



ACTION ITEM

Staff Recommendation
October 25, 2018

Marine Protected Areas Monitoring Action Plan

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RECOMMENDED ACTION: Staff recommends that the Ocean Protection Council adopt the resolution attached in Exhibit B and endorse the “Marine Protected Areas Monitoring Action plan” to guide long-term monitoring of California’s marine protected areas network, pursuant to Sections 35500 *et. seq.* of the Public Resources Code.

“The California Ocean Protection Council hereby adopts the *Marine Protected Areas Monitoring Action Plan* which establishes a roadmap for the MPA Monitoring Program including clear priorities for sites, habitats, human use, metrics, measures and species to ensure the state is gathering the required information needed to inform adaptive management.”

STRATEGIC PLAN OBJECTIVES: Science-Based Decision-Making, Sustainable Fisheries and Marine Ecosystems, Climate Change, Coast and Ocean Impacts from Land-Sources, Existing and Emerging Ocean Uses

EXHIBITS

Exhibit A: “Marine Protected Areas Monitoring Action Plan 2018” main body only¹
Exhibit B: Proposed Resolution of the California Ocean Protection Council regarding “The California Collaborative Approach: Marine Protected Areas Partnership Plan”

SUMMARY:

The attached proposed resolution will:

1. Adopt the “Marine Protected Areas Monitoring Action Plan” (Exhibit A) which establishes a roadmap for the MPA Monitoring Program including clear priorities for sites, measures and species including priority 1, 2 and 3 tiers to allow partners to have a clear understanding of what information will be the most beneficial to the state to

¹ <https://data.cnra.ca.gov/dataset/marine-protected-area-monitoring-action-plan-2018/resource/7bd7060a-2adb-411d-b31f-e96e197c0ad9>

inform adaptive management, including the formal management reviews; and

2. Commit OPC to a broad partnership with academic, tribal, government, non-governmental and citizen/community scientists to enable successful and effective monitoring, analyses and evaluation of California's marine protected area (MPA) Network.

PURPOSE:

The [MPA Monitoring Program](#)² is designed to evaluate the performance of the MPA Network at meeting the goals of the Marine Life Protection Act (MLPA) including ecosystem-based and specific ecological goals that include:

- protecting the natural diversity and abundance of marine life;
- protecting structure, function and integrity of marine ecosystems;
- sustaining, conserving, protecting and rebuilding depleted marine life populations; and
- protecting representative and unique habitats for their intrinsic value.

California's MPA Network removes or reduces fishing and, where possible, MPAs were also co-located with [Areas of Special Biological Significance](#),³ which are areas within California state marine waters that have higher water quality standards. The State is mandated by the MLPA to evaluate how protection affects fished species, as well as the ecosystem as a whole. This requires a holistic approach to monitoring across geography, disciplines and habitats. As a first step to addressing this mandate, the State invested \$16 million in Phase 1 of the MPA Monitoring Program. Phase 1 (2007-2017) of the MPA Monitoring Program involved collecting baseline monitoring information to characterize conditions at or near the time of implementation. Concurrently, Regional Monitoring Plans were developed through a public process resulting in a framework that identified a comprehensive list of questions and indicators that help inform the evaluation of the MPA Network at meeting the goals of the MLPA. At the end of the Phase 1, researchers also evaluated the indicators within the Regional Monitoring Plans and suggested indicators that would be valuable for Phase 2 long-term monitoring.

With this critical foundational work completed, the State has developed a quantitative and expert informed approach to Phase 2 long-term monitoring that is presented in the MPA Monitoring Program Action Plan (Action Plan). ***The Action Plan prioritizes key measures, metrics, habitats, sites, species, human uses, and management questions to target for long-term monitoring to inform the evaluation of California's MPA Network.*** The Action Plan aggregates and synthesizes the significant amount of work to date on designing MPA

² http://www.opc.ca.gov/webmaster/_media_library/2018/05/statewide_mpa_monitoring_program_overview_-_final_17.pdf

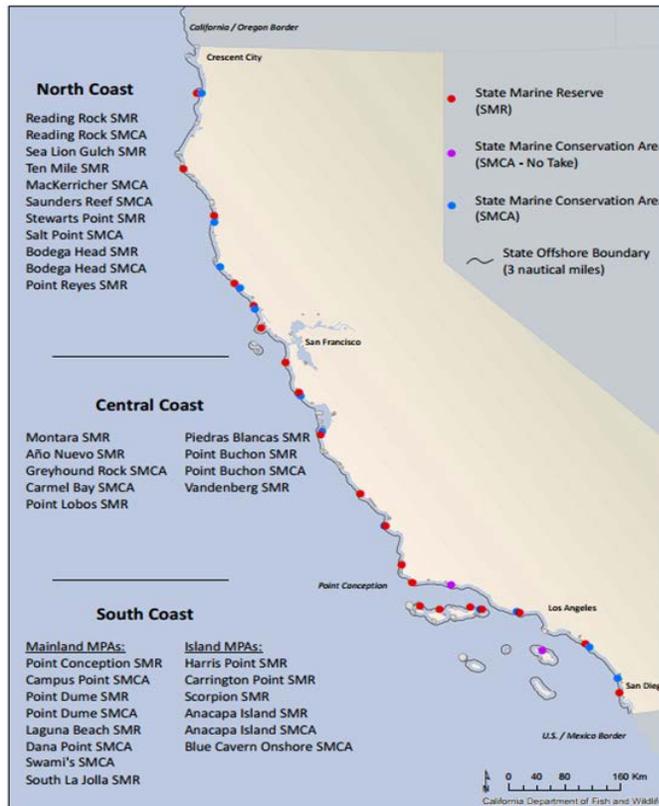
³ https://www.waterboards.ca.gov/water_issues/programs/ocean/asbs.html

monitoring for California as well as contains more recent work that has developed quantitative approaches to site and species selection.

The Action Plan has four key elements and achieves the following:

1. Prioritizes a list of key measures and metrics to advance understanding of conditions and trends across the MPA Network as well as inform network evaluation. The list includes ecological, physical, chemical, human use, and enforcement measures and metrics, which decades of studies from around the world indicate are the most important for evaluating and interpreting MPA performance.
2. Prioritizes long-term MPA monitoring sites by identifying tiers: required (Tier I), secondary (Tier II), and tertiary (Tier III). These monitoring priority tiers, which are based on best available science, will enable efficient data collection by researchers while still allowing for a broad evaluation of network performance.
3. Provides lists of species and species groups to target for long-term monitoring. These lists of fishes, invertebrates, algae, and birds were compiled using the best available science, which included the Regional Monitoring Plans, Deepwater MPA Monitoring Workshop, and the Marine Life Management Act list of targeted species and special status species designations.
4. Facilitates the leveraging of existing monitoring efforts by providing partners with a clear process and description of mechanisms that will be deployed to fund the MPA Monitoring Program moving forward.

Figure 1. Tier I MPA sites identified in the Action Plan by sampling bioregion. Tier I sites provide the ability to infer observed conditions to the broader evaluation of MPA Network performance. Sites not identified in Tier I still play a critical role in the functioning of the Network and are encouraged to be monitored by partners.



NOVEL PARTNERSHIPS IN SCIENCE AND MPA EVALUATION:

Since the initial design phase and throughout the designation, implementation and ongoing management of the MPA Network, the California Department of Fish and Wildlife (CDFW), the Ocean Protection Council and the Fish and Game Commission (FGC) have built a broad and active collaboration with scientists. This includes the collaboration with over 60 organizations to conduct comprehensive Phase 1 baseline monitoring across all four coastal planning regions from 2007– 2018. The MPA Monitoring Program utilizes a partnership-based approach to leverage existing capacity. This approach has established a foundation for generating novel scientific information, tools, and analyses through partnerships with academic institutions, local, state, Tribal and federal governments, citizen/community science, fishermen, and others across the state and beyond. All the data from Phase 1 is publicly available and will be located on the new California Natural Resources [Open Data Portal](https://data.cnra.ca.gov/)⁴ by the end of 2018. This data repository will serve a single location that will contain all the relevant data, reports, analyses, visualizations and decision tools relevant to the MPA Monitoring Program.

⁴ <https://data.cnra.ca.gov/>

The Action Plan establishes a roadmap for the MPA Monitoring Program that ensures data collection and will be the most beneficial to the state to inform adaptive management including the formal management reviews of the MPA Network. The Action Plan spans scientific disciplines, bio-regions and habitats to provide a comprehensive picture of the MPA Monitoring Program priorities to our partners. Maintaining the established partnerships with the scientific community will be critical to the success of the MPA Monitoring Program and the adaptive management of the MPA Network. The Action Plan is intended to be a “living” document, taking into account that scientific methods are constantly being refined. The state is committed to evaluating the effectiveness of this approach for the MPA Network monitoring and will continue to seek to improve communication and collaboration among partners.

PUBLIC COMMENT PERIOD AND SCIENTIFIC PEER REVIEW:

The Action Plan underwent a simultaneous public comment period and scientific peer review during July and August 2018. The Public Comment Period was open from July 16 – August 16, 2018. Seventeen public comment letters were received from a variety of stakeholder types including commercial and recreational fisherman, scientists and non-governmental organizations. A scientific peer review panel was assembled and administered by California Sea Grant. The panel was made up of experts in ecology, oceanography, fisheries, biological monitoring and MPA performance evaluation. The panel reviewed the document during July and held a panel review on August 7, 2018. They delivered their final report to CDFW and OPC on August 15. All public comments and peer review comments will be presented in a summary document outlining how they were addressed in the Action Plan at the [October 17](#)⁵ Fish and Game Commission meeting. These public and peer review process of engagement ensured the Action Plan is scientifically defensible and incorporates stakeholders input.

Since February 2018, CDFW has regularly updated the California Fish and Game Commission (Commission), the Marine Resources Committee, and the Tribal Resources Committees regarding the draft Action Plan. CDFW sent notification letters to all federally recognized California Native American Tribes on February 27, 2018. The draft Action Plan was distributed to California Native American Tribes that requested it on July 9, 2018.

BACKGROUND:

The Marine Life Protection Act (MLPA) directed DFW to redesign California’s system of MPAs into a robust network to “increase coherence and its effectiveness at protecting the State’s marine life, habitat, and ecosystems.” The MLPA complements the Marine Life Management Act (MLMA), which set forth underlying goals regarding living marine resource management including conserving entire systems, acknowledging non-consumptive values, promoting sustainability and encouraging habitat conservation and restoration. Both these laws called on FGC and CDFW to work closely together and required effective partnerships to meet the tenets outlined in the law. The state’s network of MPAs was established through the leadership of

⁵ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=161642&inline>

CDFW and FGC and supported by the hard work and dedication of many Californians from both the public and private sector. Building upon this momentum and as the designated policy lead for California's MPAs, OPC and its partner agencies are creating durable programmatic infrastructure to support the effective management of the state's MPA Network.

CONSISTENCY WITH THE CALIFORNIA OCEAN PROTECTION ACT:

As outlined in the California Ocean Protection Act (COPA), OPC is responsible for coordinating activities of state agencies that are related to the protection and conservation of coastal waters and ocean ecosystems, and is designated by SB 96 as the lead agency for guiding the policy direction of the network of MPAs. In this leadership capacity, OPC convened the Drafting Committee of the Partnership Plan, consisting of staff from CDFW, FGC, California Natural Resources Agency and California Ocean Science Trust, to formalize partnership guidelines among agencies and others. The Partnership Plan now outlines roles and responsibilities of the primary agencies and groups involved in MPA management, and provides avenues for future engagement as the network matures.

CONSISTENCY WITH THE OPC'S STRATEGIC PLAN:

Beyond its connection to OPC's legislative mandate, the proposed resolution regarding the Action Plan also fulfills numerous elements of the OPC's Five-Year Strategic Plan 2012-2017, in which OPC has committed to:

- "Build on the foundation laid by the MLMA and MLPA, and partner with the regulatory bodies charged with implementing these statutes to help advance sustainable ocean ecosystem management in the state." (Sustainable Fisheries and Marine Ecosystems Goal)
- "Work with partners to effectively advance MPA management, enforcement, monitoring, education, and outreach across a broad range of public and private entities that are engaged in marine resource protection and restoration activities." (Issue 8, Leveraging Investments and Realizing Benefits of the State's Marine Protected Areas).

The partnership-based approach laid out in the Action Plan, including the commitment to share results, incorporates local stakeholders and provide venues for fulfilling additional elements of the OPC's Five-Year Strategic Plan 2012-2017 outlined in Objective 8.1, which commits to:

- "Support effective implementation of MPAs consistent with the MLPA through strategic partnerships."
- "Support efforts to increase public awareness of MPAs by participating in a working group with appropriate local, state and federal agencies, tribal governments, private foundations, NGOs, educators, and other relevant entities to facilitate development and implementation of a coordinated public education strategy."

The agency roles and responsibilities outlined in the Action Plan additionally fulfill objective 8.2:

- “Support coordination of MLPA partners to facilitate communication, collaboration, and cost-effective implementation of the MLPA”