



**NOAA
FISHERIES**

Agenda Item G.2.a
Supplemental NMFS Presentation 1
September 2026

Klamath River Restoration Update

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NOAA Fisheries

Klamath Branch Supervisor

West Coast Region – California Coastal Office

Presentation Overview

- Klamath River Restoration
- Fish repopulation updates
 - Wild Area Spawning
 - Fall Creek Hatchery
- Status of project expectations
 - Disease
 - Turbidity, Sediment, DO, Temperature
- On the Horizon

Klamath Recap

- Opening of ~ 400 miles of anadromous habitat
- Restoring riverine function
- Short-term Impacts/Long-term Benefits
- Fall Creek hatchery and wild production
- Disease (e.g. *Ceratanova shasta*) conditions



Four Hydroelectric Dams



Iron Gate Dam
Constructed in 1962
173 feet high
RM 190



Copco 1 Dam
Constructed in 1919
126 feet high
RM 198



Copco 2 Dam
Constructed in 1925
20 feet high
RM 198



JC Boyle Dam
Constructed in 1957
60 feet high
RM 224 (in Oregon)

Four Hydroelectric Dams

Drawdown January
2024 – Low Level
Outlet Opened



Drawdown January
2024 – Copco Tunnel
Blasted



Volitional Passage
Summer 2023



Drawdown January
2024 - JC Boyle tunnel
Stop Log Blasted



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Four Hydroelectric Dams

Volitional Passage Fall
2024

Volitional Passage Fall
2024

Volitional passage
Summer 2023

Volitional Passage Fall
2024



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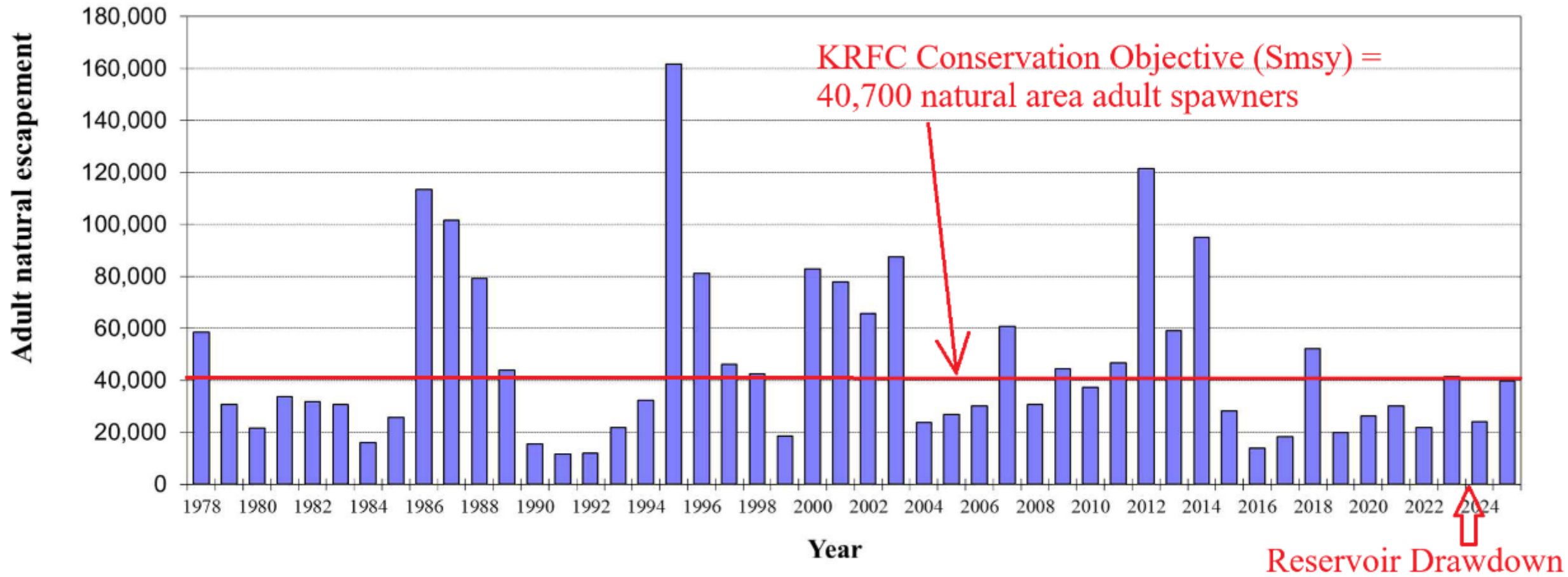
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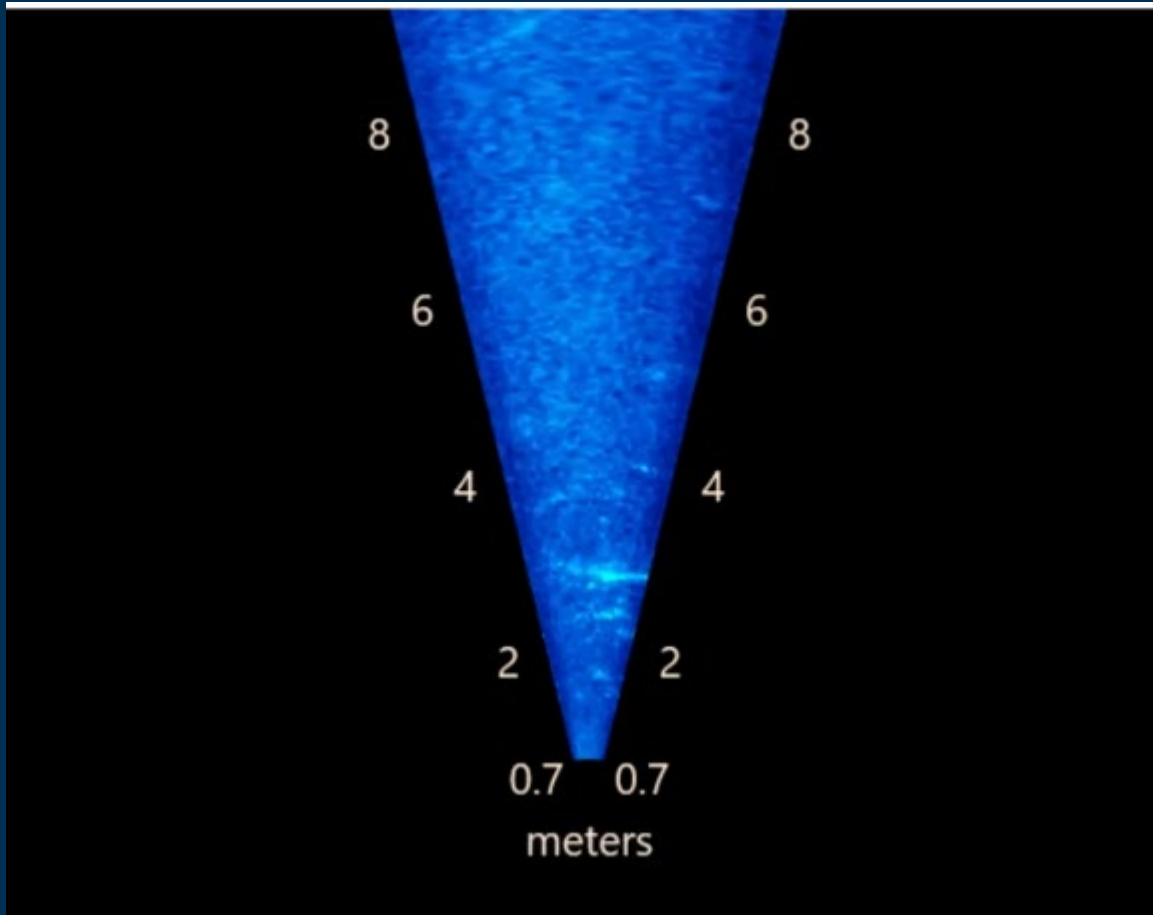
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Klamath River Basin Adult Fall-Run Chinook Salmon Natural Escapement Estimates, 1978-2025 a/

■ Adult natural
spawners



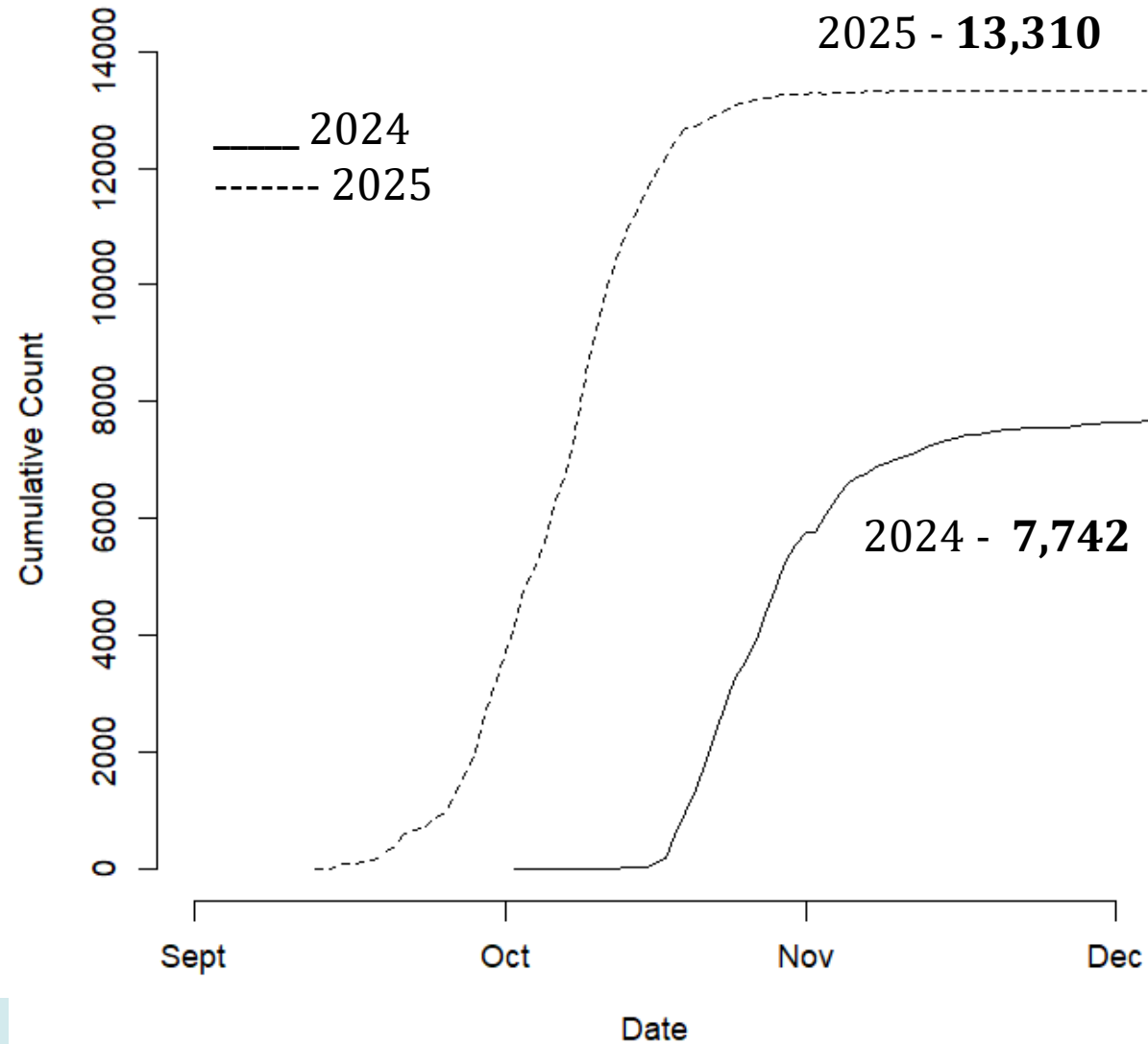
Fish Passage – Sonar - 2024 and 2025



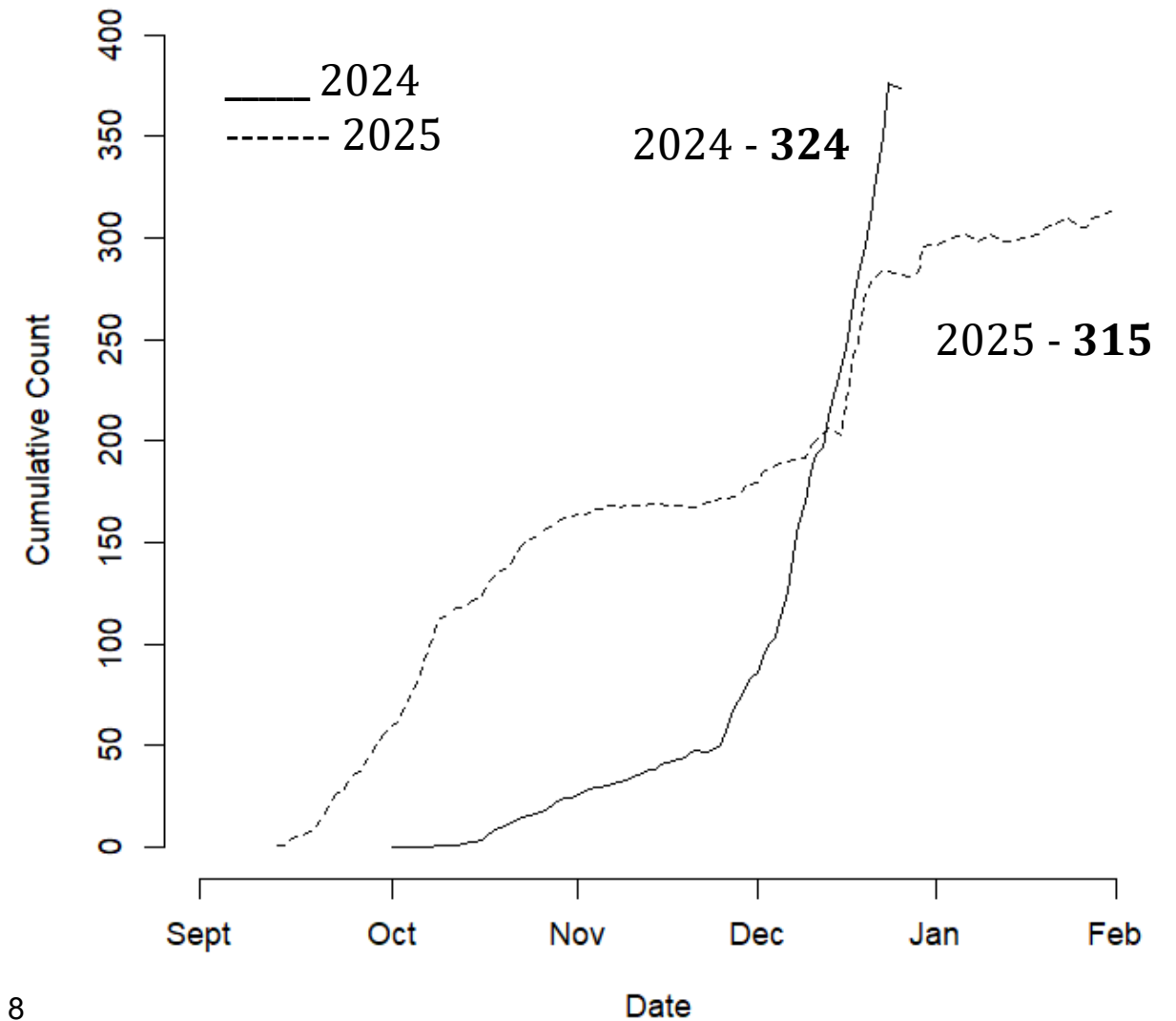
2024/2025 Salmon Abundance Estimates



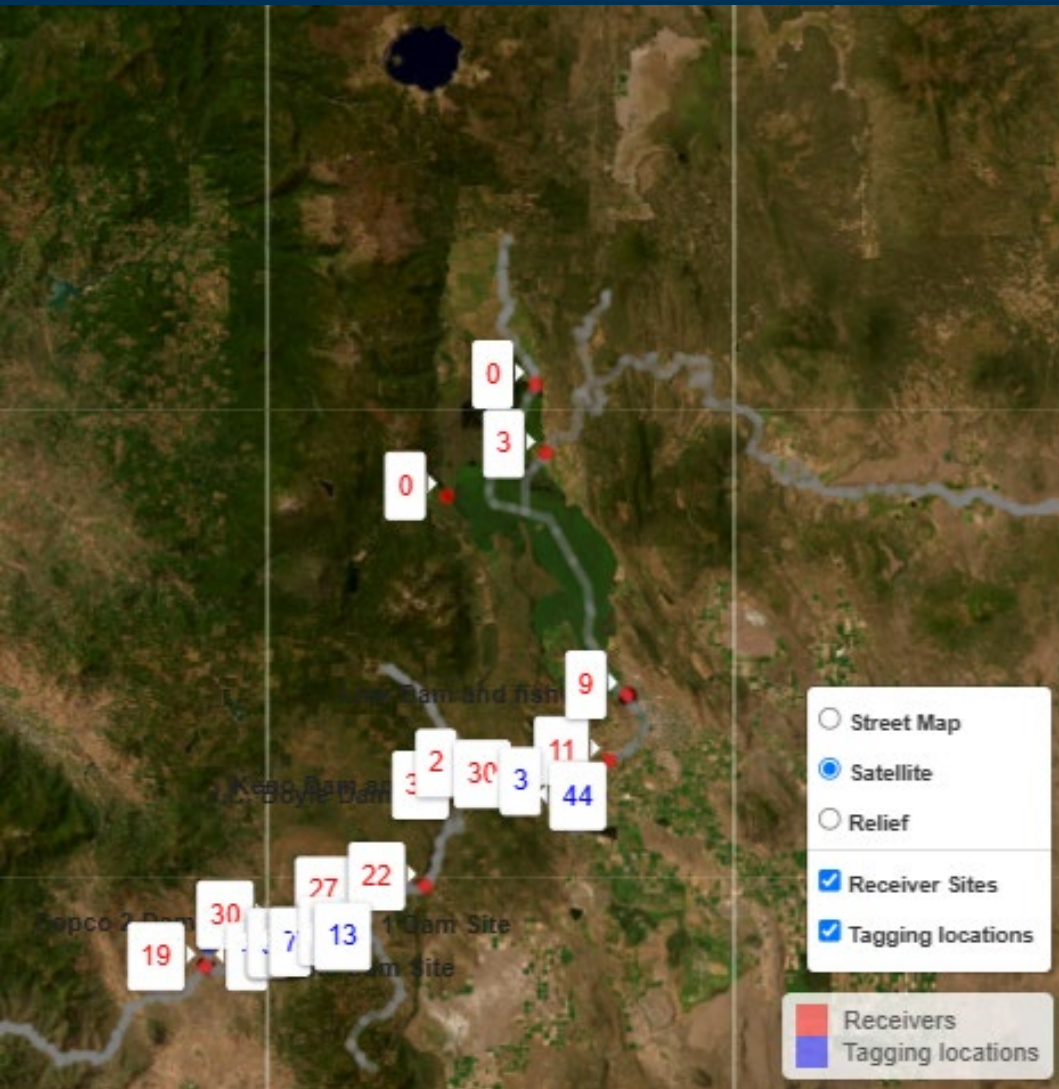
Chinook Salmon



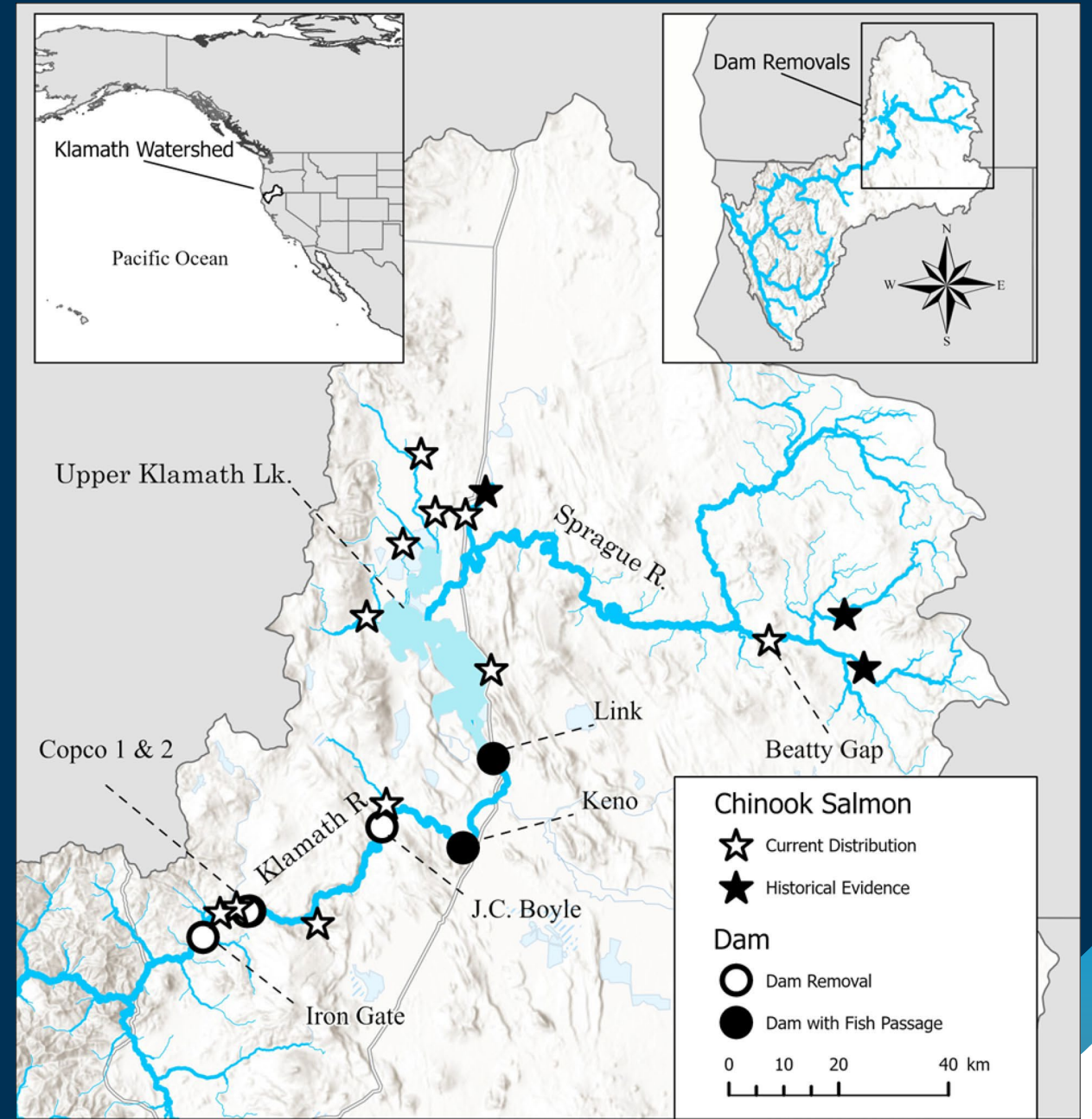
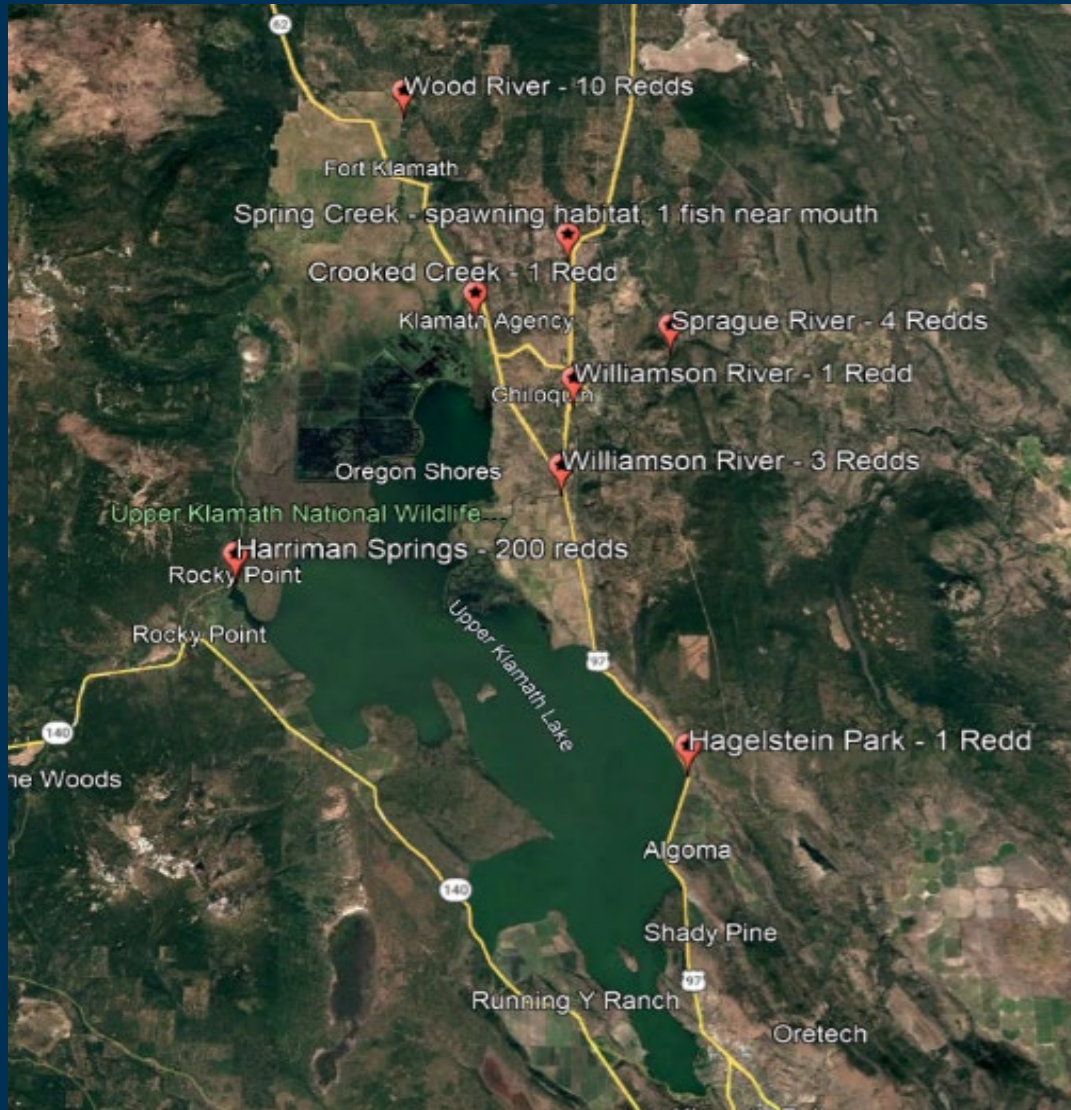
Coho Salmon



Upstream Habitat – 2025



Spawning in and above Upper Klamath Lake



Harriman Springs – Lakeside spawning 2025



Photo: Jeff Abrams, NMFS



Photo: Paul Wilson, ODFW

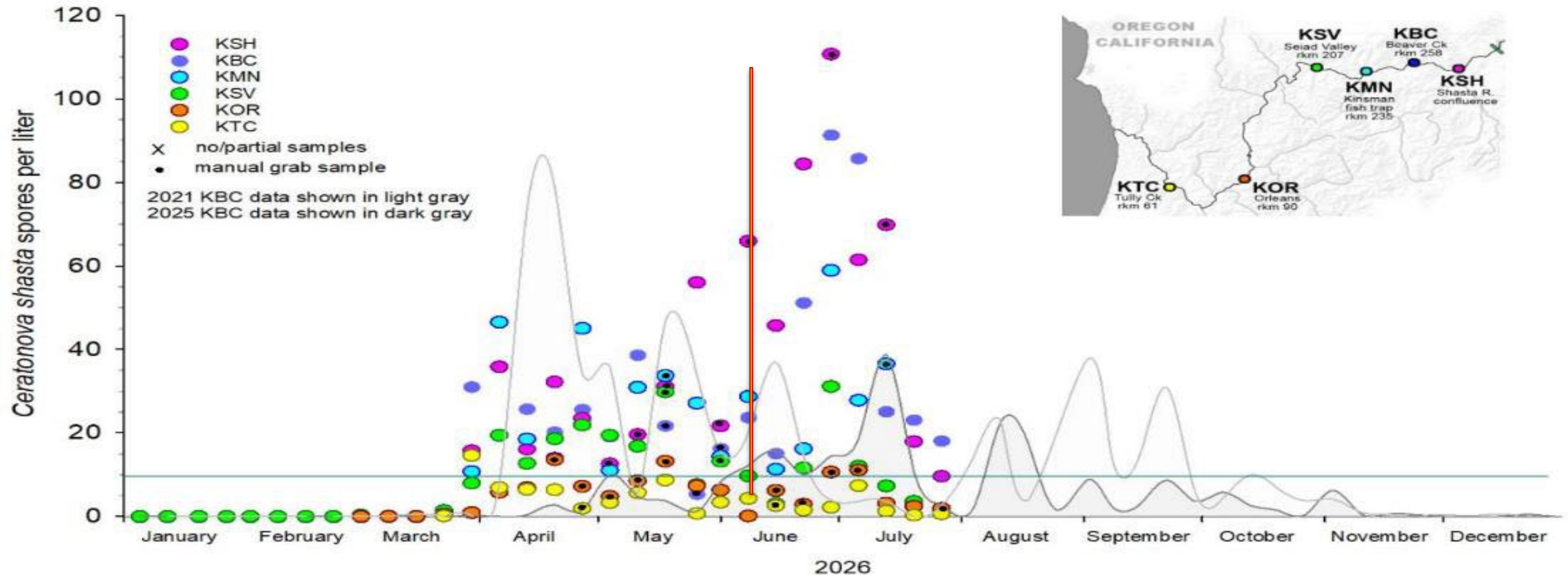
Successful spawning in tributaries above Upper Klamath Lake



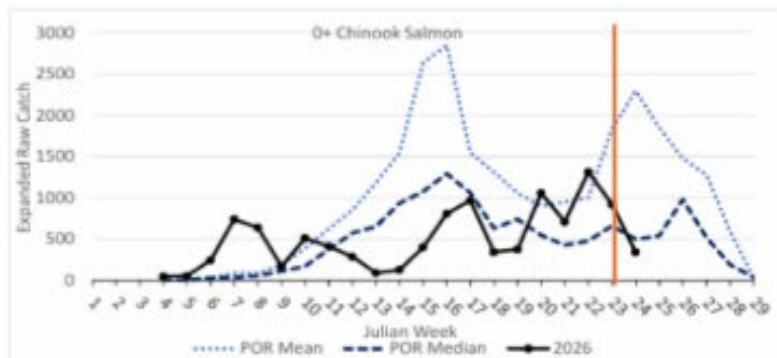
Photo: Jordan Ortega, Klamath Tribes of Oregon

Fish Disease

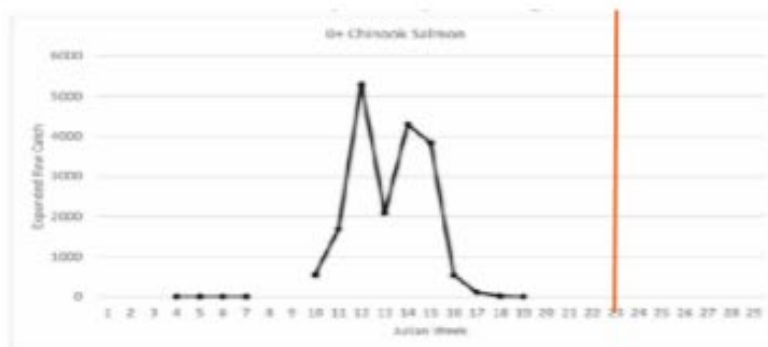
Ceratonova shasta average spore densities at all index sites in 2026



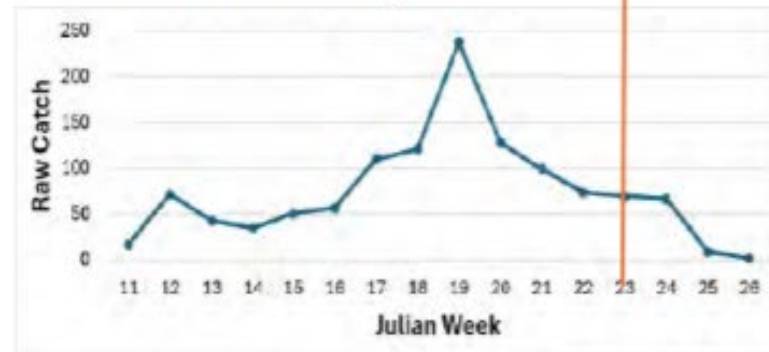
Scott River



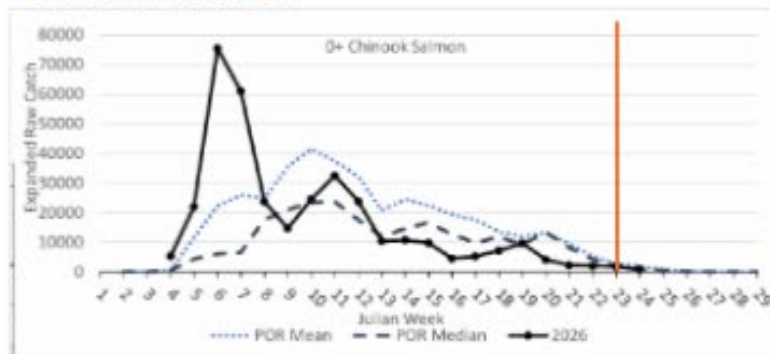
Jenny Creek



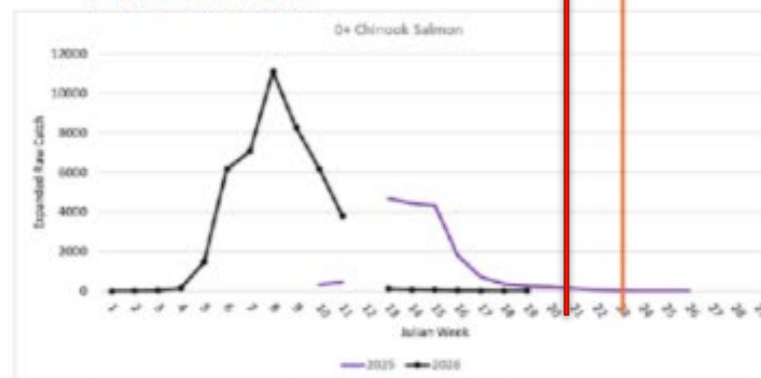
Klamath JC Boyle



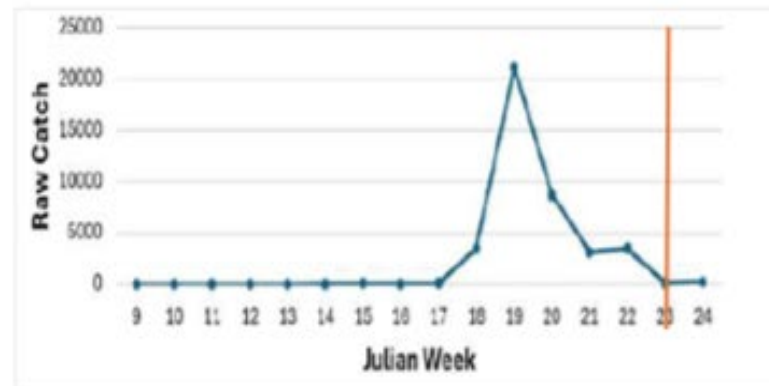
Shasta River



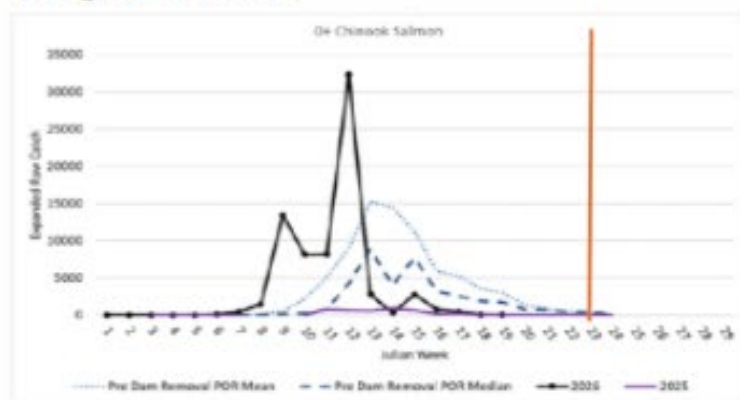
Fall Creek



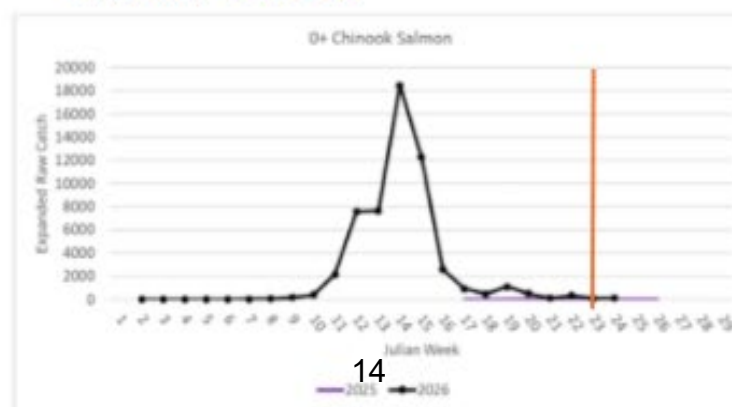
Spencer Creek



Bogus Creek



Shovel Creek



Fall Creek Hatchery



Fall Creek Hatchery Plan

Table 4. Comparison of Hatchery Mitigation Requirements and NMFS/CDFW Production Recommendation

Species / Life Stage	Current Production Goal (at IGH)	Production Goal Post-Dam Removal (at FCH)	Release Dates
Coho Yearlings	75,000	Minimum of 75,000	March 15 – May 1
Chinook Yearlings	900,000	Minimum of 250,000	Oct 15 – Nov 20
Chinook Smolts	5,100,000	Up to 3,000,000	April 1 – June 15
Steelhead	200,000	0	N/A

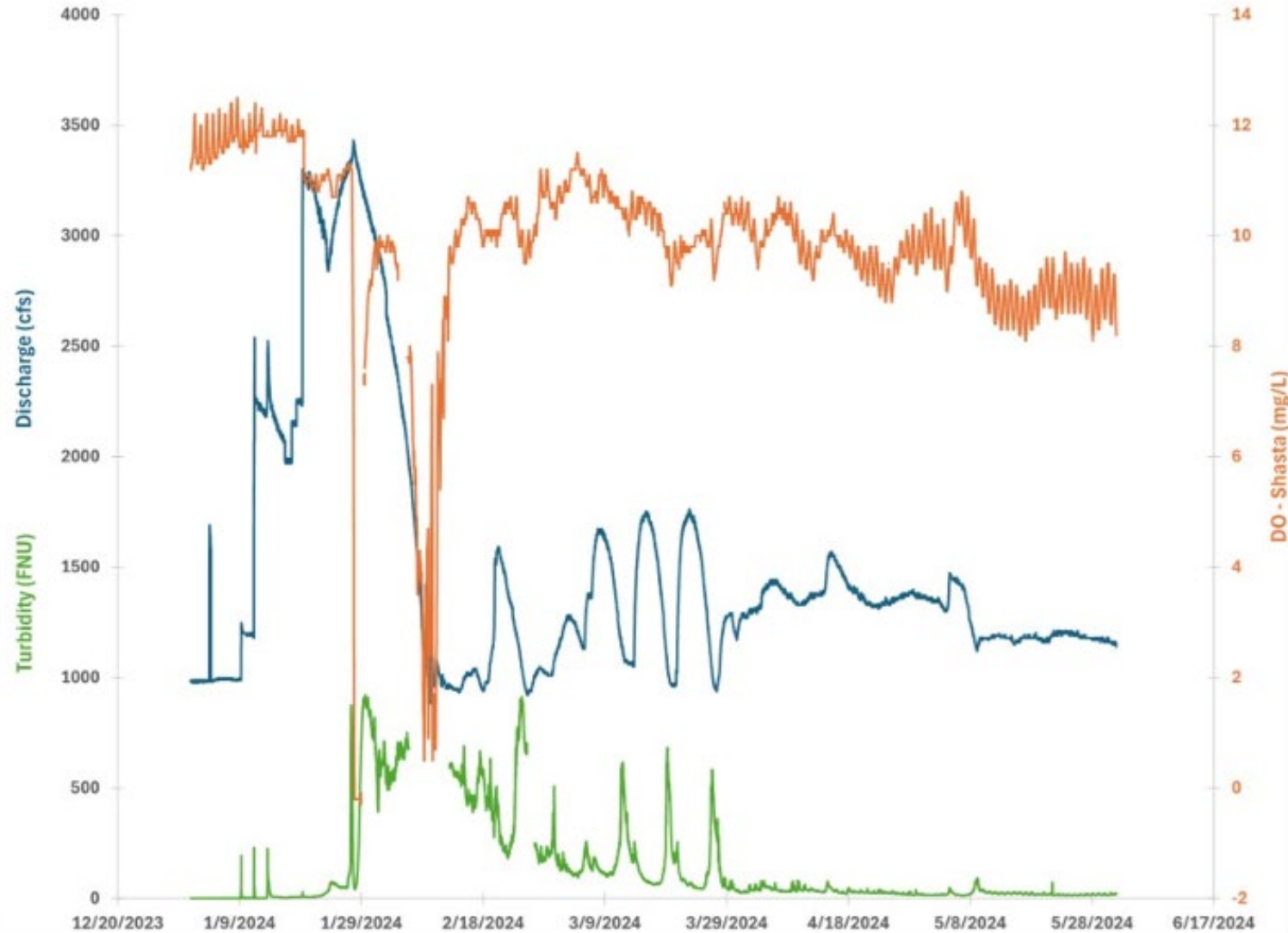
Fall Creek Hatchery – In practice

Hatchery	Brood Year	Releases		
		Chinook Smolt	Chinook Yearling	Coho (Yearling)
	2016	416,069	1,052,444	34,376
	2017	4,217,454	1,057,259	57,242
	2018	2,326,802	1,052,213	73,946
	2019	608,711	983,210	59,259
	2020	0	1,985,927	109,980
	2021	3,856,956	1,459,350	105,647
	2022	4,795,436	1,125,443	93,254
IGH/FCH	2023	3,494,529	279,944	79,609
FCH	2024	0	165,124	28,988
	2025	674,679	250,000 (planned)	9,137 eggs taken



Drawdown: Turbidity, Sediment, and Dissolved Oxygen

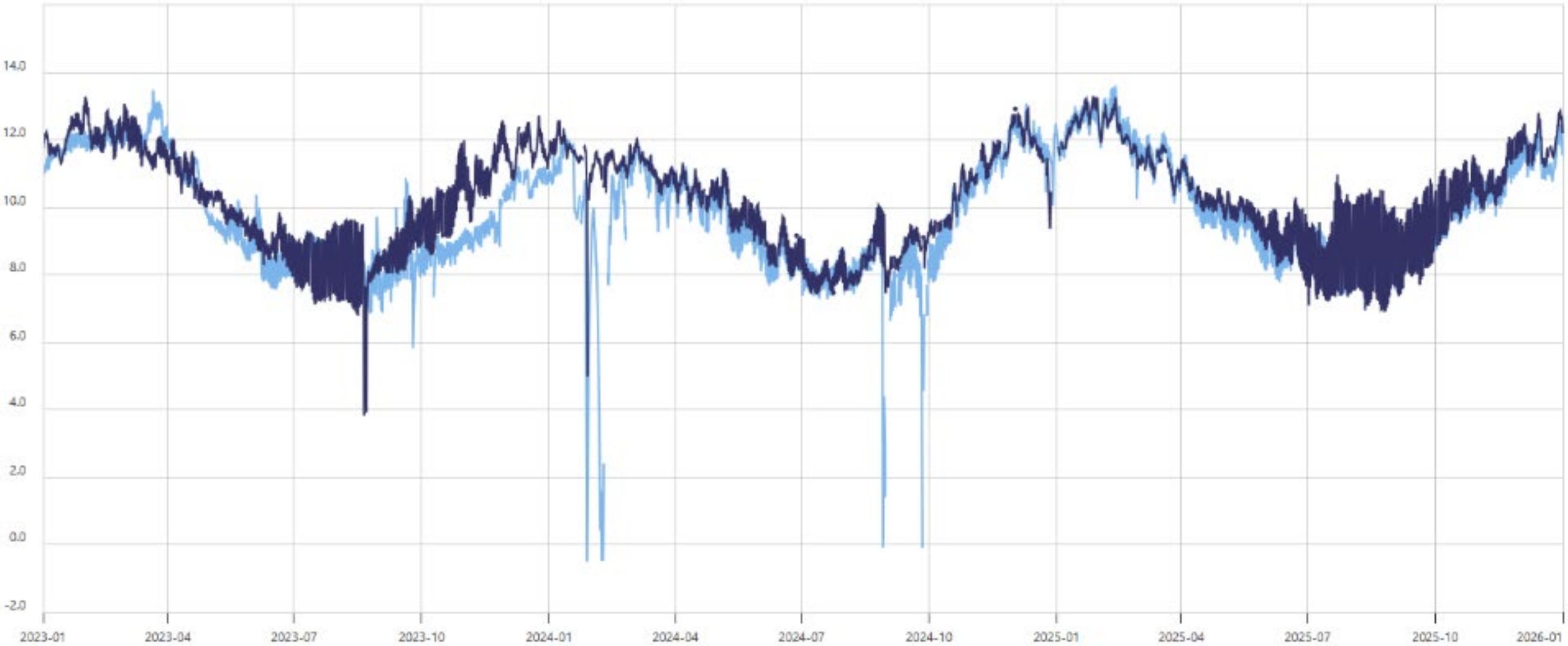
Iron Gate Discharge and Turbidity, Shasta DO (Jan 2024 - May 2024)



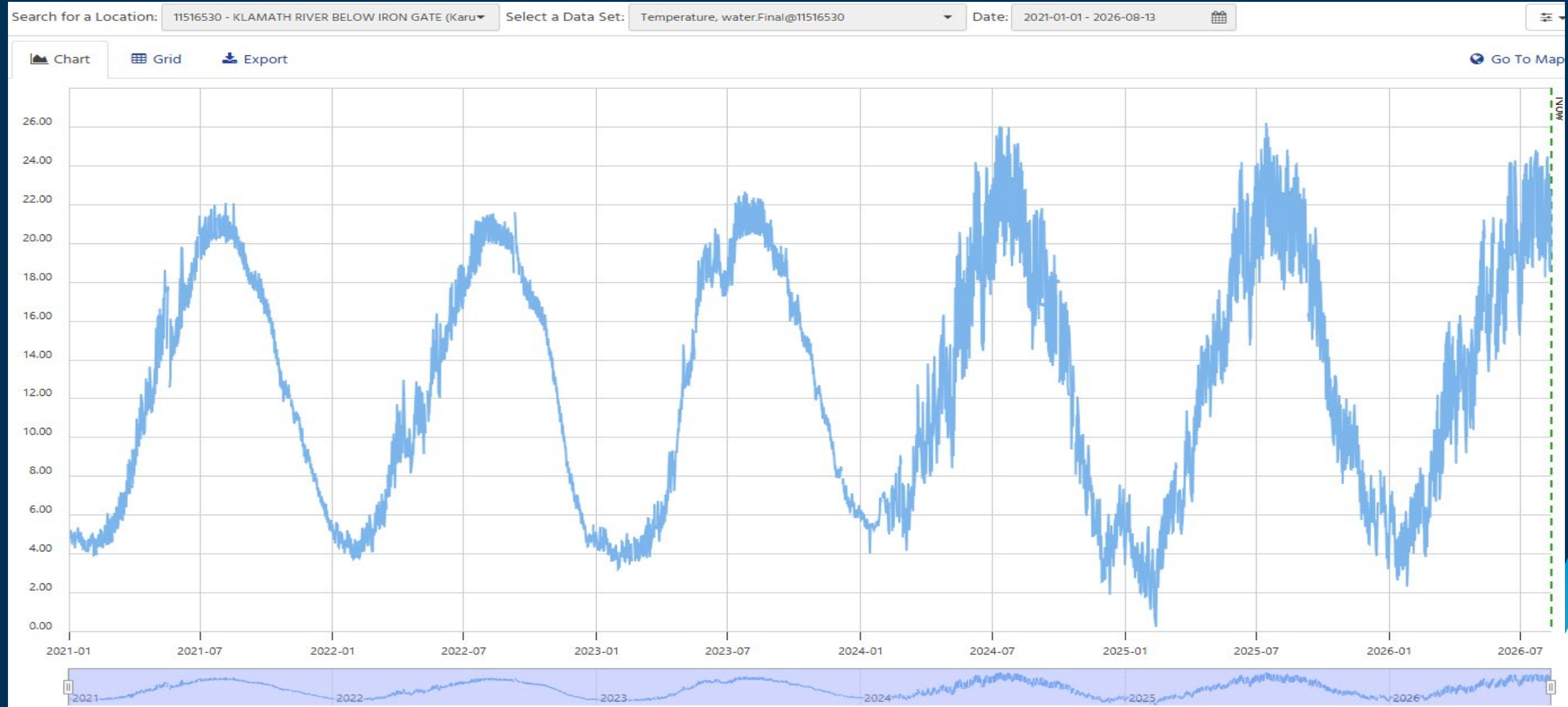
KLAMATH
RIVER RENEWAL
CORPORATION



Drawdown effects – Dissolved Oxygen



Drawdown Effects: Temperature



REPOPOPULATION PLANNING DOCUMENTS

- Volitional Reintroduction – Coho salmon, Fall Chinook, Lamprey, Steelhead
- Active Reintroduction
 - Spring Chinook at ODFW Klamath Hatchery in Fort Klamath
- Reintroduction Plans (CDFW, ODFW/Klamath Tribes of Oregon)
- Upper Basin Spring Chinook experiments underway (NMFS, ODFW, CDFW, Cal Poly Humboldt, UC Davis, Klamath Tribes of Oregon)

IMPLEMENTATION PLAN FOR THE REINTRODUCTION OF ANADROMOUS FISHES INTO THE OREGON PORTION OF THE UPPER KLAMATH BASIN

Final – December 2021

Prepared by

Oregon Department of Fish and Wildlife
The Klamath Tribes



On the Horizon

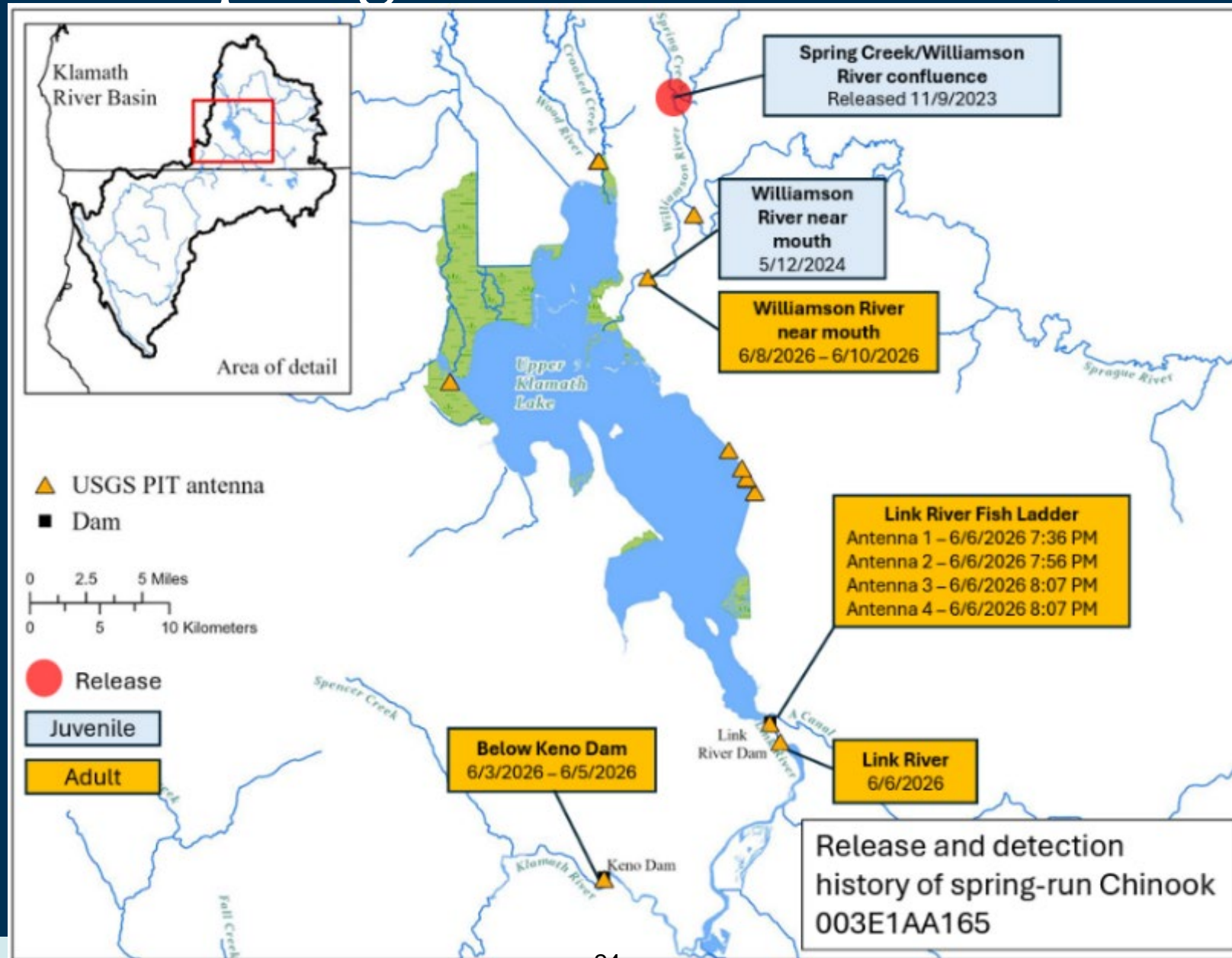
- Reintroduction
- Keno Dam (Lake Ewauna and Unscreened Diversions)
- Upper Basin water quality
- Re-consultation with Reclamation for Klamath Project Operations



What's Next – Spring-run Chinook Reintroduction



What's Next – Spring-run reintroduction; adult return!



• Figure by Mark Hereford, ODFW