

## Oregon Lower Columbia River Recovery Plan Annual Report Card 2023 and 2024



Oregon's Lower Columbia River (LCR) Recovery Plan Annual Report Cards are abbreviated status reports that review recent research, monitoring and evaluation data for Oregon's LCR salmon and steelhead populations. The Oregon Department of Fish and Wildlife (ODFW) uses the Lower Columbia River Conservation and Recovery Plan's (Plan) analytical guidelines along with specific measurable criteria to assess progress toward recovery using viable salmonid population (VSP) metrics. ODFW's Salmon and Steelhead Recovery Tracker website (<https://nrimp.dfw.state.or.us/RecoveryTracker>) has additional information on VSP metrics and Plan goals.

## LCR Coho Salmon Evolutionary Significant Unit (ESU)

- Total abundance of adult natural origin spawners (NOS) across the Oregon portion of the ESU increased from 2022 to 2023 and decreased from 2023 to 2024. Abundance trends at the population level in 2022–2024 were variable (Figure 1).
- Clackamas coho had a record return in 2023 and the population has exceeded the Plan’s delisting abundance goal in 2022–2024.
- Clackamas and Sandy coho are showing positive abundance trends since Plan adoption.
- 10-yr average NOS abundance remains below delisting goals in all populations (Table 1).
- Occupancy has also been below delisting goals, except in the Lower Gorge population.
- Scappoose, Clackamas, and Sandy populations are meeting Plan goals for the proportion hatchery fish on spawning grounds (pHOS; Table 2). Clatskanie pHOS was near the goal in 2023 and 2024, but the 9-yr average remains elevated due to prior years (2018–2019) with very low NOS abundance. Lower Gorge pHOS is trending toward the Plan goal.
- Coho harvest impacts achieved the harvest measurable criteria goal in 2023 and 2024.

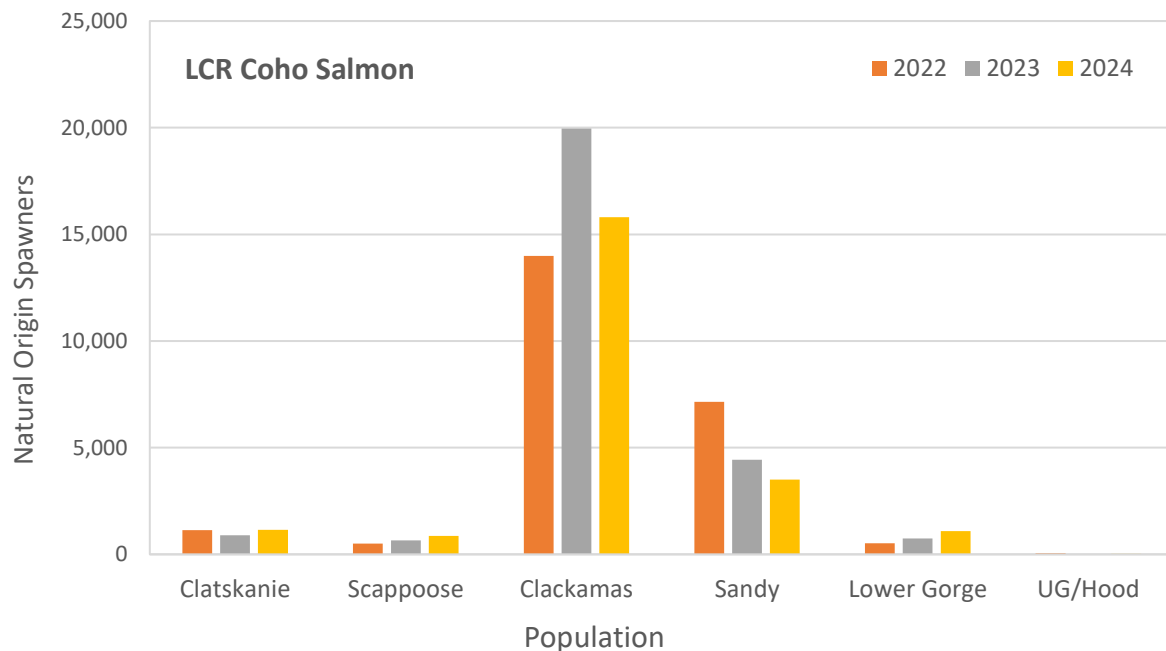


Figure 1. LCR Coho Salmon NOS by population and year, 2022–2024. Youngs Bay and Big Creek NOS are not included due to prioritization of monitoring efforts being directed toward primary fish populations.



Table 1. Oregon LCR coho salmon NOS and occupancy in 2023 and 2024, 10-year average through 2024, and delisting scenario goals for each population (the Youngs Bay and Big Creek coho populations are not listed due to lack of monitoring data). NE=No estimate.

Metric	Population	2023	2024	10-yr Average <sup>1</sup>	Delisting Goal <sup>2</sup>
Natural Origin Coho Salmon Spawners	Clatskanie	890	1,150	417	3,201
	Scappoose	660	856	543	3,208
	Clackamas	19,916	15,809	6,417	11,232
	Sandy	4,428	3,500	1,836	5,685
	Lower Gorge	748	1,086	204	962
	Upper Gorge/Hood	0	30	64	5,203
Coho Salmon Occupancy (% of sites with >4 NOS/mile)	Clatskanie	78%	67%	54%	90%
	Scappoose	47%	43%	46%	90%
	Clackamas	NE	NE	NE	85%
	Sandy	52%	56%	48%	75%
	Lower Gorge	NE	NE	NE	50%
	Upper Gorge/Hood	NE	NE	NE	80%

<sup>1</sup> ODFW is using the 10-year geometric mean for each population's abundance to track progress toward achieving the Plan's delisting abundance and productivity (A/P) goals.

<sup>2</sup> Each coho population has their own A/P (NOS abundance) and spatial structure (Occupancy) delisting goals based on their desired delisting status. A/P and spatial structure goals for Youngs Bay and Big Creek are low due to their status (very high extinction risk) in the delisting scenario; both populations are assumed to be meeting delisting goals based on past estimates and ongoing passage counts at hatchery weirs.

Table 2. Oregon LCR coho salmon estimated proportion hatchery fish on spawning grounds (pHOS) in 2023 and 2024, 9-year average, and delisting scenario target for each population (Youngs Bay and Big Creek populations are not listed due to a lack of monitoring data).

Population	2023	2024	9-year Average	Delisting Target
Clatskanie	7%	13%	25%	10%
Scappoose	0%	0%	1%	5%
Clackamas	3%	2%	6%	10%
Sandy	0%	0%	2%	9%
Lower Gorge	8%	13%	18%	10%
Upper Gorge/Hood	100%	87%	68%	0%



## LCR Chinook Salmon ESU

- Fall Chinook NOS abundance trends varied among populations (Figure 2) and abundance declined in the largest population (Sandy fall/late fall) from 2022 to 2024.
- Sandy spring Chinook NOS abundance has exceeded the delisting goal every year since 2012; NOS abundance in 2023 and 2024 was similar to the 10-yr geomean, which is approximately three times the delisted scenario goal (Table 3).
- Clatskanie and Scappoose fall Chinook are functionally extirpated.
- 10-yr average NOS abundance is below the delisting goal in all populations except Sandy spring Chinook (Table 3).
- Youngs Bay, Clackamas, and Sandy Chinook populations are meeting pHOS goals (Table 4); Clatskanie pHOS is elevated due to very low NOS returns and hatchery spawning in Plympton Creek.
- Fall Chinook harvest impacts achieved the measurable criteria goal in 2023 and 2024.

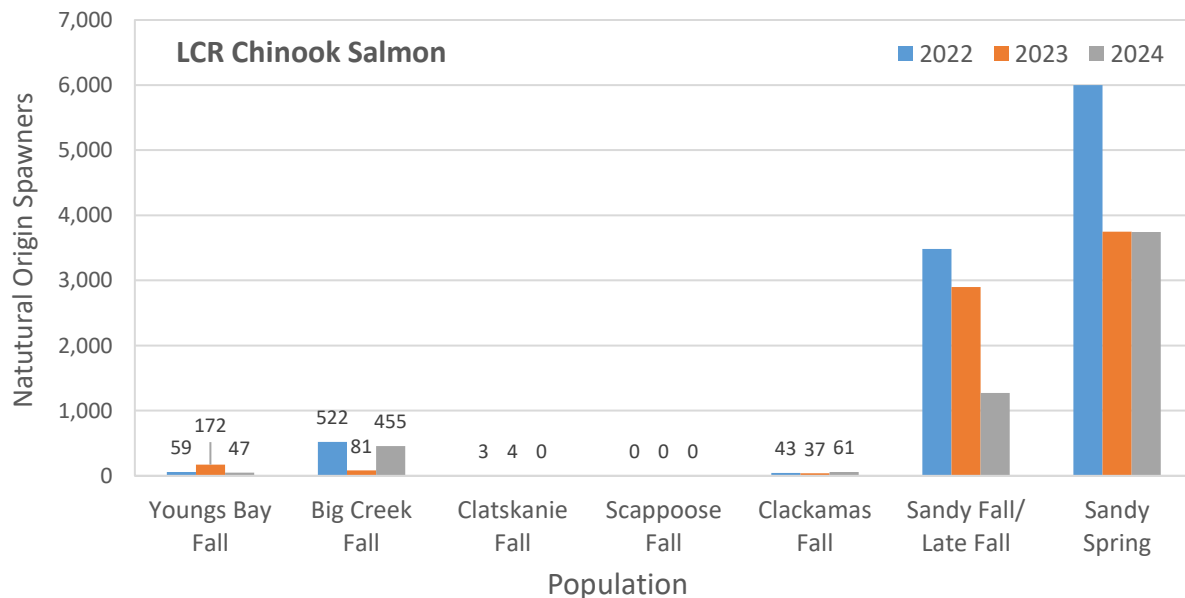


Figure 2. LCR Chinook Salmon NOS by population and year, 2022–2024. Lower Gorge fall Chinook, Upper Gorge fall Chinook, Hood fall Chinook, and Hood spring Chinook NOS are not included due to a lack of monitoring data.



Table 3. Oregon LCR Chinook salmon NOS in 2023 and 2024, 10-year average through 2024, and delisting scenario goals for each population (Lower Gorge fall Chinook, Upper Gorge fall Chinook, Hood fall Chinook, and Hood spring Chinook are not listed due to a lack of monitoring data). NE=No estimate.

Metric	Population <sup>1</sup>	2023	2024	10-yr Average	Delisting Goal
Natural Origin Chinook Salmon Spawners	Youngs Bay	172	47	115	505
	Big Creek	81	455	102	577
	Clatskanie	4	0	3	1,277
	Scappoose	0	0	0	1,222
	Clackamas	37	61	127	1,551
	Sandy Fall/Late Fall	2,900	1,273 <sup>2</sup>	2,417	3,858
	Sandy Spring	3,748	3,742	3,689	1,230

<sup>1</sup> Oregon's LCR fall Chinook salmon return as two life history types: fall Chinook spawners returning in September and early October are referred to as "tule" Chinook and fall Chinook spawners returning in late October and November are referred to as late fall or "bright" fall Chinook. The Sandy basin has both tule and bright fall Chinook, and the Plan identifies separate A/P goals for each life history type. Currently, Sandy River fall Chinook A/P estimates are combined because the two runs overlap spatially and temporally and a single population estimate is made for both run types; the delisting scenario A/P goal for late fall Chinook is shown in Table 3. There are two LCR spring Chinook populations within Oregon's portion of the ESU, the Sandy and Hood. Native Hood spring Chinook went extinct in the early 1970's. A joint reintroduction and integrated harvest hatchery program was cooperatively started in 1991 between ODFW and the Confederated Tribes of the Warm Springs with Deschutes stock spring Chinook as the donor. This out-of-ESU stock is not part of the federally-listed LCR ESU. A/P estimates for Hood spring Chinook were previously generated from monitoring of the Hood River Production Program (HRPP). Monitoring funds for the program were severely reduced in 2020 and since that time there have been no population estimates.

<sup>2</sup> Minimum estimate; peak counts were used instead of area-under-the-curve (AUC) method due to difficult survey conditions.

Table 4. Oregon LCR Chinook salmon estimated proportion hatchery fish on spawning grounds (pHOS) in 2023 and 2024, 9-year average, and delisting scenario target for each population (Lower Gorge fall Chinook, Upper Gorge fall Chinook, Hood fall Chinook, and Hood spring Chinook are not listed due to a lack of monitoring data). NE=No estimate.

Population	2023	2024	9-year Average	Delisting Target
Youngs Bay	91%	69%	82%	90%
Big Creek	89%	95%	92%	90%
Clatskanie	95%	NE	94%	10%
Scappoose	0%	0%	0%	10%
Clackamas	0%	0%	12%	30%
Sandy Fall/Late Fall	5%	7%	3%	10%
Sandy Spring	5%	2%	7%	10%



## LCR and SW Washington Steelhead DPS's

- LCR winter steelhead abundance increased slightly from 2022-2023 and saw a major increase from 2023-2024 (33 percent) because of a large increase in the Clackamas population (Figure 3).
- Clackamas LCR winter steelhead hit a 51 year high in 2024, since escapement estimates began in 1974.
- Sandy LCR winter steelhead exceeded the delisting and broad sense recovery goals in 2023 and 2024.
- Sandy has attained the A/P goals using the 10-yr geometric mean for the delisting as well as the broad sense recovery goals (Table 5).
- Clatskanie and Scappoose- winter steelhead (SW Washington DPS) are at 16 and 1 percent of their broad sense goals, respectively.
- The Scappoose population is averaging 40 spawners over the last 3 years.
- All monitored populations have achieved pHOS goals (Table 6).
- LCR and SW Washington steelhead harvest impacts achieved the measurable criteria goals in 2023 and 2024.

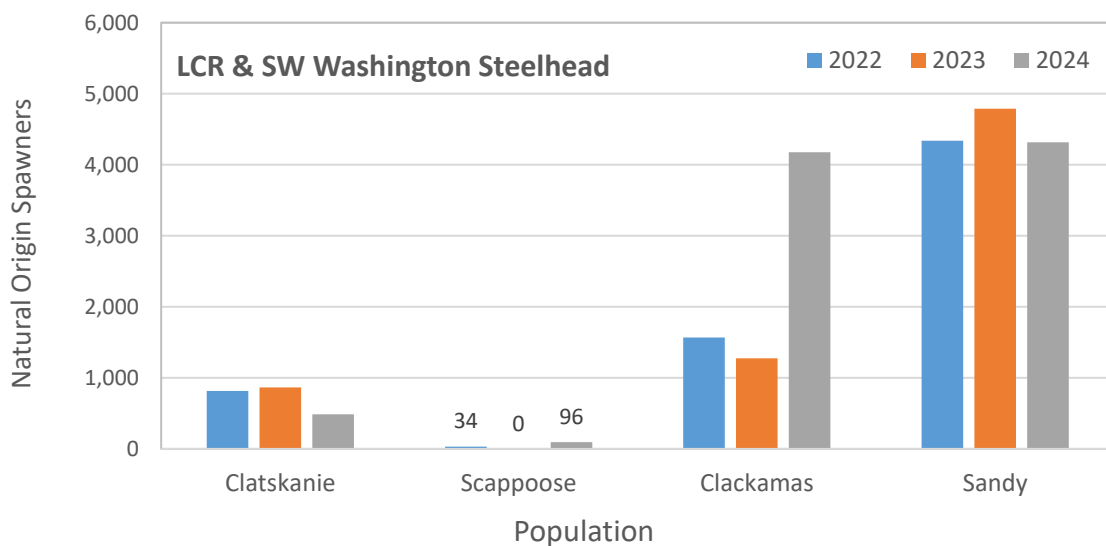


Figure 3. LCR and SW Washington steelhead NOS by population and year, 2022–2024. Lower Gorge winter steelhead, Upper Gorge winter steelhead, Youngs Bay winter steelhead, Big Creek winter steelhead and Hood winter and summer steelhead NOS are not included due to a lack of monitoring data.



Table 5. Oregon LCR and SW Washington steelhead NOS in 2023 and 2024, 10-year average through 2024, and delisting/broad sense scenario goals for each population (LCR: Lower Gorge winter steelhead, Upper Gorge winter steelhead, Hood winter and summer steelhead, SWW: Youngs Bay winter steelhead and Big Creek winter steelhead are not listed due to a lack of monitoring data).

Metric	Population <sup>1</sup>	2023	2024	10-yr Average	Delisting Goal <sup>2</sup>
Natural Origin Steelhead Spawners	Clatskanie	867	487	641	3,982
	Scappoose	0	96	52	5,169
	Clackamas	1,277	4,175	2,224	10,671
	Sandy	4,789	4,317	3,764	1,519

<sup>1</sup>Oregon’s lower Columbia River steelhead species management unit (SMU) differs from NOAA’s lower Columbia River steelhead DPS. Oregon’s LCR steelhead SMU contains populations from Youngs Bay to Hood River while NOAA classifies steelhead in Youngs Bay, Big Creek, Clatskanie and Scappoose as Southwest Washington DPS steelhead and populations in the Clackamas, Sandy, Lower Gorge, Upper Gorge and Hood as LCR DPS steelhead. LCR steelhead, defined by NOAA, return as two life history types: winter and summer. The Hood is the only population area that has native winter and summer steelhead, and the Plan identifies separate A/P goals for each life history type, but not included in this report due to a lack of monitoring data.

<sup>2</sup>Clatskanie and Scappoose steelhead are considered ~~an~~ unlisted populations and do not have delisting goals but have broad sense recovery goals.

Table 6. Oregon LCR and SW Washington steelhead estimated proportion hatchery fish on spawning grounds (pHOS) in 2023 and 2024, 9-year average, and delisting scenario target for each population (Lower Gorge winter steelhead, Upper Gorge winter steelhead, Hood winter steelhead, Hood summer steelhead, Youngs Bay winter steelhead and Big Creek winter steelhead are not listed due to a lack of monitoring data). NE=No estimate.

Population	2023	2024	9-year Average	Delisting Target <sup>1</sup>
Clatskanie	0.5%	1.2	3.5%	10%
Scappoose	NE	0%	0%	10%
Clackamas	3.1%	6.2%	7.1%	10%
Sandy	2%	4.3%	3.9%	10%

<sup>1</sup>Clatskanie and Scappoose steelhead are considered- unlisted populations and do not have delisting goals but have broad sense recovery goals.



## Columbia River Chum ESU

- There are currently no delisting scenario goals or measurable criteria for evaluation for Oregon's Columbia River chum.
- The number of adults returning to Big Creek Hatchery decreased by over 50 percent between 2022-2023, then increased by 19 percent between 2023-2024 (Figure 4).
- Chum returns in 2023 and 2024 exceeded broodstock needs.
- In 2023, 388 adults were outplanted and in 2024 544 adults were outplanted in both the Big Creek and Clatskanie populations.
- A remote site incubator was installed in the Clatskanie population both years with 50,000 eggs. In addition, direct releases of unfed fry occurred in the Clatskanie and Big Creek populations; 132,000 fry were released in 2023 and 72,000 fry were released in 2024.
- Top priority for the chum reintroduction program is evaluating release strategies.
- Adult spawning surveys detected chum spawning in the Youngs Bay, Big Creek and Clatskanie populations.
- Smolt trapping detected natural reproduction in the Big Creek and Clatskanie populations.
- eDNA sampling detected chum DNA in the Clackamas basin.

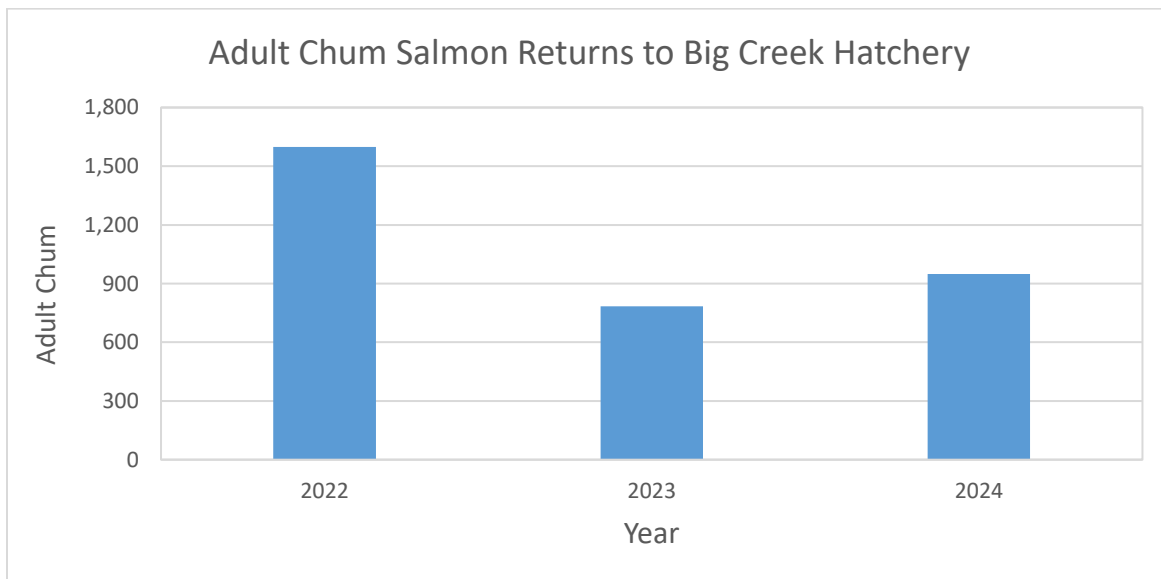


Figure 4. Adult chum salmon returns to Big Creek Hatchery.



The Program to Restore Oregon's Chum hosts the web site (<https://odfwchum.forestry.oregonstate.edu/>) to inform the public of recent projects, ongoing research, and updates about reintroduction efforts of chum salmon in the LCR.



## Habitat Restoration and Effectiveness Monitoring

- All interim restoration goals are completed in Youngs Bay and Sandy populations.
- Interim restoration goals are completed for riparian and off-channel habitat in the Clackamas and Scappoose populations.
- Stream flow restoration is not a tracked restoration metric in the Plan but a primary limiting factor in the Hood population.
- Achievement of interim habitat restoration goals in all other populations range from 0-66 percent completed.
- No habitat restoration occurred in Oregon's lower or upper Gorge populations.

Table 7. Habitat restoration projects completed within the LCR ESU during 2023/2024.

Population	Fish Passage corrections	Water Conserved (cfs)	LWD placed (mile)	Irrigation Improvement Projects (#)	Side Channel Creation (mile)	Alcove Creation (m <sup>2</sup> )	Riparian Planting (mile)
Young's Bay			.2				.2
Big Creek	1				.06		.31/.09
Clatskanie	1/1		.2-				1.25/.01
Scappoose	3/1		.08/1.75			1,255	.76/.93
Clackamas	1		1.39/9.99		.89/.75	7,284/154,326	2.24/2.7
Sandy	1		5.95/2.3		.88/.91	54632	.6-
Lower Gorge							
Upper Gorge							
Hood	1/1	2.2/3	.05/3-	3/4	.08		.6/2.64
<b>Total</b>	<b>11</b>	<b>5.2</b>	<b>28.51</b>	<b>7</b>	<b>3.57</b>	<b>217,497</b>	<b>14.13</b>



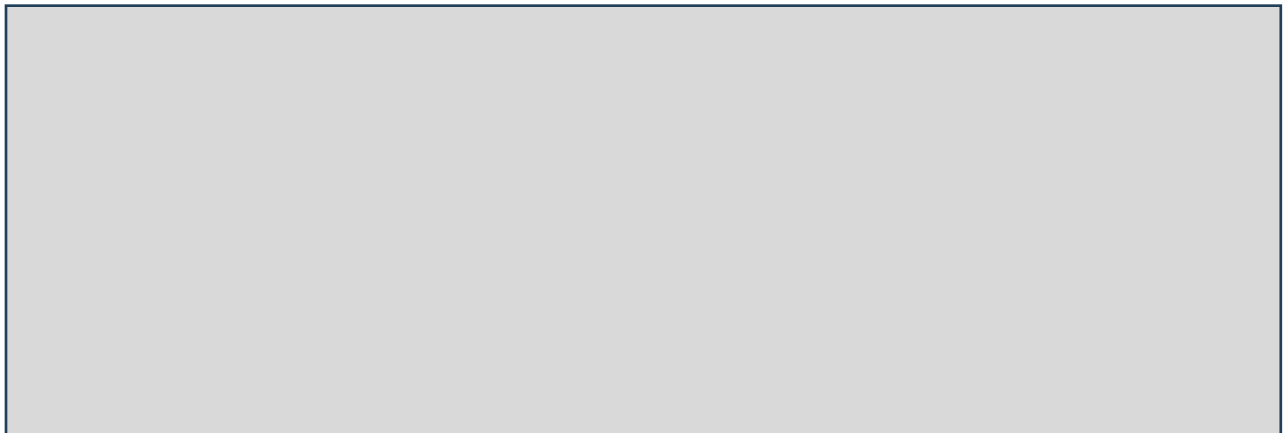
2024 Confederated Tribes of the Warm Springs restoration site on the Clackamas River



### Key accomplishments from local restoration practitioners:

- Portland State University took the results of a three-year temperature study in the Clackamas basin and created a predictive stream temperature model under a changing climate:- [https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1292&context=geog\\_fac](https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1292&context=geog_fac)
- Oregon Metro and the Columbia River Estuary Task Force secured 291 acres of riparian lands in the Clackamas, Scappoose and Youngs Bay recovery population areas.
- The Hood River Watershed Group obtained an Oregon Watershed Enhancement Board Focused Investment Program grant for Native Fish Recovery.
- The North Coast Watershed Association completed a Rapid Bioassessment and Limiting Factor Analysis within the Youngs Bay and Big Creek recovery population areas.

Adaptive management: [None](#)





The web-site [http://www.dfw.state.or.us/fish/CRP/lower\\_columbia\\_plan.asp](http://www.dfw.state.or.us/fish/CRP/lower_columbia_plan.asp) contains past reports as well as presentations and a host of LCR Recovery Plan information.

Recovery Plan Adopted: August 2010  
Date Reviewed: April 20, 2026

