Item 7b

Staff Recommendation
October 6, 2022

Action Item:
Consideration and Approval of Disbursement of Funds for Continued MPA Long-Term Monitoring

Lindsay Bonito, MPA Program Manager

Recommended Action: Authorization to disburse up to $4,544,596 to support marine protected area (MPA) long-term monitoring for adaptive management of the MPA Network:

7.b.1. Up to $3,044,596 to the Regents of the University of California San Diego/California

Sea Grant to fund statewide academic research consortiums for continued

ecological monitoring in 2023, as described below. Up to $101,596 of this total will support Sea Grant's administration of these monitoring projects:

- Up to $492,000 to the University of California (UC) Santa Cruz for rocky intertidal habitats;
- Up to $1,100,000 to UC Santa Cruz for kelp forest/shallow rocky reef habitats;
- Up to $850,000 to San Jose State University for deep rocky reef habitats;
- Up to $501,000 to UC Santa Barbara for sandy beach/surf zone habitats;

7.b.2. Up to $1,500,000 to San Jose State University to continue the California Collaborative Fisheries Research Program (CCFRP) as part of the long-term monitoring of the Marine Protected Area (MPA) Network.

Location: Statewide

Strategic Plan Goals and Objectives: Goal 3: Enhance Coastal and Marine Biodiversity; Objective 3.1: Protect and Restore Coastal and Marine Ecosystems; Target 3.1.1 and associated actions.

Exhibits: Letters of Support

Findings and Resolution:

Staff recommends that the Ocean Protection Council (OPC) adopt the following findings:

> "Based on the accompanying staff report and attached exhibit(s), OPC hereby finds that:
>
> 1) The proposed projects are consistent with the purposes of Division 26.5 of the Public Resources Code, the California Ocean Protection Act;
> 2) The proposed projects are consistent both with the Budget Act of 2021 which included a $2.5 million General Fund appropriation for MPA monitoring and OPC's Proposition 68 Grant Guidelines, adopted May 2019; and
> 3) The proposed projects are not 'legal projects' that trigger the California Environmental Quality Act (CEQA) pursuant to Public Resources Code section, section 15378."

Staff further recommends that OPC adopt the following resolution pursuant to Sections 35500 *et seq.* of the Public Resources Code:

"OPC hereby approves the disbursement of up to $4,544,596 to support marine protected area (MPA) long-term monitoring for adaptive management of the MPA Network:

- Up to $3,044,596 to the Regents of the University of California San Diego/California Sea Grant to fund statewide academic research consortiums for continued ecological monitoring in 2023, as described below. Up to $101,596 of this total will support Sea Grant's administration of these monitoring projects.
  - Up to $492,000 to the University of California (UC) Santa Cruz for rocky intertidal habitats;

  - Up to $1,100,000 to UC Santa Cruz for kelp forest/shallow rocky reef habitats;
  - Up to $850,000 to San Jose State University for deep rocky reef habitats;
  - Up to $501,000 to UC Santa Barbara for sandy beach/surf zone habitats;
- Up to $1,500,000 to San Jose State University to continue the California Collaborative Fisheries Research Program (CCFRP) as part of the long-term monitoring of the Marine Protected Area (MPA) Network.

  This authorization is subject to the condition that prior to disbursement of funds, the grantees listed above shall submit for the review and approval of the Executive Director of the OPC detailed work plans, schedules, staff requirements, budgets, and the names of any contractors intended to be used to complete the projects, as well as discrete deliverables that can be produced in intervals to ensure the projects are on target for successful completion. All projects will be developed under a shared understanding of process, management and delivery."

Executive Summary:

Staff recommends that OPC approve the disbursement of $4,544,596 for continued long-term monitoring of California's marine protected areas (MPA)in four key habitat areas (rocky intertidal, kelp forest, mid-depth rocky reef, sandy beach/surf zone) and the MPA collaborative fishing program, California Collaborative Fisheries Research Program (CCFRP). Since 2019, OPC has funded MPA long-term monitoring of key habitats and human uses to inform the adaptive management of the MPA Network. To date, OPC has invested over $15 million for MPA monitoring which has directly informed the first-ever decadal management review (Review) of the Network, currently in development by the California Department of Fish and Wildlife. This Review, to be publicly released in January 2023, will serve as an update on the four pillars of the MPA Management Program, including Research & Monitoring, and provide corresponding evaluations of progress towards meeting the goals of the Marine Life Protection Act[1].

Previous funding for the monitoring program has resulted in a series of seven technical monitoring reports[2], drafted by each of the originally funded habitat

[1] Marine Life Protection Act
[2] Final technical MPA long-term monitoring reports

groups[3]. These technical reports provide an in-depth review of the extensive monitoring to date and provides analyses to address performance evaluation questions listed in the MPA Monitoring Action Plan (Action Plan)[4], later refined by the Scientific Guidance for Evaluating California's MPA Network[5] report. Each habitat-based technical report included analyses inclusive of both baseline monitoring data (2007-2016) to long-term data (2019-2020), addressing how populations of key marine taxa and habitats have changed since MPA implementation. The reports also contain important management and monitoring recommendations that will inform the decadal management review and the forthcoming update to the Action Plan in 2024. In addition to developing scientific evaluation of the MPA Network, each monitoring researcher participated in an OPC-hosted summer webinar series "Ask the Researcher", to share their MPA science with the general public. The webinar series was responsive to community feedback requesting opportunity to interact directly with MPA monitoring scientists. Further funding for long-term MPA monitoring will be guided by the updated Action Plan, adapting currenting monitoring protocols based on recommendations provided by habitat groups.

OPC's investment will continue to support key monitoring of the MPA Network to inform the adaptive management of the Network and contribute to broader state priorities such as sustainable fisheries and climate resilience.

Project Summaries:

7.b.1. Extension of Long-Term Monitoring in Key Marine Habitats

7.b.1. - Background:

California's MPA monitoring program supports a partnership-based approach to leverage existing capacity and collect data statewide. Staff is recommending that additional funding for ecological monitoring be awarded to statewide research consortiums of Principal Investigators (PIs) from multiple institutions or organizations, organized around the following important coastal and marine habitat types: rocky intertidal, sandy beach/surf zone, kelp forest/shallow rocky reef (0-30 meters

[3] OPC 2019 staff recommendation for initial MPA long-term monitoring funding
[4] MPA Monitoring Action Plan
[5] OPC Science Advisory Team Working Group report: *Scientific Guidance for Evaluating California's MPA Network*

depth), and deep rocky reef (> 30 meters depth). Monitoring teams will continue to collect critical biological, ecological, and environmental data during the 2023 field season as the State prepares to revise the MPA Monitoring Action Plan for the 2024 monitoring season. Monitoring for the 2023 field season is a continuation of previously funded MPA monitoring initiated in 2019[6] and extended in 2021[7]. Continued monitoring is vital for adaptive management of the MPA Network, as it provides necessary information to assess MPA Network performance.

7.b.1. - Project Summary:

This project will accomplish the following objectives within each habitat monitoring program:

- Rocky Intertidal: Collect additional biological and environmental data in Tier I MPAs[8] and at associated reference sites, according to standardized protocols established by the Multi-Agency Rocky Intertidal Network (MARINe), which has been monitoring rocky intertidal habitats on the U.S. west coast since the 1980s.
- Kelp Forest: Collect biological data via SCUBA transect surveys in Tier I MPAs and at associated reference sites, according to standardized protocols established by the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO), a long-term ecosystem-based scientific monitoring program involving marine scientists from U.S. west coast university partners.
- Deep Rocky Reef: Conduct ROV and drop camera surveys to collect biological data in Tier I MPAs and associated reference sites. Surveys will monitor key fish assemblages, structure-forming invertebrates, and species of concern (e.g. sunflower stars).
- Sandy Beach & Surf Zone: Conduct standardized transect surveys at beaches inside Tier I MPA sites and associated reference sites to collect key biological and environmental data, including the following: abundance, species composition, and size structure of birds, macrophyte wrack, and surf zone fishes; physical characteristics of beach and surf zone habitats; and human uses, including shore-based fishing.

[6] OPC 2019 staff recommendation for initial MPA long-term monitoring funding
[7] OPC 2021 staff recommendation for extension of MPA long-term monitoring funding
[8] Tier 1: required long-term monitoring sites as described in the MPA Monitoring Action Plan

7.b.1.- About the Grantee

California Sea Grant has an established, highly respected process for evaluating, prioritizing, and administering research grants related to coastal and ocean resources and has a proven track record of supporting state agencies' research efforts. California Sea Grant is experienced at managing large contracts and grants, has excellent knowledge of and familiarity with the state's scientific community, and has successfully managed other solicitation and award efforts on behalf of OPC, including OPC's previous investments in long-term MPA monitoring.

Project Timeline

Summer 2023 – Spring 2024

7.b.2. Continued support for the California Collaborative Fisheries Research Program

7.b.2. - Background:

CCRFP is a diverse partnership of volunteer fishermen, boat captains, scientists, nongovernmental organizations, and charter companies interested in promoting sustainable fisheries. Since the establishment of the MPA Network, CCFRP has worked to develop a long-term coordinated, collaborative, and standardized statewide monitoring program that involves recreational anglers in hook-and-line surveys inside and outside MPAs. Incorporating an interdisciplinary approach, CCFRP has worked closely with state and federal partners since the program's creation in 2006. Over the past decade, CCFRP has produced reliable estimates of relative abundance, size frequency distributions, and fish movements across 16 MPAs and associated reference sites statewide. It has also generated highly useful long-term trends in catch and biomass for central coast fishes, published peer-reviewed papers in scientific literature, and deployed two socioeconomic surveys to assess angler perception of MPAs and compliance with MPA regulations. CCFRP's approach includes not only scientifically rigorous data collection and analysis, but also meaningful outreach and engagement with fishermen, scientists, resource managers, and the general public. CCFRP has provided the State will valuable information about MPA performance and effect of MPA protections on

fish communities statewide[9], in addition to providing critical information to support stock assessments of various rockfish species. The multi-benefits of this program are apparent and were leveraged to advocate for a 3-year, $1.5 million appropriation in the FY 22/23 California State budget[10], which supports about half the operating costs of the program over a three-year period. OPC funding will match the legislative appropriation and provide the remaining half of the budget over the next three years.

7.b.2. - Project Summary:

- This project will accomplish the following objectives:
- Continue CCFRP trips and data collection in Tier I MPA sites statewide over the next 3 field seasons (2023-2025), with a focus on monitoring fish abundance, size, biomass, diversity, species composition, and spillover.
- Conduct spatial and temporal analyses to evaluate MPA performance, including MPA-reference site comparisons of the following:
    - Abundance/biomass of indicator species
    - Species diversity
    - Trophic structure
    - Occurrence of special status species
- Assess spillover, connectivity, and impact of environmental stressors.
- Assess level of compliance and attitude towards/perception of MPAs in recreational fishing community.
- Continue community outreach & education with a focus on the recreational fishing community.

About the Grantee

CCFRP, based at Moss Landing Marine Laboratories (San Jose State University), is a collaborative effort among researchers from six California universities, the captains and crew of 27 commercial passenger fishing vessels, and more than 1,200 volunteer anglers spanning the entire California coast. CCFRP PIs have extensive experience with California's MPA Network and monitoring priorities, familiarity with existing data streams, rigorous theoretical grounding in quantitative approaches

[9] Final technical report for the CCFRP long-term monitoring program
[10] FY 2022/2023 State Budget (AB 178)

for MPA evaluation, and proven success in building broad, collaborative partnerships.

7.b.2. - Project Timeline

Summer 2023 – Fall 2025

Project Financing:

Staff recommends that the Ocean Protection Council (OPC) authorize encumbrance of up to $4,544,596 to grantees listed above to conduct the projects summarized above.

Ocean Protection Council Funding	**$4,544,569**
Project 7.b.1: MPA General Fund (FY 22/23)	$2,500,000
Project 7.b.1: Prop 68, Ch.9 (FY 18/19)	$544,596
Project 7.b.2: Prop 68, Ch.9 (FY 18/19)	$1,500,000
Leveraged Funding	**$1,650,000**
AB-178 Budget Act of 2022 to CSU COAST program, $1.65M prioritized to CCFRP	$1,650,000
TOTAL	**$6,194,596**

Funding for these projects aggregates funds from two sources designated to support continued MPA monitoring. The anticipated source of funds will be:

MPA General Fund Appropriation. In 2015, the California state legislature allocated a $2.5 million annual General Fund appropriation to the Secretary for Natural Resources to support the Statewide MPA Monitoring Program. The monitoring and analysis projects are consistent with the goals of the state's MPA monitoring program by continuing monitoring efforts and subsequent data analyses.

Proposition 68, Chapter 9 funds. These funds are reserved for projects that "conserve, protect, and restore marine wildlife and healthy ocean and coastal ecosystems with a focus on the state's system of marine protected areas and sustainable fisheries". This recommended project directly contributes to conserving California's marine resources, specifically within MPAs, by collecting and analyzing monitoring data to support adaptive management.

Consistency with California Ocean Protection Act:

The proposed project is consistent with the Ocean Protection Act, Division 26.5 of the Public Resources Code, because it is consistent with trust-fund allowable projects, defined in Public Resources Code Section 35650(b)(2) as projects which:

- Eliminate or reduce threats to coastal and ocean ecosystems, habitats, and species.
- Improve the management of fisheries and/or foster sustainable fisheries.
- Improve management, conservation, and protection of coastal waters and ocean ecosystems.
- Provide monitoring and scientific data to improve state efforts to protect and conserve ocean resources.
- Protect, conserve, and restore coastal waters and ocean ecosystems.
- Provide funding for adaptive management, planning coordination, monitoring, research, and other necessary activities to minimize the adverse impacts of climate change on California's ocean ecosystem.

Compliance with the California Environmental Quality Act (CEQA):

The proposed project is categorically exempt from review under the California Environmental Quality Act ("CEQA") pursuant to 14 Cal. Code of Regulations Section 15306 because the project involves only data collection, research and resource evaluation activities that will not result in a serious or major disturbance to an environmental resource. Staff will file a Notice of Exemption upon approval by the OPC.