

# Decadal Management Review: Appendix A Comprehensive Recommendations



Wave crashing onto rocks.  
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## About this Document

The Decadal Management Review (Review) includes available sources of information about the Marine Protected Area (MPA) Network. The California Department of Fish and Wildlife (CDFW) received recommendations from a wide range of sources, including tribes, core partners, the fishing community, the public, and existing reports. This Appendix contains the recommendations received by CDFW in preparation for the Review.

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## CDFW MPA Management Program Comprehensive Recommendations

The adaptive management recommendations provided here come directly from the many resources, including the Review partner reports, direct engagement with the public, fishing community, tribes, and the broad array of other information streams and reports informing the Review. The extensive input CDFW received highlights the engagement and interest of stakeholders and tribes in MPA management in California. These broad recommendations helped inform the priority list of recommendations that appear in the main body of this report (Table 6.1), as well as more tangible actions proposed by partners and stakeholders.

### 1. MPA Governance and Partnerships

#### *Tribal Coordination*

- Improve understanding of socioeconomic and cultural implications of the MPA Network for tribal communities.
- Increase annual engagement with tribes through regional tribal chairman's association meetings and other venues to inform them about ongoing MPA management activities.
- Continue public investment in MPA research, particularly tribal-led efforts, north coast monitoring, human dimensions and socioeconomic research, and inclusion of a diverse group of scientists and perspectives.
- Improve and provide more capacity and opportunities for tribal co-management of MPAs in California.

#### *Regulatory and Review Framework*

- Conduct annual engagement meetings with stakeholders to inform them about MPA Management Program activities that inform decadal reviews.
- Define clear management reporting goals, including the scale of reporting at the statewide, regional, or local scale.
- Ensure that adaptive management changes to individual MPAs and the MPA Network are evidence based.
- Simplify designations by changing no-take SMCAs to SMRs after maintenance of existing infrastructure is permitted.
- Return MPA fishing opportunities, especially in legacy fishing areas that were previously open to fishing.
- Allow take of migratory and pelagic species in MPAs that currently do not allow it.
- Allow commercial urchin take in MPAs that allow commercial lobster take.
- Do not allow boat operations within 100 yards of a remnant kelp forest within MPAs.
- Requests to change specific MPAs (not including formal petitions; see Appendix G):
  - Relocate Piedras Blancas MPA north, just south of Cape San Martin to protect nursery grounds.
  - Increase the size of Matlahuayl State Marine Reserve to include Point La Jolla and the Boomer Beach area where the sea lion colony is located.

- Expand Point Vicente MPAs or adopt new MPAs to encompass the Palos Verdes shoreline particularly around Rocky Point, Lunada Bay, Honeymoon Cove, Christmas Tree Cove, Portuguese Bend, and Sacred Cove.
- Remove the SMCA designations from the Orange County MPAs unless science can be conducted within them.
- Remove Laguna Beach MPAs or modify regulations to allow sustainable sportfishing.
- Prohibit surf smelt take (no take) at Pyramid Point SMCA (but keep tribal exemption).
- Convert Drakes Estero SMCA to an SMR due to the end of aquaculture activities and lack of easy access for harvest. If designation changes, consider merging with the adjoining Estero de Limantour SMR.
- Convert Duxbury Reef SMCA to SMR to simplify regulations and help ease enforcement and education needs.

#### *Justice, Equity, Diversity, and Inclusion*

- Include demographic questions in future MPA user surveys and through licensing.
- Collect participant demographics and assess participant benefits, motivations, and engagement patterns in community science and outreach programs to increase diversity of the people that participate.
- Determine who benefits from MPAs and make sure that MPAs do not unfairly limit access.
- Pursue non-traditional partnerships and outreach venues that educate underserved communities about ocean resources.
- Diversify State Parks interpretive staff to include Indigenous and bilingual team members willing to share their unique experiences, knowledge, and perspectives.
- Improve engagement and fund outreach initiatives that target inland and underserved communities about MPAs and how to access them.

#### *Fishing Communities*

- Include more diverse stakeholders such as recreational users and the fishing community in research and monitoring.
- Create relationships between researchers and the fishing community to build trust and merge different types of knowledge.
- Incorporate fishing community knowledge into MPA outreach and include more participants from this audience in the Collaborative Network.
- Create a specific communication channel for stakeholders in the commercial and recreational fishing community, who have the most to lose from MPAs.

#### *MPA Statewide Leadership Team and Partner Coordination*

- Continue CDFW support and staff engagement in the Collaborative Network.
- Increase investment of resources into co-management of Channel Islands and other federal MPAs and CDFW participation in review of federal Channel Islands MPAs.
- Coordinate with federal MPA managers in discussions regarding policy and/or regulatory changes in state MPAs within National Marine Sanctuaries, such as consideration of special closures for seabird protection on the central coast.

- Coordinate with National Marine Sanctuaries to create a joint map of federal and state MPAs.
- Leverage MPA Watch as part of a broader strategy for human dimensions research and monitoring and improve survey design to facilitate downstream analysis.

## **2. MPA Management Program Activities**

### *Research and Monitoring*

- Develop a consistent funding cycle for MPA monitoring to ensure coordinated data collection across habitats spatially and over time.
- Ensure that partner input is captured and considered in the update of the MPA Monitoring Action Plan to direct monitoring beyond 2023.
- Focus monitoring on MPAs and regions that have long time series, not just positive trends.
- Improve integration of other long-term datasets, such as CalCOFI, in MPA performance analyses.
- Increase coordination of monitoring sites between different habitat groups.
- Fill in gaps and expand data streams that aid in MPA data analysis such as complete development of seafloor habitat mapping, consistent kelp canopy surveys, and environmental monitoring.
- Expand monitoring of special closures and seabird-focused monitoring projects.
- Increase monitoring of non-rocky reef habitats such as soft bottom and estuaries.
- Identify and monitor “sentinel” MPAs consistently over time, and better utilize other MPAs where ecological monitoring does not occur for education and other uses.
- Collect data on human use of rocky intertidal areas.
- Assess economic value of MPAs from both consumptive and non-consumptive uses.
- Create a map of specific research and monitoring locations and database of site- or regional-specific results.
- Consider evaluation of research and monitoring data by scientists or other institutions that have not benefited financially from the creation of the MPA network.

### *Outreach and Education*

- Develop a statewide MPA marketing campaign.
- Encourage branding MPA materials both internally and with partners to improve Network recognition.
- Design and distribute cohesive MPA merchandise to increase brand identity such as stickers, posters, and MPA passports targeted at tourists.
- Develop digital learning platforms so educators can access concise MPA information from CDFW to supplement teacher toolkits and lesson plans.
- Improve CDFW’s ocean sportfishing web map by making it accessible offline and without a cell signal. Add a notification feature to alert users when they enter an MPA.
- Integrate MPA information into commonly used travel apps such as Google Maps, TripAdvisor, and State Parks OuterSpatial.
- Increase funding opportunities for paid positions for in-person MPA outreach, including State Parks MPA interpreters to run year-round programs.



- Continue outreach and education efforts about special closures, especially through the “Exploring California” blog series.
- Organize annual public webinar to provide MPA Management Program updates and receive public input.
- Improve education and outreach efforts that target other issues that may affect MPAs such as dog leash laws, drones, other human-related disturbances, and litter.

### *Policy and Permitting*

- Educate CDFW wildlife officers and other local law enforcement about scientific collecting permits (SCPs) and permitting within MPAs.
- Develop and implement protocol for enhanced coordination between agencies to address SCP requests and updates to permitting policies regarding MPAs.
- Identify how to best inform applicants about other agency regulations and permitting requirements.
- Improve transparency in the SCP process by making a publicly accessible SCP database that provides application status and reasons about requests for project refinement or denial.
- Reduce the cost for SCPs.
- Develop policy guidance to allow for maintenance of infrastructure not previously within MPAs as a result of climate change and sea level rise.

### *Enforcement and Compliance*

- Continue printing Ocean Sport Fishing Regulations booklets and regional MPA guides for use by the fishing community and Law Enforcement Officers.
- Notify the local community and enforcement officers about when and where research and monitoring is occurring in MPAs.
- Increase publicity about CDFW enforcement efforts and stories.
- Generate and distribute more dynamic violation maps and enforcement metrics for a broader audience.
- Expand use of enforcement and compliance tools like Marine Monitor (M2) and eFINS.
  - Work with partners to identify vessel hotspots and increase training on use of M2 for wildlife officers.
  - Send M2 data to wildlife officers to create real time surveillance of activity on the water.
  - Use eFINS outputs to update Fish and Game Commission on compliance issues, aid in coordination with allied agencies, and inform long-term monitoring locations for enforcement.
- Integrate all historical eFINS data with data from RMS and electronic Daily Activity Reports.
- Utilize drones to capture evidence and help with enforcement in less accessible areas.
- Include additional fee on boat registration to support more wildlife officers for MPA patrols.
- Recommend replacement of older vessels.

### 3. MPA Network Performance Evaluations

#### *MPA Network Design*

- Use evaluations as an opportunity to learn more about the effectiveness of MPA Network design guidelines and different MPA designs.
- Research opening MPAs on a rotating basis for specific fisheries and continue monitoring for abundance and biodiversity in open and closed areas.
- Add MPAs, expand current MPA boundaries, and strengthen fishing bans within existing MPAs as part of this first Decadal Management Review.
- Add special closures to the central coast to align with other regions.
- Consider eliminating MPAs that do not provide evidence for improving abundance and biodiversity after credible before/after monitoring.
- Explore and consider opportunities to nominate and designate new State Water Quality Protection Areas that provide additional water quality protections in MPAs.
- Determine a time scale for expected results.

#### *Climate Resilience and Adaptation*

- Continue to improve the integration of oceanographic and climate change-focused data, such as pH and carbonate chemistry, with MPA data streams.
- Use MPAs to assess climate impacts on coastal communities.
- Develop models for climate change risk on shorter timescales and for nearshore marine habitats.
- Increase support and funding for monitoring deep water habitats and biological/human communities to improve understanding of climate change impacts and resilience conferred by MPAs.
- Develop and incorporate climate resilient MPA priorities into existing MPA management activities and state climate action plans.
- Employ new and existing tools and partnerships to maximize the benefits of a climate resilient MPA network.
- Expand MPA boundaries above mean high tide line, into deeper water, and landward from estuaries to adapt to sea level rise.
- Consider protection needs of species that may enter the MPA Network due to future species range shifts.

#### *Fisheries Integration and Other Influencing Factors*

- Improve estimates of fishing effort and other anthropogenic influences such as visitation, pollution, water quality, and infrastructure at MPA scales.
- Generate spatially explicit catch location metrics that better align with MPA boundaries of fishing pressure or mortality.
- Modify current MPA monitoring surveys to specifically address both MPA and fishery management questions.
- Collaborate with CDFW's California Recreational Fisheries Survey (CRFS) project to better understand how to use CRFS data to inform fishing dynamics around MPAs.

- Improve understanding of MPA Network effects on fisheries and fish stock sustainability.
- Share information, if available, about the patterns of fishing effort along MPA boundaries.
- Analyze landings in pounds before and after MPA implementation for fisheries that have been identified as impacted by the MPAs.
- Address and better regulate the interaction of sea lions and nearshore fisheries.
- Expand regional water quality monitoring from the south coast to the rest of the state.
- Research the potential impacts and benefits of emerging ocean uses on MPAs such as aquaculture and alternative energy projects.
- Consider amendments to water quality control plans and policies to further protect and improve ocean water quality and marine habitat.