State and Federal Approaches to Reforming Hatcheries to Further Salmon Recovery in California

RESOURCE LIST

2026 California Water Law Symposium

Panelists and Moderator:

- Professor Karrigan Bork, Professor of Law, UC Davis School of Law and Director, UC Davis Center for Watershed Sciences (moderator)
- Rebecca Akroyd, General Counsel, San Luis and Delta-Mendota Water Authority
- Darren Mierau, Director of Science, California Trout
- Jay Rowan, Branch Chief, Fisheries, California Department of Fish and Wildlife

Organizers:

Jessica Friley, 2L, and Jasmine Garza, 2L, University of the Pacific, McGeorge School of Law, Sacramento

1. California Natural Resources Agency, California Salmon Strategy for a Hotter, Drier Future (2024): https://www.gov.ca.gov/2024/01/30/governor-newsom-launches-californias-salmon-strategy-for-a-hotter-drier-future/

2. Draft Healthy Rivers and Landscapes Program Science Plan (September 2024): https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Voluntary-Watershed-Agreements/Draft_VA_Science_Plan.pdf

3. California Hatchery Scientific Review Group (California HSRG). 2012. California Hatchery Review Report, Prepared for the US Fish and Wildlife Service and Pacific States Marine Fisheries Commission (June 2012) (open access): https://www.researchgate.net/publication/360181533_California_Hatchery_Review_Report_Prepared_by_the_California_Hatchery_Scientific_Review_Group

4. Michael Ford et al., Abundance Trends of Pacific Salmon During a Quarter Century of ESA Protection (August 31, 2025) (open access): https://onlinelibrary.wiley.com/doi/10.1111/faf.70019?af=R

5. Eric Huber et al, Seventy years of diminishing biocomplexity of California Central Valley hatchery steelhead, Oncorhynchus mykiss, Canadian Journal of Fisheries and Aquatic Sciences (February 2024) (open access): https://cdnsciencepub.com/doi/10.1139/cjfas-2023-0077

6. Robert Bilby et al., Why Aren't Salmon Responding to Habitat Restoration in the Pacific Northwest? Fisheries Magazine (August 2023) (paywall to access): https://onlinelibrary.wiley.com/doi/10.1002/fsh.10991

7. NOAA Fisheries, Protective Regulations for Threatened Species under the Endangered Species Act: Section 4(d) (ESA section 4(d) rule sets the stage for Hatchery Genetic Management Plan and Fisheries Management Evaluation Plan requirements): https://www.fisheries.noaa.gov/national/endangered-species-conservation/protective-regulations-threatened-species-under-endangered

8. California Department of Fish & Wildlife (CDFW) Hatchery Operations Final EIR/EIS: https://wildlife.ca.gov/Fishing/Hatcheries/EIR

9. CDFW Fish Hatcheries General Web Page: https://wildlife.ca.gov/Fishing/Hatcheries

10. CDFW Hatchery Climate Resilience Reports: https://wildlife.ca.gov/Fishing/Hatcheries/Climate-Resilience

11. CDFW Strategic Plan for Trout and Inland Salmon Hatcheries (2022-2032): https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213739&inline

12. Pacific Fisheries Management Council Web Page and Briefing book for 2025 (Ocean Commercial and Recreational salmon season setting goes through the PFMC decisions are made in the April meeting each year):

    - https://www.pcouncil.org/council-meetings/
    - https://www.pcouncil.org/briefing-book/december-2025-special-council-meeting-briefing-book/

13. California Fish and Game Commission Web Page (FGC sets inland salmon recreation seasons in May each year): https://fgc.ca.gov/

14. Anna Sturrock et al., Eight Decades of Hatchery Salmon Releases in the California Central Valley: Factors influencing Straying and Resilience, Fisheries Magazine (2019) (open access): https://onlinelibrary.wiley.com/doi/full/10.1002/fsh.10267?af=R

15. Berejikian and Doornik, Increased natural reproduction and genetic diversity one generation after cessation of a steelhead trout conservation hatchery program (2018) (open access): https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0190799

16. David Dayan et al., A single generation in the wild increases fitness for descendants of hatchery-origin Chinook Salmon (2024) (open access): https://onlinelibrary.wiley.com/doi/full/10.1111/eva.13678