



September 21, 2023
Watershed Committee Meeting

**Lagunitas Creek Stewardship Plan
and Fisheries Monitoring Update**



Coho Salmon navigating the "Ink Wells" in San Geronimo Creek
(Photo Credit: Jaclyn Sherman)

Overview

- Lagunitas Creek Stewardship Plan 2011
 - History and purpose
 - Fisheries monitoring
 - Recent salmon population trends
 - Connecting monitoring results and ongoing restoration
- Lagunitas Creek Stewardship Plan Update 2024
 - Lagunitas TAC collaboration
 - Estimated timeline

Lagunitas Creek Stewardship Plan

- Marin Water's guiding document for Order WR95-17 compliance
- Developed collaboratively with Lagunitas TAC to address watershed priorities
- Adopted in 2011 as a ten-year plan
- Focuses on monitoring and restoration for three protected species:

Coho Salmon

Endangered - State and Federal



Steelhead

Threatened - Federal



California Freshwater Shrimp

Endangered – State and Federal



Lagunitas Creek Stewardship Plan



Lagunitas Creek Stewardship Plan
Marin Municipal Water District
Final – June 2011

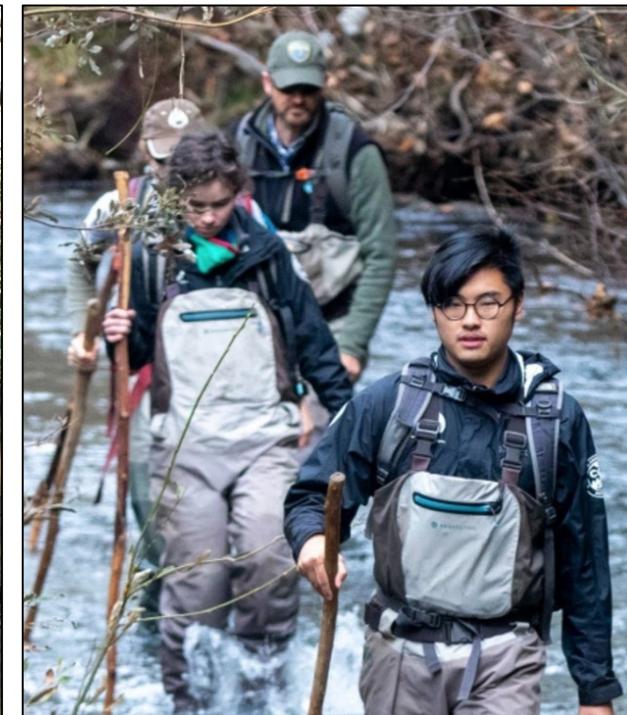
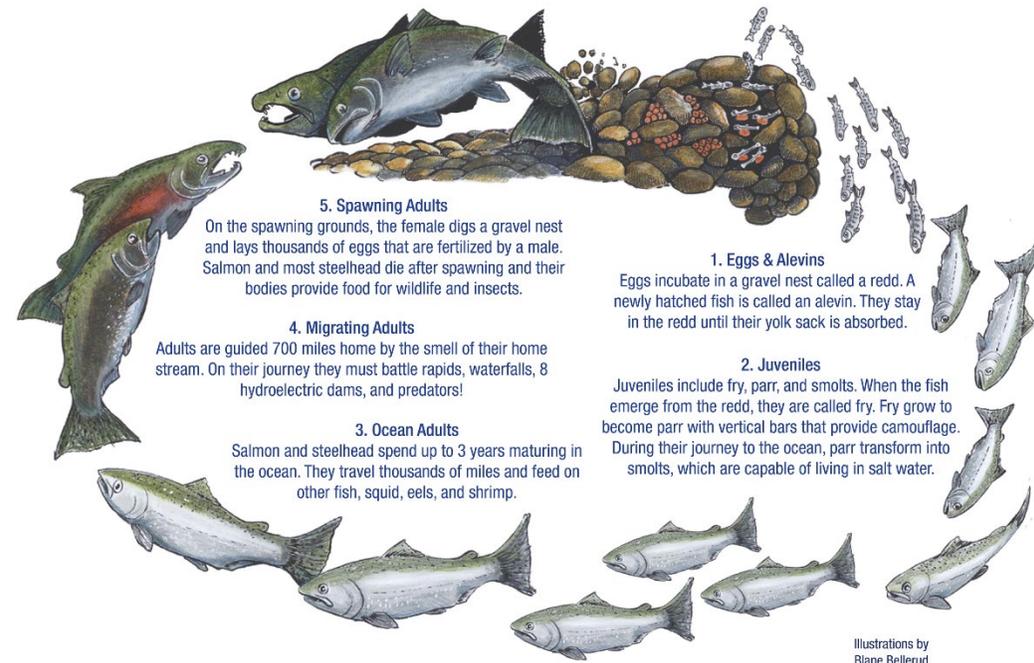


Includes ten elements:

1. Ongoing mandatory requirements of Order WR95-17
2. Winter habitat enhancement
3. Sediment reduction and management
4. Instream and riparian habitat enhancement
5. Biotechnical bank stabilization
6. California freshwater shrimp habitat enhancement
7. Monitoring
8. Aquatic invasive species management
9. Programs and policies
10. Collaboration and outreach

Fisheries Monitoring

- Adult Spawning Surveys (October - March)
- Smolt Trapping (March - June)
- Juvenile Abundance Surveys (June - October)

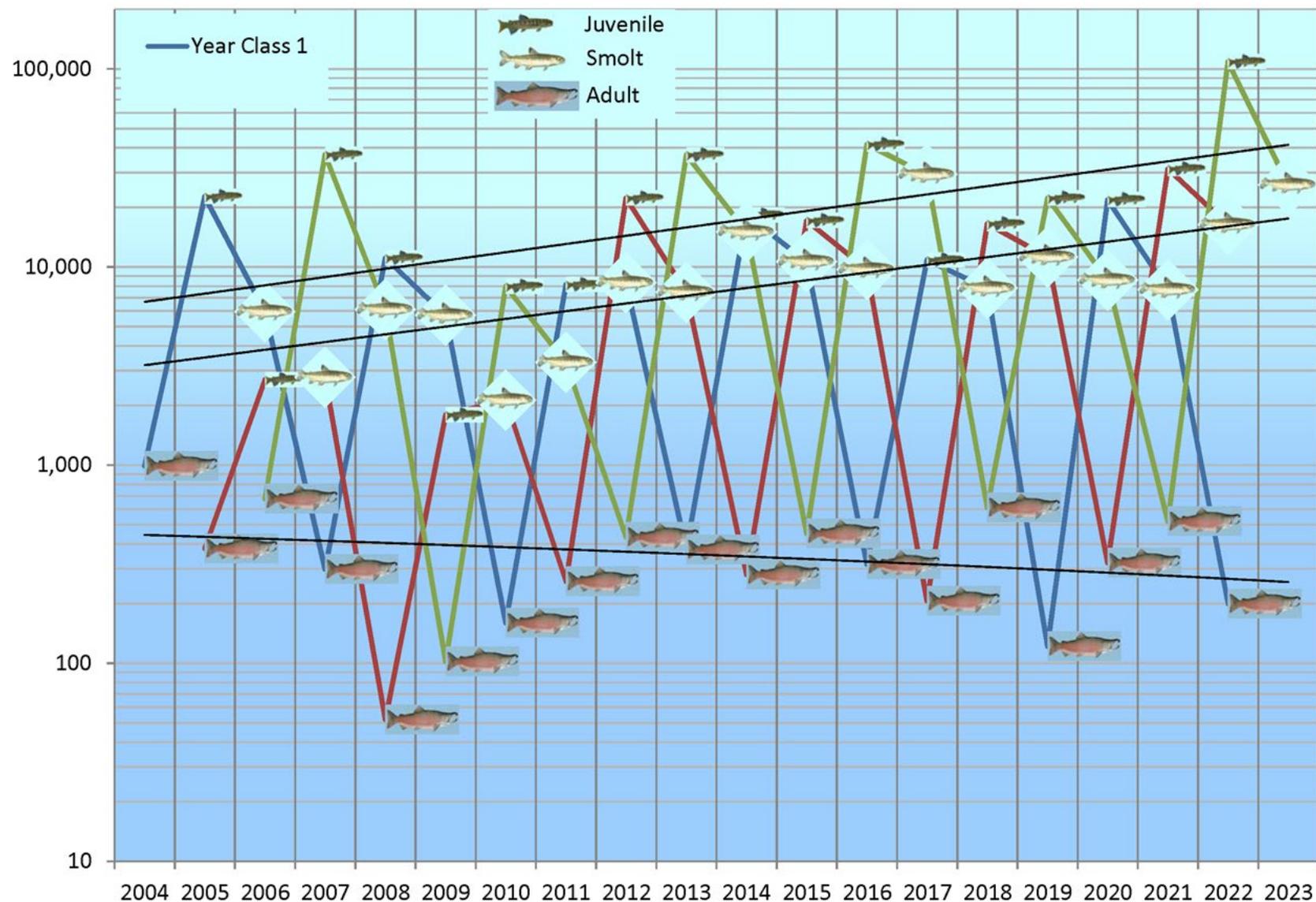


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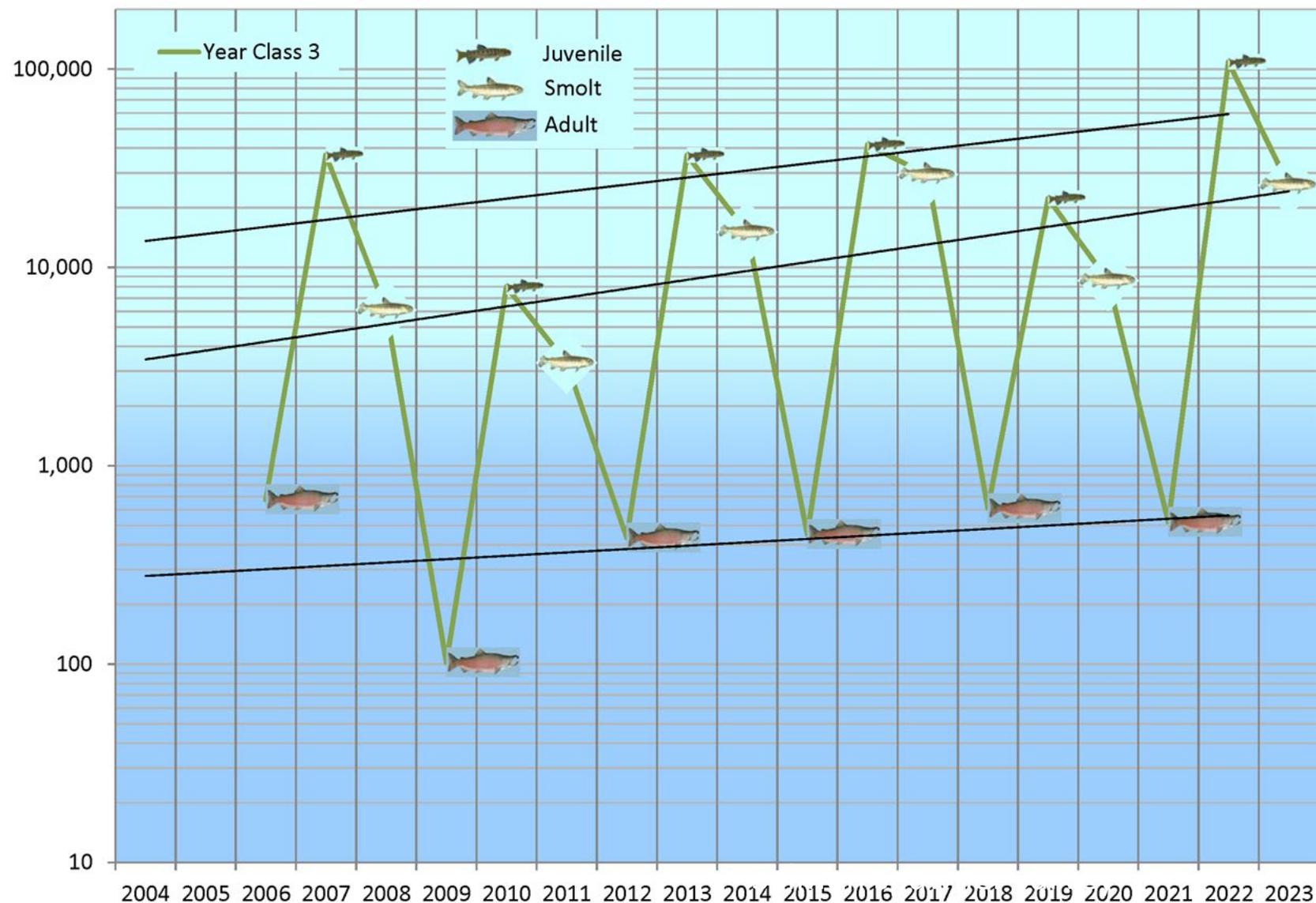
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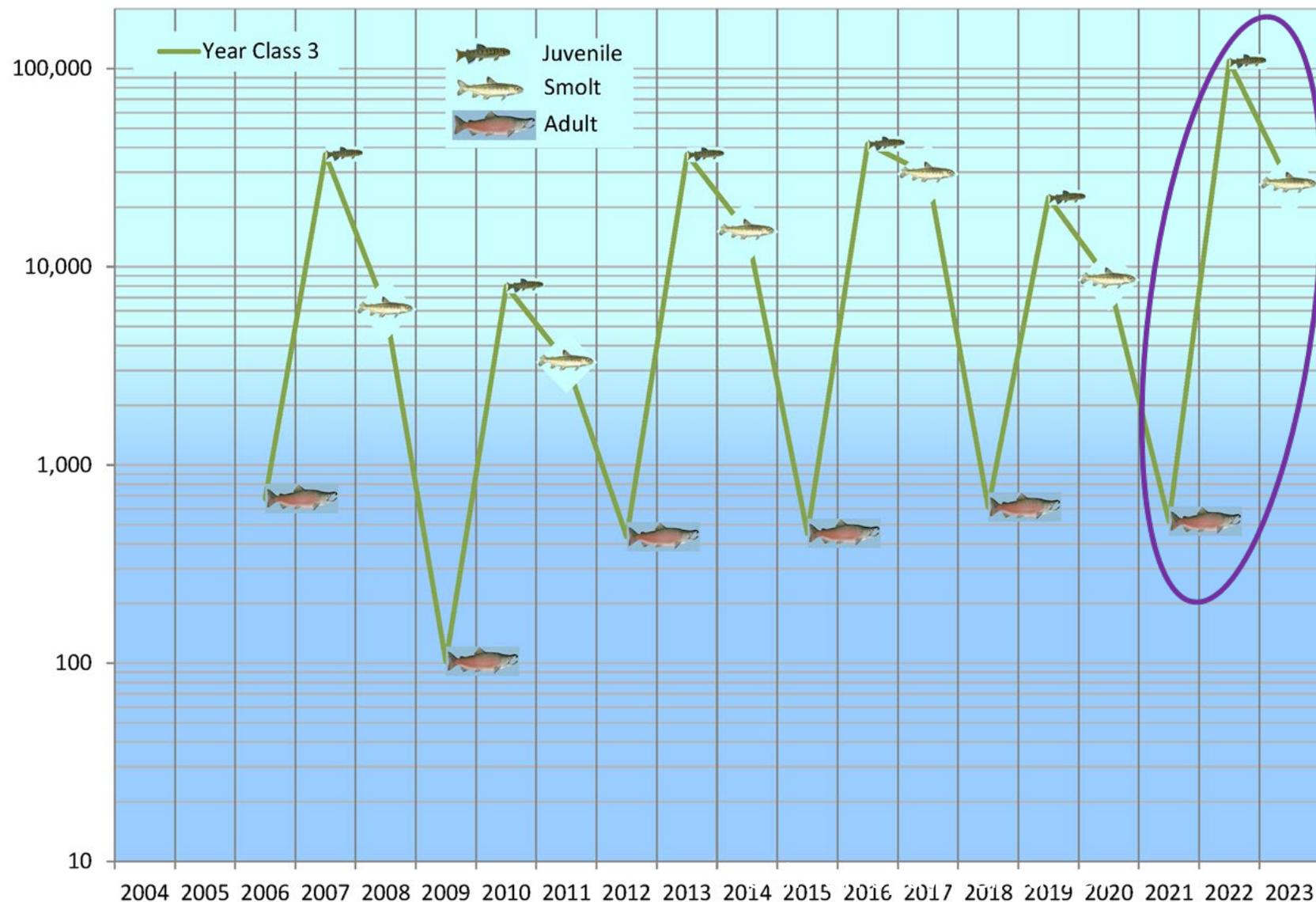
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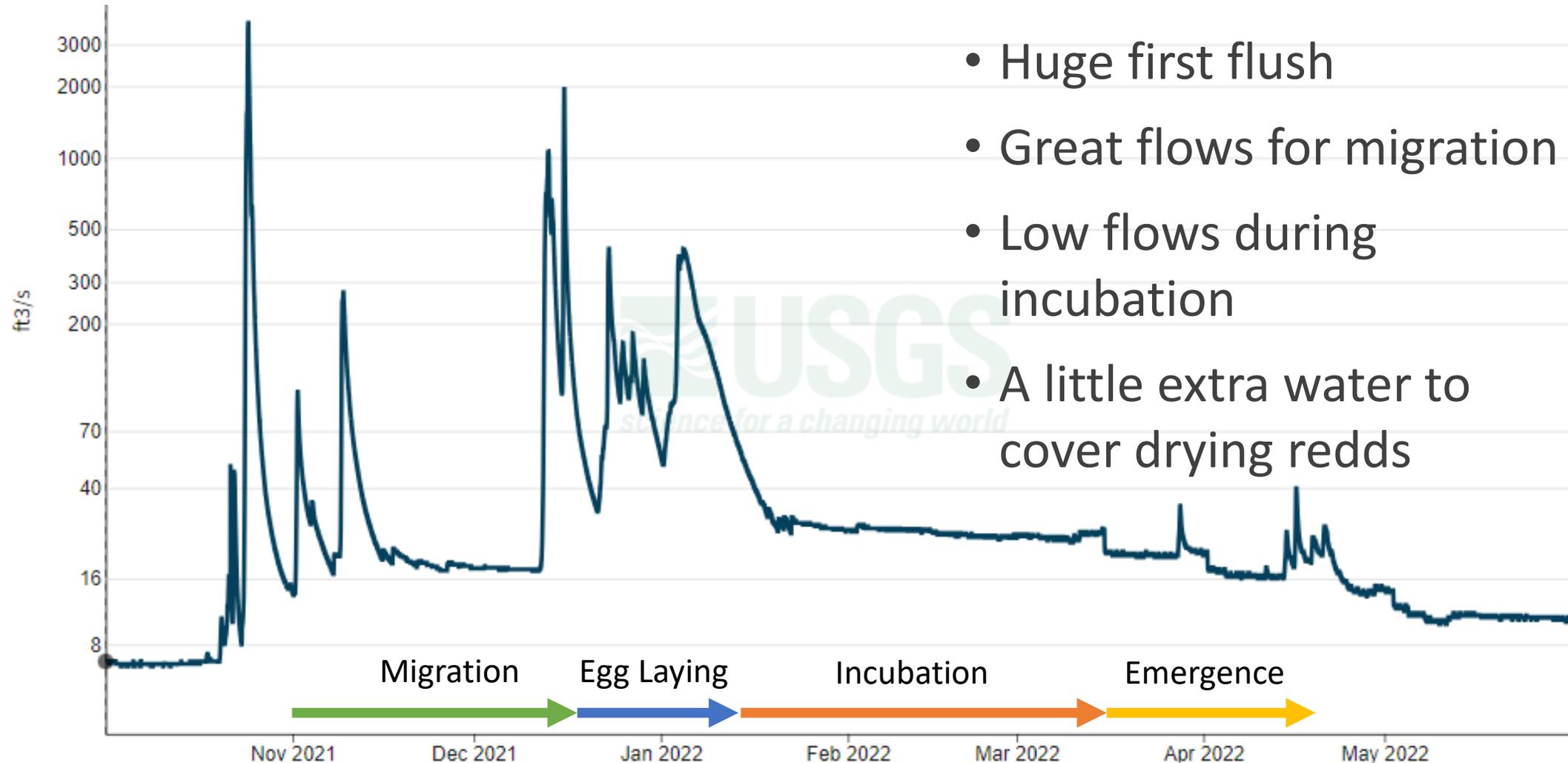


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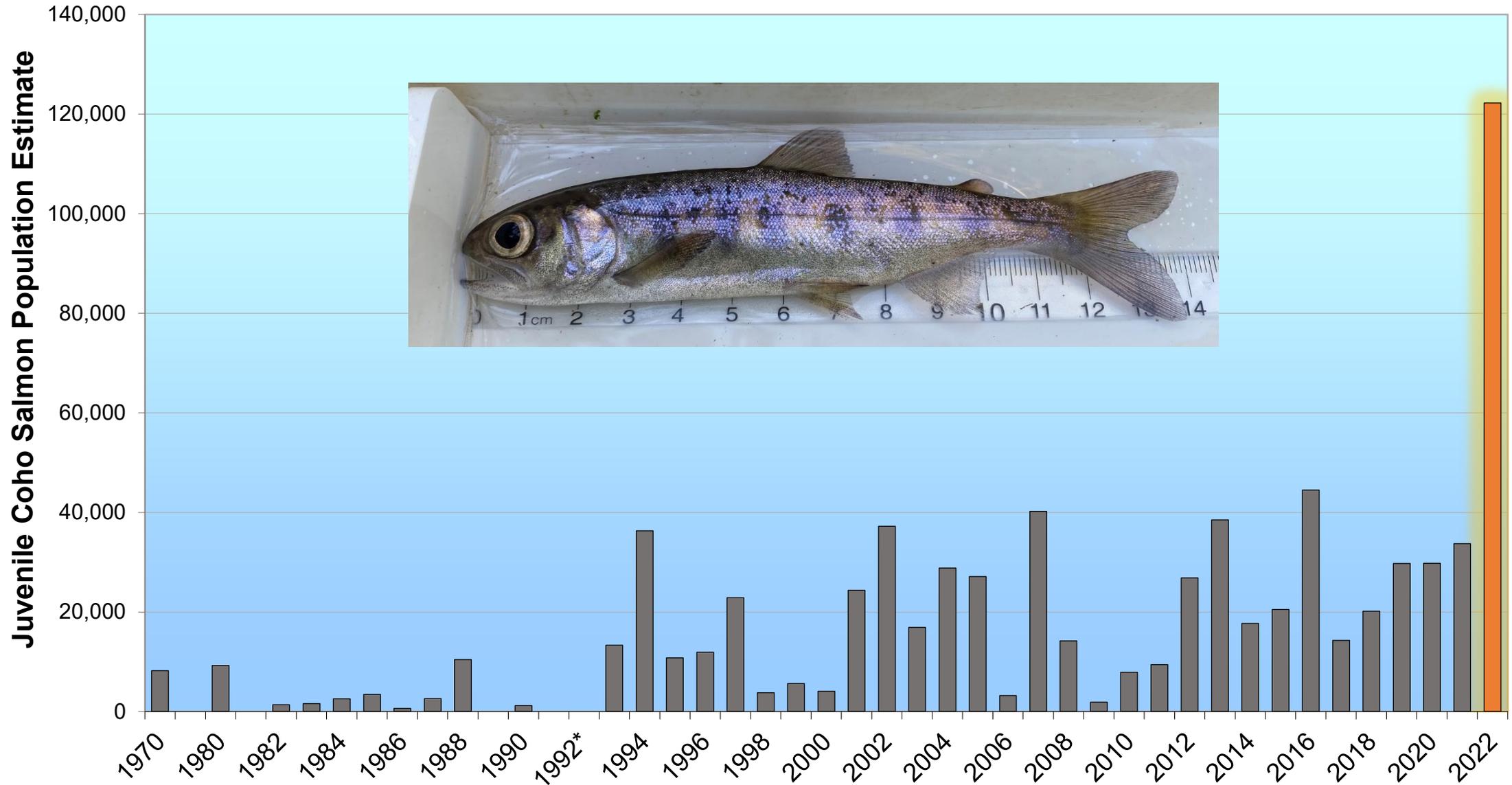
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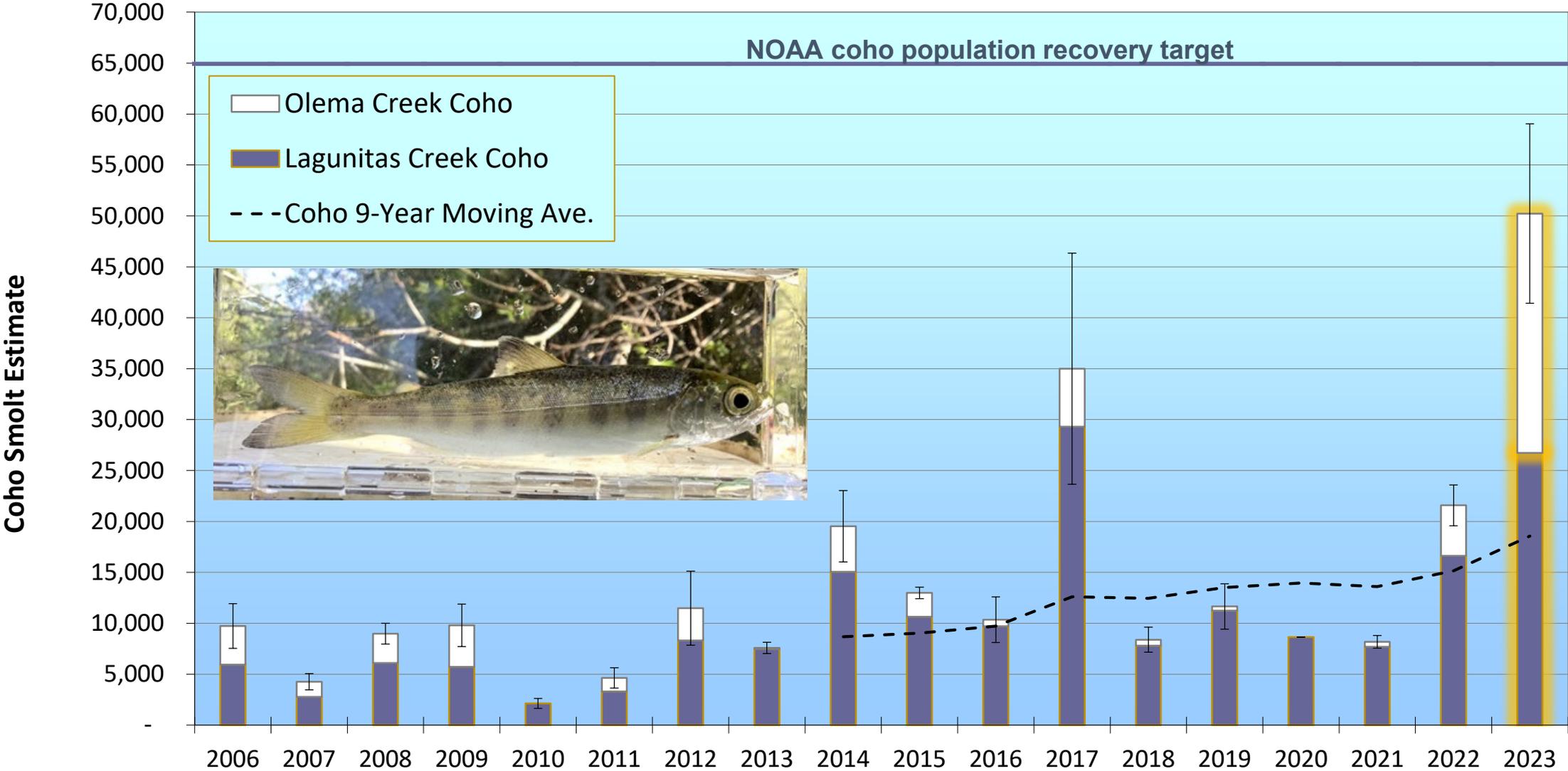
2021-22 was a PERFECT Water Year for Coho



Resulting in *Inconceivable* Juvenile Coho Numbers



Which Produced *Unprecedented* Smolt Numbers

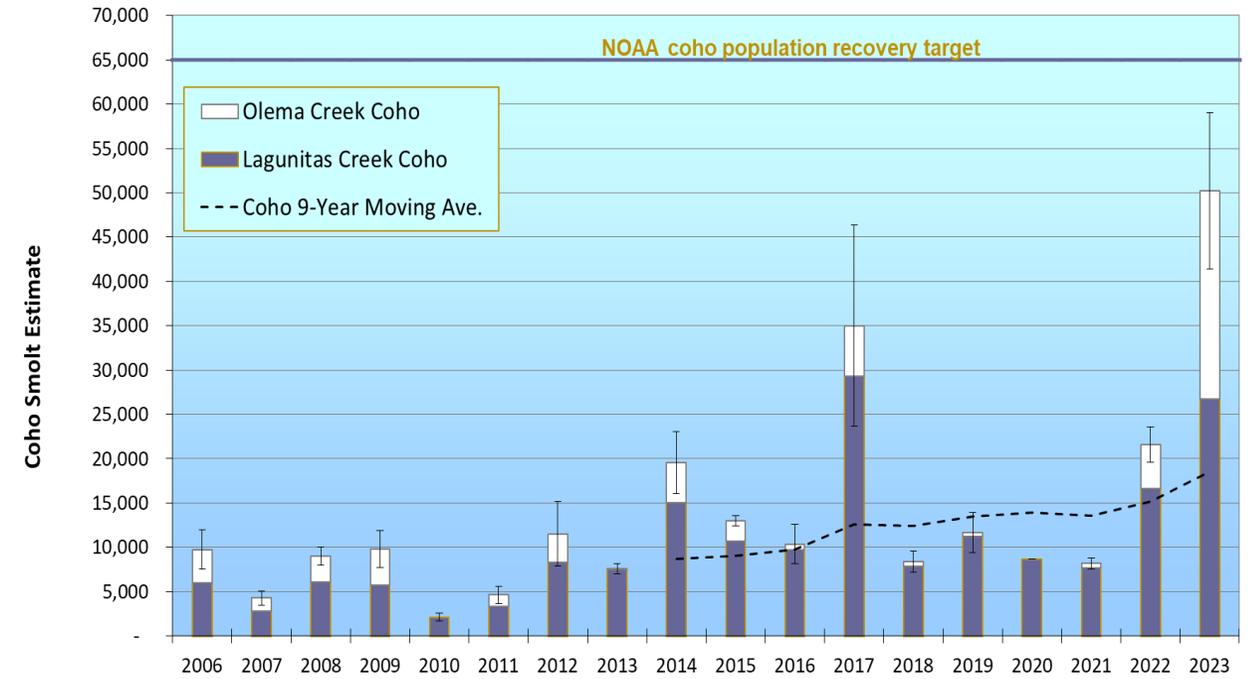
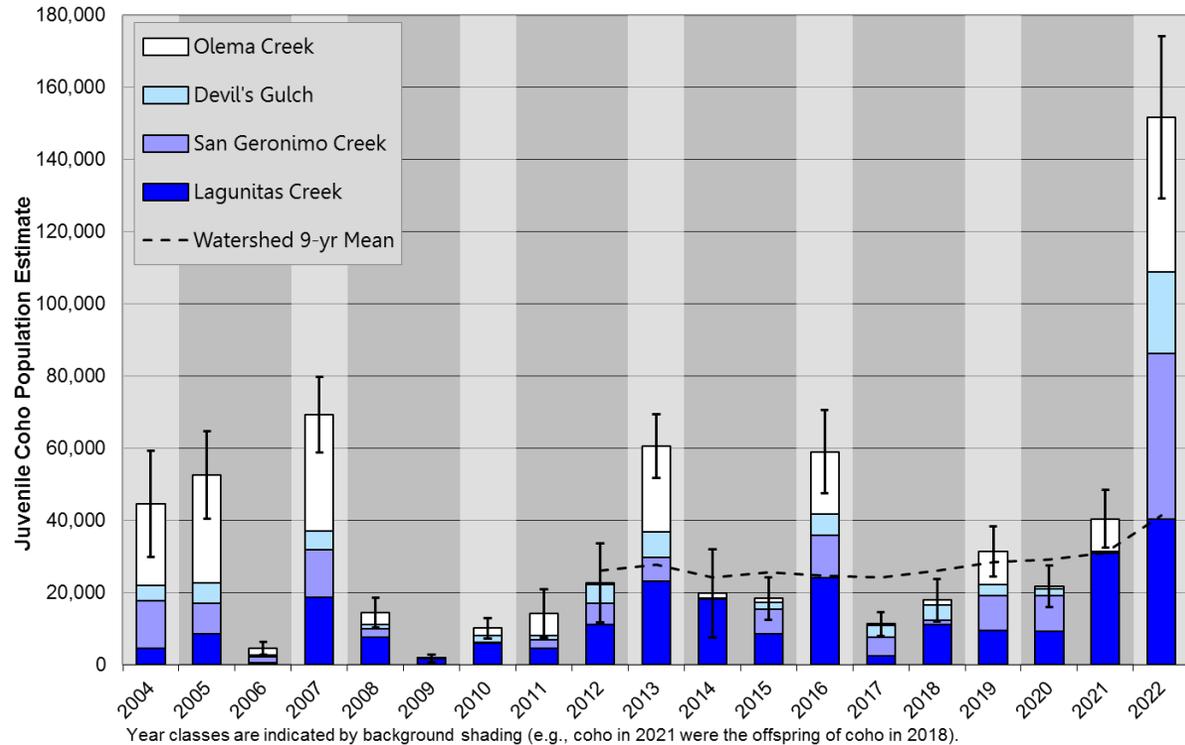


Estimating Population Size, Growth, and Survival

Juveniles tagged
in summer 2022



Tagged smolts
detected in
spring 2023



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Lagunitas Creek Stewardship Plan Updates



- Complete Lagunitas Creek Habitat Enhancement Project
 - Design and construct 13 sites
- Update restoration effectiveness monitoring to include quantitative measures of success
- Develop program to utilize local resources
 - Gravel deposits from Nicasio Reservoir
 - Floating and fallen trees from Kent Lake
 - Other large wood (Eucalyptus, downed trees)
- Support beaver re-introduction efforts led by CDFW

Lagunitas Creek Stewardship Plan Updates



- Align with concurrent program goals when possible
 - Species Recovery Plans (NMFS), Sediment TMDL (Regional Board), Salmon Habitat Restoration Priorities (SHaRP)
- Streamline reporting and increase outreach
 - Example: “Creek Notes”
- Improve overall plan readability and format
- Regularly receive and incorporate feedback from Lagunitas TAC
- Continue to identify long-term restoration and monitoring opportunities
 - Adaptive approach informed by monitoring
 - Continue to apply for grant funding

Anticipated Timeline

Meeting / Milestone	Outcome	Date
Lagunitas TAC Subcommittee	Agreed on Plan components and update approach; decided to continue plan update after Enhancement Plan had progressed further	February, 2021
Marin Water Watershed Committee	Discuss Plan update approach	September, 2023
Lagunitas TAC	Provide update	November, 2023
Lagunitas TAC Subcommittee Marin Water Watershed Committee	Review draft Plan and get feedback/comments	December 2023 – January 2024
Lagunitas TAC	Present revised draft Plan	March, 2024
Marin Water Watershed Committee	Present final Plan	Spring, 2024
Lagunitas TAC	Present Final Plan	Summer, 2024