

California Fish and Game Commission Marine Resources Committee Meeting

California Department of Fish and Wildlife – Marine Region Written Update November 6, 2025

Red Abalone Statewide Restoration Plan

North Coast Red Abalone Fieldwork

In August, the California Department of Fish and Wildlife (Department) Marine Region staff conducted fieldwork focused on red abalone as part of an annual diver recertification process. Twenty staff and five vessels (including the P/B Barracuda) repaired Abalone Recruitment Modules (ARMs) located at Van Damme State Park, which had been damaged by prior storms, and serviced temperature and oxygen sensors. Staff surveyed and reinforced seven intact ARMs. Two young-of-the-year red abalone were observed, which is similar to results from prior years. Strong purple sea urchin recruitment was also observed.

Red Abalone Restoration Plan

Restoration Plan Process

At the July 2025 Marine Resources Committee (MRC) meeting, Department staff provided an update on the restoration planning process, including the details and circumstances which lead to pausing development of the plan in January 2025. Before the planning process was paused, Department staff identified a preliminary list of tribal, community and technical advisors to assist in development of the Restoration Plan. Funding for independent facilitation was identified as a critical need to finalize appointments to tribal, community, and technical advisory groups and support Restoration Plan development. The Department is actively seeking funding opportunities to support the development of the Restoration Plan.

Data Inventory

Department staff are compiling an inventory of red abalone data collected by entities outside the Department. To date, staff have identified the following data sources: Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO), Multi-Agency Rocky Intertidal Network (MARINe), Reef Check, National Park Service's Kelp Forest Monitoring Project (KFM), USGS San Nicolas Island Intertidal Monitoring, Santa Barbara Coastal Long Term Ecological Research (LTER), Point Loma LTER, and Cal Poly Humboldt's Kelp Forest Monitoring Project (Table 1).

Many of these data sources contain over 20 years of data which will be informative to characterize the status of red abalone in California, identify additional data needs, and inform a future monitoring strategy.

Department staff will continue to work with tribes, recreational and commercial divers, and the public to identify additional data sources. Individuals who are interested in submitting data are encouraged to reach out to Department staff at abalone@wildlife.ca.gov.

Table 1. Long term monitoring programs in California with red abalone data.

Source	Data Type(s)	Year Range	Counties	Acquired?
CDFW	Density, size, recruitment	1999-2023	Sonoma, Mendocino	Yes
PISCO	Density, size	1999-present	LA to Mendocino	Yes
Reef Check	Density	2006-present	San Diego to Del Norte	Yes
San Nicolas Island	Density	1980-present	San Nicolas Island only	Yes
Cal Poly Humboldt	TBD	2014- present	Mendocino, Humboldt, Del Norte	No
KFM	Density, size, recruitment	1982- present	Northern Channel Islands	No
MARINe	Density, size	1997-present	Statewide	No
Point Loma LTER	Density	TBD	San Diego	No
SB Coastal LTER	Density	2000-present	Santa Barbara, Ventura	No

Timeline/Next Steps

The Department anticipates obtaining all currently identified datasets (Table 1) by the end of 2025. A summary of these data is expected to continue through winter 2026, with the goal of providing an update at a future MRC meeting.

Once the spatial and temporal extent of datasets have been summarized, a technical evaluation will be necessary to determine if and how the different datasets can be combined and whether additional data are necessary to inform restoration plan development and future monitoring efforts. The technical advisory committee would be best suited to provide this feedback once formally appointed.

Kelp Restoration and Management Plan Update

The Department in close collaboration and support from the Ocean Protection Council (OPC) and other partners, continues to develop a statewide, adaptive, ecosystem-based Kelp Restoration and Management Plan (KRMP) for bull kelp and giant kelp that will guide the state's efforts to manage, protect, and restore kelp forests in California waters.

A multi-pronged approach, consisting of a Community Working Group (CWG), Science Advisory Committee (SAC), and Tribal Engagement, is underway to ensure the development of the KRMP is informed by the best available science and community perspectives across the state of California.

A top priority for the State is to provide tribes the opportunity to inform the design and development of the KRMP's process and outcomes, including co-management pathways, if this is identified as a priority by California Native American tribes.

- Pathways for **Tribal Engagement** throughout the development of the KRMP to date include a Tribal Roundtable Listening Session in 2023, a Tribal Community Forum in 2024, and ongoing representation on the CWG and the SAC.
- The conversations and communications mentioned above do not replace formal government-to-government consultation on the KRMP, which remains open throughout the development process and beyond.

The **Community Working Group (CWG)** is an informal advisory body composed of California Native American tribes, stakeholders, and interested members of the public established to help inform the design and development of the KRMP. The goals of the Community Working Group are to advise on and inform the development of the core components of the KRMP. CWG members are tasked with sharing information about the KRMP development with their broader community networks, as well as tasked with gathering and sharing their communities' perspectives, interests, and feedback.

- There have been five CWG meetings to date including most recently in-person CWG and crossover meetings with the Science Advisory Committee (SAC) in May 2025.
- The CWG is in the process of developing draft recommendations, including three subcommittees to refine draft recommendation language that will eventually be voted upon by the full CWG. The subcommittees' topics include: 1) Harvest (commercial, recreational, subsistence, and Tribal), 2) Community Engagement, Education/Outreach, and Knowledge Sharing, and 3) Research to Inform Management and Restoration.

- If you would like to be put in touch with a CWG member, please reach out to kelp@wildlife.ca.gov.

The **Science Advisory Committee (SAC)** is an independent advisory body tasked with providing scientific expertise on all aspects of the KRMP to ensure the best available and most current science is directly integrated into the KRMP.

- There have been nine SAC meetings to date, along with additional subgroup meetings aimed at refining key aspects of a decision tree, including characterizing and ground truthing kelp state, considering spatial management units, and developing a tool for gathering and integrating community input into the future.
- Input from the CWG is being integrated where possible (e.g., ground truthing kelp state characterizations). Notably, the idea to develop a community input tool emerged from discussions at the CWG-SAC in-person crossover meetings in May 2025, and the CWG is involved in shaping this tool and its potential application.
- The SAC has begun the process of evaluating restoration tools to consider within the KRMP restoration toolkit. This evaluation is ongoing and will incorporate outputs of the OPC-funded Kelp Recovery Research Program and Accelerating Kelp Research and Restoration Projects and other research underway, as results become available.

Looking ahead, the CWG will continue to refine draft recommendation language, with voting and finalizing recommendations in early 2026. The SAC will continue packaging the science that informs key elements of a decision tree, including the evaluation of potential restoration tools. Department staff will continue drafting components of the KRMP, alongside continued CWG and SAC meetings, and Tribal engagement.

Timeline: The KRMP development process began in 2023, and a public draft is anticipated to be available in 2027.

More details and information about the KRMP development process, including updates and meeting summaries, can be found on the KRMP webpage: <https://wildlife.ca.gov/Conservation/Marine/Kelp/KRMP>