

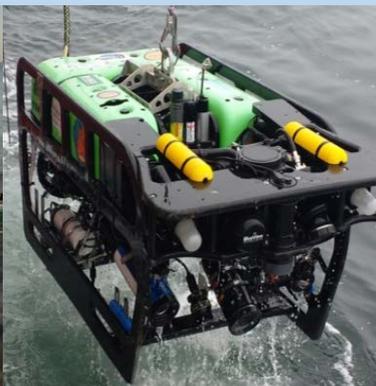
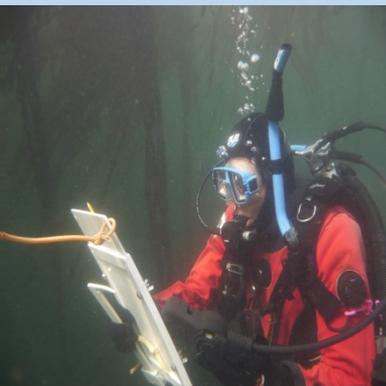


CALIFORNIA MARINE PROTECTED AREAS



Monitoring Program Update and Priorities

Cyndi Dawson
Ocean Protection Council
State of CA MPA Policy Advisor/Senior Program Manager





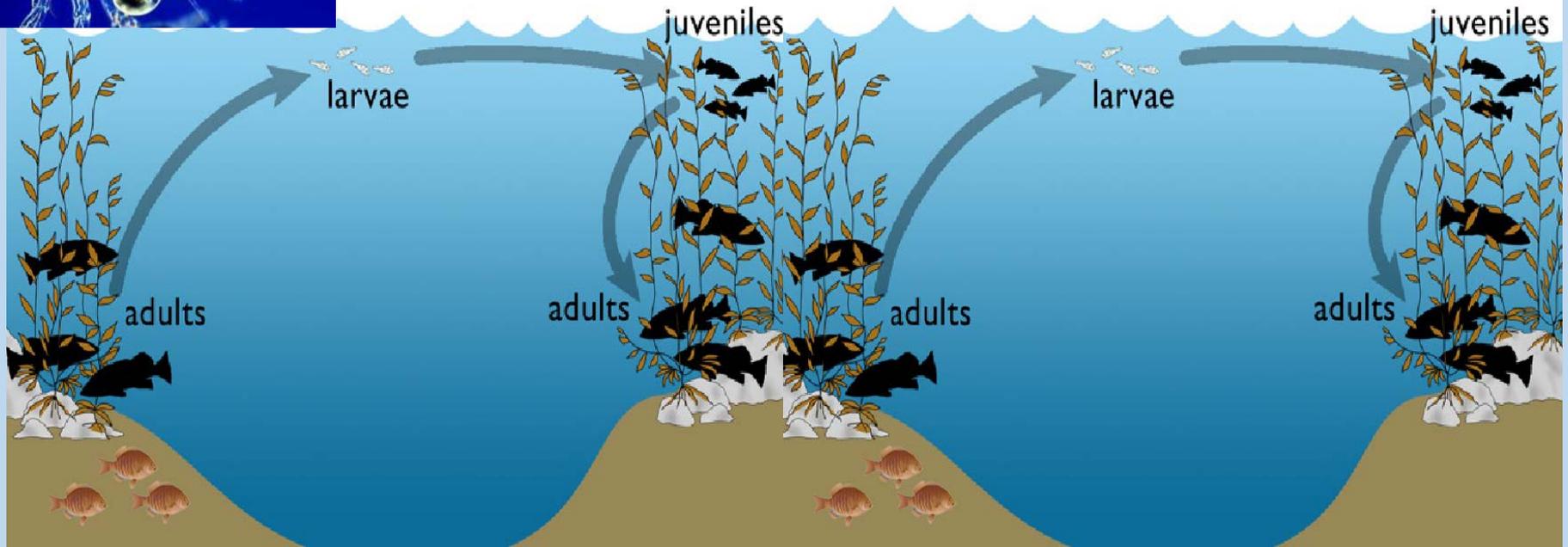
Marine Life Protection Act

Ecological Goals

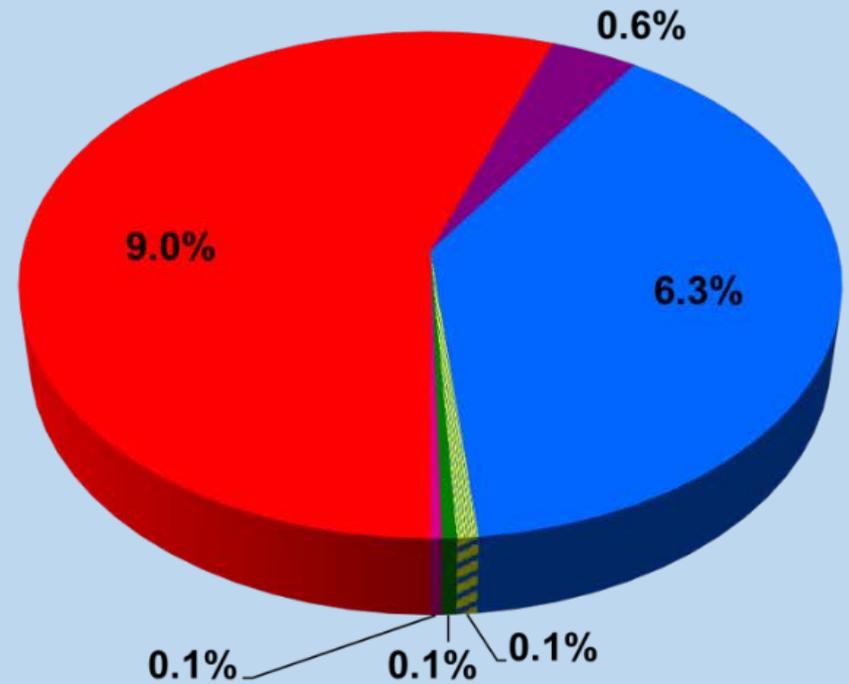
1. To protect the **natural diversity and abundance of marine life, and the structure, function and integrity of marine ecosystems**
2. To help **sustain, conserve, and protect marine life populations**, including those of economic value, and rebuild those that are depleted
4. To **protect marine natural heritage, including protection of representative and unique marine life habitats** in California waters for their intrinsic value

Connectivity

Many marine organisms live in different places throughout their life cycle



California's Network of Marine Protected Areas



- State Marine Reserve (SMR) ($n = 49$)
- State Marine Conservation Area (SMCA) ($n = 59$)
- SMCA (no-take) ($n = 10$)
- SMCA / State Marine Park ($n = 1$)
- State Marine Recreational Management Area (SMRMA) (5)
- Special Closures ($n = 15$)

➤ Source: CDFW (2016), *Master Plan for MPAs*

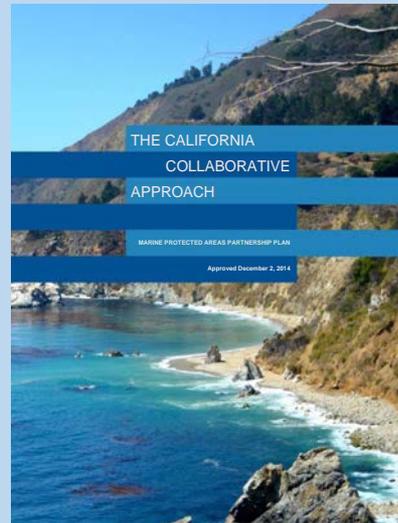
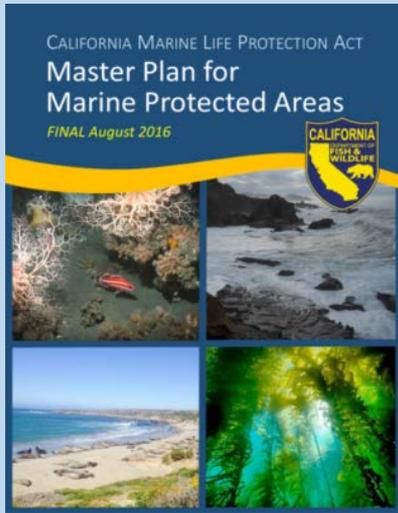
MPA Statewide Leadership Team



MPA Management Program



Statewide MPA Monitoring Program



Item 5
Attachment 2

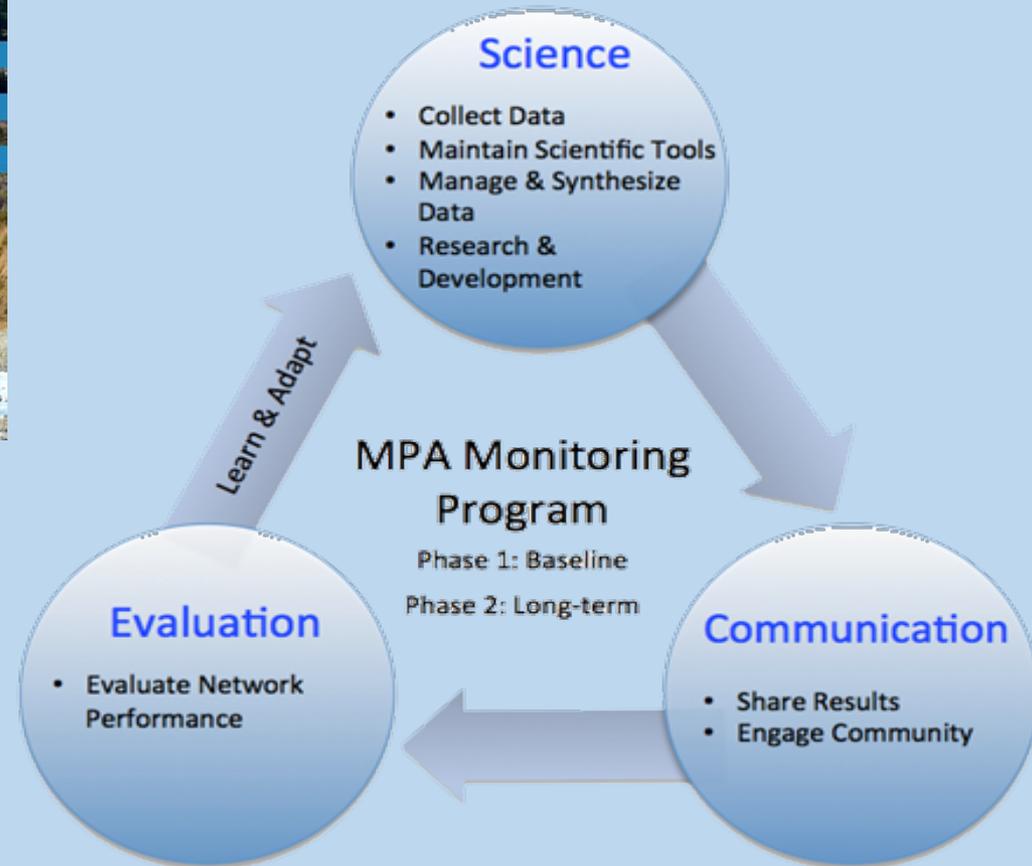
Marine Protected Area (MPA) Statewide Leadership Team Work Plan FY 15/16 – 17/18

The MPA Statewide Leadership Team
California's MPA Statewide Leadership Team (Leadership Team) was convened with the goal of increasing communication and collaboration among agencies and partners to ensure the state is effectively managing the statewide MPA network. The Leadership Team includes state and federal agencies and other partners that play a direct or key support role in management of the network. MPA management encompasses a wide range of partners and activities that require active collaboration and communication to implement successfully. The state has recognized that no one agency or group has the knowledge, capacity or resources to effectively manage the MPA network in isolation. The Leadership Team focuses on leveraging resources and breaking down traditional silos to collaboratively address MPA network management which cuts across jurisdictions and mandates.

Members of the MPA Statewide Leadership Team, led by the Ocean Protection Council (OPC), include: the Department of Fish and Wildlife (DFW), DFW Law Enforcement Division (LED), Fish and Game Commission (FGC), California Coastal Commission (CCC), California State Lands Commission (CSLC), Department of Parks and Recreation (DPR), State Water Resources Control Board (SWRCB), California Ocean Science Trust (OST), MPA Collaborative Network (CN), and West Coast Regional Office of National Marine Sanctuaries (ONMS).

Approach to the Work Plan
The Leadership Team has identified the following focal areas as key to successful management of MPAs: Outreach and Education, Research and Monitoring, Enforcement and Compliance and Policy and Permitting. Active, sustained engagement in each of these focal areas is integral to achieve the goals of the Leadership Team. In practice, this means directing the work of the Leadership Team by identifying shared strategic priorities, key actions and outcomes. A key tool for this is the creation of a work plan that was identified as a key tool in "The California Collaborative Approach: Marine Protected Areas Partnership Plan". The work plan covers a three year period beginning in 2015 and is a key tool in directing MPA management and holding members accountable for identified outcomes.

Work Plan Notations and Acronyms
* Indicates responsible agency will contract or award a grant to lead efforts to complete key action
"Agency" refers to federal, state, tribal, and local authorities



Phase 1: Baseline Monitoring

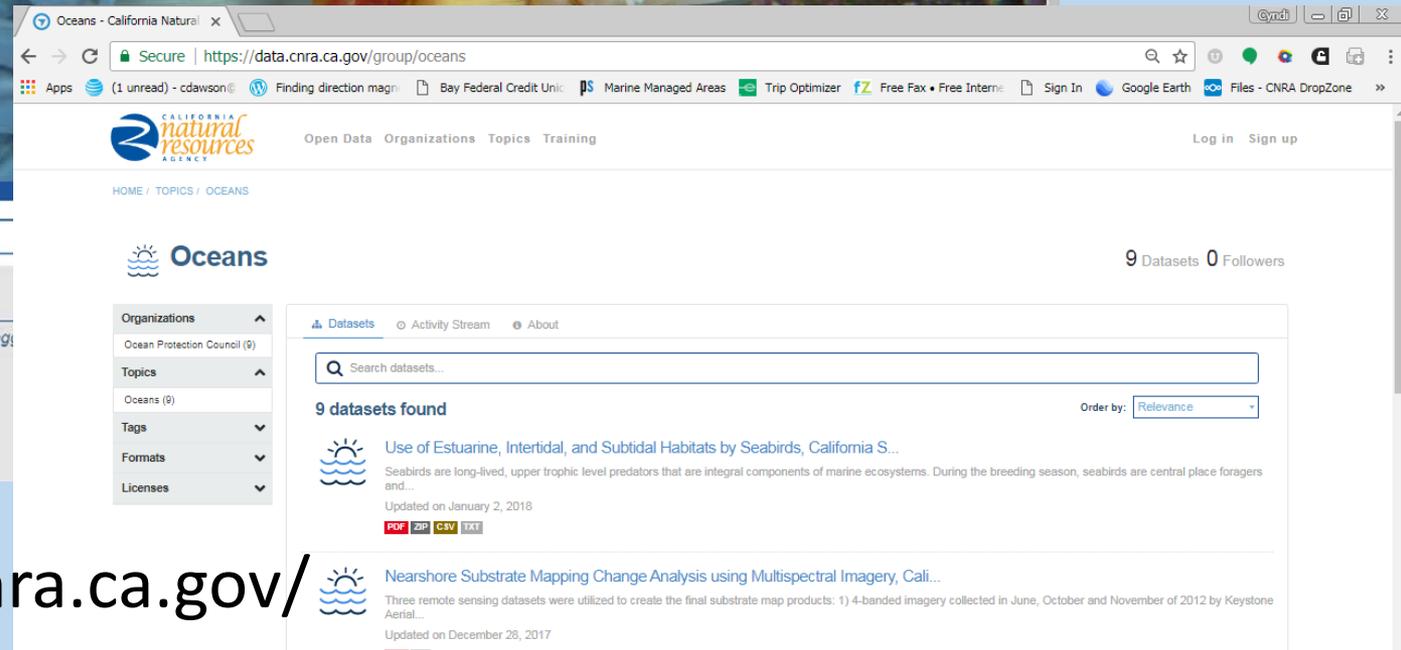
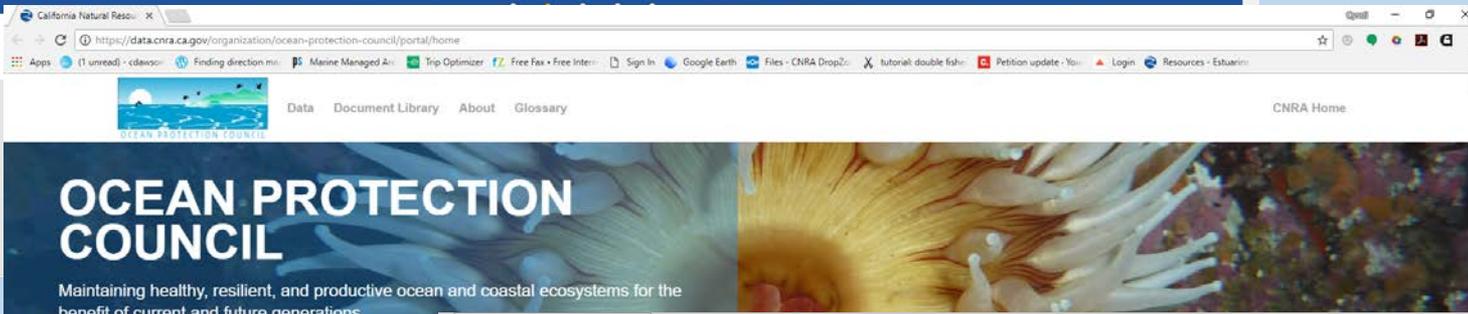
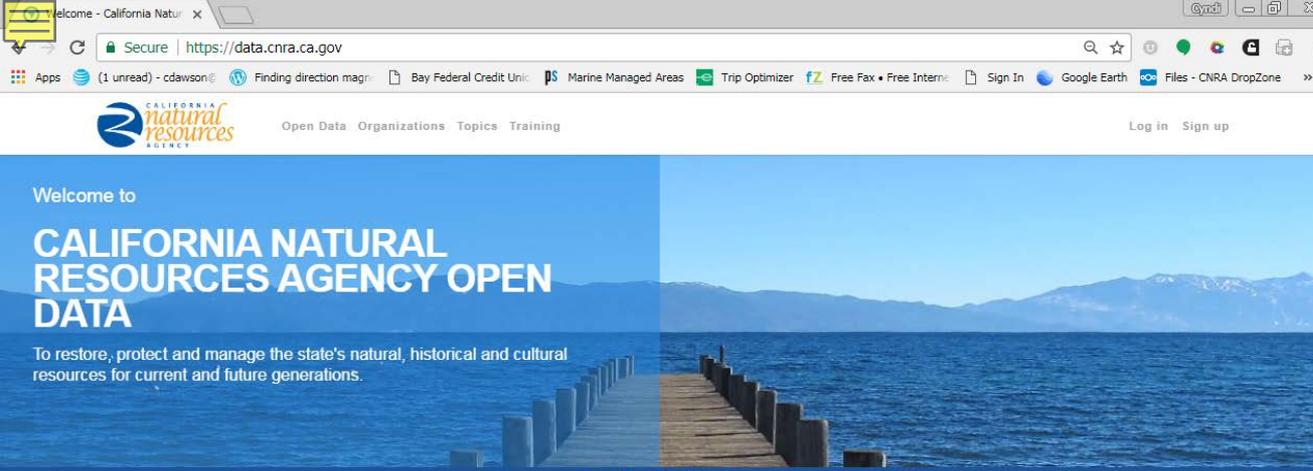
10 Ecosystem Features

Baseline monitoring programs projects and data collection:

- North Coast:
 - 11 funded projects
 - 2014-2016
- North Central Coast:
 - 11 funded projects
 - 2010-2012
- Central Coast:
 - 7 funded projects
 - 2007-2010
- South Coast:
 - 10 funded projects
 - 2011-2013

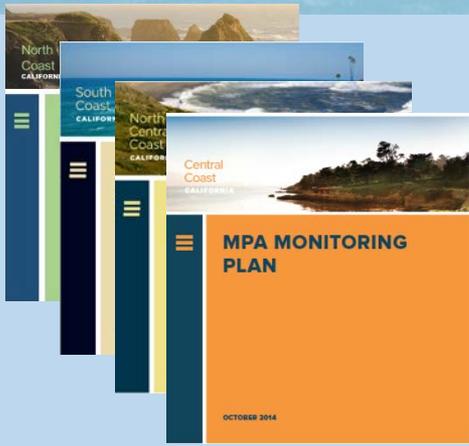


MPA Data & Resources

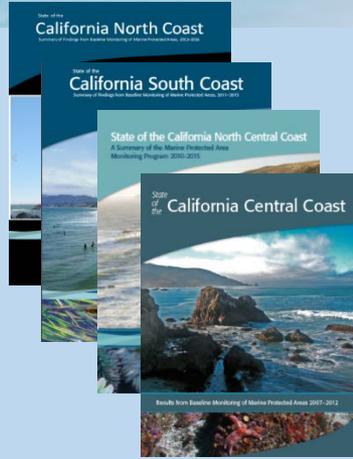


<https://data.cnra.ca.gov/>

Phase 2: Long-term Monitoring



Regional Monitoring Plans



Results & Recommendations from Baseline



Additional expert input and analyses



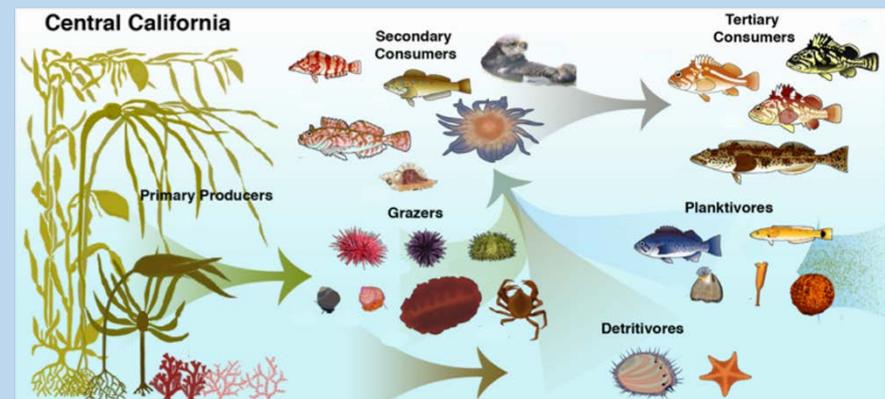
Peer Review & Public Comment



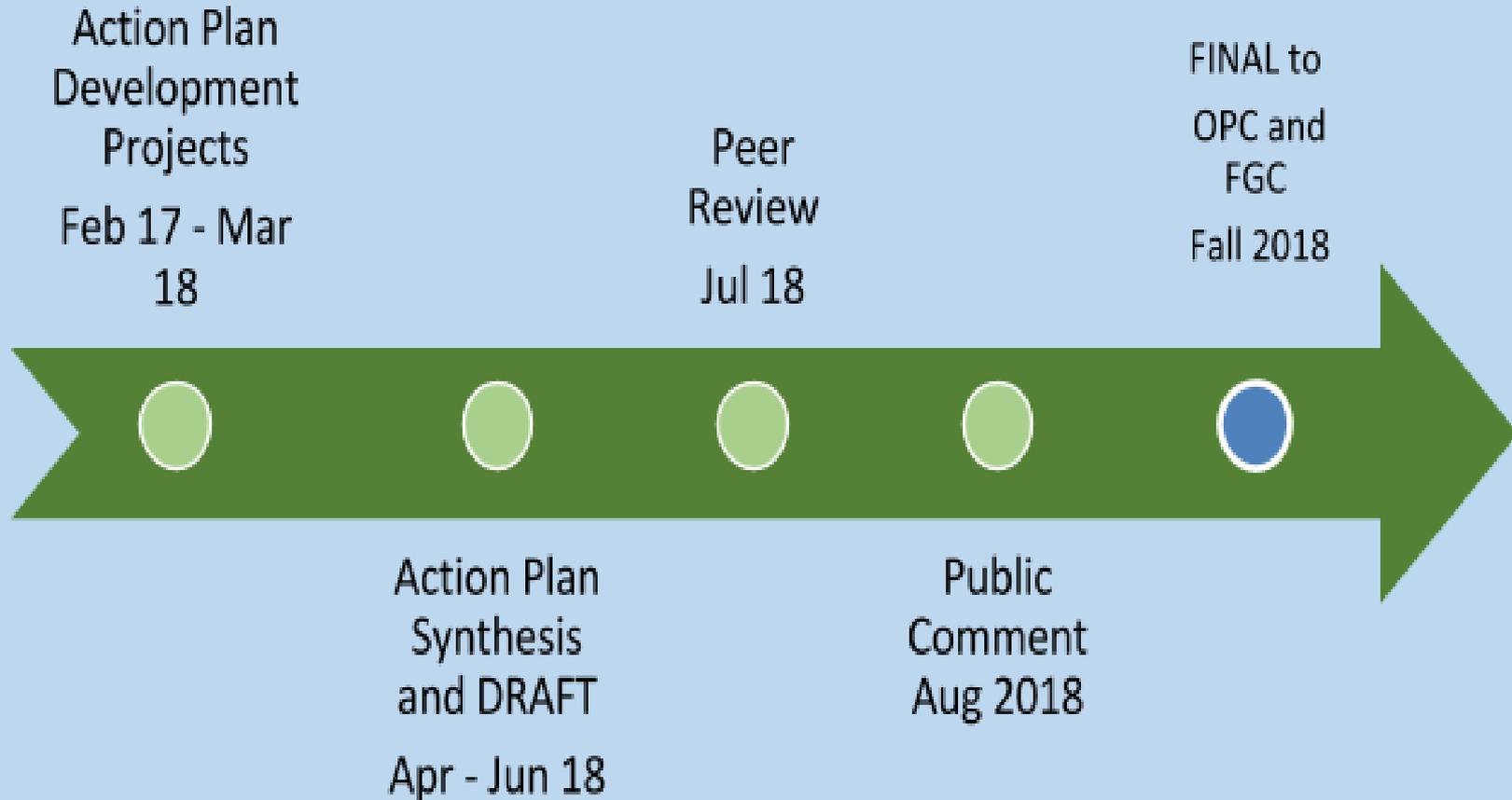
**MPA Monitoring
Program Action Plan
(Fall 2018)**

What the Action Plan solidifies?

- What meets MLPA ecological goals?
 - Increase in biomass (fished vs non fished)
 - Increase in diversity (functional, size structure)
- What indicators/species do we track? (including indicators of changing ocean conditions, sentinel species)
- Where do we monitor?

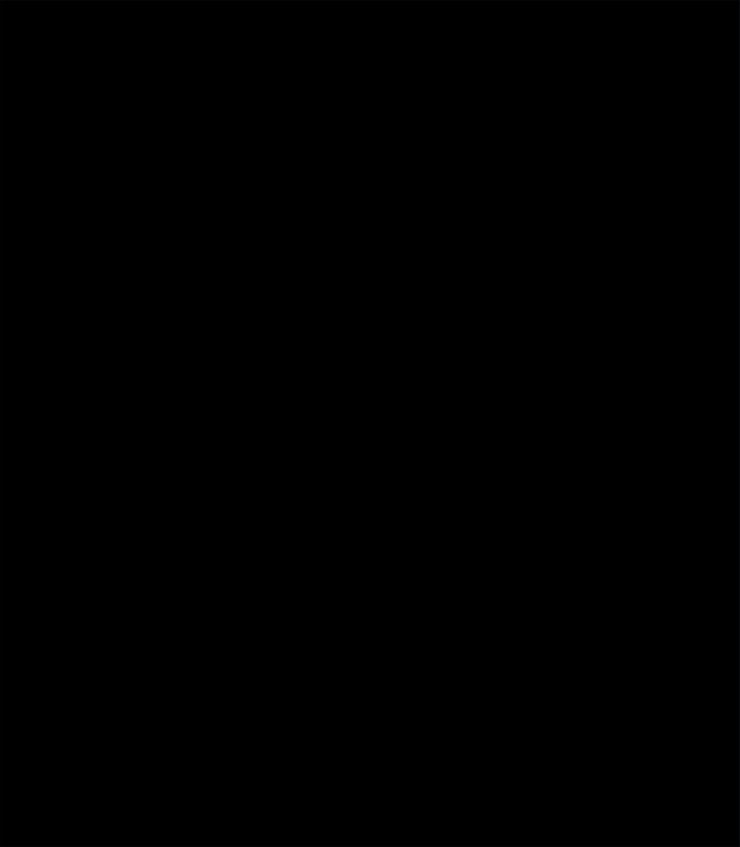


Action Plan Timeline





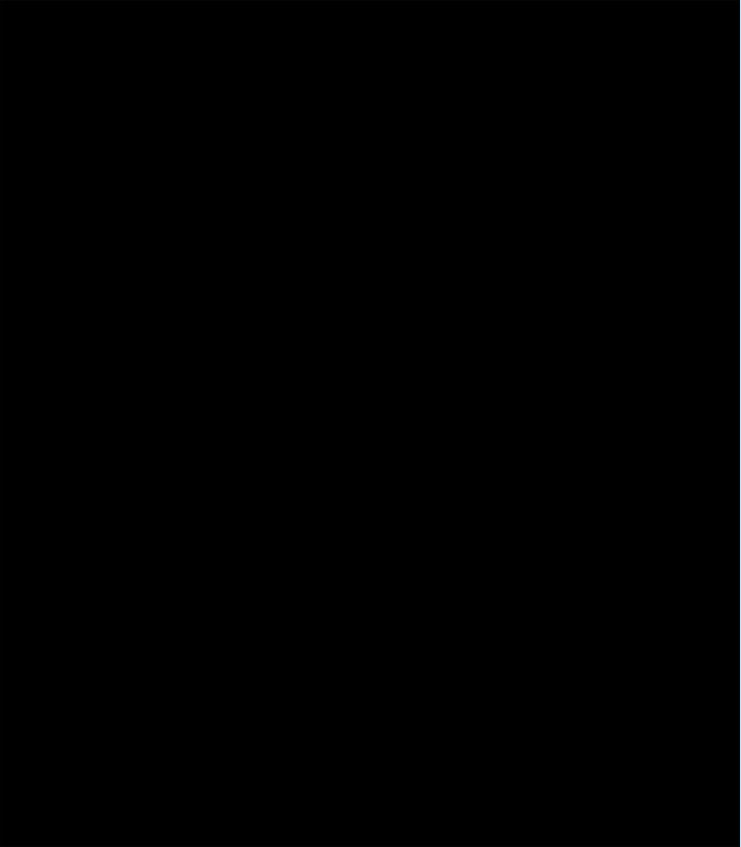
Statewide MPA Monitoring RFQ

- 
- Statewide consortiums organized by habitat or analyses
 - Single institution who will subcontract out to additional investigators as needed
 - Will include some data collection but significant amount of funds will be focused on synthetic data analysis

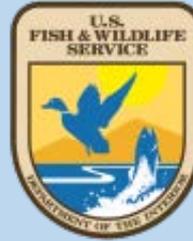


Statewide MPA Monitoring RFQ

PRIORITY PROJECT TYPES

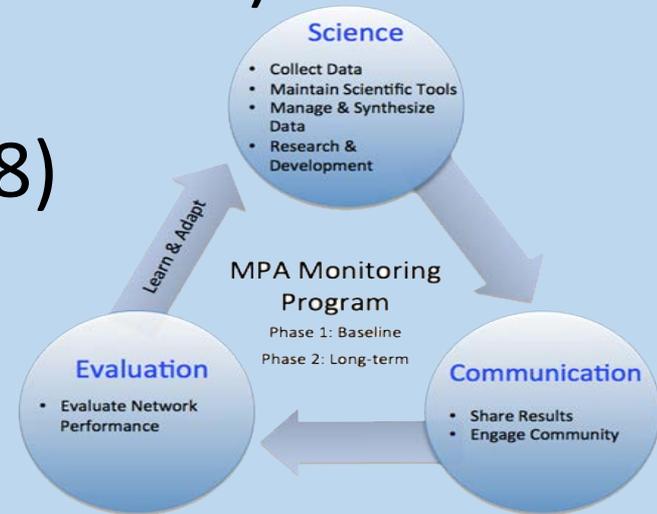
- 
- Projects that integrate climate change impacts monitoring including water quality
 - Projects that include co-produced knowledge/collaborative research, citizen science and/or tribal participation
 - Cross disciplinary, habitat and regional analyses

Partnerships



MPA Monitoring Program Priorities

1. MPA Monitoring Action Plan (Oct 2018)
2. MPA Monitoring RFQ (Nov 2018)
3. Build out Open Data Platform



Questions?



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Action Plan Projects

1. Raimondi/Carr ROMs connectivity matrix
2. Botsford/Ota/Kaplan (postdoc) indicators and timeline using community structure
3. Baskett/Hastings/Yamane calculate local F using size data
4. Caselle data quality review of subtidal data (including citizen science)
5. ROV Workshops on methods, sites and metrics
6. ROV post-doc work



MPA Monitoring Progress To Date

1. \$16 million dollars baseline monitoring data collection complete
 - Covered beaches to offshore across state*
 - Primarily biological monitoring with some physical metrics included
2. Data and metadata standards created and adopted
3. Intertidal and subtidal (NC,C &S - 2016-17) & mid-depth (C - 2016 /statewide - 2017)
4. Long Term Monitoring Action Plan under development and RFP/RFQ/EOIs fall 2018
 - Raimondi/Carr ROMs connectivity matrix
 - Botsford/Ota/Kaplan (postdoc) calculate local F using size data
 - Various projects to prioritize metrics in each of the ecosystems