California's Statewide Marine Protected Area Monitoring

The Marine Protected Area Monitoring Program Team

California is home to the largest scientifically designed network of marine protected areas (MPAs) in the nation. Monitoring is a crucial component of MPA management, so a team of state and non-state partners is collaborating to implement a monitoring program that will inform network-wide adaptive management.

- California Fish and Game Commission is the final decision maker on any changes made to MPAs.
- California Department of Fish and Wildlife is charged with managing the statewide MPA network.
- California Ocean Protection Council serves as the State's policy lead for MPAs.
- California Ocean Science Trust supports science informed decision-making for oceans and coasts.

Components of California's Statewide MPA Monitoring Program

The Statewide MPA Monitoring Program is anchored by a framework that guides the monitoring of ecosystems and human uses.

The program is organized into three core components necessary for efficient implementation and useful results: Science, Communication, and Evaluation (figure on right). Each component plays a critical role in tracking, communicating, and adapting to changes in ocean conditions.

We use this information to answer key questions about changing conditions and the performance of the MPA network, to inform adaptive management decisions.

Science Collect Data Maintain Scientific Tools Manage & Synthesize Data **Research &** Development Learn & Adapt MPA Monitoring Program Phase 1: Baseline Phase 2: Long-term **Evaluation** Communication Evaluate Network Share Results Performance **Engage Community**



Goals of MPA Monitoring

We designed this partnership-based, costeffective approach to MPA monitoring to build toward a number of goals:

- Inform the evaluation of the MPA network in meeting the goals of the Marine Life Protection Act.
- Mobilize and engage a wide array of community members, experts, and scientists.

California's Investment

The state invested \$16 million in the regional MPA baseline monitoring (Phase 1 of the Statewide MPA Monitoring Program, 2007-2018). As the regional baselines near completion, California is designing and implementing Phase 2 of the Statewide MPA Monitoring Program, (long-term monitoring, 2016 and beyond). Phase 2, reflects current State priorities and management needs, while building on the knowledge, capacity, and unique considerations for each region. The state has committed an annual allotment of \$2.5 million for Phase 2, beginning in 2016.

These investments are generating an unprecedented assessment of the ecological and socioeconomic conditions of California's MPA network (see <u>OceanSpaces.org</u> to explore these resources).

With an efficient, leveraged, long-term monitoring program, California is delivering on a promise to the broad constituency during MPA designation: fishermen, tribes,

- Seed partnerships that build durable capacity, cost-effective projects, and broad support for MPA monitoring.
- Demonstrate the value of monitoring data for multiple state priorities (e.g., sustainable fisheries, climate change, and water quality).
- Provide credible, useful science that is accessible to everyone, and will inform decision-making.

Initial Spending and Next Steps

The first two years of funding for statewide long-term monitoring (Phase 2), beginning in 2016, will:

- Maintain data collection in priority ecosystems (rocky intertidal, kelp and rocky reef, and mid-depth) through academic partnerships.
- Improve the capacity of California Department of Fish and Wildlife to collect and synthesize data.
- Expand science-management collaborations through funding post-doctoral positions co-mentored by UC Davis and California Department of Fish and Wildlife.
- Fund the development and launch of a comprehensive data management system that connects to existing data platforms, provides access to raw data and visualizes datasets through a map-based interface.

A Statewide MPA Monitoring Action Plan, that identifies the key sites and metrics for Phase 2 once approved, will guide future spending. It is currently in development under the leadership of California Department of Fish and Wildlife, California Ocean Protection Council, and California Ocean Science Trust (planned for release in 2018).

conservationists, managers, and decisionmakers will all have ready access to data that support near-term and long-term decisions, and provide for the health of our ocean and the economy that depends on it.

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