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

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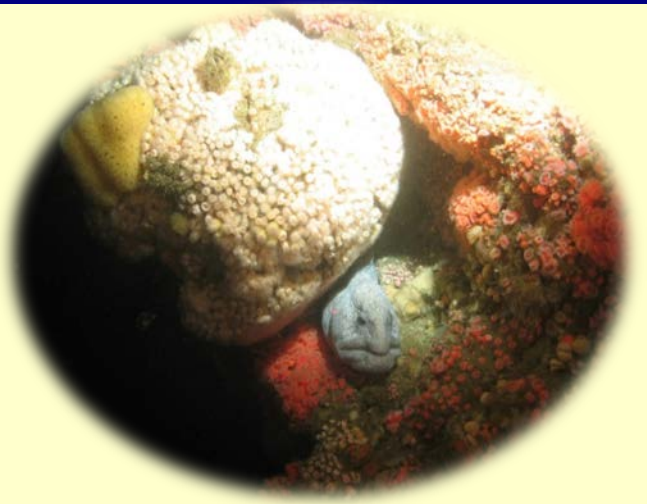
Overview



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



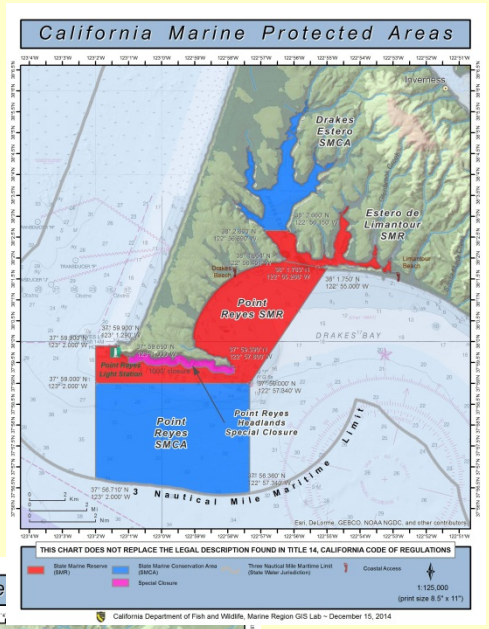


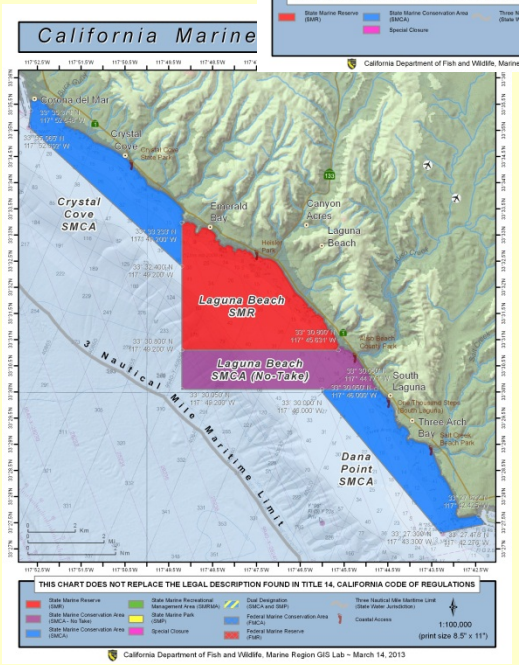
MPA Designations

MPA and MMA Designations:

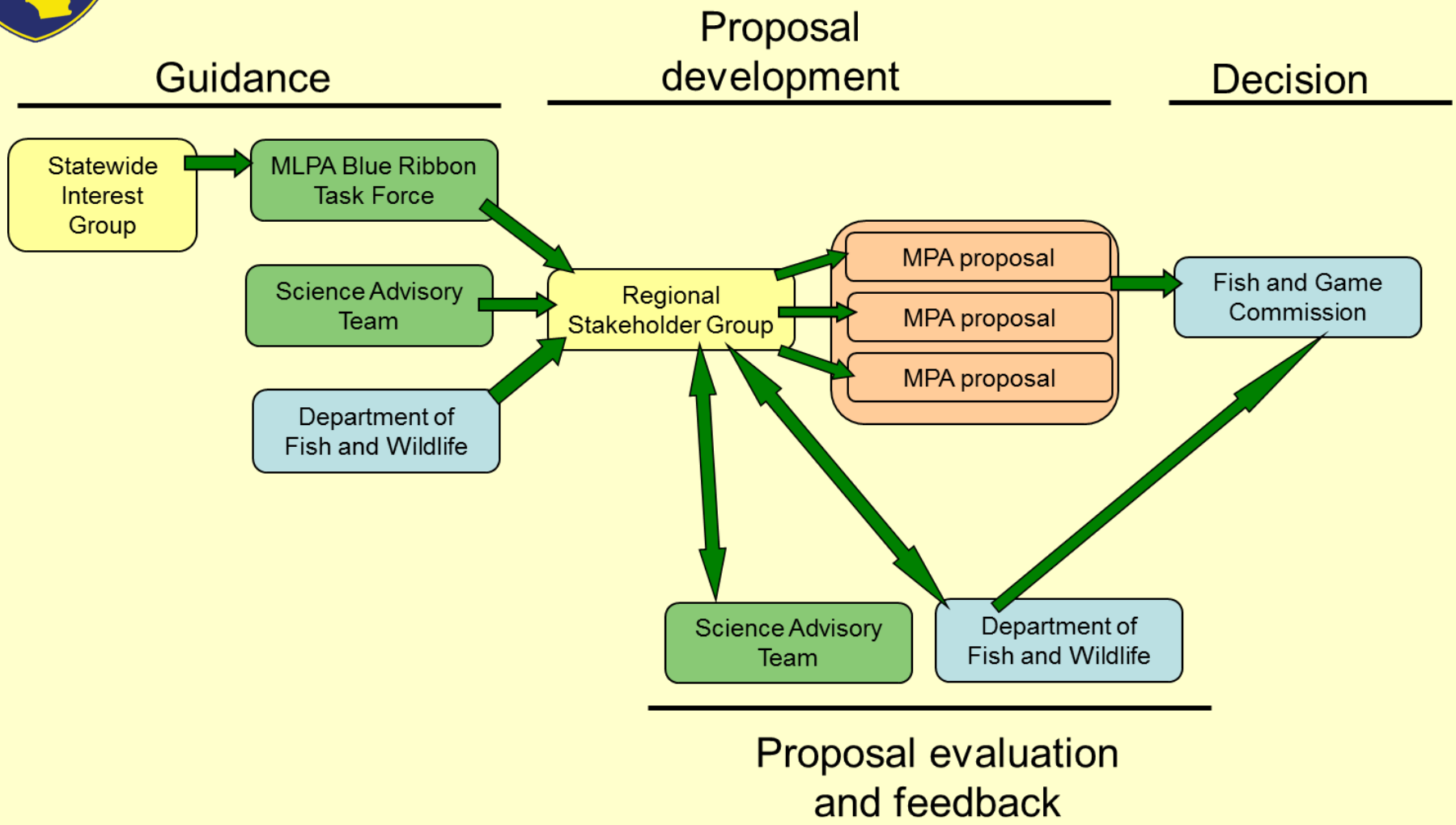
- State Marine Reserve (SMR)
- State Marine Park (SMP)
- State Marine Conservation Area (SMCA)
- State Marine Recreational Management Area (SMRMA)
- Special Closures

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

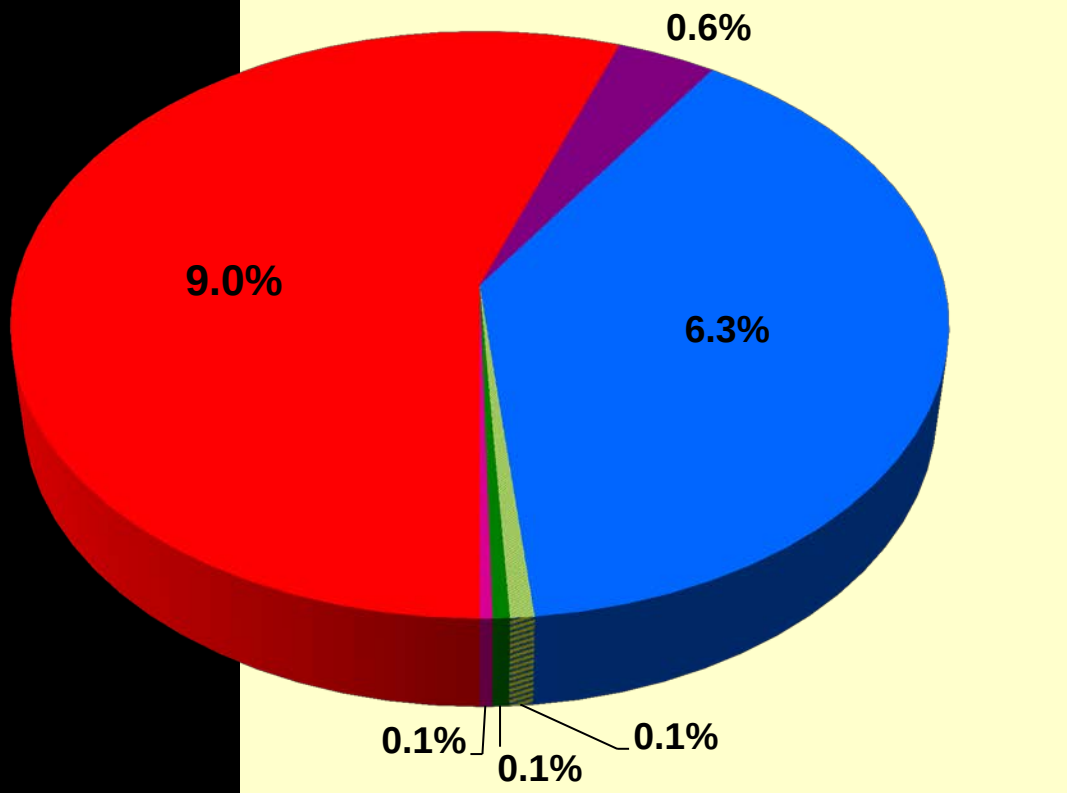




MPA Re-designation Process

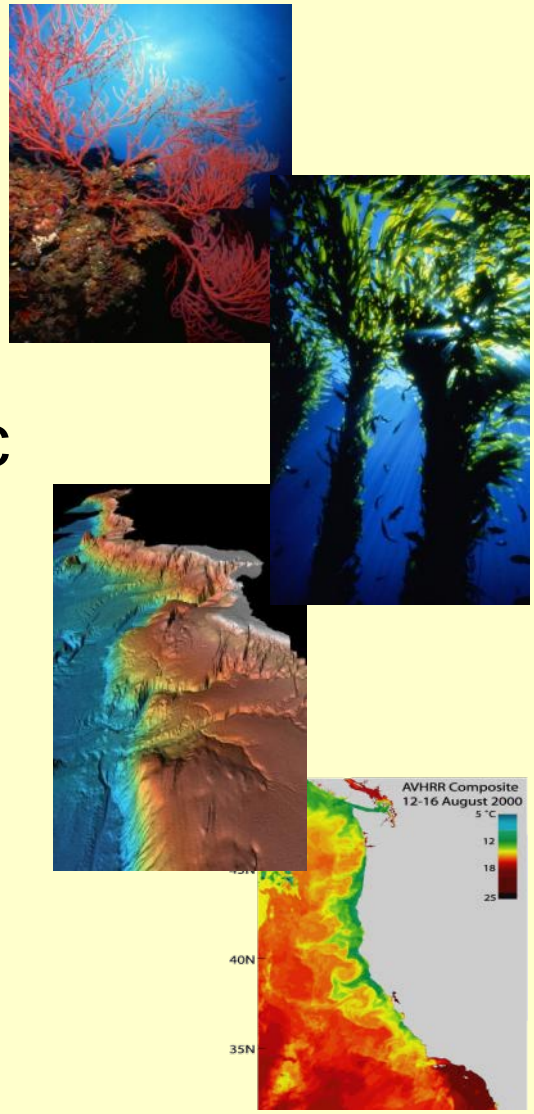


California's MPA Network



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

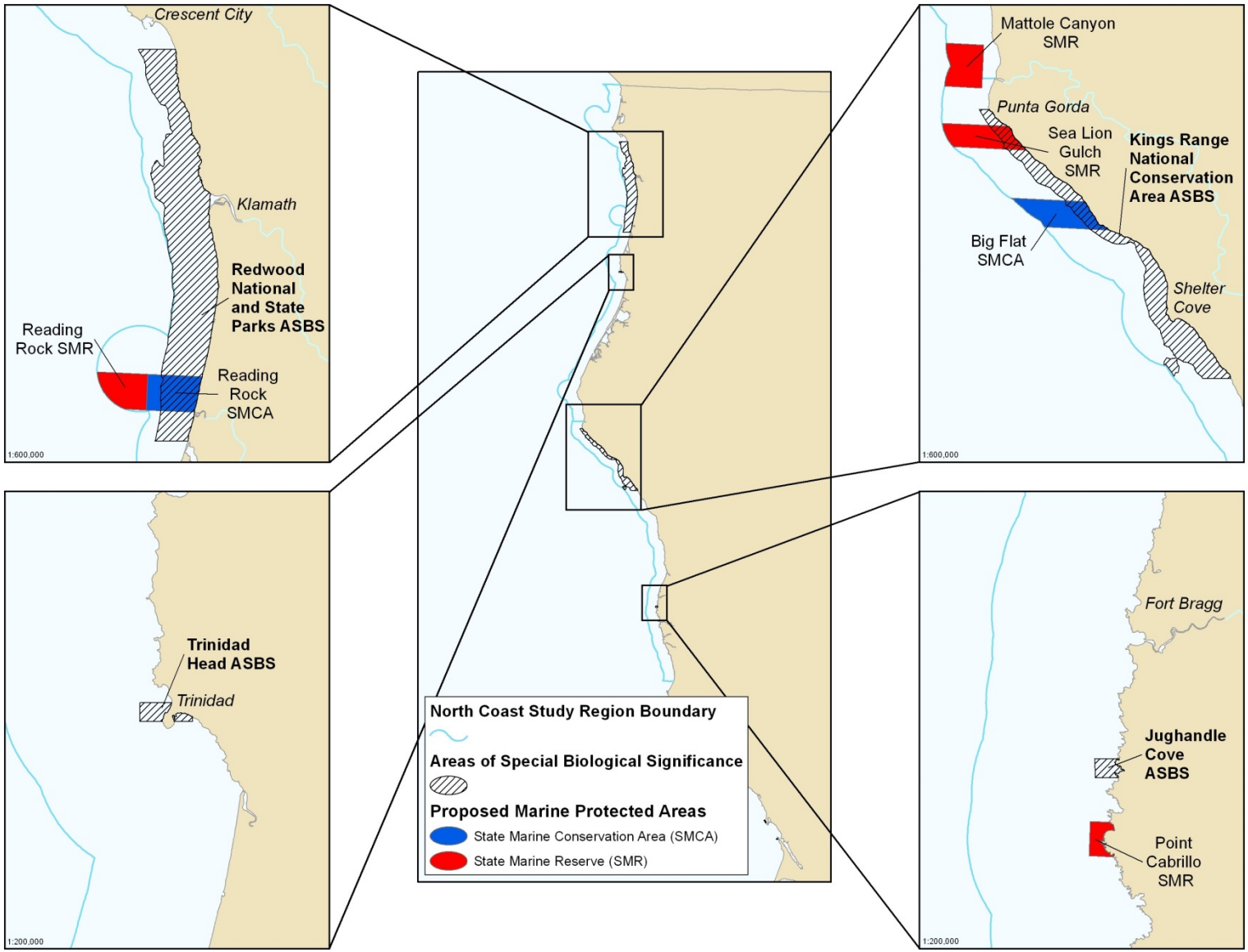
- **North Coast-** Followed the South Coast process and continued water quality evaluations on MPA proposals.

Water Quality Considerations

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



Water Quality Considerations

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

MPA Management Program

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

CALIFORNIA
OCEAN PROTECTION COUNCIL

CALIFORNIA DEPARTMENT OF FISH & WILDLIFE

CALIFORNIA STATE PARKS
SINCE 1864

FISH & GAME COMMISSION
STATE OF CALIFORNIA
est. 1870

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA
OCEAN
SCIENCE
TRUST

CALIFORNIA
COASTAL
COMMISSION

CALIFORNIA STATE
LANDS
COMMISSION

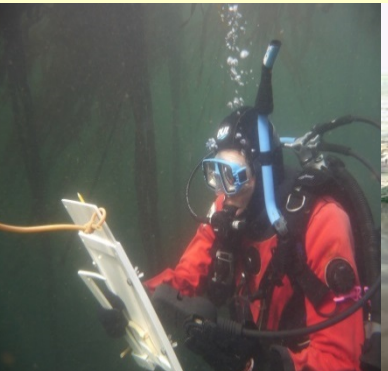
MPA COLLABORATIVE NETWORK

NATIONAL PARK SERVICE

NATIONAL MARINE SANCTUARIES
WEST COAST REGION

MPA Management: Monitoring

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





Monitoring California's Marine Protected Areas

CALIFORNIA OCEAN SCIENCE TRUST

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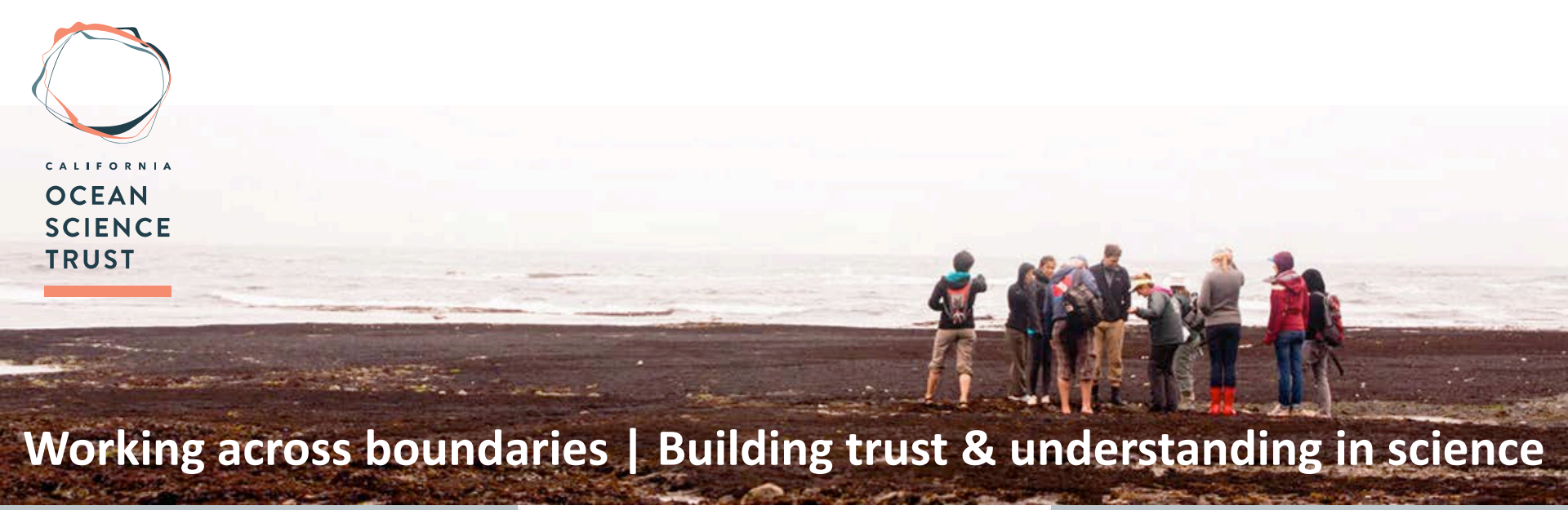


Working across boundaries | Building trust & understanding in science

LINKED TO THE STATE

We're an independent non-profit, created through legislation.

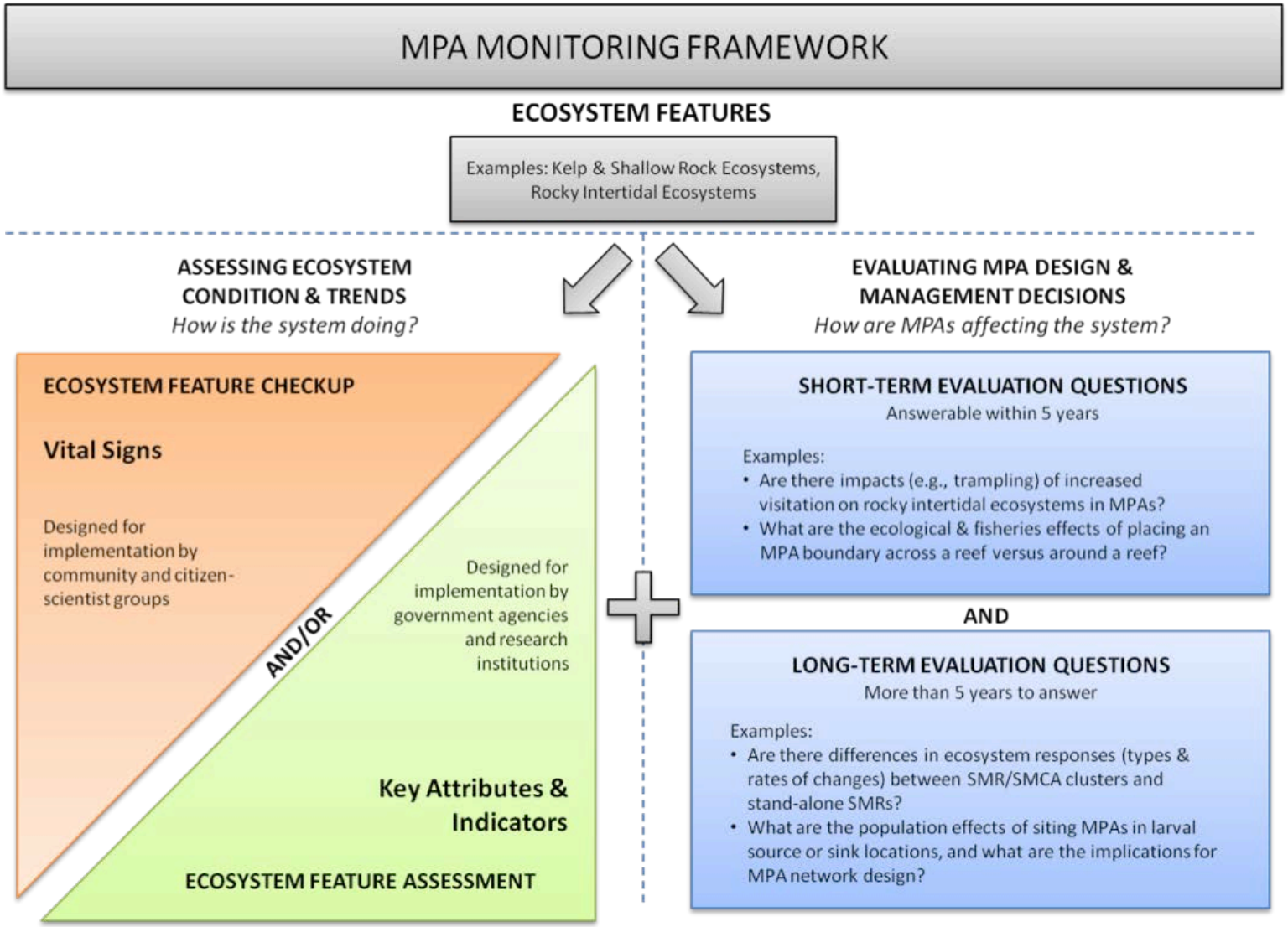
MAKING SCIENCE USEFUL

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

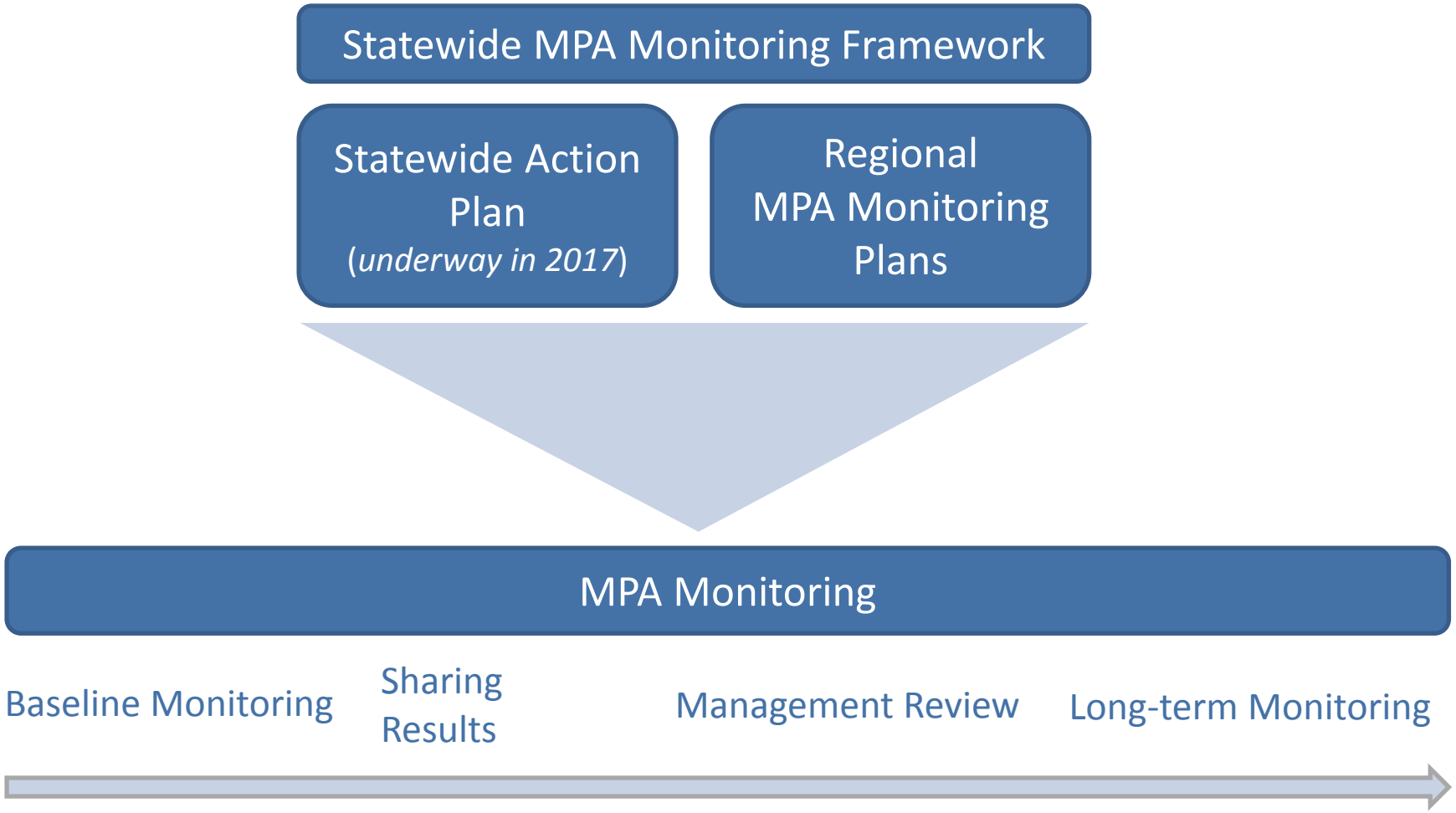
PARTNERS IN GOOD GOVERNANCE

We're independent of academia and the state, but linked to both.

A new framework for monitoring



Implemented across the state



oceanSPACES

Establishing a reference point

Regional MPA Baseline Programs

Objectives

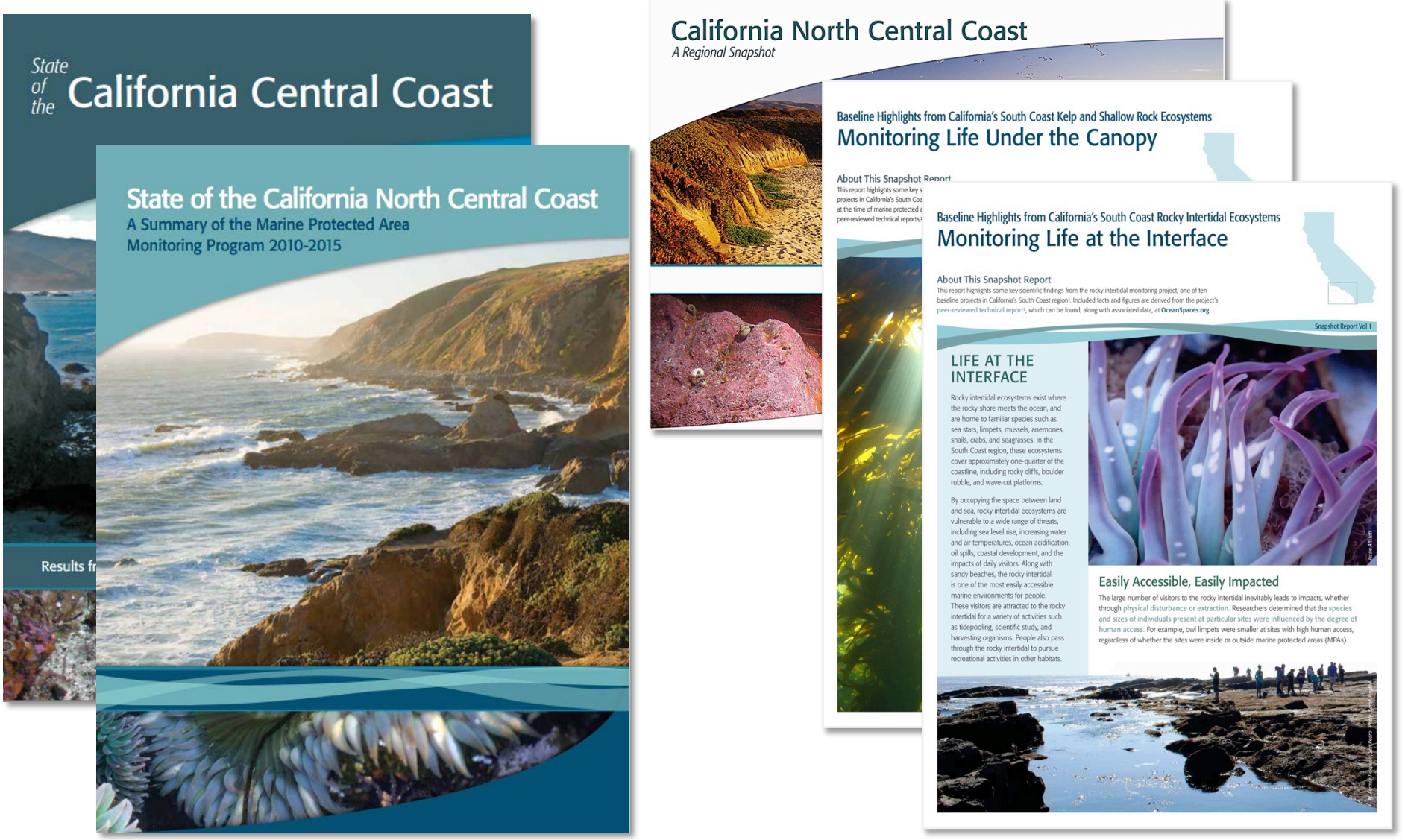
- Establish a baseline of ecological & socioeconomic conditions
- Assess any initial changes following MPA implementation

Supported by $16M state investment

Program Management Team:

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*"


Erick Burres


Sean Craig

Scott Martin

Building a durable long-term program

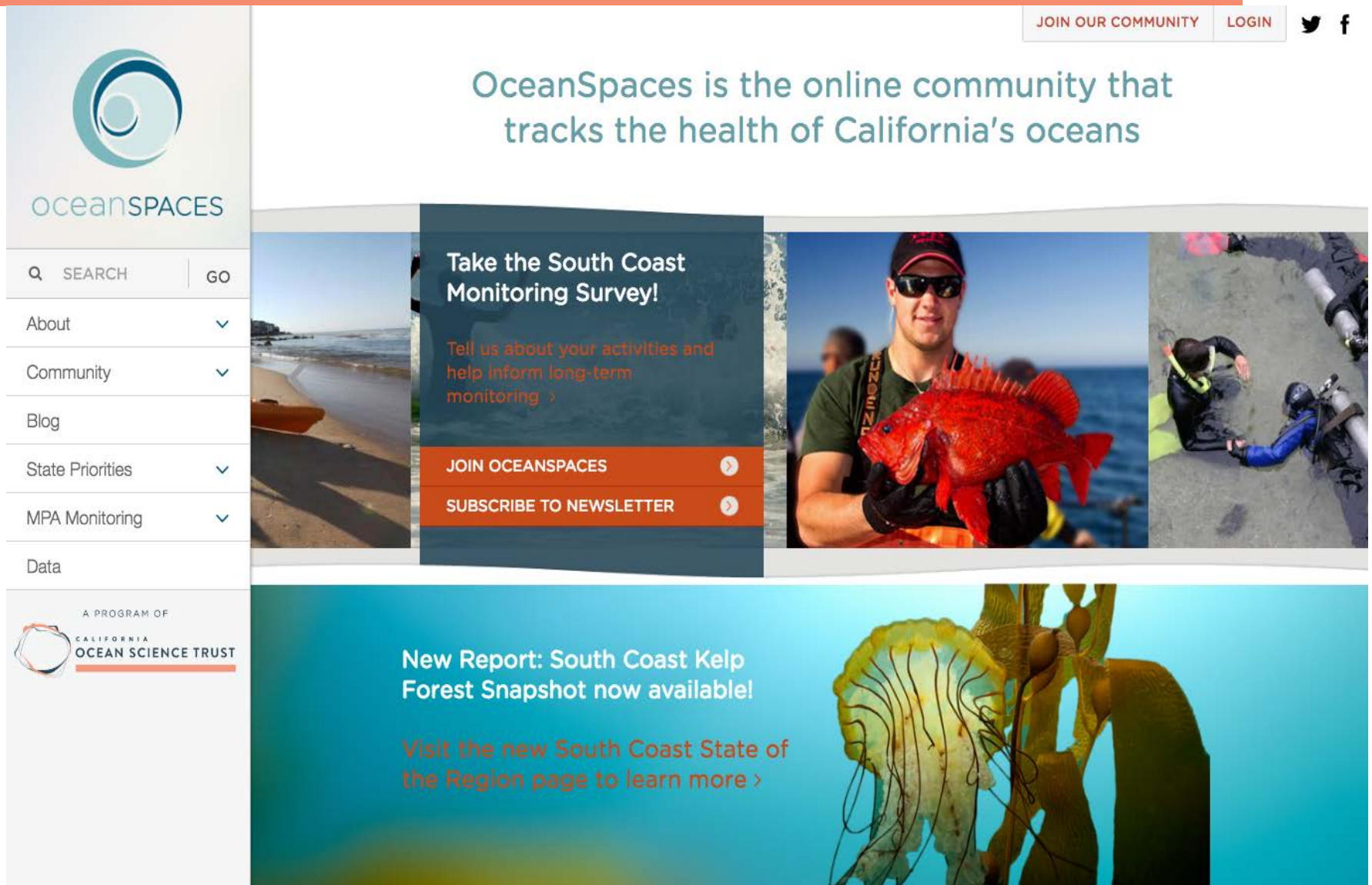
Monitoring informs MPA management

- 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



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 to address our shared challenges

CALIFORNIA
OCEAN SCIENCE TRUST

CALIFORNIA STATE
LANDS
COMMISSION

CALIFORNIA
COASTAL
COMMISSION

COLLABORATIVE
NETWORK

California Ocean Protection Council

OPC·SAT

Science Advisory Team

Thank you – Questions?

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