



Lessons from California: Establishing a Network of Marine Protected Areas

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Long regarded as a leader in climate policy and ocean conservation, the state of California has become a pioneer in the intersection of these fields. Over the past two decades, California has developed a comprehensive vision for ocean-climate action that can serve as a model to both subnational and national governments seeking to protect the ocean and use its power to combat climate change.

This series highlights some of the key actions California has taken on mitigation, adaptation, and climate finance. For more information on the suite of actions, see the California Ocean-Climate Guide (1).

One area in which California has been a true leader is the establishment of marine protected areas (MPAs), where NRDC and Ocean Conservancy worked successfully alongside the state. This brief discusses California's MPA network and lessons learned that can inform other governments.

Marine Protected Areas

California's marine ecosystems are facing multiple, simultaneous climate change impacts, including ocean acidification, hypoxia, marine heat waves, and disrupted patterns of seasonal upwelling (2, 3). These large-scale effects, combined with the more immediate and local stresses of overfishing and land-based pollution, are putting the resilience of California's marine ecosystems at risk. Effectively managed MPAs can help restore ecosystems and increase their ability to withstand the stresses of climate change and ocean acidification (4).

California's Action

In the early 2000s, California established a statewide network of MPAs with processes for adaptive management, outreach and education, enforcement and compliance, research and monitoring, and policy and permitting.

Context and Detail

Since the early 1900s, California has used MPAs as a tool to preserve especially beautiful and biologically diverse locations along its coast. However, in 1999 the California Legislature identified the need to increase the state's effectiveness in protecting marine life, habitats, and ecosystems and passed the Marine Life Protection Act (5). This legislation mandated that the state Fish and Game Commission and the California Department of Fish and Wildlife use the latest science to redesign and expand the state's existing system of MPAs into a network that protects marine ecosystems and California's natural heritage and provides improved recreational and educational opportunities. The law also required the state agencies to ensure effective MPA management and enforcement.

From 2004 to 2010, the state worked with a nonprofit organization, the Resources Legacy Fund, to develop a public-private implementation model called the Marine Life Protection Act Initiative. The initiative relied in part on private funding from a philanthropic partner in addition to state funding, pursued a phased approach to MPA design based on four coastal subregions, developed regional stakeholder groups, convened a Blue Ribbon Task Force composed of public policy experts to oversee MPA design and evaluation, and created regional science advisory teams to support MPA design. The process resulted in a network of 124 MPAs on the

coast from the Mexican border to Oregon, covering slightly more than 16 percent of the state's waters (6).

In 2014 the California Ocean Protection Council (OPC) was designated as the state's MPA policy lead. In that role, OPC convenes a statewide MPA leadership team with members from 15 organizations representing state and federal government, California and Federal Indian Tribes, local community experts, and philanthropies that work together to implement the state's collaboratively developed MPA Management Program. The program, designed to facilitate adaptive management, emphasizes four major priorities: outreach and education, enforcement and compliance, research and monitoring, and policy and permitting (7). Initial monitoring of the network shows signs of success with larger and more numerous fish, especially in long established MPAs (8).

Lessons Beyond California

- Having a strong directive in the law was critical to maintaining engagement during the full implementation phase as well as for adaptive management.
- It became clear through the process that without a robust stakeholder engagement component the network would not have had stakeholder and public buy-in.
- Consultation of, co-design with, and full involvement of Tribes, both state and federally-recognized, is critical both for incorporating local and Indigenous knowledge and for ensuring that traditional uses are respected and formally included.
- Drawing on multiple sources of knowledge—interdisciplinary academic scientists, Indigenous knowledge holders, NGOs, and ocean users—and adopting guidelines that outlined criteria for MPA design to maximize ecosystem benefits led to a robust network.
- Significant funds to launch the effort and ongoing funding to ensure management and enforcement were key to policy implementation.
- Regional monitoring and management plans based on partnerships across government, nongovernmental organizations, California and Federal Indian Tribes, and others, are key to the long-term success of the network.

Citations

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