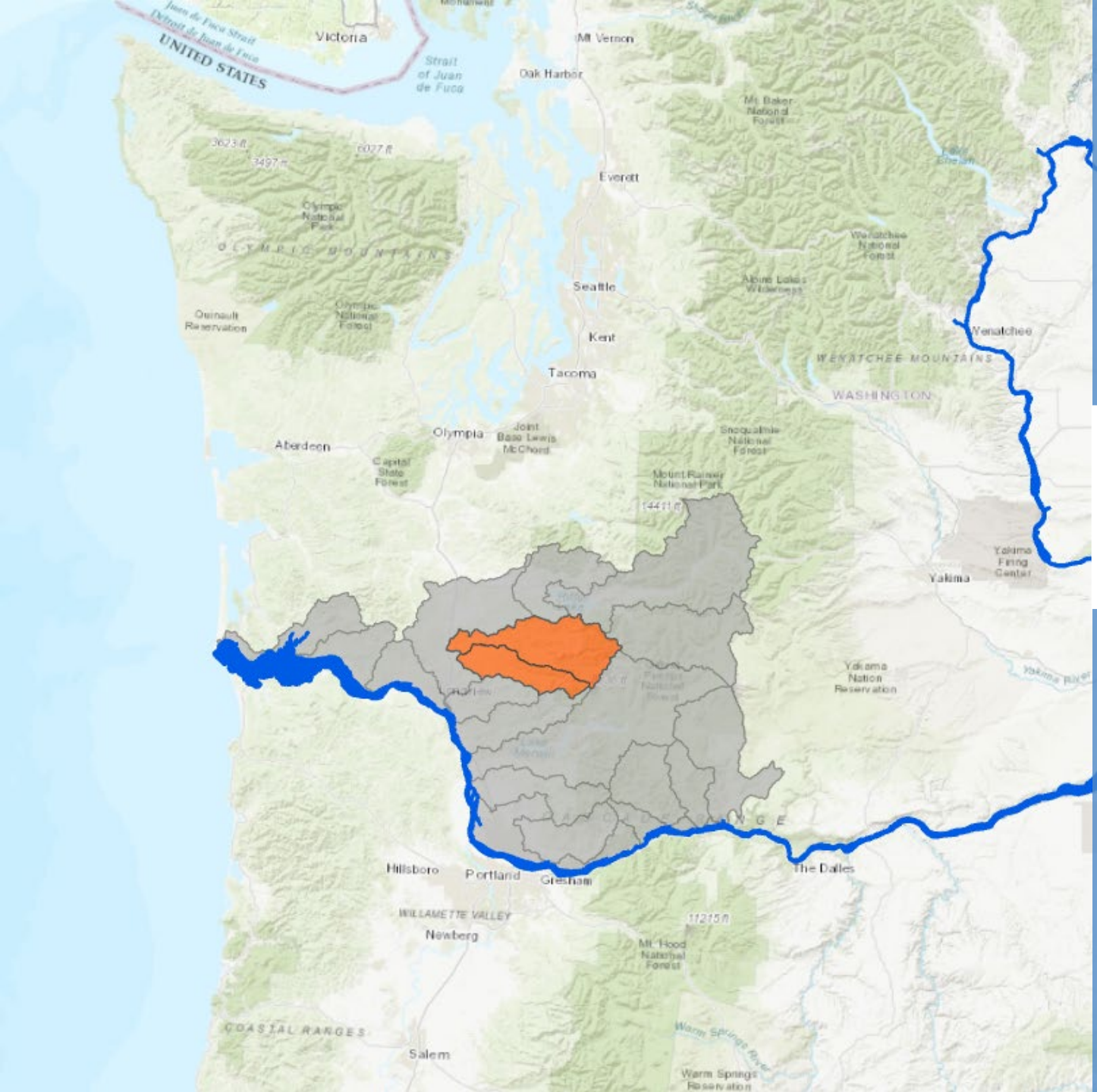


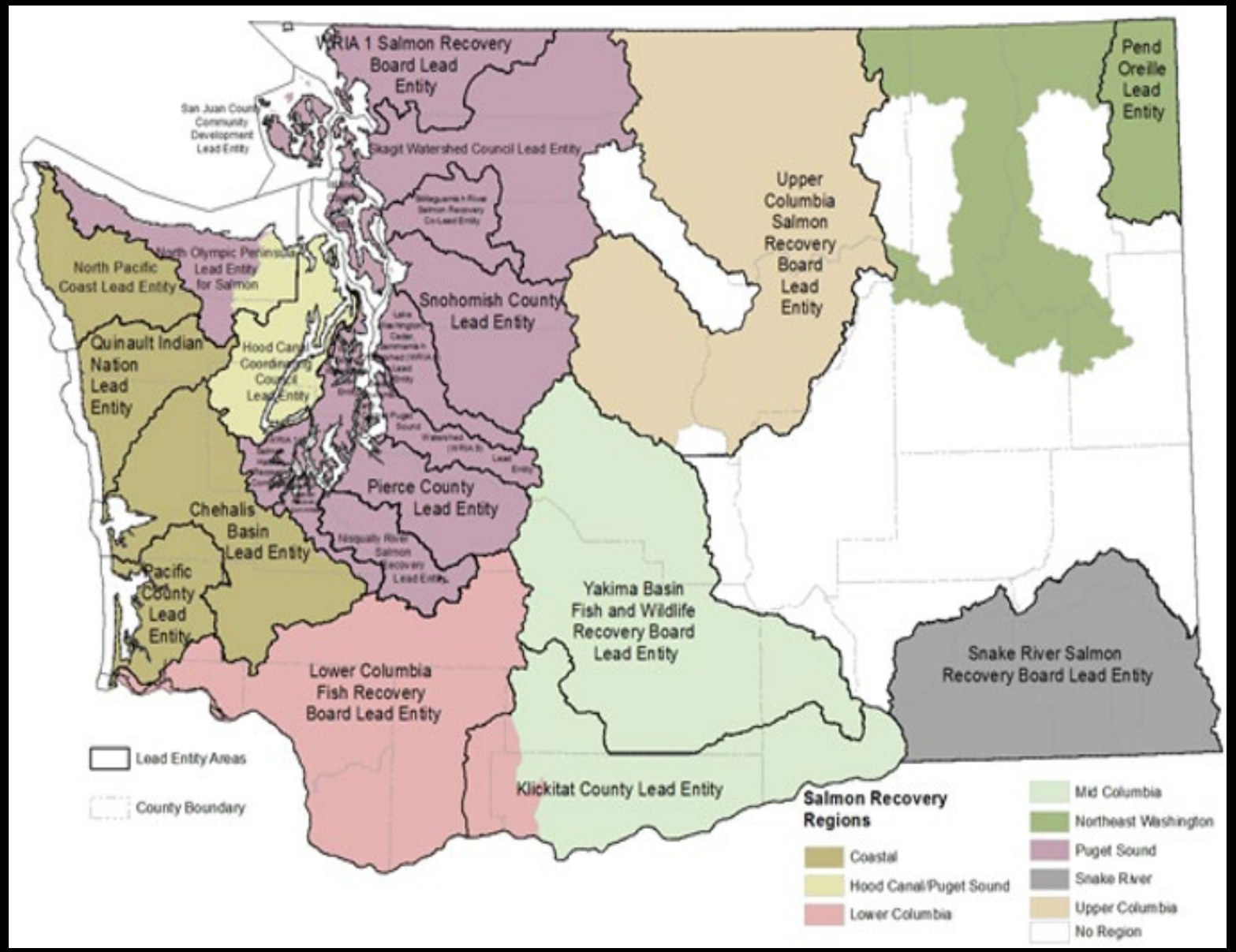
Lower Columbia Salmon and Steelhead Recovery Update

Lower Columbia Fish Recovery Board

Spirit Lake Collaborative

November 7, 2024

LCFRB and Washington's Salmon Recovery Act (RCW 77.85)



Regional Recovery Organizations

- Council of Regions (COR)

Habitat Lead Entities

- Washington Salmon Coalition
- Project Sponsors

Recreation and Conservation Office

Governors Salmon Recovery Office

Salmon Recovery Funding Board

Lead Agencies (Watershed Mgmt Act)

Lower Columbia Fish Recovery Board and TAC Membership

Board

Clark County Councilor
Cowlitz County Commissioner
Lewis County Commissioner
Skamania County Commissioner
Wahkiakum County Commissioner
Citizen Representative from each County
WA Legislature Representative
Cowlitz Indian Tribe Representative
SW WA Cities Representative
Environmental Representative
Hydro-electric Representative
Property Interests Representative

Technical Advisory Committee

WA Dept of Fish & Wildlife*
WA Dept of Ecology*
WA Dept of Transportation*
WA Dept of Natural Resources*
Lower Columbia Estuary Partnership
Environmental Consultants
Yakama Indian Nation
US Fish & Wildlife Service
US Forest Service


proud past, promising future

Recovery Vision

Washington lower Columbia salmon, steelhead, and bull trout are recovered to healthy, harvestable levels that will sustain productive sport, commercial, and tribal fisheries through the restoration and protection of the ecosystems upon which they depend and the implementation of supportive hatchery and fishery practices.

Recovery programs are built on achieving viability goals

Abundance

Productivity

Diversity

Spatial Structure

Freshwater Habitat

Estuary Habitat

Hatchery/Harvest Programs

Hydropower Management

Ocean and Climate Conditions

Ecological Interactions

Lower Columbia Salmon and Steelhead Viability Update 1998-2023

LOWER COLUMBIA CONSERVATION & SUSTAINABLE FISHERIES PLAN

2023 Progress Report

Lower Columbia Fish Recovery Board

Steve Manlow *Executive Director*

Amelia Johnson *Salmon Recovery Specialist*

Washington Department of Fish and Wildlife

Bryce Glaser *Southwest WA Fish Program Manager (Region 5)*

Thomas Buehrens *Senior Research Scientist*

Todd Hillson *ESA/Anadromous Fish Investigations Unit Lead (Region 5)*

Fish Science Solutions, Inc.

Ray Beamesderfer *Fish Scientist*

December 2023

Current Viability – Take Home Messages

- Long term declining trends appear to have been arrested for review period
- Viability of 20 of our 72 populations (35%) is greater than at time of listing
- 14 populations (19%) are currently at high or very high viability
- Species level improvements observed for tule fall Chinook, coho, chum and winter and summer steelhead
- Spring Chinook continue at very low viability – successful reintroduction into hydro blocked habitat is needed
- While some trends are encouraging, 46 of 72 populations (64%) are at low or very low viability, so delisting cannot yet be considered.

Toutle River Focus

Toutle River Focus – ESA listed salmon and steelhead populations

Basin	Population
Cowlitz River	Chum Salmon
Toutle River	Tule Fall Chinook
	Spring Chinook
North Fork Toutle	Coho Salmon
	Winter Steelhead
South Fork Toutle	Coho Salmon
	Winter Steelhead

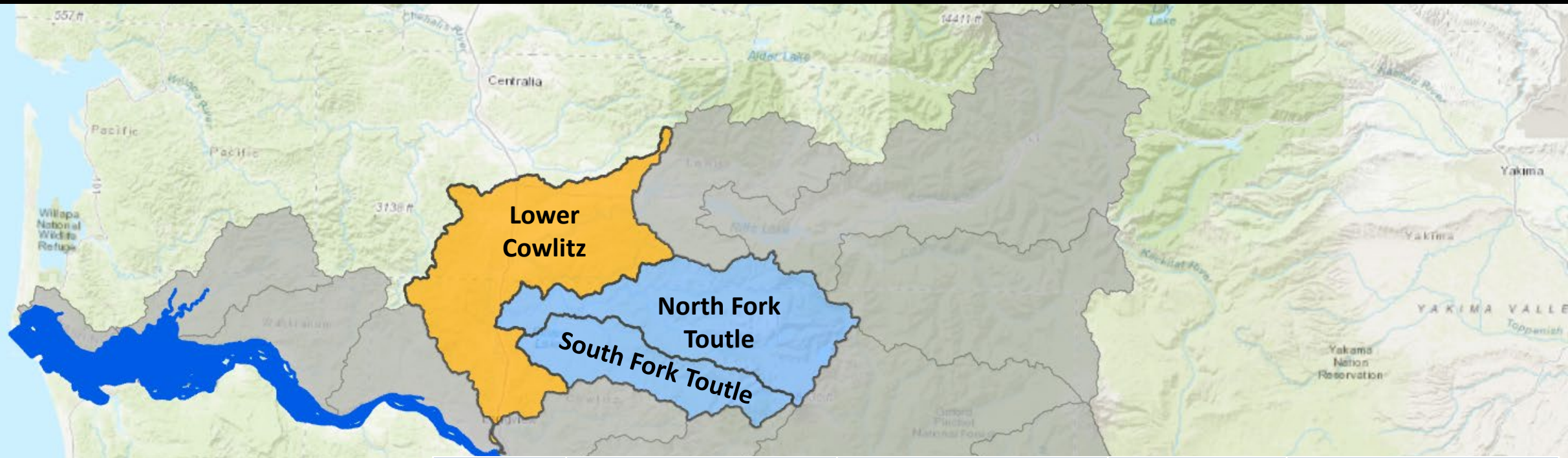
Toutle River Focus – Recovery Designations for ESA Listed Populations

Basin	Population *Historical Core	Recovery Designations
Cowlitz River	Chum Salmon	Contributing
Toutle River	Tule Fall Chinook	Primary
	Spring Chinook	Contributing
North Fork Toutle	Coho Salmon	Primary
	Winter Steelhead	Primary
South Fork Toutle	Coho Salmon	Primary
	Winter Steelhead	Primary

Toutle River Focus – Viable Populations

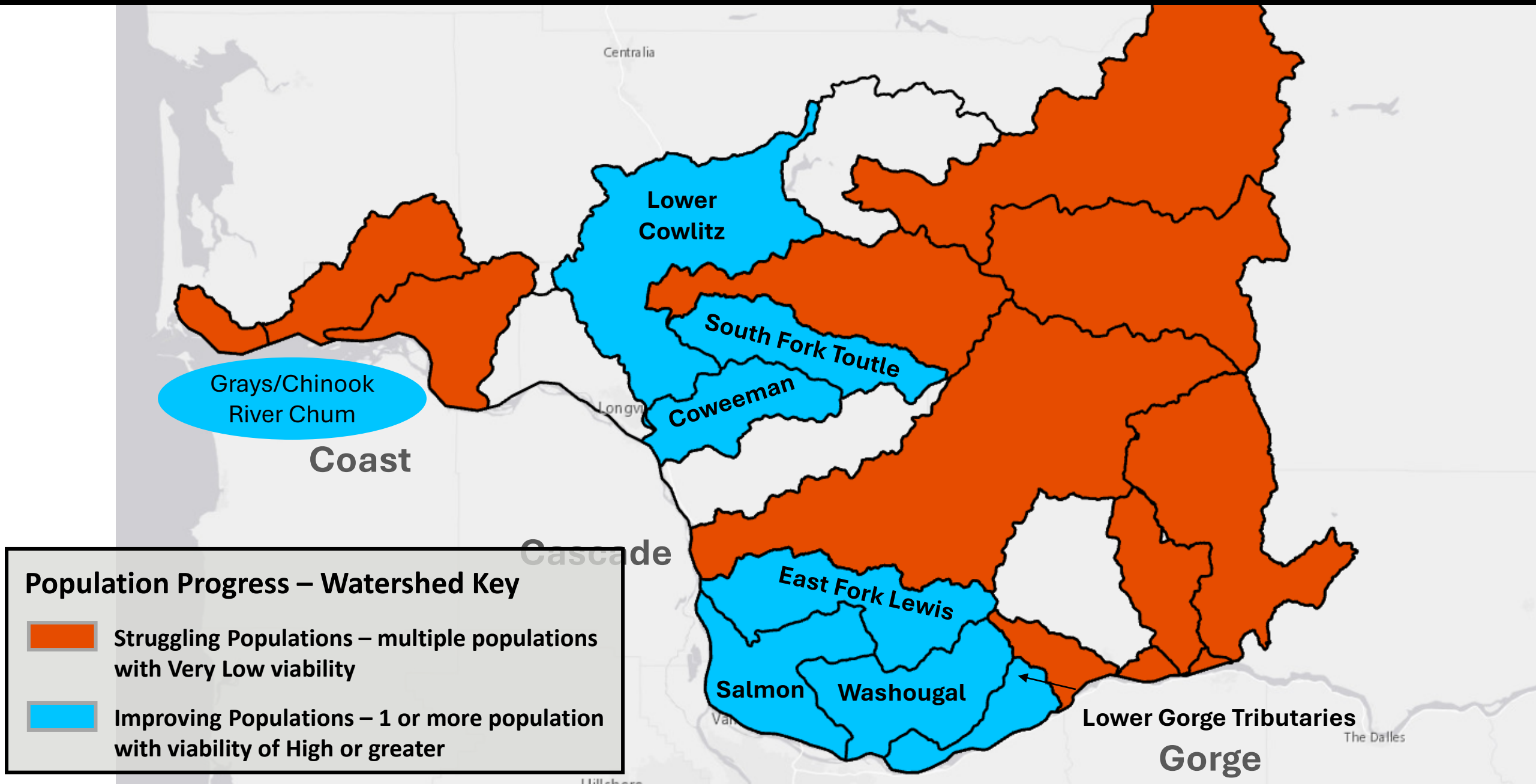
Basin	Population	Baseline Viability/ 2020 Viability *lacking data	Delisting Goal Viability	Avg. Regional Species 2020 Viability
Cowlitz River	Chum Salmon	Very Low/Very Low	Medium	Low
Toutle River	Tule Fall Chinook	Very Low/Low	High+	Low
	Spring Chinook	Very Low/Very Low*	Medium	Very Low
North Fork Toutle	Coho Salmon	Very Low/Low	High	Low
	Winter Steelhead	Very Low/Low	High	Medium
South Fork Toutle	Coho Salmon	Very Low/Medium	High	Low
	Winter Steelhead	Medium/High	High	Medium

Lower Cowlitz River Focus – Viable Populations



Basin	Population	Baseline Viability/ 2020 Viability *lacking data	Delisting Goal Viability	2019 – 2023 Geomean Abundance % of Goal
Lower Cowlitz	Tule Fall Chinook	Very Low/Medium	Medium+	287%
	Coho Salmon	Very Low/High	High	128%
	Winter Steelhead	Low/Medium	Medium	59%

Regional Population Recovery Progress



Population Progress – Watershed Key

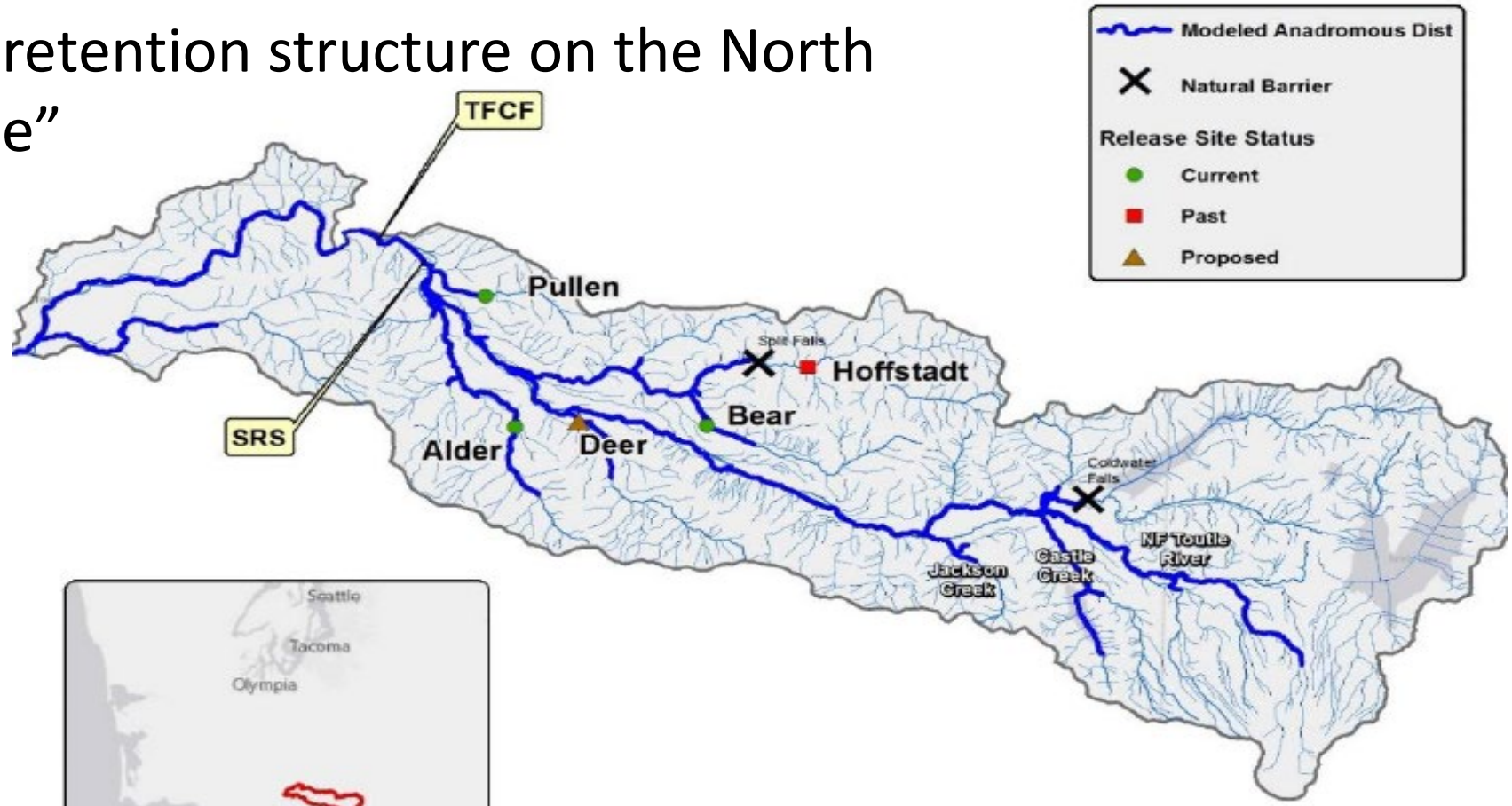
- **Struggling Populations – multiple populations with Very Low viability**
- **Improving Populations – 1 or more population with viability of High or greater**

Toutle River Focus – All-H Recovery Priorities

- Address passage and sedimentation issues associated with the sediment retention structure on the North Fork Toutle
- Manage forest lands to protect and restore watershed processes
- Restore valley floodplain function and stream habitat diversity
- Help address immediate risks with short-term habitat fixes
- Manage growth and development to protect watershed processes and habitat conditions
- Align hatchery priorities consistent with conservation objectives
- Manage fishery impacts to reduce near-term population risks and support progress toward recovery
- Reduce out-of-subbasin impacts so that the benefits of in-basin actions can be realized

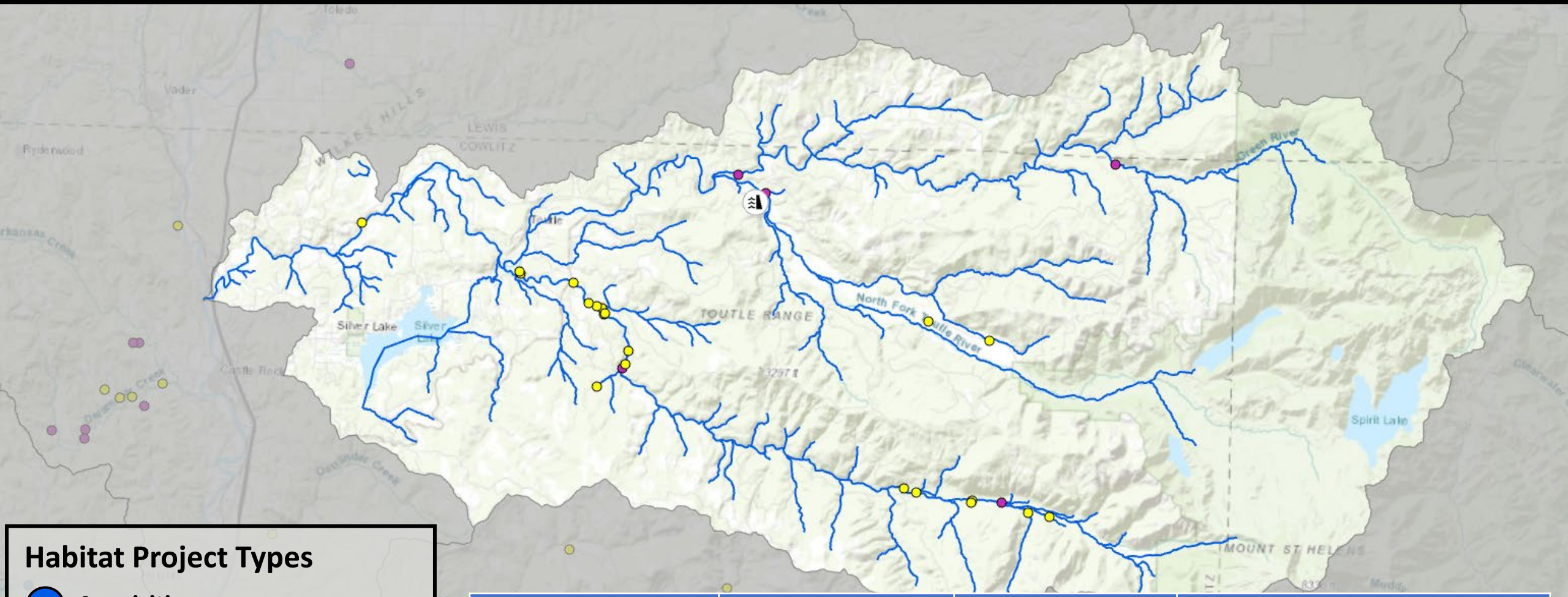
Recovery Priorities in the Toutle River – Upstream Habitat Access

Recovery Plan: “Address passage and sediment retention structure on the North Fork Toutle”



Recovery Priorities in the Toutle River – Upstream Habitat Access

Recovery Priorities in the Toutle River – Habitat Restoration



Habitat Project Types

- Acquisition
- Design, Assessments
- Restoration
- Acquisition and Restoration

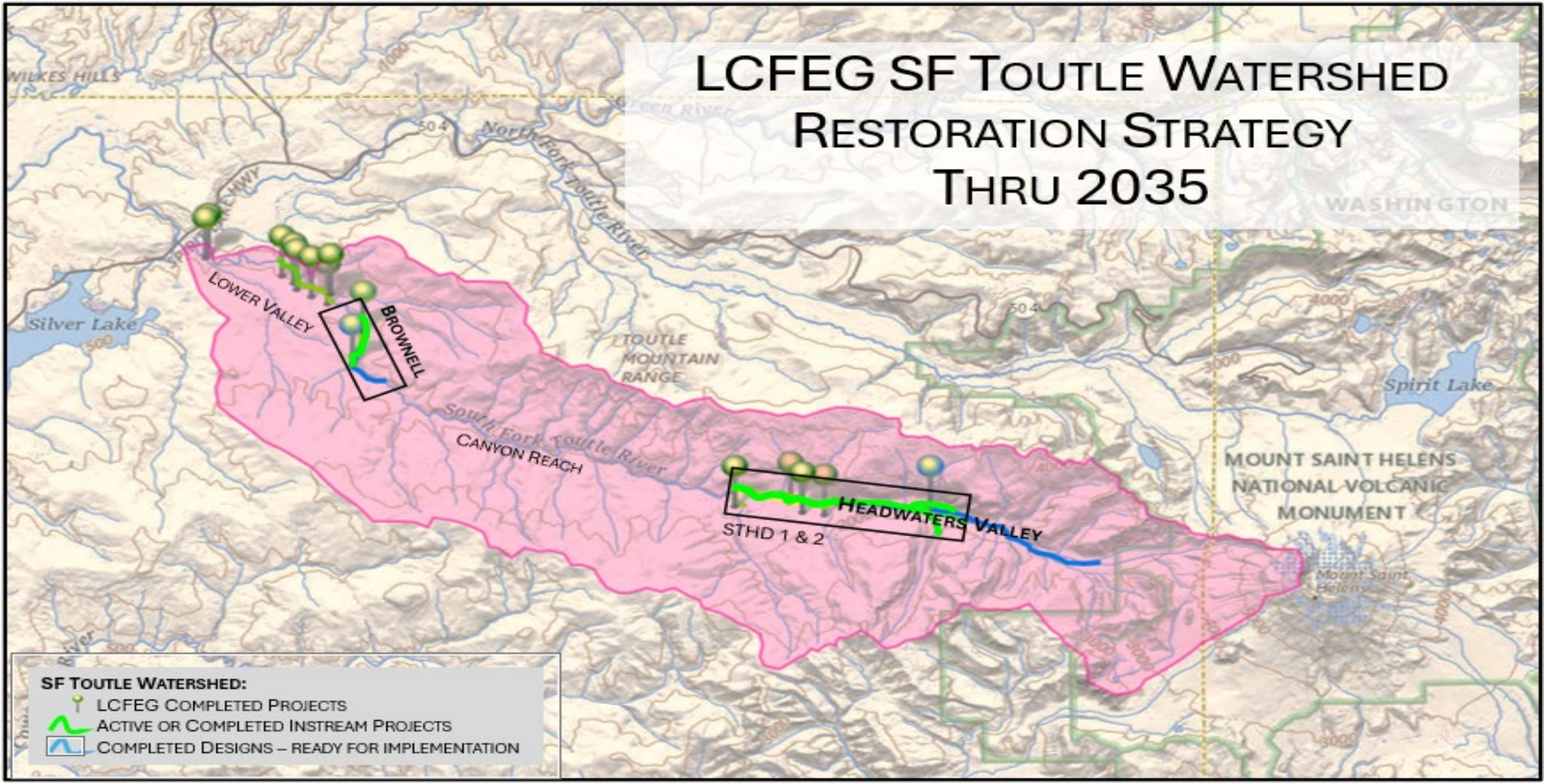
Basin	Miles of Treated Stream Habitat	Acres of Treated Habitat	Estimated Design and Restoration Costs
North Fork Toutle	2.6 miles	59 acres	$1,153,877
South Fork Toutle	13.4 miles	381 acres	$14,411,417

Recovery Priorities in the Toutle River – Habitat Restoration

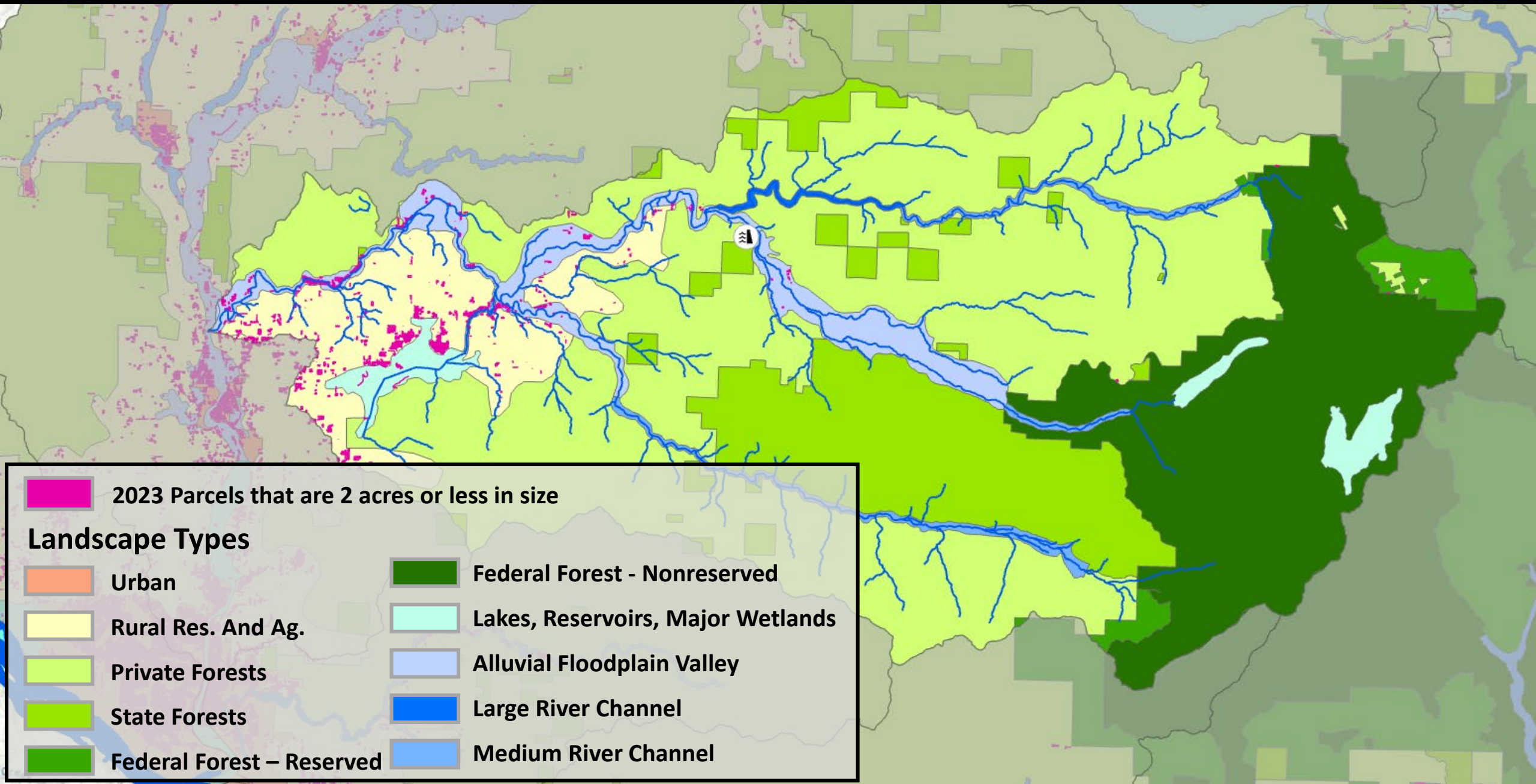
Support large scale projects:

- Example: 2024 SRFB Targeted Investment STHD 2 SFT Reach D & Loch and Trouble Creeks - $4,994,564
- Benefits: Salmon recovery and sediment attenuation

Recovery Priorities in the Toutle River – Habitat Restoration



Recovery Priorities in the Toutle River – Development



Recovery Priorities in the Toutle River – Hatchery and Harvest Impacts

Basin	Population	2019 – 2023 Geomean Abundance	2019 – 2023 Geomean Abundance % of Goal	2019 – 2023 Average pHOS Rate	pHOS Target
Toutle	Tule Fall Chinook	408	10%	39%	<30%
North Fork Toutle	Coho Salmon	**2,145**	**113%**	16%	<30%
South Fork Toutle	Coho Salmon	**2,235**	**118%**	12%	<5%

Draft data from WDFW State of Salmon reporting, Salmonid Population Indicators and Coordinated Assessments. Estimates may be adjusted.

Recovery Priorities in the Toutle River – Hatchery and Harvest Impacts

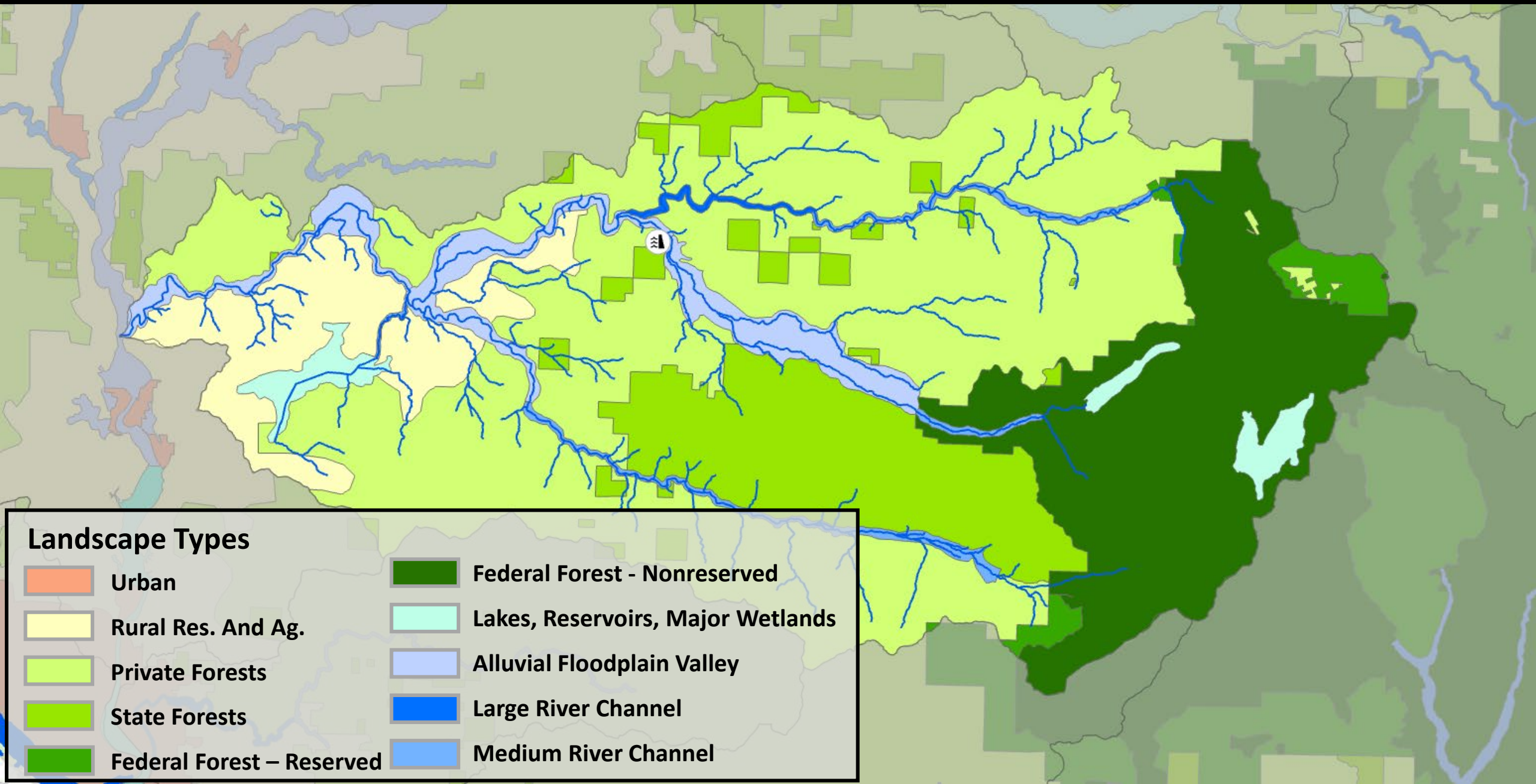
Species	Baseline (1998-1999)	Benchmark (2011-2022)	Current (2012-2021)	Recovery Goals (2047+)
Spring Chinook	50%	15 – 25%	16%	20 – 30%
Fall Tule Chinook	65%	33 – 38%	35%	40 – 50%
Fall Bright Chinook	50%	--	44%	--
Coho	50%	8 – 25%	19%	20 – 50%
Chum	<5%	<5%	<1%	<5%
Winter Steelhead	10%	5 – 10%	5%	5 – 10%
Summer Steelhead	10%	5 – 10%	4%	5 – 10%

Current harvest rate estimates are rounded draft averages and based on NOAA and WDFW data sets. Estimates may be adjusted.

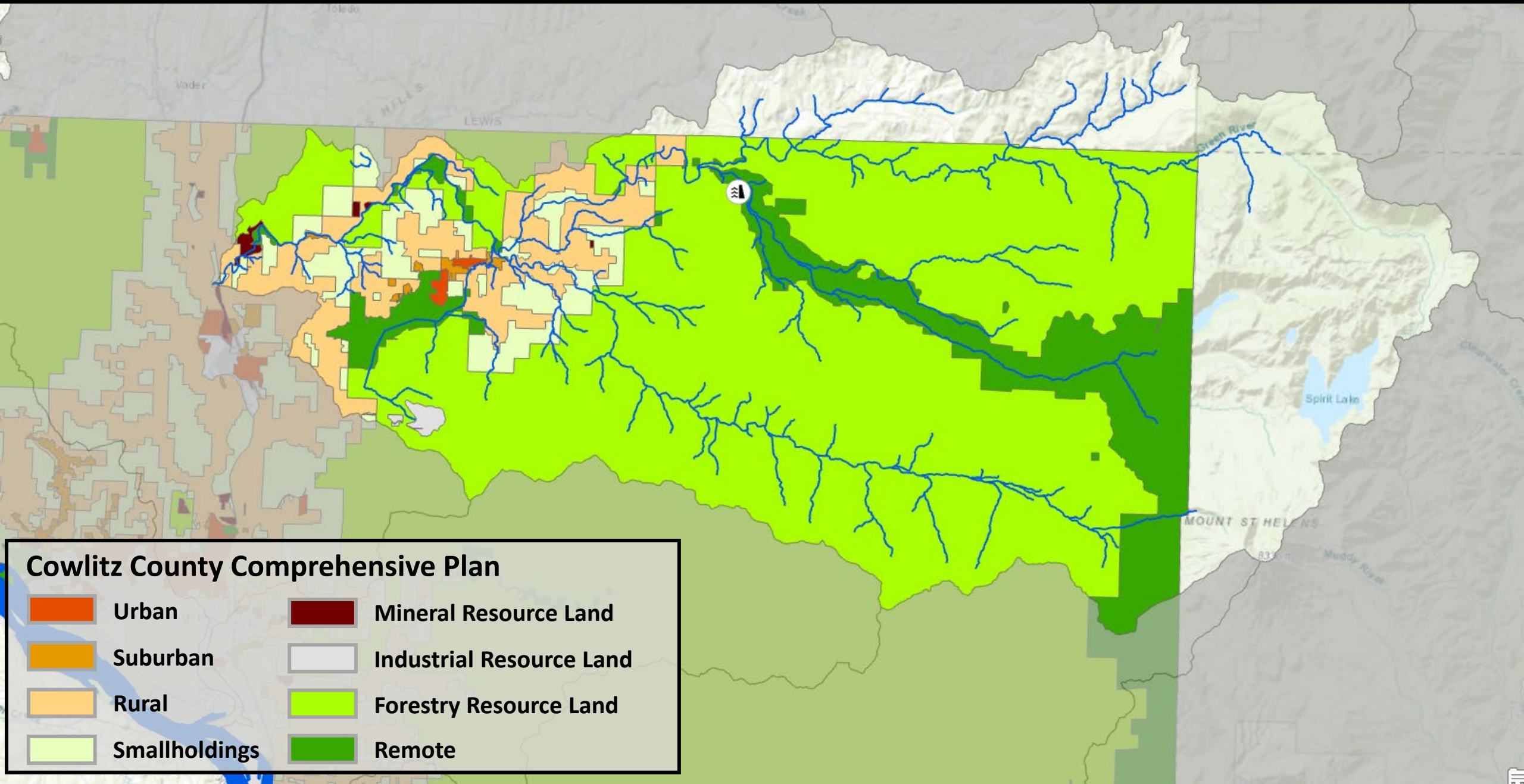
Thank you for supporting salmon recovery!

Extra slides

Recovery Priorities in the Toutle River – Forest Management



Recovery Priorities in the Toutle River – Land Use



Recovery Scenario

Lower Columbia Salmon Recovery Scenario[1]

		Chinook			Chum		Steelhead		Coho
		Fall	Late Fall	Spr.	Fall	Sum.	Win.	Sum.	
COAST	Grays/Chinook	C	–	–	P	–	P[3]	–	P
	Eloch./Skam.	P	–	–	P	–	C[3]	–	P
	Mill/Aber./Ger.	P	–	–	P	–	P[3]	–	C
	Youngs Bay (OR)	S	–	–	S	–	P[3]	–	S
	Big Creek (OR)	C	–	–	S	–	P[3]	–	S
	Clatskanie (OR)	P	–	–	P	–	P[3]	–	P
	Scappoose (OR)	P	–	–	P	–	P[3]	–	P
CASCADE	Lower Cowlitz	C	–	–	C	C	C	–	P
	Coweeman	P	–	–			P	–	P
	SF Toutle	P	–	C			P	–	P
	NF Toutle		–				P	–	P
	Upper Cowlitz	S	–	P			P	–	P
	Cispus		–	P	–	–	P	–	P
	Tilton		–	S	–	–	C	–	S
	Kalama	C	–	C	C	–	P	P	C
	NF Lewis	P	P	P	P	–	C	S	C
	EF Lewis		–	–		–	P	P	P
	Salmon	S	–	–	S	–	S	–	S
	Washougal	P	–	–	P	–	C	P	C
	Sandy (OR)	C	P	P	P	–	P	–	P
	Clackamas (OR)	C	–	P[2]	C	–	P	–	P
GORGE	Lower Gorge	C[4]	–	–	P	–	P	–	P[4]
	Upper Gorge	C	–	–	C	–	S[4]	P	P
	White Salmon	C	–	C		–	–	–	
	Hood (OR)	P	–	P		–	P	P	P

[1] Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan, LCFRB 2010, Vol. 1, Ch. 4-25.
[2] Clackamas spring Chinook are part of the Upper Willamette ESU.
[3] Winter steelhead of the Coast Strata are not listed under the Federal ESA.
[4] Designation for shared population based on WA and OR objectives.
P = Primary C = Contributing S = Stabilizing

Recovery Priorities – Fishery Management Impacts

Species	Baseline (1998-1999)	Benchmark (2011-2022)	Current (2012-2021)	Recovery Goals (2047+)
Spring Chinook	50%	15 – 25%	16%	20 – 30%
Fall Tule Chinook	65%	33 – 38%	35%	40 – 50%
Fall Bright Chinook	50%	--	44%	--
Coho	50%	8 – 25%	19%	20 – 50%
Chum	<5%	<5%	<1%	<5%
Winter Steelhead	10%	5 – 10%	5%	5 – 10%
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