



**NOAA  
FISHERIES**

West Coast  
Region

# **NOAA Fisheries Update: Columbia River Salmon and Steelhead**

**Legislative Council on River Governance  
September 10, 2024**

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NOAA Fisheries West Coast Region**

# Overview

- **Major developments and milestones since 2020**
- **Salmon and steelhead status and trends**
- **Ocean condition status and trends**
- **Southern Resident Killer Whale update (if time/interest)**

# Milestones

## September 2020

### NOAA issues **ESA biological opinion on federal Columbia River System Operations**

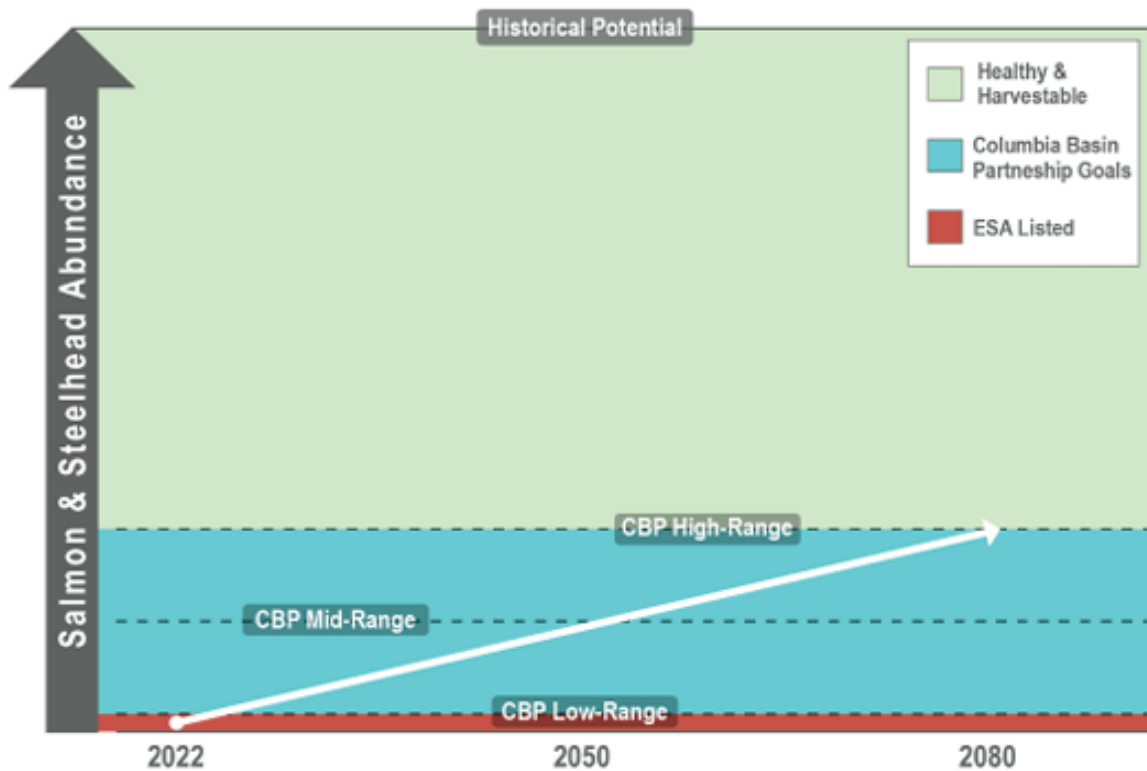
- Some species at high risk of extinction, but no jeopardy finding based on extensive mitigation measures included in the proposed action
- Immediately challenged in federal district court (along with the Final Environmental Impact statement on CRSO).

## September 2020

### **Columbia Basin Partnership Task Force final report - *A Vision for Salmon and Steelhead: Goals to Restore Thriving Salmon and Steelhead to the Columbia River Basin***

- 3-year stakeholder and sovereign driven process (included the four NW states)
- Regional consensus on a vision and broad-scale goals to rebuild salmon and steelhead back to healthy and harvestable levels to support regional economies, honor tribal commitments, restore the ecosystem

# CBP Task Force Salmon and Steelhead Goals



**Figure 2.** Conceptual abundance continuum of salmon and steelhead, aggregated across the 16 stocks (ESA listed and non listed) upstream of Bonneville dam, relative to management thresholds and goals. Mid-range goals exceed ESA recovery abundance thresholds and represent considerable progress toward high-range goals associated with healthy and harvestable status (NMFS 2020a).

## August 2022

### NOAA releases **Columbia Basin ESA 5-Year reviews**

- None of the ESA listed salmon or steelhead species have recovered to warrant de-listing
- Most species still at high risk of extinction, but none have declined to the point they should be listed as endangered instead of threatened

## September 2022

### **NOAA releases Rebuilding Interior Columbia River Salmon and Steelhead report**

- Comprehensive suite of restoration actions needed across all threat categories to make significant progress towards the CBP healthy and harvestable goals (no silver bullet)
- CBP rebuilding goals are significantly higher than ESA goals to avoid jeopardy and will require significantly greater recovery investments

**September 2023**

# **Presidential Memorandum on Restoring Healthy and Abundant Salmon, Steelhead and Other Native Fish Populations in the Columbia Basin**

- Established Administration policy to work with Congress, Tribal Nations, States, local governments, and stakeholders to:
  - restore healthy and abundant salmon, steelhead, and other native fish populations in the Basin;
  - secure a clean and resilient energy future for the region;
  - support local agriculture and its role in food security; and
  - invest in the communities that depend on the services provided by the Basin's Federal dams.

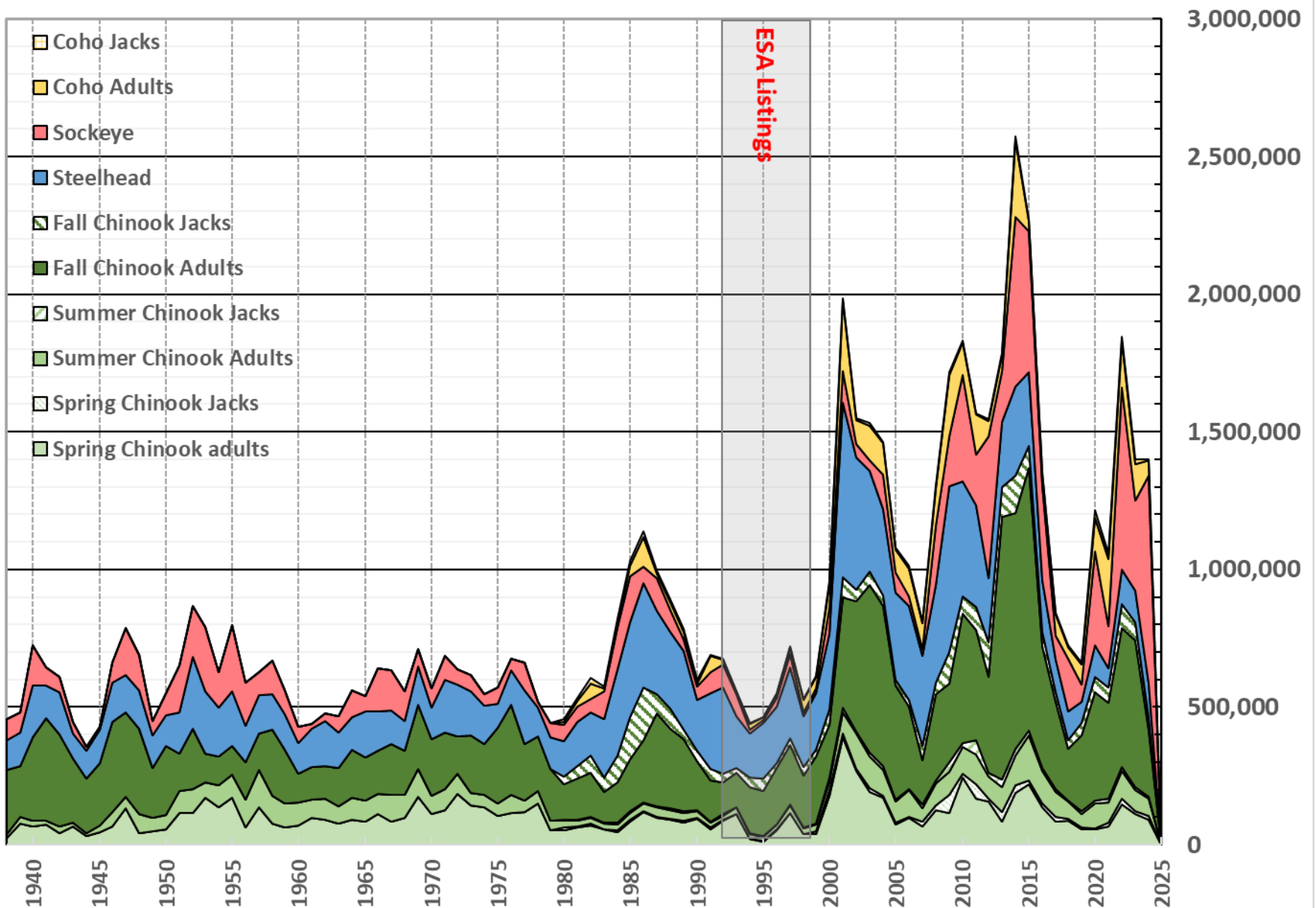
## **September 2023**

- U.S. signs MOU with Upper Columbia Tribes to stay 9<sup>th</sup> circuit litigation and support 20-year tribally-led salmon reintroduction feasibility studies in the Upper Columbia Basin

## **December 2023**

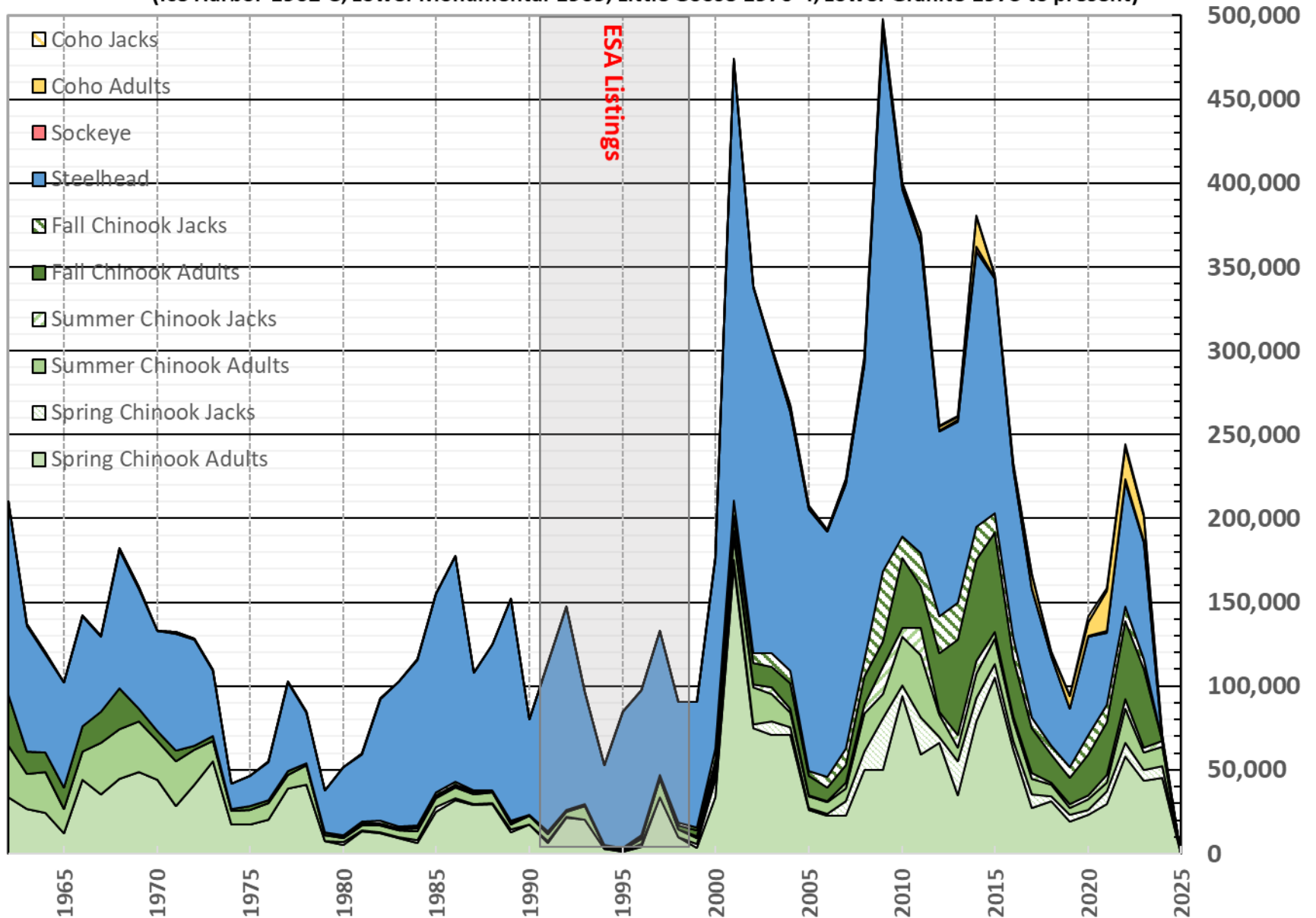
- U.S. signs long-term agreement to stay the CRS district court litigation, including an MOU with U.S. commitments in support of the Six Sovereign's Columbia Basin Restoration Initiative

# Total Fish Counts (Wild and Hatchery Combined) at Bonneville Dam, 1938-2024

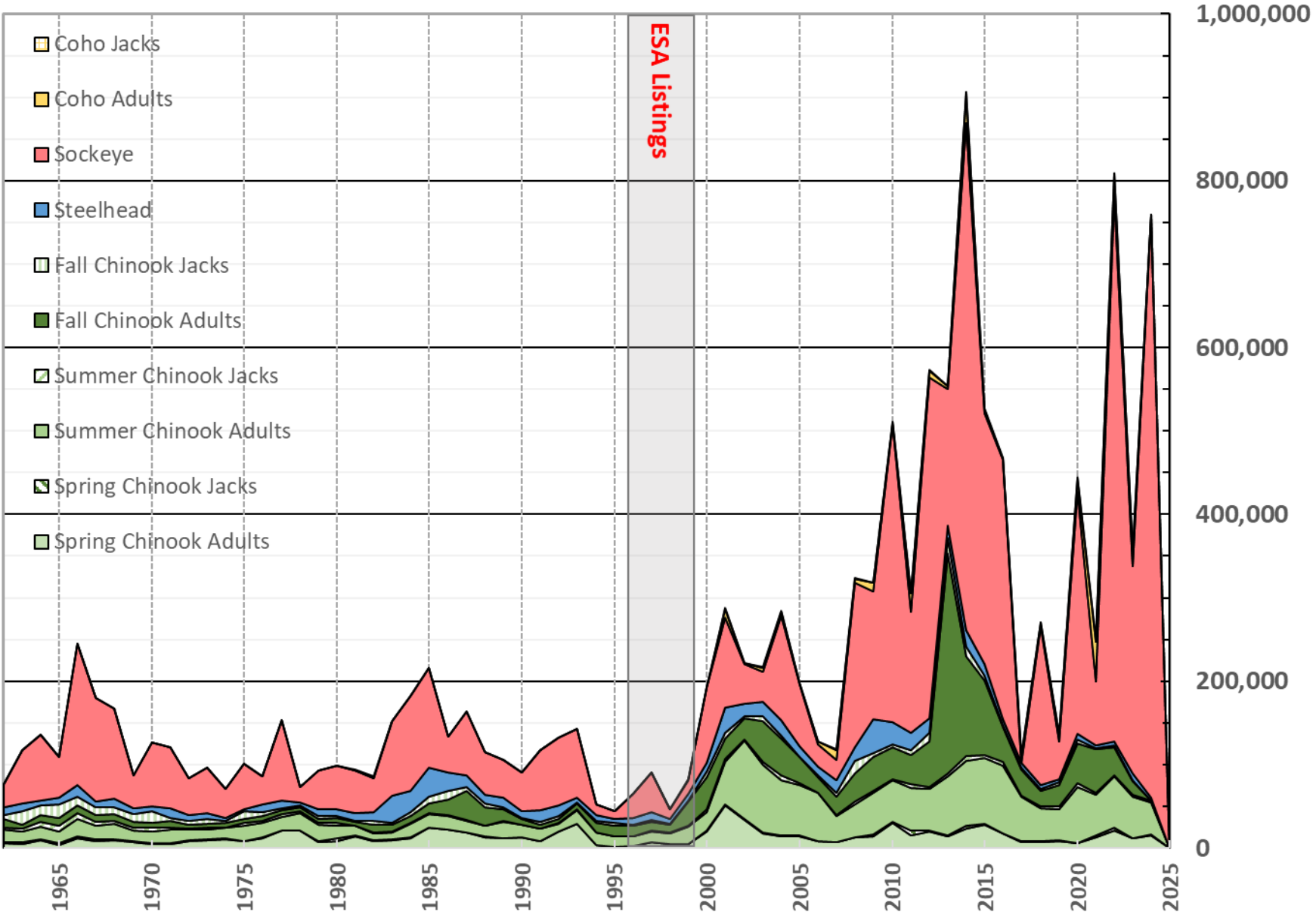


# Fish Counts at Uppermost Snake River Dam, 1962-2024

(Ice Harbor 1962-8, Lower Monumental 1969, Little Goose 1970-4, Lower Granite 1975 to present)



# Fish Counts at Priest Rapids Dam, 1962-2024

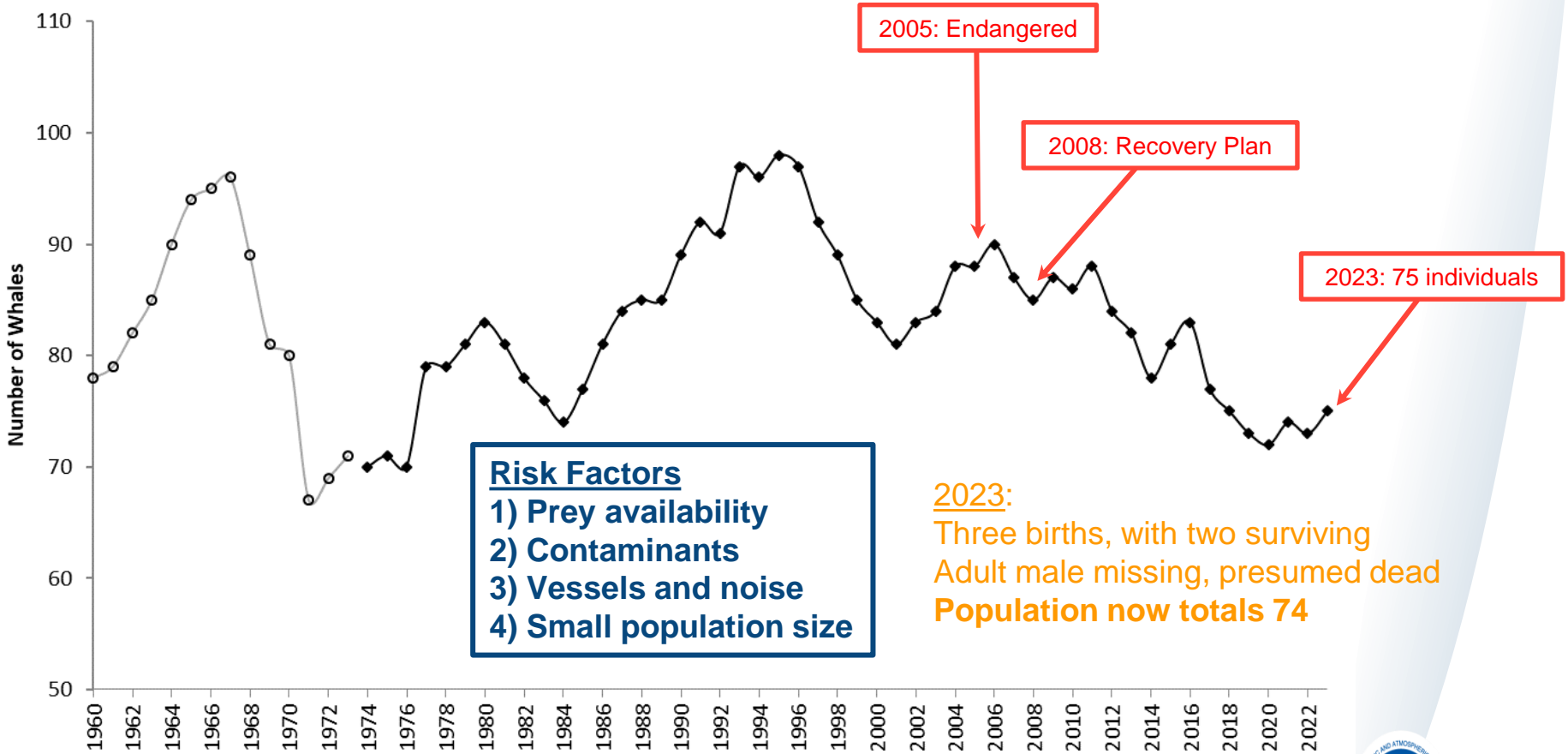


# 2023 OCEAN CONDITION INDICATORS TREND

good fair poor

ECOSYSTEM INDICATORS		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CLIMATE & ATMOSPHERIC	PDO (Sum Dec-March)	23	9	5	17	10	25	16	21	18	13	7	2	20	6	4	11	14	26	24	22	15	19	12	8	3	1
	PDO (Sum May-Sept)	14	5	11	8	13	23	18	21	17	19	7	16	9	4	3	10	24	26	25	20	15	22	12	6	2	1
	ONI (Average Jan-June)	25	1	1	9	17	19	18	21	10	15	3	13	22	6	8	10	12	23	26	16	7	24	20	5	4	14
LOCAL PHYSICAL	SST NDBC buoys (°C; May-Sept)	21	7	9	5	6	13	26	14	2	17	1	12	3	8	10	19	24	23	22	15	18	25	11	4	20	16
	Upper 20 m T (°C; Nov-Mar)	25	14	11	13	8	19	20	16	17	7	1	12	22	6	4	9	3	26	24	23	18	21	2	10	15	5
	Upper 20 m T (°C; May-Sept)	18	12	14	5	1	3	26	21	10	11	2	7	19	9	8	20	24	15	16	13	17	25	23	4	22	6
	Deep Temp (°C; May-Sept)	25	7	10	5	1	12	15	17	13	6	2	9	8	11	4	16	24	21	14	19	20	18	26	3	23	22
	Deep Salinity (May-Sept)	25	4	12	5	7	21	22	13	8	2	3	18	17	15	16	14	26	20	10	9	6	11	24	1	23	19
LOCAL BIOLOGICAL	Copepod richness (May-Sept anom)	24	3	1	11	10	19	18	23	20	14	12	13	22	6	9	4	15	25	26	21	17	16	7	5	2	8
	N copepod biomass (May-Sept anom)	24	19	14	15	6	21	18	25	20	16	9	13	11	3	5	7	8	22	26	23	10	4	2	1	17	12
	S copepod biomass (May-Sept anom)	26	2	7	4	3	18	20	25	17	14	1	9	21	13	10	8	15	23	24	22	16	19	12	5	6	11
	Biological transition	24	13	9	8	11	19	15	23	18	5	1	2	21	3	12	6	6	24	24	22	17	19	14	10	4	16
	Nearshore Ichthyoplankton (Jan-Mar)	21	4	14	8	1	25	26	20	11	22	3	17	2	10	5	13	23	18	19	16	12	24	9	6	15	7
	Near & offshore Ichthyoplankton (community index Jan-Mar)	11	6	4	8	10	13	20	24	1	16	3	12	18	5	2	7	9	22	25	26	21	23	19	15	14	17
	Chinook salmon juvenile catch	23	2	7	20	6	10	18	25	14	12	1	8	5	16	3	4	9	17	22	26	21	15	24	13	11	19
	Coho salmon juvenile catch	24	13	21	5	7	6	23	25	19	2	4	10	11	20	15	1	12	18	17	26	3	16	22	14	9	8
MEANS & RANKS	Mean of ranks	22.1	7.6	9.4	9.1	7.3	16.6	19.9	20.9	13.4	11.9	3.8	10.8	14.4	8.8	7.4	9.9	15.5	21.8	21.5	19.9	14.6	18.8	14.9	6.9	11.9	11.4
	Rank of the mean rank	26	5	8	7	3	19	21	23	14	13	1	10	15	6	4	9	18	25	24	21	16	20	17	2	12	11
NOT INCLUDED IN THE MEAN OF RANKS OR STATISTICAL ANALYSES	Physical Spring Trans (UI based)	4	8	24	21	5	15	18	25	15	1	7	3	10	13	22	11	23	12	6	20	13	15	9	2	26	19
	Physical Spring Trans. Hydrographic	25	4	14	9	6	13	17	26	7	10	1	10	21	4	12	2	19	8	20	24	17	16	22	2	22	15
	Upwelling Anomaly (sum April-May)	12	4	21	8	11	18	16	25	12	6	9	10	19	21	19	14	23	1	3	24	7	5	16	2	26	15
	Length of Upwelling Season (UI based)	6	2	22	14	1	16	12	26	5	3	9	3	18	21	18	17	24	13	8	15	7	10	20	10	24	23
	Copepod Community Index (May-Sept)	25	5	7	10	4	20	18	24	21	13	1	9	17	12	8	6	15	23	26	22	16	19	14	3	2	11

# SRKW Population Trends



# SPECIES in the SPOTLIGHT

Priority Actions 2021–2025



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Southern  
Resident killer  
whales  
(*Orcinus orca*)

- Protect Killer Whales from Harmful **Vessel** Impacts through Enforcement, Education, and Evaluation
- Target Conservation of Critical **Prey**
- Improve Our Knowledge of Southern Resident Killer Whale **Health** to Advance Recovery and Support Emergency Response
- Raise Awareness about the Recovery Needs of Southern Resident Killer Whales and Inspire Stewardship through **Outreach and Education**



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A large school of salmon swimming in clear, greenish-blue water. The fish are dark and sleek, moving in a coordinated pattern. The water is bright and clear, with some small white specks visible. The background shows a rocky or pebbly bottom.

# Thank you

# Extra Slides

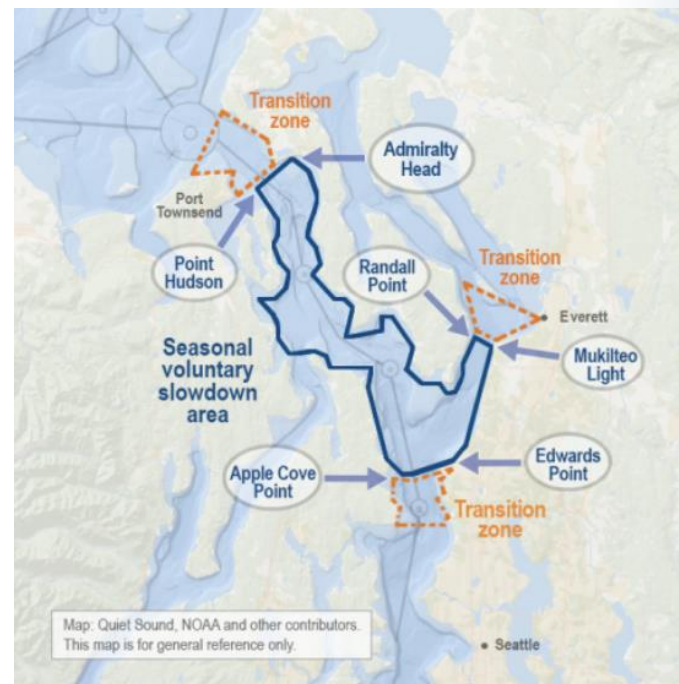
# Recovery Program: Vessels

Research shows SRKW spend less time foraging and more time traveling in the presence of vessels; close vessels (<400 yards) reduce the probability of foraging success, especially among females.

WA State legislature adopted a new distance regulation of 1000 yards for all vessels (with a few exemptions) for SRKW that will go into effect in 2025.

Seasonal slowdown programs for large commercial shipping traffic in Canada (ECHO) and Puget Sound (Quiet Sound) have high participation rates and reduce noise by up to 3dB during the slowdown period.

USCG Cetacean Desk launched on February 21, 2024.



# Recovery Program: Prey

## PFMC Amendment 21 Chinook threshold (WA-CA coastal prey)

- If forecasted abundance (WA/northern OR coast) in a year is below threshold (623k), additional fisheries mitigations are triggered (closures, quota reduction; non-Tribal)

## Chinook salmon hatchery program for SRKW prey - federal and WA state initiatives

- Funding under Pacific Salmon Treaty expected annually from 2019-2028. Federal program in combination with WA state funding produced approx 20 mill additional Chinook in 2023

## Priority Prey List (NMFS & WDFW) to support decision-making for habitat restoration projects and funding

- Chinook stock groups ranked according to priority based on 3 criteria: 1) observed in the diet, 2) consumed during the winter, 3) degree of spatiotemporal overlap



# Recovery Program: Health

- SRKW Deterrence Task Force established by NWAC to examine deterrence methods and implementation plans in the event of an oil spill
- Updating emergency response plans for sick or injured animals
- Engaging with and supporting researchers to better understand the link between threats and health
  - Working with partners on contaminant monitoring and management priorities
  - Continuing existing research and monitoring
  - Developing new, less invasive approaches to health assessment

