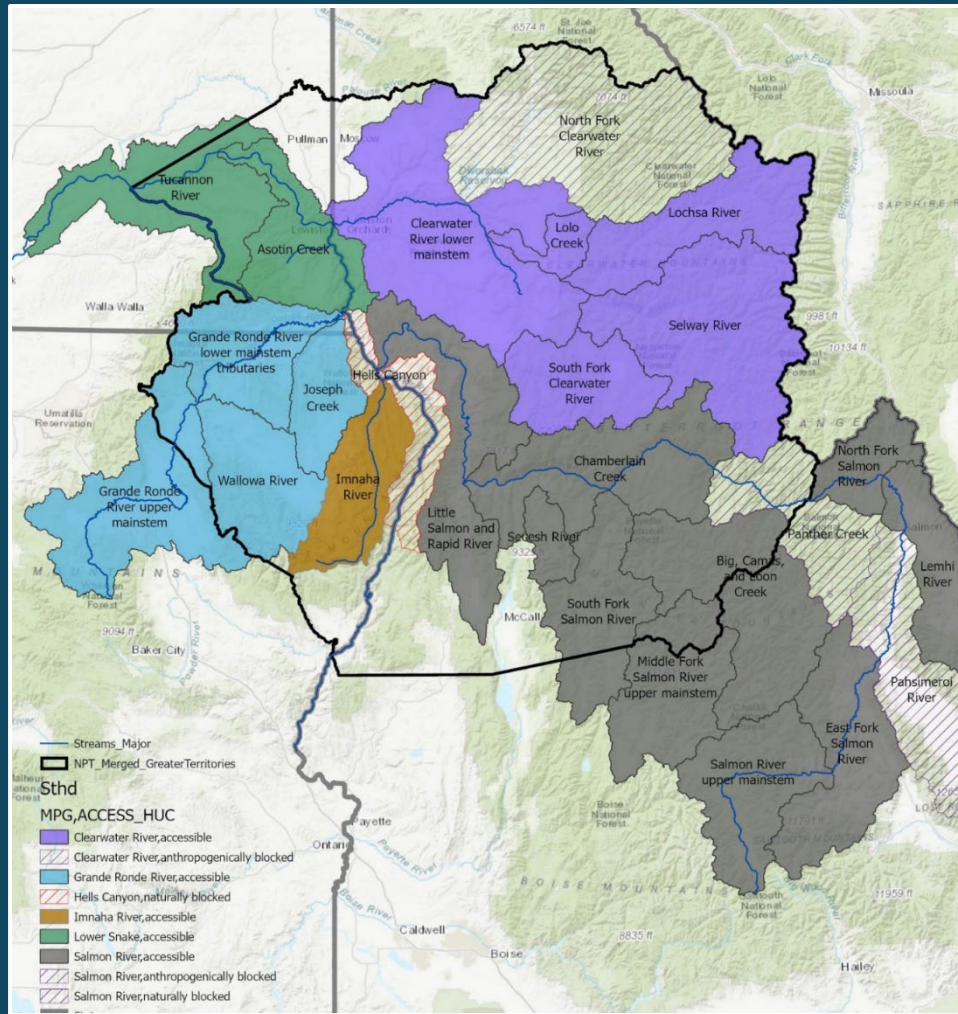
# Nez Perce Tribe Territory / Restoration Focus Area



- 13.3 Million Acres
- 3 States
- 6 National Forests

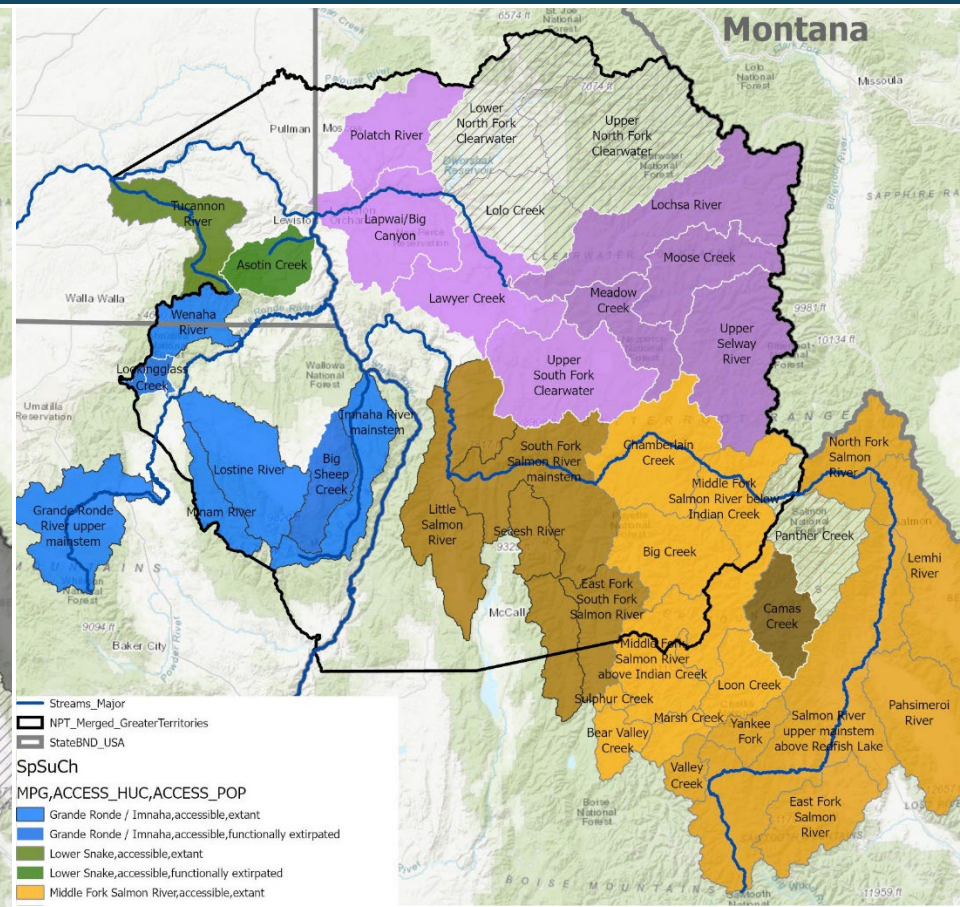


# ESA Listed Snake River Steelhead MPG's and Populations



- 5 of 6 MPG's
- 15 of 26 Populations

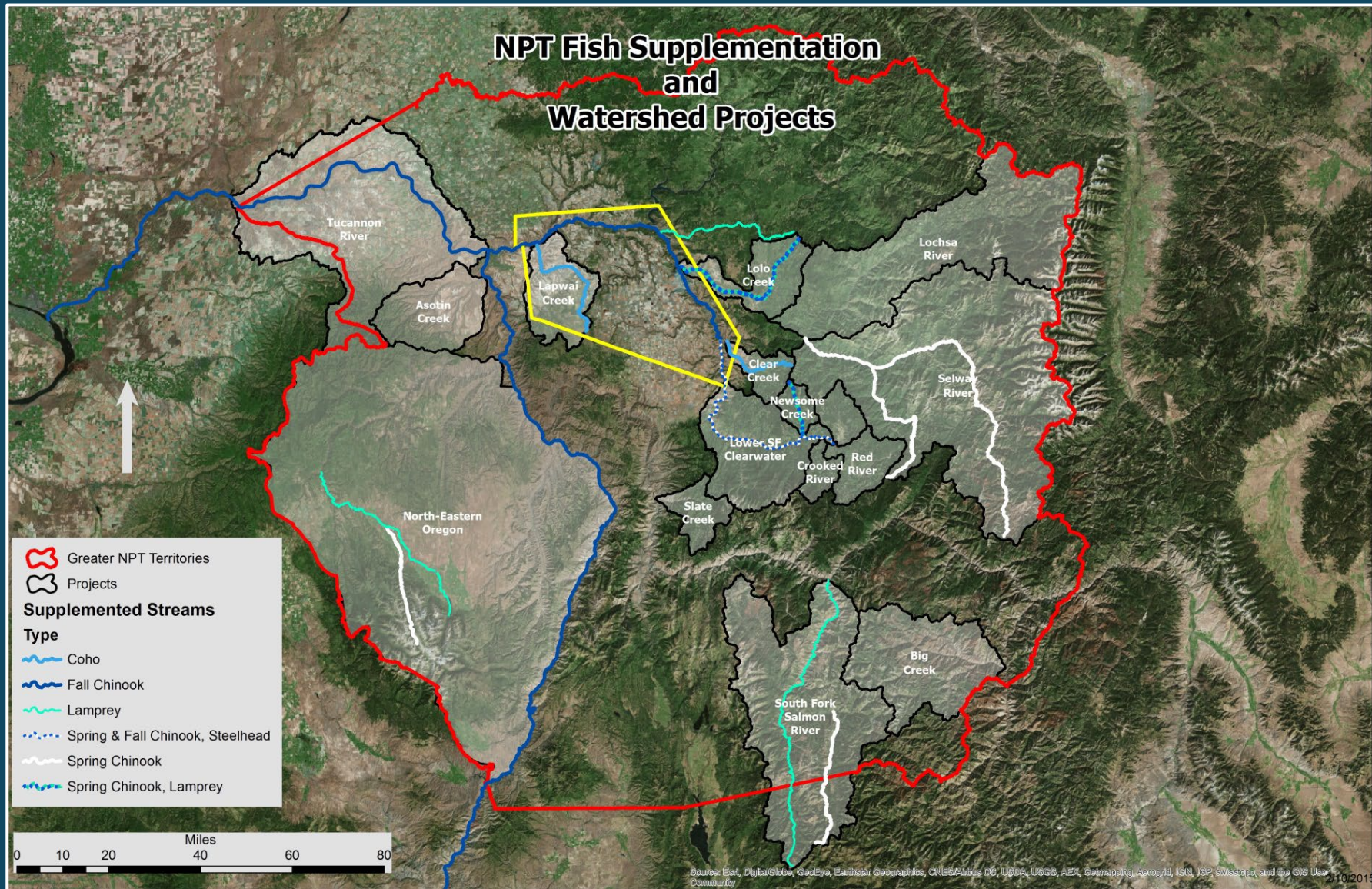
# ESA Listed Snake River Spring/Summer Chinook Salmon MPG's and Populations



- 4 of 5 MPG's
- 13 of 32 Populations

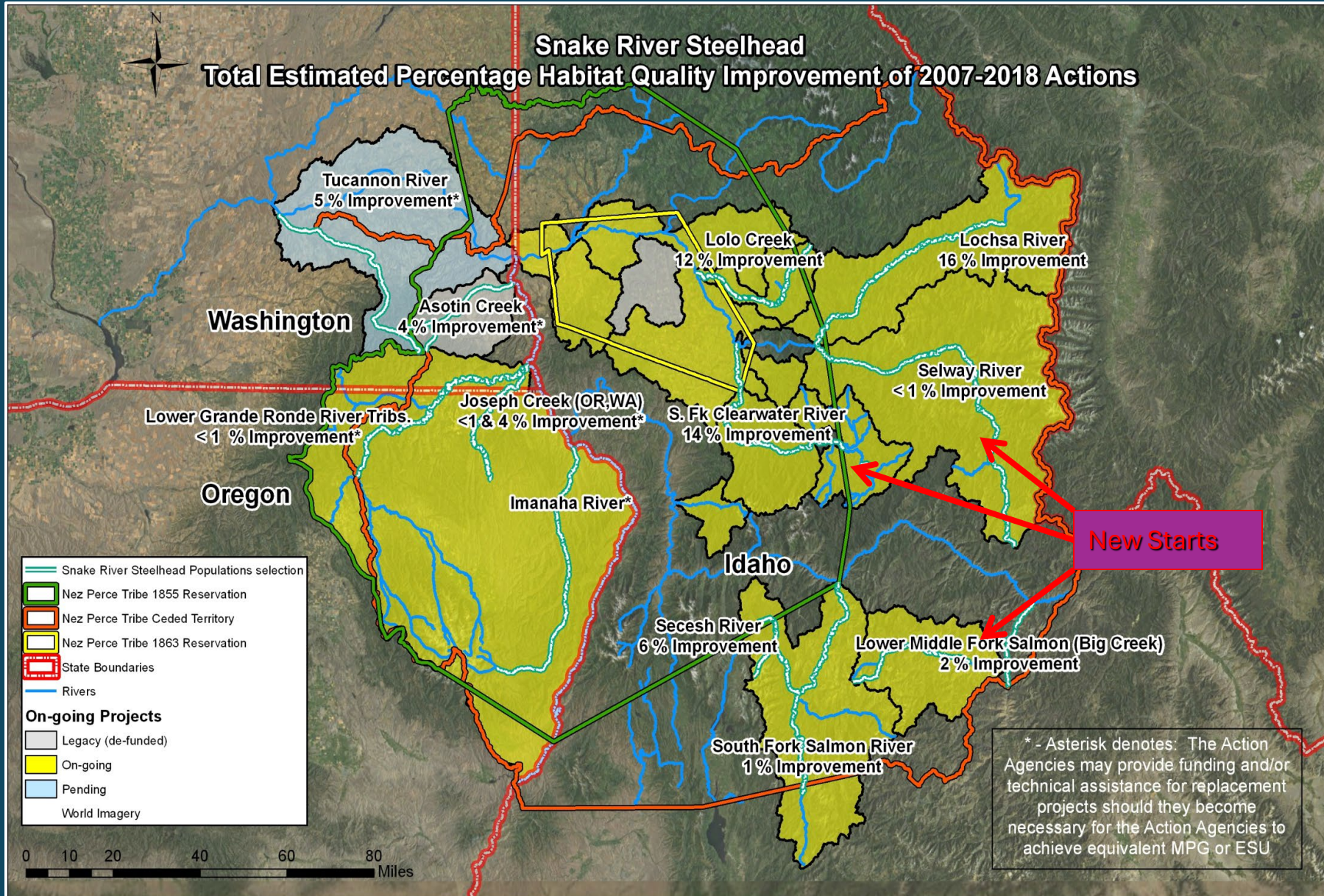


# Supplementation and Habitat Restoration Working Together





# 2008 FCRPS/2021 CSRO Priority Populations

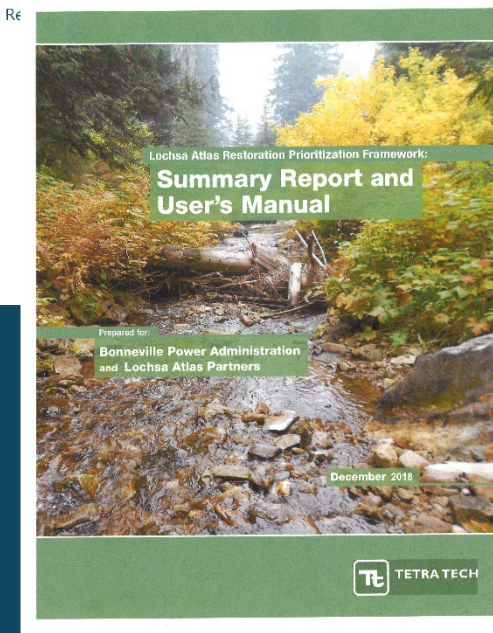
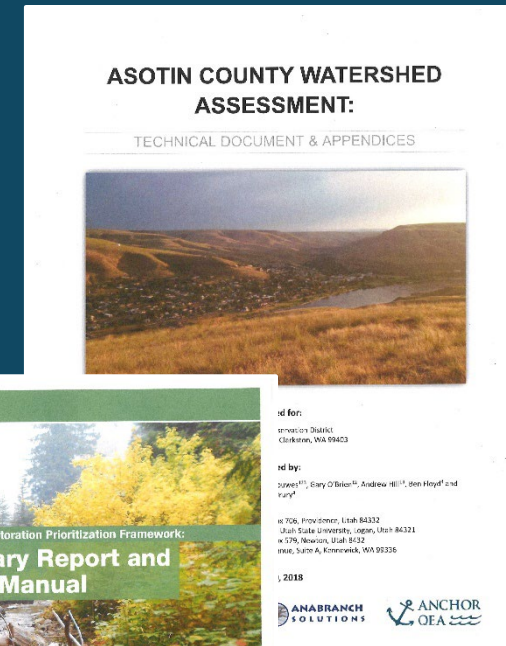
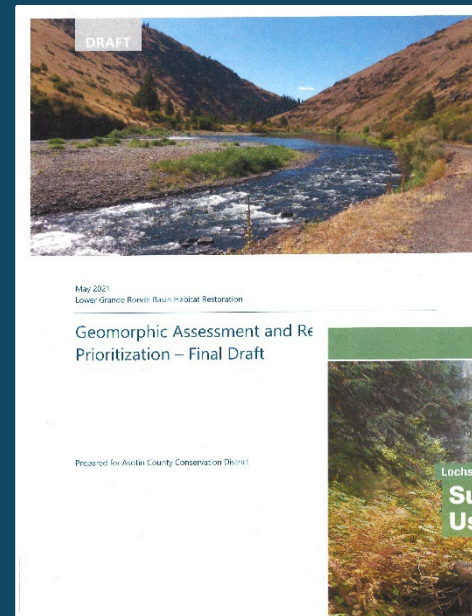






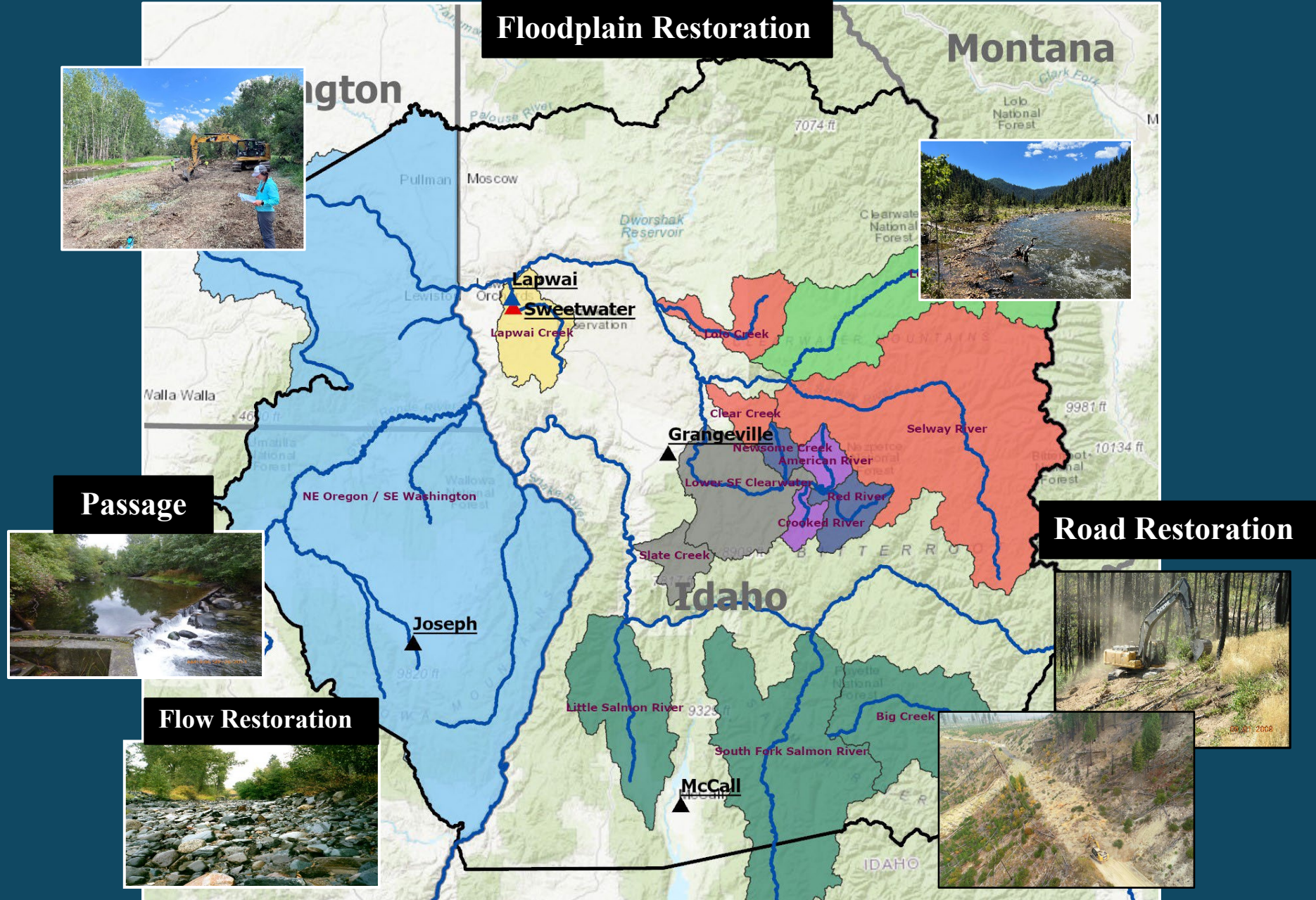
# How we choose what Watershed Restoration Actions to Implement

- Watershed Assessments
- Limiting Factors Analysis
- FCRPS BiOp Expert Panel Process
- **Atlas**
  - **Brings together anyone with data and knowledge**
  - **Compiles all data available**
  - **Gets every on same page**
  - **Completed**
    - Lochsa
  - **In development**
    - Lolo Creek (90% complete) and Wallowa County (75% complete)
  - **Future**
    - Lapwai Creek, SF Clearwater, SF Salmon
- On-the-ground Knowledge





# Current Project Areas





# Partnerships

- Relationship Building
- Collaborative Prioritization
- Formal Agreements
- Cost-Share
- Co-implementation



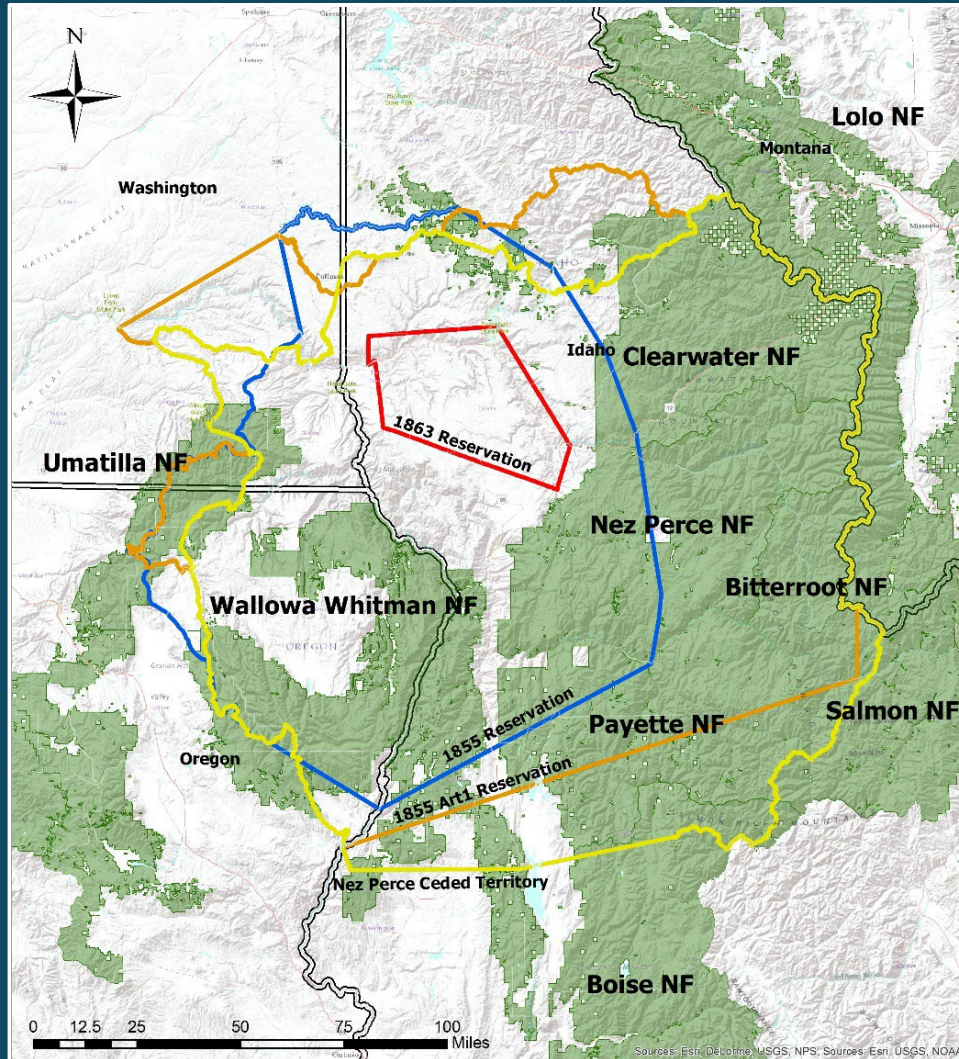
- Regional
  - BPA
  - NPCC
  - CRITFIC
  - NOAA Fisheries
- SE Washington
  - Snake River Salmon Recovery Board
  - Umatilla National Forest
  - Asotin/Columbia Conservation Districts
  - Private Landowners
  - Washington Department of Fish and Wildlife
- NE Oregon
  - Wallowa Land Trust
  - Grande Ronde Model Watershed
  - Wallowa Resources
  - Wallowa-Whitman National Forests
  - Natural Resource Advisory Committee
  - Private Landowners
  - Oregon Department of Fish and Wildlife
  - **Trout Unlimited**
- Clearwater River
  - NP-Clearwater National Forests
  - NP Soil Water Conservation District
  - Idaho Department of Transportation
  - Bureau of Land Management
  - Nez Perce Tribe
  - **Trout Unlimited**
- Salmon River
  - NOAA/USFWS
  - Payette/Boise National Forest
  - Private Landowners (two conservation easements)
  - Idaho Fish and Game
  - Rocky Mountain Elk Foundation

And many more....





## US Forest Service Partnership

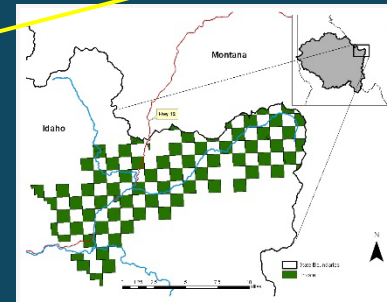
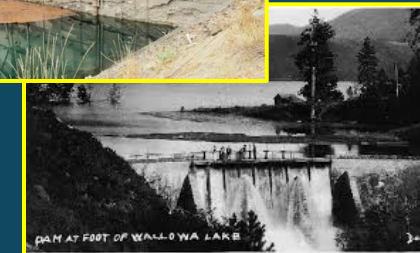


- Partnership started in 1997 on the Clearwater National Forest
- Currently with 5 National Forests
  - Nez Perce-Clearwater National Forest
  - Boise and Payette National Forest
  - Wallowa-Whitman National Forest
  - Umatilla National Forest
- Master Agreement
  - Public Law 94-148
- Supplemental Project Agreements
  - Scope of work
  - Tasks and financial contribution from both parties
- Forest Service/BPA MOU
  - Forest Service required to provide a 20% match
- Challenges
  - Forest Service turnover



## Important Big Lift Efforts

- **US Forest Service Plan Revisions**
  - Nez Perce Clearwater National Forests
  - Blue Mountains
    - Wallowa Whitman National Forest
    - Umatilla National Forest
  - A 10 year plan that will be in place for 30 years
- **Regional Tributary Habitat Strategy**
- **Lewiston Orchards Water Exchange Project**
  - Been working on since 2008
  - Critical cold water for a historic “source” Steelhead population for the Lower Clearwater
  - 19 miles of ESA Listed Steelhead
- **Wallowa Lake Dam Reconstruction**
  - Fish passage for Sockeye re introduction
  - Increased flows 5,000 acre feet
- **Lochsa Checkerboard Land Exchange**
  - 38,000 acres in the Upper Lochsa River Drainage
  - Critical for high elevation, cold water refuge
- **Stibnite Mine Fight**
  - Headwaters of the South Fork Salmon River
  - Historically the most productive summer Chinook salmon population in the Columbia Basin
  - Perpetua Resources and Payette National Forest proposing to re open a very large open pit gold mine







He' ma' qis  
Qe' ciyew' yew  
(Thank you very much)



*"The tribes have always treated water as a medicine because it nourishes the life of the earth, flushing poisons out of humans, other creatures, and the land. We know that to be productive, water must be kept clean. When water is kept cold and clean, it takes care of the salmon.*

*- Levi Holt (Nez Perce)*

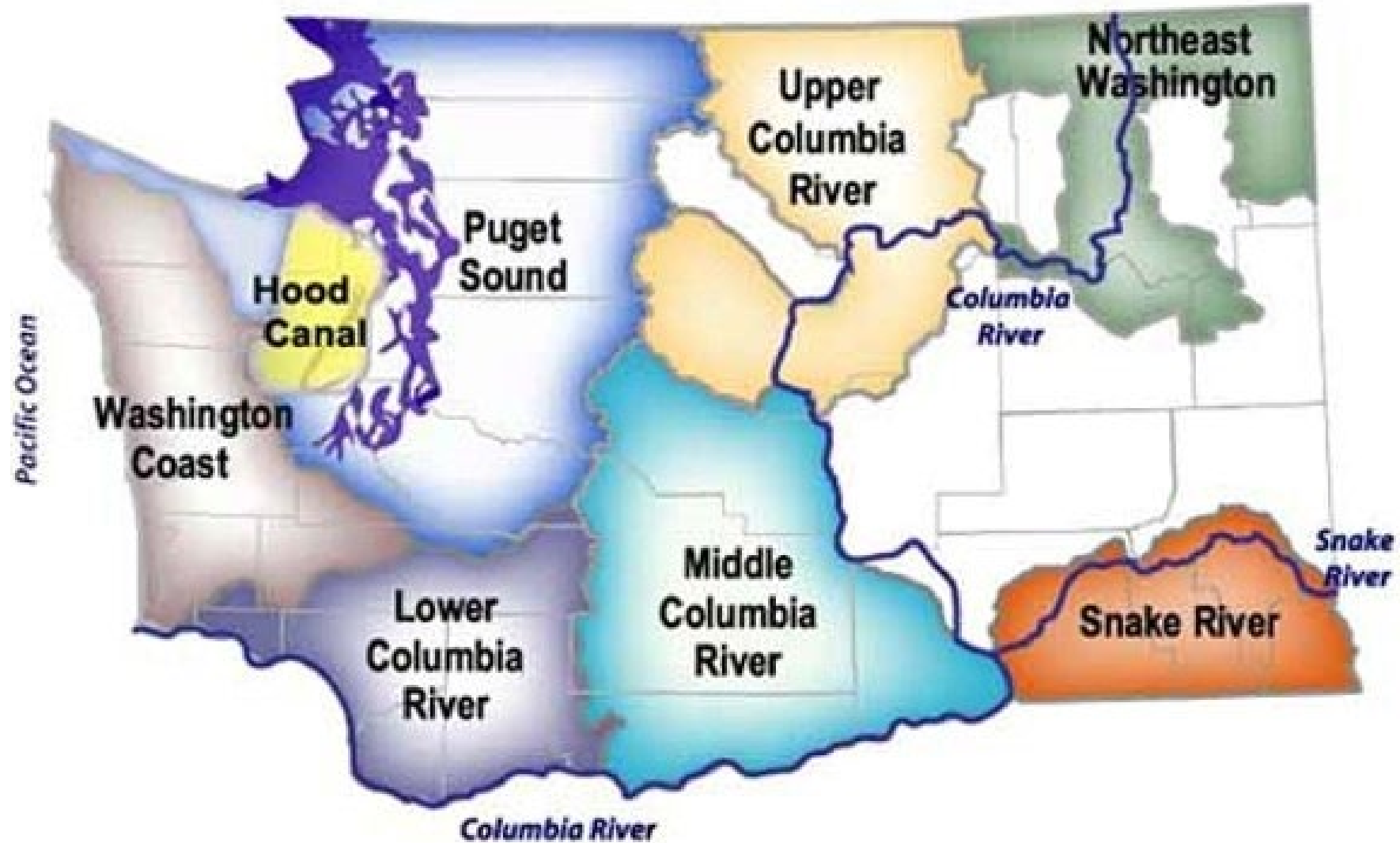




OUR MISSION IS  
TO RESTORE  
SPRING CHINOOK,  
STEELHEAD, AND  
BULL TROUT

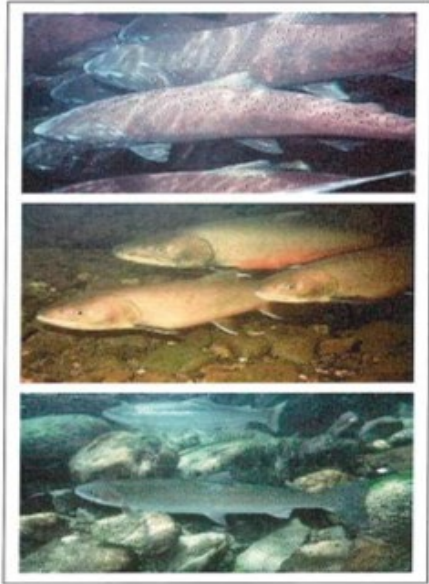


# Salmon recovery organizations statewide



# Upper Columbia

## Salmon and Steelhead Recovery Plan



Upper Columbia  
Spring Chinook  
Salmon and  
Steelhead  
Recovery  
Plan\*

August 2007

Upper Columbia Salmon Recovery Board

\*This Plan also covers bull trout, which are under the jurisdiction of the U.S. Fish and Wildlife Service. The strategies and actions in this proposed plan are intended as additional recommendations for the draft bull trout recovery plan that was published by the U.S. Fish and Wildlife Service in April 2002.

The 30-year plan is based on the biological needs of the fish and provides the foundation for restoring the populations to healthy levels.





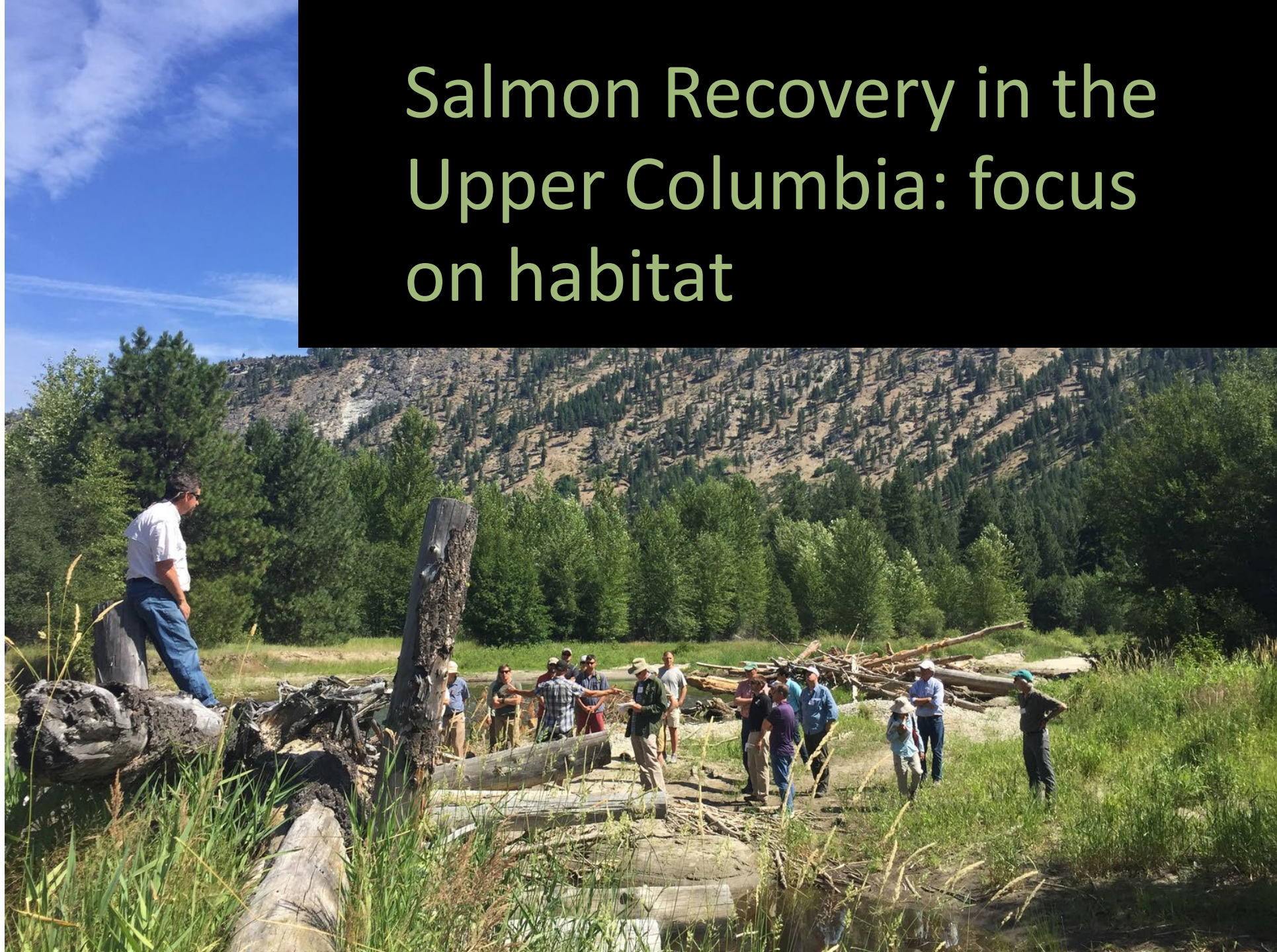
# Partner Organizations

The UCSRB partners with organizations in the region funding and implementing restoration and protection projects under the Recovery Plan.





# Salmon Recovery in the Upper Columbia: focus on habitat





# Upper Columbia Biological Strategy

2013-2020

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- Ecological concerns
- Multiple Species
- Watersheds (HUC 10)
- Data and expert opinion

2021+

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- Reach Function and Limiting Factors
- Individual Results by Species
- Sub watersheds (HUC 12)
- Mostly data driven

Upper Columbia Regional Technical Team

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**A BIOLOGICAL STRATEGY TO PROTECT  
AND RESTORE SALMONID HABITAT  
IN THE UPPER COLUMBIA REGION**

A Draft Report to the Upper Columbia Salmon Recovery Board  
From The Upper Columbia Regional Technical Team

John Arterburn  
Casey Baldwin  
Dale Bambrick  
Steve Hays  
Tracy Hillman  
Tom Kahler  
Joe Lange  
Russell Langshaw  
Keely Murdoch  
Chuck Peven  
Karl Polivka  
Brandon Rogers  
Kate Terrell  
Mike Ward

*Last Revision: 2013*

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The objective of this strategy is to provide a consistent, repeatable, systematic, and well-documented approach for prioritizing restoration and protection actions and locations for restoration and protection.

**Step 1**  
**HUC 12 Prioritization**

Tier 1  
Watersheds

**Step 2**  
**Reach Prioritization**

Unconfined  
Reaches

High Priority Life  
Stages

High Priority  
Barriers

Restore  
Habitat  
Function

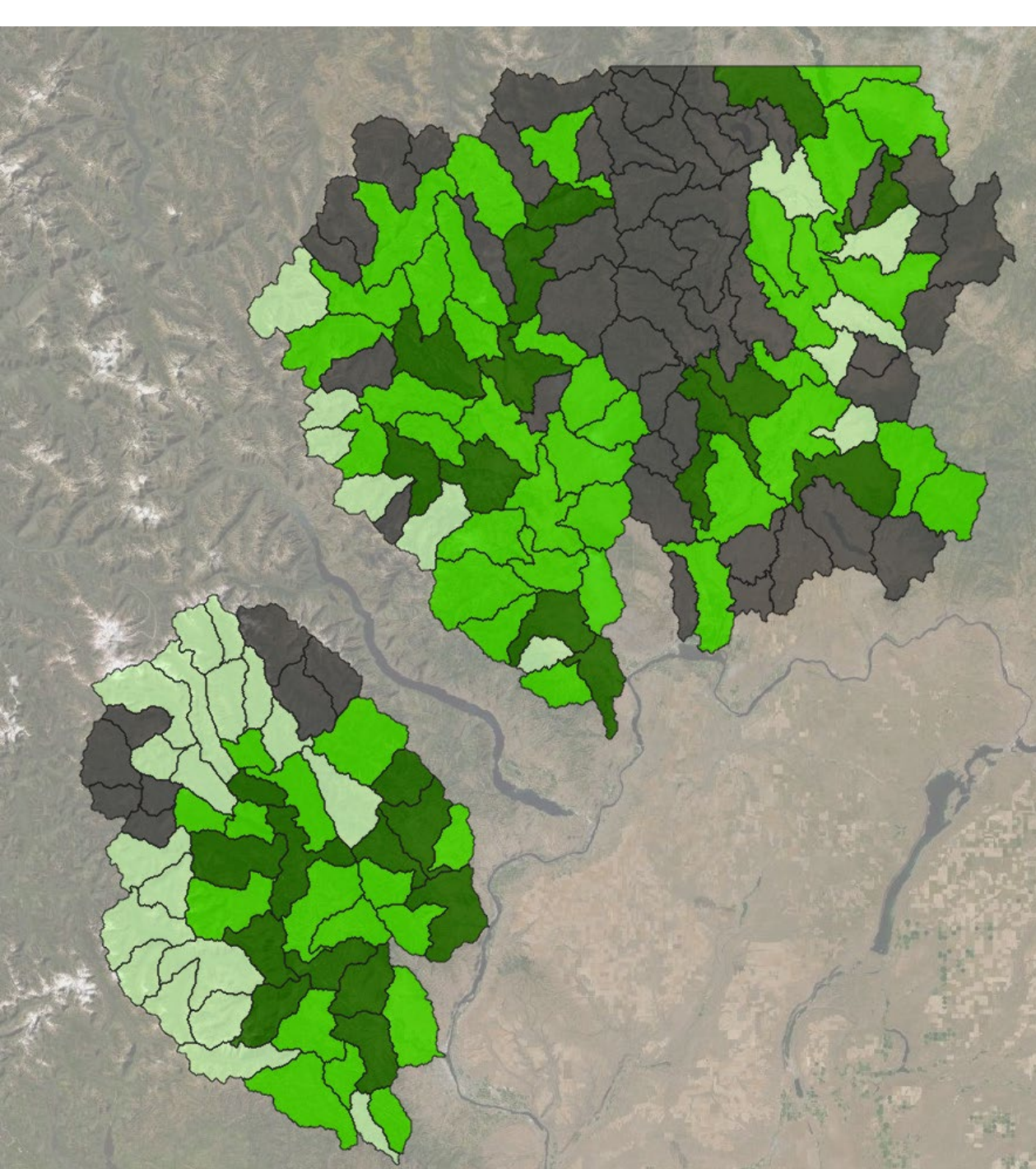
Address  
Limiting  
Factors

Restore Fish  
Passage

**RTT Priority Reaches and Actions**

**Project  
Tracking and Planning**





## STEP 1: PRIORITIZE ASSESSMENT UNITS (HUC 12)

---

Score and rank each HUC 12 by species for restoration and protection

### Each Assessment Unit ranked according to:

- Habitat condition
  - Intrinsic potential
  - Spawning area designation
- Population integrity indicators:
  - Life stage use
  - Spawner abundance
- Habitat Integrity:
  - Habitat quality
  - Percent altered by land use
- Future security
  - Climate change sensitivity
  - Percent protected





## STEP 2: PRIORITIZE REACHES & ACTIONS

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Muti-phase step that steps down from the HUC 12 to prioritize life stages, limiting factors, and actions to address those factors.

At the reach scale, identify habitat action types:

- Restore habitat function
  - Identify habitat condition
  - Prioritize restoration actions
- Address limiting factors for priority life stage
  - Identify life stage priorities and habitat requirements
- Restore connectivity
  - Address barriers



## Prioritization used to evaluate:

- Where projects will have greatest impact on populations
- What types of restoration actions will have greatest biological benefit

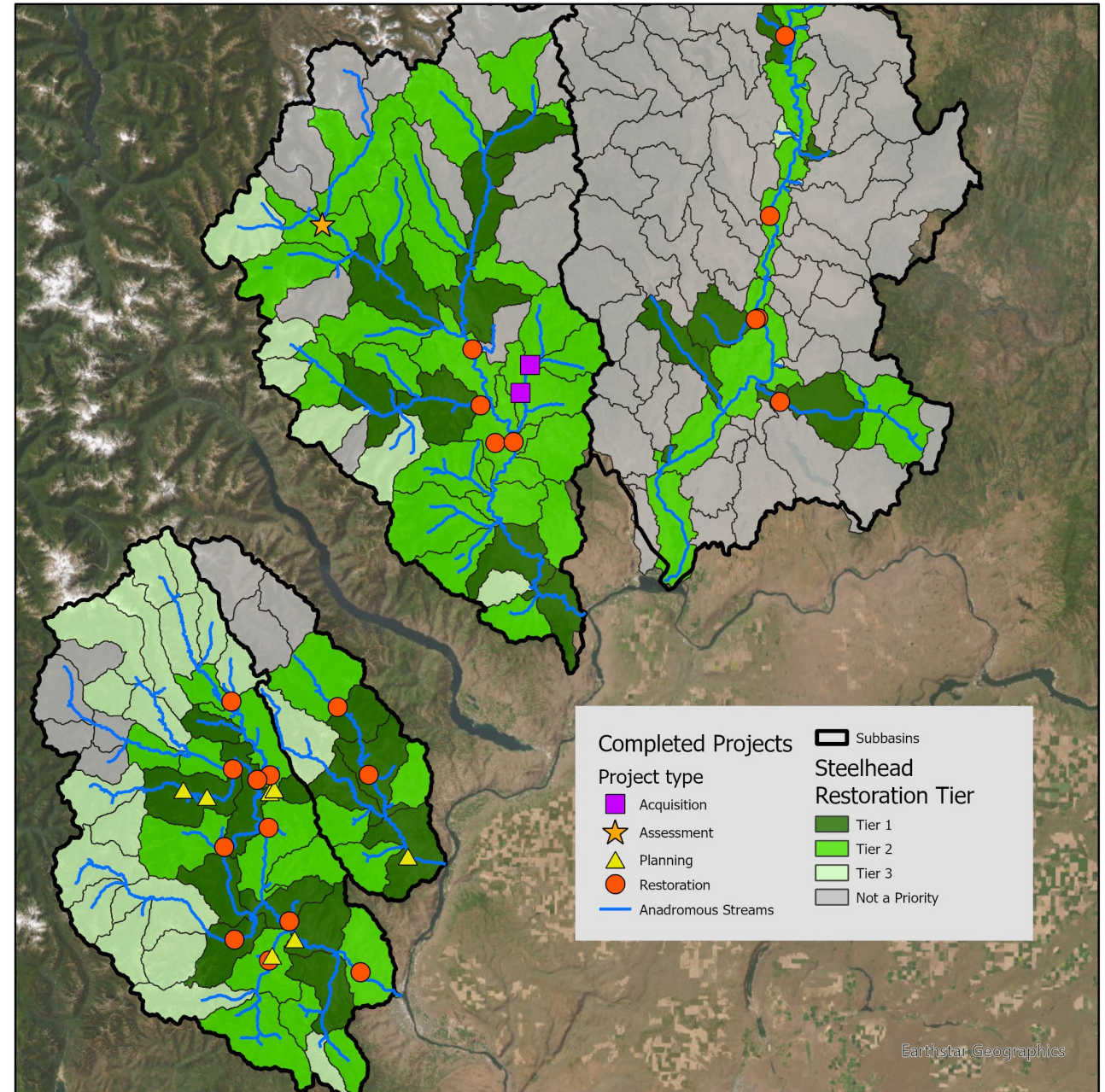
### Omak Creek – St. Mary's Mission Small Wood Project





## 2021 Completed Projects:

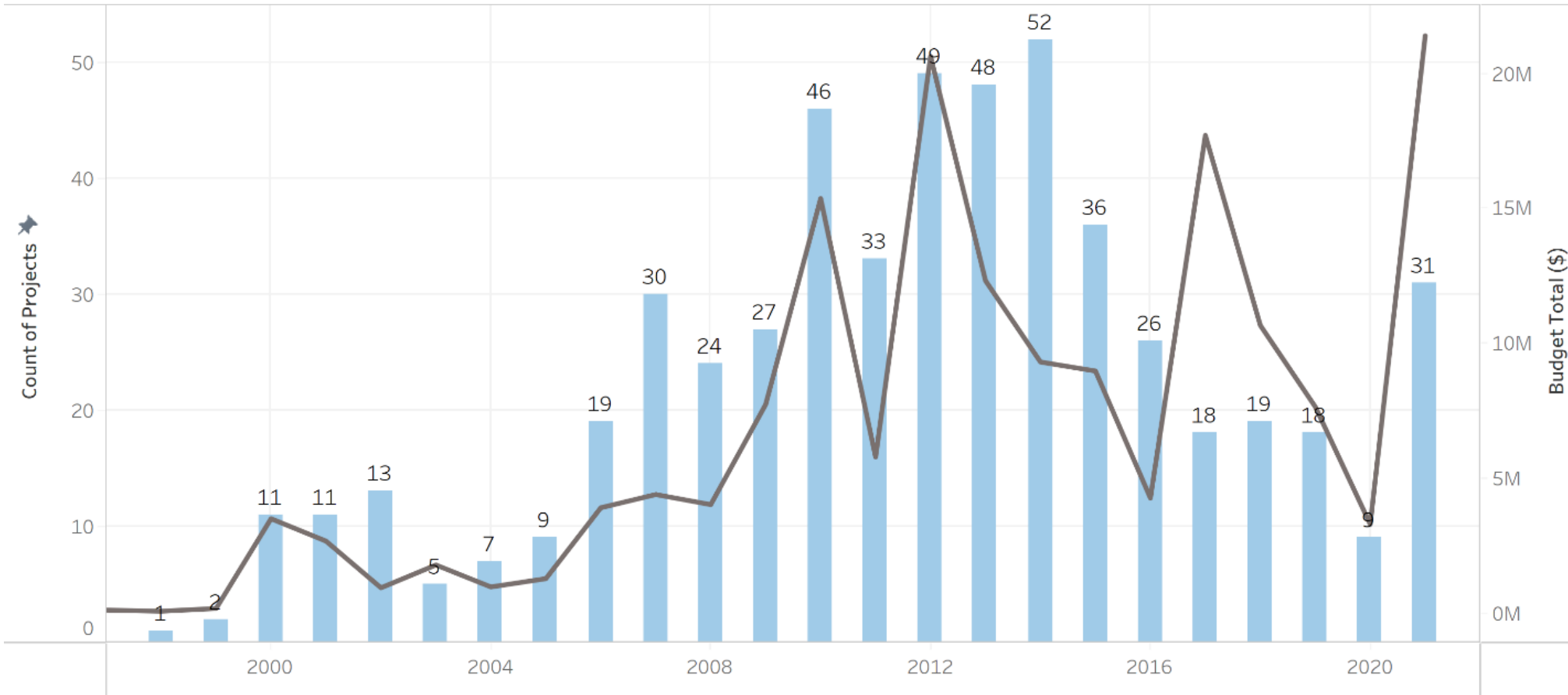
- 2 Acquisitions
- 1 Subbasin assessment
- 7 Planning/Design
- 22 Restoration



## 2021 Completed Project summary:

- 31 projects completed
- Total expenditure \$21.3 million

Total Number of Projects and Money Spent by Year



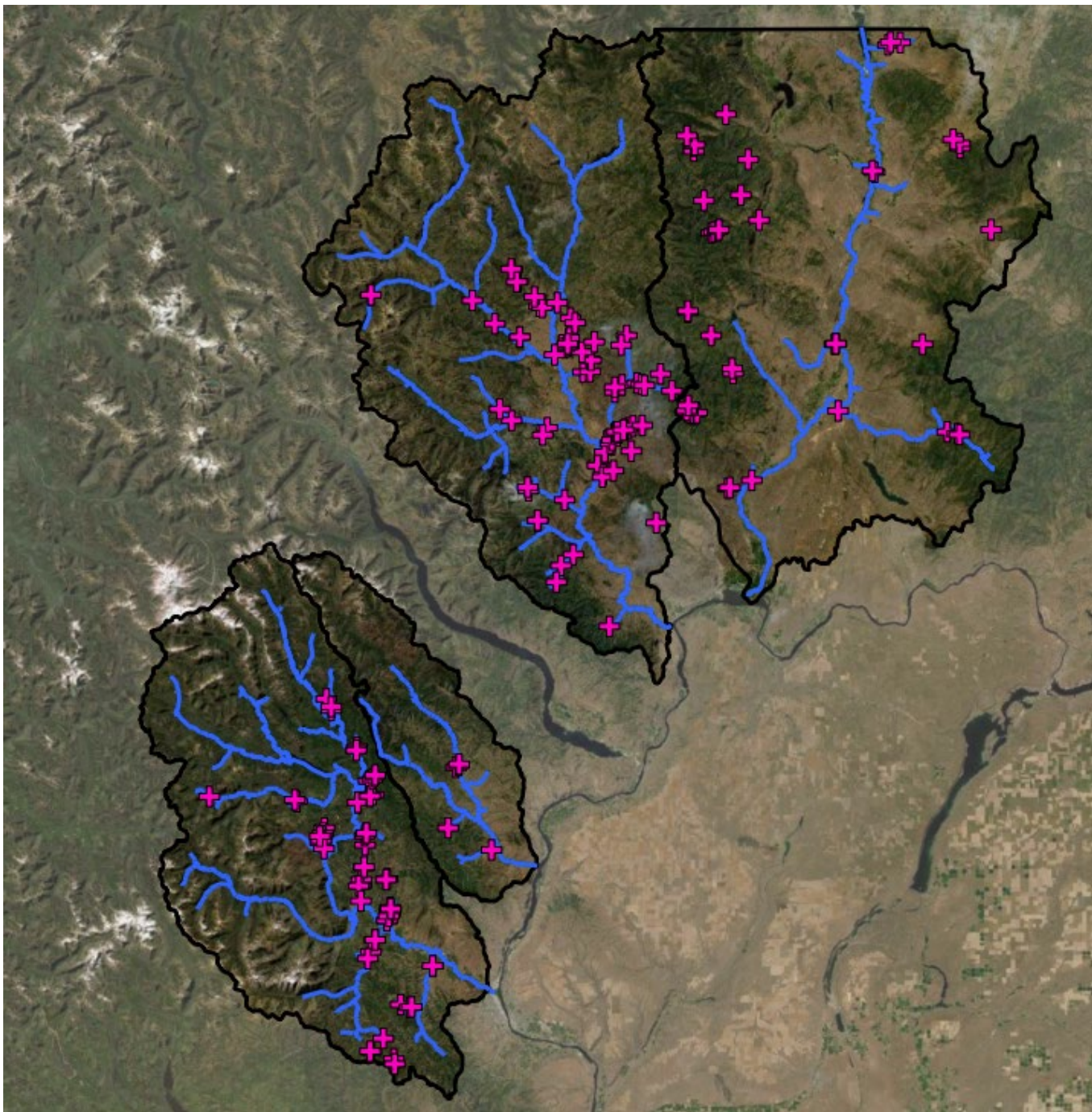


# Restore connectivity

TU Johnson Creek Fish Passage Project – State Street



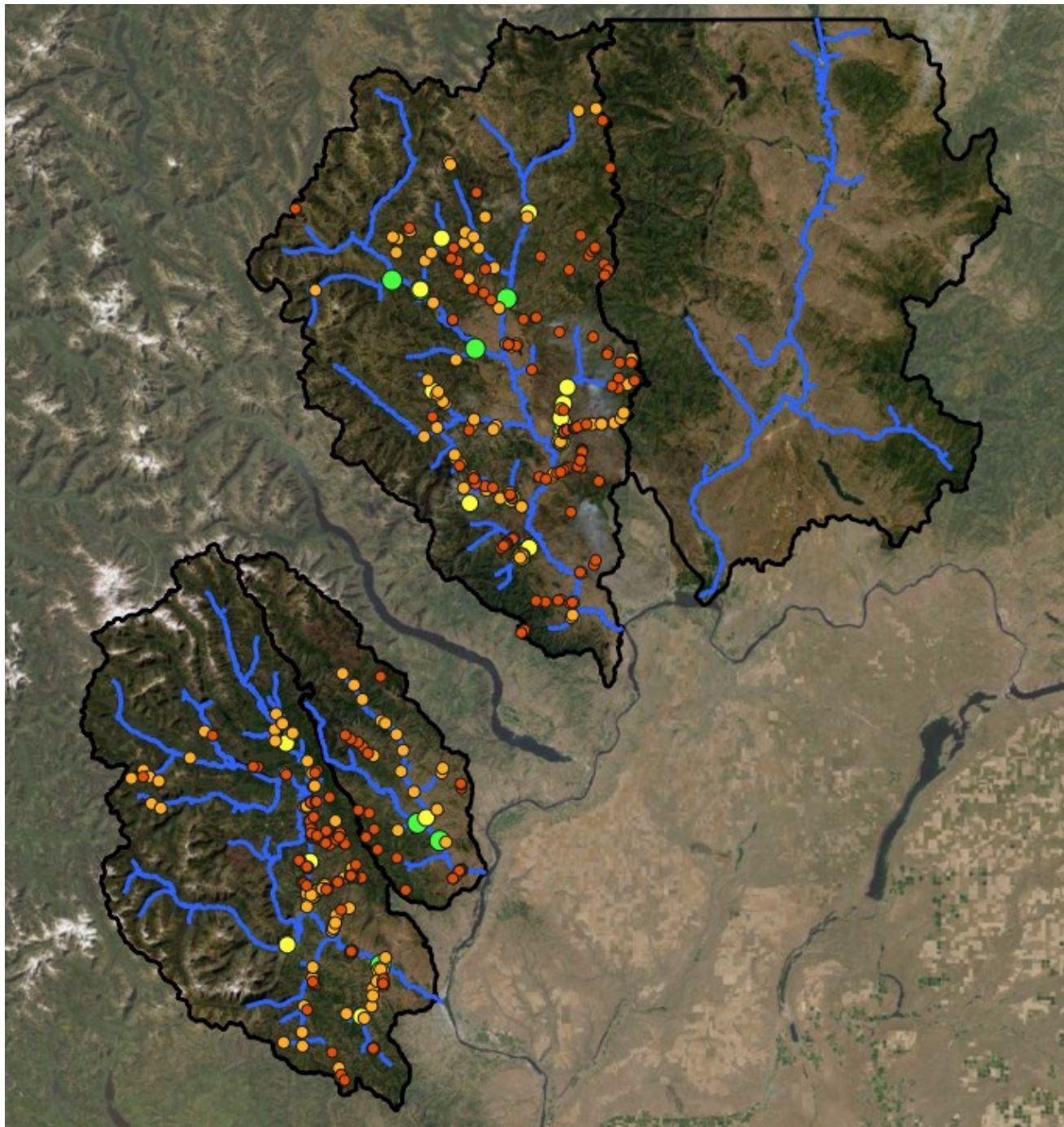




# Barriers removed

- Barriers removed = 162
- Miles made accessible = 190





# Barrier prioritization tool

- Barrier prioritized based on:
  - Colonization potential
  - Miles of available habitat
  - Barrier severity (% passable)
  - Connectivity (# downstream barriers)
- Habitat quality
  - Temperature
  - Sediment load
  - Riparian condition





[ucsrb.org/science-resources/prioritization/](https://ucsrb.org/science-resources/prioritization/)





# Break

10 minutes





# **Developing Recommendations for Habitat**

# Recommended Action Form

1. Work Group developing the action:
2. Summary of action:
  - a. Is this part of an existing program or new program?
3. Benefit: (link to matrices)
  - a. What benefit will the action provide?
  - b. What data support this?
4. Entities that would implement that action:
5. Timing:
  - a. How long will it take to implement that action?
  - b. How long until fish populations benefit from action?
6. Stock(s) benefited by the action and magnitude of benefit for each stock(s)
7. Estimated cost:
8. Uncertainties related to the action:
9. Regulatory processes or policies associated with the action:
10. Potential challenges:
11. Adaptive management (describe how this will be incorporated into to action):



# **General Recommendations for Habitat**

# Developing Short Term Recommendations



# Estuary Habitat Table Biological Criteria for Priority Actions

		Impact Level				
		Low	Medium	High	Very High	
Stock Status	Low	LC SpCH LC Coho MC Sock UC SpCH UC Sock SN SpCH SN Sock	LC Tule FCH LC WSthd Will SpCH Will WSthd UC Sum CH	UC Sum Sthd		<b>Impact Level</b> Low: less than 20% Medium: 20-30% High: 31-50% Very High: Greater than 50%  <b>Stock Status (based on CBP medium goal)</b> Low: less than 25% Medium: 25-50% High: 51-75% Very High: greater than 75%  <b>Prioritization Status</b> Red: Priority 1 Orange: Priority 2 Yellow: Priority 3 Blue: Priority 4 Green: Priority 5
	Medium	MC SpCH	LC Sum Sthd MC Sum Sthd SN Sum Sthd	LC Chum		
	High	MC Coho	SWW WSthd			
	Very High		LC Bright FCH MC FCH UC FCH SN FCH			

NA: SN Coho, UC Coho, LC Late BFCH

# Tributary Habitat Table Biological Criteria for Priority Actions

		Impact Level				
		Low	Medium	High	Very High	
Stock Status	Low	SN Sock MC Sock		UC SpCH UC Sum CH UC Sock UC Sum Sthd SN SpCH	LC SpCH LC Tule FCH LC Coho LC WSthd Will SpCH Will Wsthd	<b>Impact Level</b> Low: less than 20% Medium: 20-30% High: 31-50% Very High: Greater than 50%
	Medium			SN Sum Sthd	LC Chum LC Sum Sthd MC SpCH MC Sum Sthd	<b>Stock Status (based on CBP medium goal)</b> Low: less than 25% Medium: 25-50% High: 51-75% Very High: greater than 75%
	High				SWW WSthd	
	Very High	LC Bright FCH	MC FCH UC FCH SN FCH			
						<b>Prioritization Status</b> Red: Priority 1 Orange: Priority 2 Yellow: Priority 3 Blue: Priority 4 Green: Priority 5

NA: LC Late BFCH, MC Coho, SN Coho, UC Coho



# Finalize Short Term Recommendations

- Immediate actions to restore or maintain habitat for high-impacted stocks? Are those actions existing or new?
- What challenges exist that prevent this actions from occurring?

# **Next Steps, Upcoming Meeting Topics, and Summary**



# Next Steps



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# Upcoming Meeting Topics

- Salmon recovery metrics and mapping tools
- Understanding CEERP
- Landowner incentives (ex: Washington Salmon Coalition)



Photo credit: ODFW



Thank you ~



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