The Marine Life Protection Act and the Nexus with Water Quality Protection

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October 20, 2016
Overview

Department

- The Marine Life Protection Act (MLPA)
- Design and Designation of the Marine Protected Areas
- Management of MPAs

Ocean Science Trust

- MPA Monitoring
- Nexus to Water Quality
Background: Mandate for MPAs

Marine Life Protection Act (MLPA)

- Signed into California State Law in 1999
- Mandated the redesign of California’s system of MPAs to meet specific goals
- Focuses on marine life, habitats, and ecosystems

Marine Managed Areas Improvement Act (MMAIA)

- Signed into State Law in 2000
- Simplified and clarified designations of Marine Manage Areas (MMAs) - includes MPAs and ASBSs
MLPA Goals and Requirements

Summary of MLPA goals:

- Protect biodiversity, habitats, and ecosystems
- Improve recreational and educational opportunities
- Ensure MPAs managed as a network
- Requires monitoring and evaluation

Requirements include:

- Science based process
- Involvement of stakeholders, other interested parties
- Adaptive management
MPA and MMA Designations:

- State Marine Reserve (SMR)
- State Marine Park (SMP)
- State Marine Conservation Area (SMCA)
- State Marine Recreational Management Area (SMRMA)
- Special Closures

- **Study Regions** - State divided into five regions for planning purposes
Role of Science

- Legal Mandate
- Science Advisory Team (SAT) of diverse experts
- Simple and credible MPA scientific design guidelines and evaluations
- Stakeholders designed areas with scientific input (plus policy and agency input)
Water Quality Considerations

• **Central Coast** - Water quality was not considered

• **North Central Coast** - Overview of water quality concerns and protections reviewed
  - No formal evaluation conducted on MPA proposals

• **South Coast** - More formal workgroup formed to develop criteria and subsequent evaluations on MPA proposals

• **North Coast** - Followed the South Coast process and continued water quality evaluations on MPA proposals.
SAT Recommended:

- Co-location, where possible, with State Water Quality Protection Areas (SWQPAs)
- Avoiding, where possible, areas of water quality concern:
  - Urban stormwater and nonpoint sources of pollution
  - Wastewater discharge sources
  - Other poor water quality sites specific to the region
North Coast ASBSs and MPA Co-locations
State Water Quality Control Board Resolution

Resolution NO. 2010-0057 – 2012

• Directed State Board staff to work with Regional Water Boards to develop recommendations for new SWQPAs in MPAs

• Ocean Plan was amended in 2012 to reflect contents of the resolution
MPA Management Program

Outreach and Education

Research and Monitoring

Enforcement and Compliance

Policy and Permitting
Partnerships

Department works with a large and diverse group of partners. Including but not limited to:

- Tribal governments
- Federal, State, and regional government agencies
- Non-governmental organizations
- Fishing industry groups
- Academic Researchers
- Collaborative Network
- Citizen science groups
MPA Management Program

Statewide MPA Leadership Team

[Logos and insignias of various California state agencies and programs related to marine and natural resources]
MPA Management: Monitoring

- Monitoring of the MPAs
  - Collaboration
  - Regional Baseline monitoring
    - Framework for Monitoring Plans

- Long-term monitoring
Monitoring California’s Marine Protected Areas

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LINKED TO THE STATE
We’re an independent non-profit, created through legislation.

MAKING SCIENCE USEFUL
We empower broad participation in management with useful science and knowledge.

PARTNERS IN GOOD GOVERNANCE
We’re independent of academia and the state, but linked to both.
A new framework for monitoring
Implemented across the state

- Statewide MPA Monitoring Framework
- Statewide Action Plan
  *(underway in 2017)*
- Regional MPA Monitoring Plans

MPA Monitoring

- Baseline Monitoring
- Sharing Results
- Management Review
- Long-term Monitoring
Establishing a reference point

Regional MPA Baseline Programs

Objectives

• Establish a baseline of ecological & socioeconomic conditions
• Assess any initial changes following MPA implementation

Supported by $16M state investment

Program Management Team:

[Logos of various organizations]
A partnerships-based approach
Initial results are encouraging.
Baseline data serve the state broadly

North Central Coast MPA baseline data + CDFW data
  informed abalone fishery management response

South Coast MPA baseline data
  informing damage assessments following the Refugio oil spill

Statewide MPA baseline data
  informing impact assessments of sea star wasting syndrome
And extend beyond the data.

Broadening participation
- tribal governments
- fishermen

Bringing together multiple sources of knowledge
- traditional knowledge
- fishermen’s knowledge
- citizen science
Bridging water quality & MPA monitoring

Examples from the South region

• Regional Water Quality Monitoring Program (Bight ‘13) incorporates MPA questions.

• New Fellow builds shared capacity between Ocean Science Trust & SCCWRP.

• New research begins to parse the effects of water quality impairment & fishing on reef fish communities.
Bridging water quality & MPA monitoring

MPA Statewide Leadership Team Work Plan (2015-2018)

Action 2.1: “align marine & water quality protected area monitoring programs to leverage resources, capacity and expertise across mandates and jurisdictions”
Building a durable long-term program

Monitoring informs MPA management

• Initial, regional management reviews (after 5 years)
• Network management reviews on a 10-year cycle (first in 2022)
• Annual MPA Management updates (starting in 2017)

Documents developed to guide MPA monitoring

• MPA Monitoring Framework (2010)
• Regional Monitoring Plans (NCC 2010; SC 2012; CC 2014; NC 2018)
• Statewide MPA Monitoring Action Plan (2017-2018)
Investing in a rigorous foundation

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Tell us about your activities and help inform long-term monitoring

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New Report: South Coast Kelp Forest Snapshot now available!
Visit the new South Coast State of the Region page to learn more
Putting the MPAs to work!

In a changing climate we need to evaluate...

• Are MPAs a precautionary, no-regrets strategy for ecosystem protection?

• Do habitats in MPAs (e.g., seagrasses, kelp beds) ameliorate ocean acidification & hypoxia impacts? Do they store carbon?

• Can MPAs serve as effective mitigation for industrial development (e.g., desalination, once-through cooling)?
Encouraging multi-jurisdictional action

A partnerships approach to deliver the science needed toaddress our shared challenges
Thank you - Questions?

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