



CINMS Management Plan: Internal Review of 2009 Plan Implementation and Upcoming Plan Revision

Presentation for Sanctuary Advisory Council

May 18, 2018



**Channel Islands
National Marine Sanctuary**



**Final Management Plan/
Final Environmental Impact Statement**

**Volume I of II:
Final Management Plan**



January 2009

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Service
National Marine Sanctuary Program

CINMS Management Plan

- Current plan published in 2009
 - Intended be reviewed periodically
 - Most recent internal evaluation completed in winter 2017/18
 - Next plan update/revision will follow completion of 2018 Condition Report
- Today:
- Results of internal evaluation
 - Introduction to revision process

Context for Evaluation

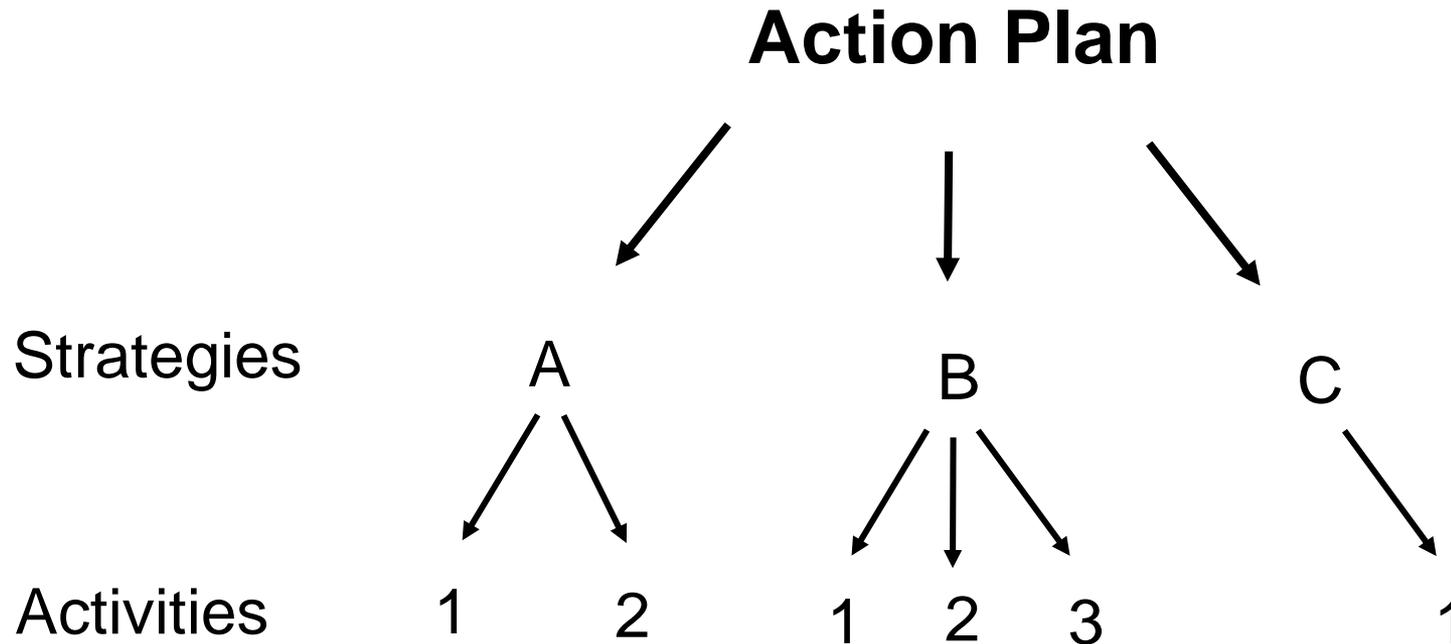
- What the 2009 management plan was striving for
- Changing conditions over time
- Some lessons learned about the last update process and our expectations
- Renewed inspiration for the next CINMS management plan to align with our strengths and guide us toward improved pursuit of the CINMS mission

Structure of CINMS Management Plan

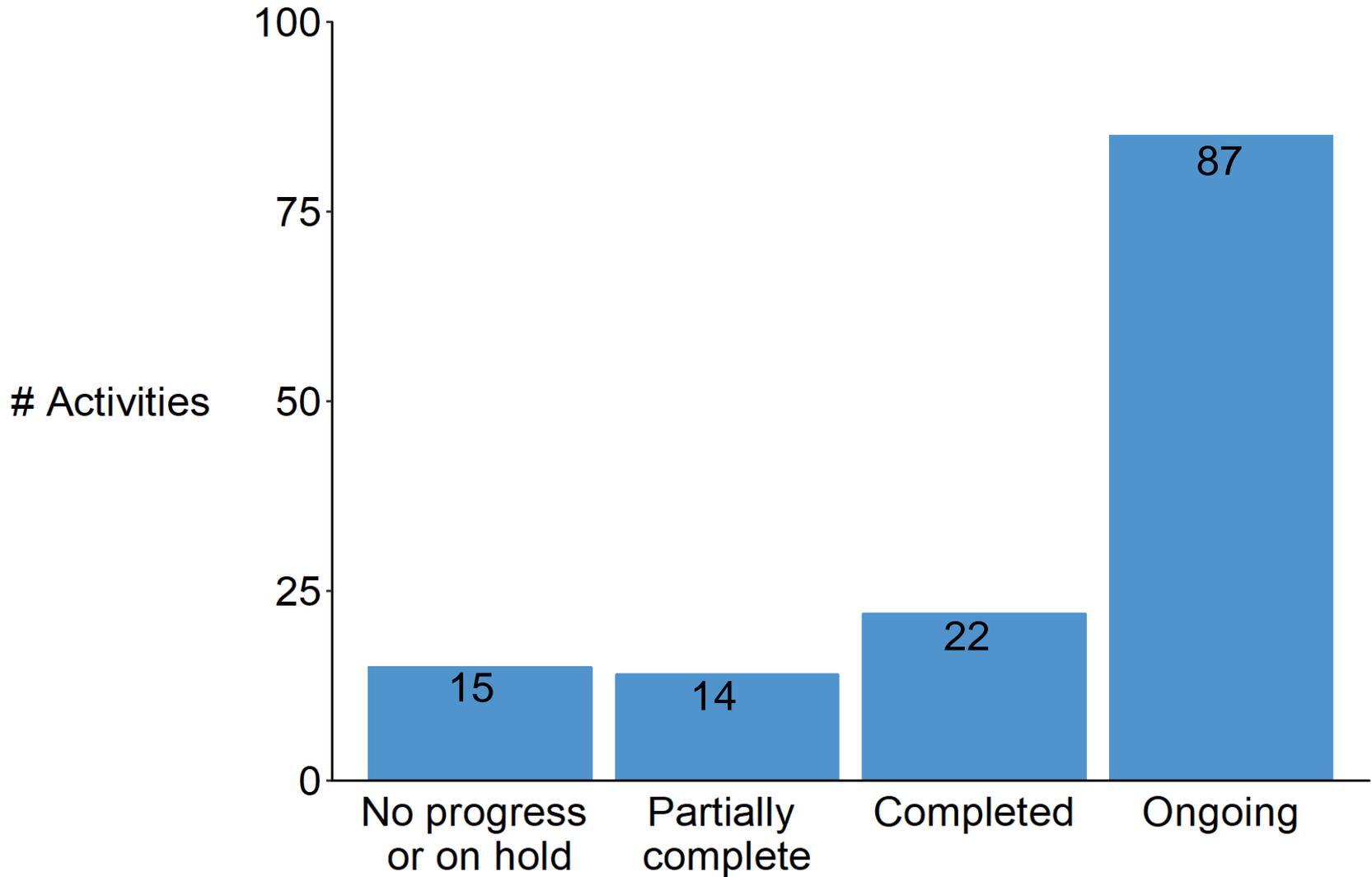
Programmatic Action Plans

1. Public Awareness and Understanding
2. Conservation Science
3. Boundary Evaluation
4. Water Quality
5. Emergency Response and Enforcement
6. Maritime Heritage
7. Resource Protection
8. Operations

Structure of Management Plan

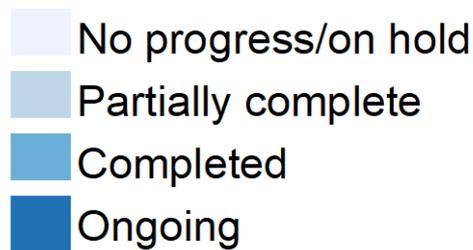
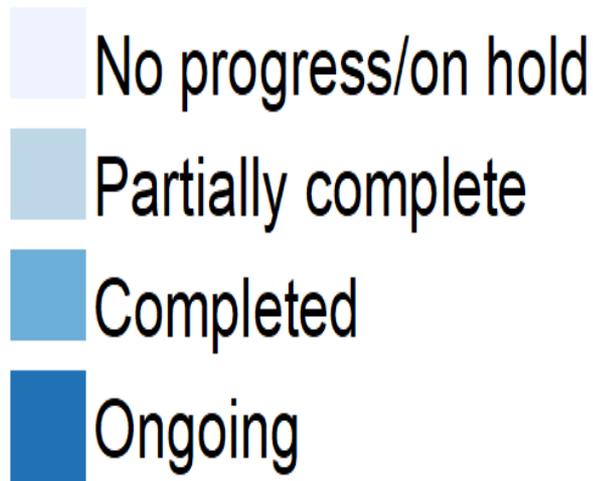


Activity Implementation Progress



Public Awareness and Understanding

43 Activities



Strategies

- Education program development
- Community involvement/volunteer and intern program development
- Team OCEAN
- Developing outreach technology
- Greater Southern California outreach
- Developing education and outreach tools and products
- Visitor center support and development
- MPA network education
- Multicultural education

Public Awareness and Understanding

Steady operation and program growth of the Channel Islands Naturalist Corps by the Sanctuary and Park:

- 25,000 hours of volunteer service time in 2009 (135 volunteers)
- 33,810 hours of volunteer service time in 2017 (150 volunteers)
- Equivalent of 17 Federal employees



Public Awareness and Understanding

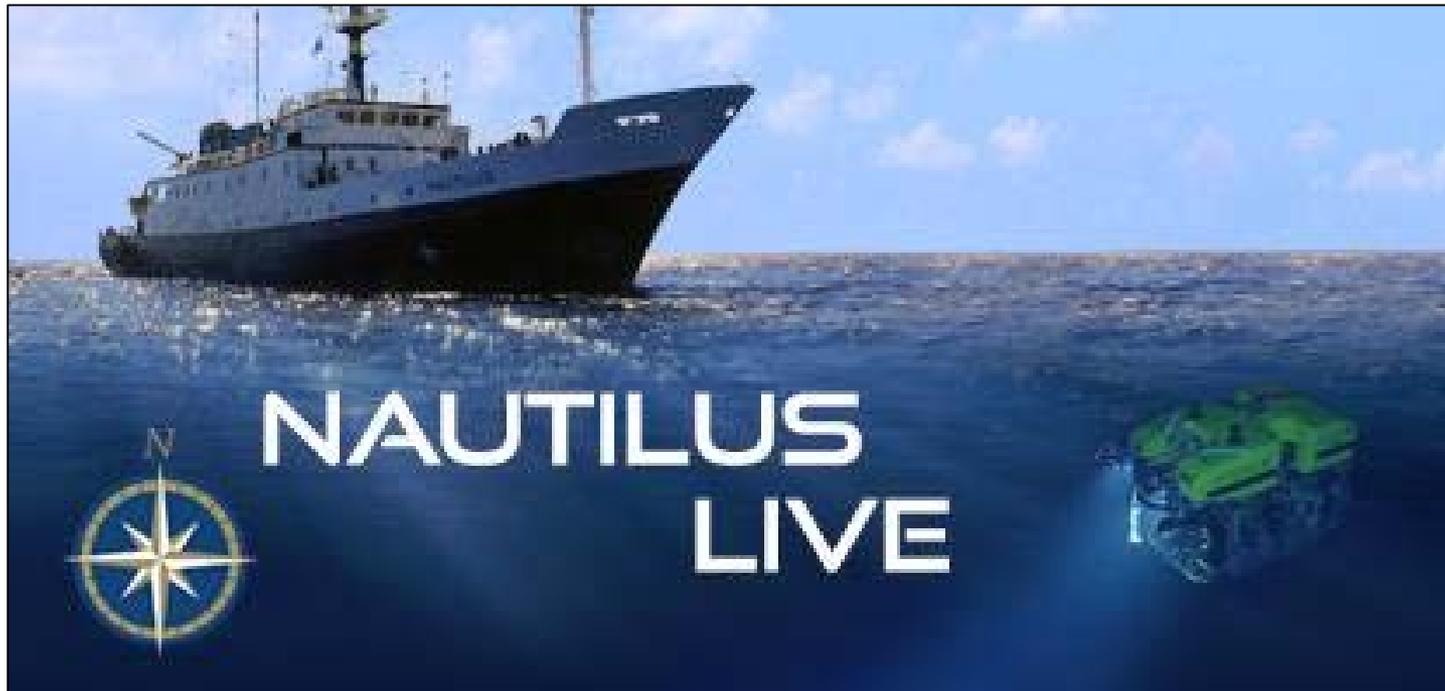
Completion of the Channel Islands Boating Center in 2013 at Channel Islands Harbor

- Interactive sanctuary kiosks
- Exhibits for education and outreach in Ventura County



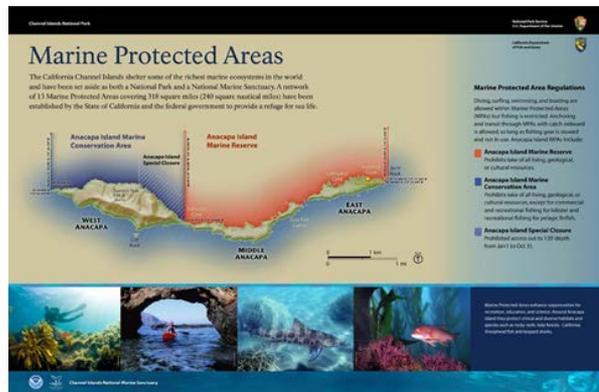
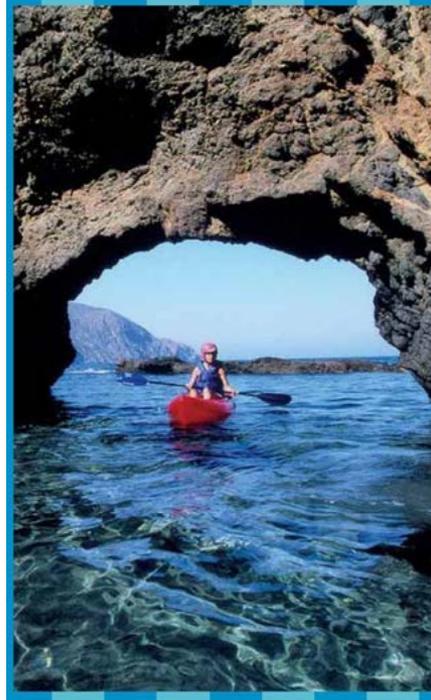
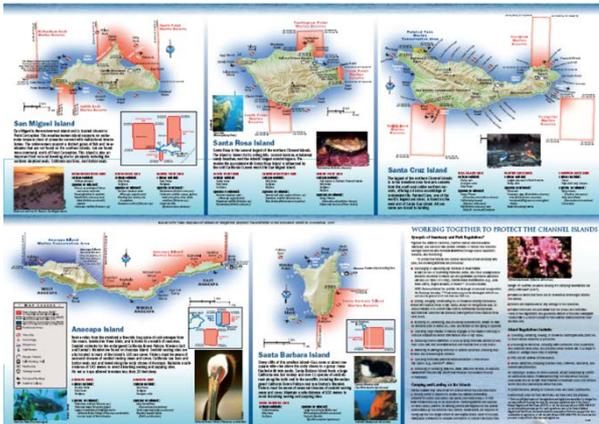
Public Awareness and Understanding

Using live-streaming and real-time interactions with deep sea science and exploration operations: *Nautilus Live*



Public Awareness and Understanding

MPA Network education and outreach



Public Awareness and Understanding

Outreach Center for Teaching Ocean Science (OCTOS)

- Ocean Science Education Building completed in June 2013
- OCTOS concept has gone through several evolutions in an effort to gain more campus buy-in and engage donors – Center for Environmental Communication and Education (CECE) and now Ocean Hub
- Still working with UCSB to raise funds to complete interior space



Public Awareness and Understanding

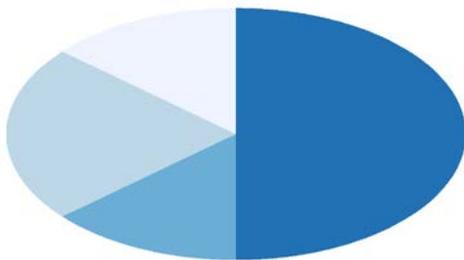
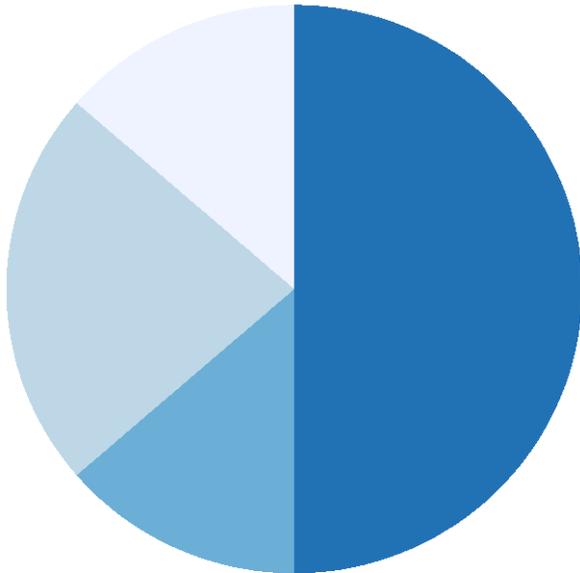
Multicultural Education for Resource Issues Threatening Oceans (MERITO)

- Evolution from CINMS program (MERITO Academy) to partnering non-profit organization (MERITO Foundation)
- <https://www.meritofoundation.org/>



Conservation Science

22 Activities

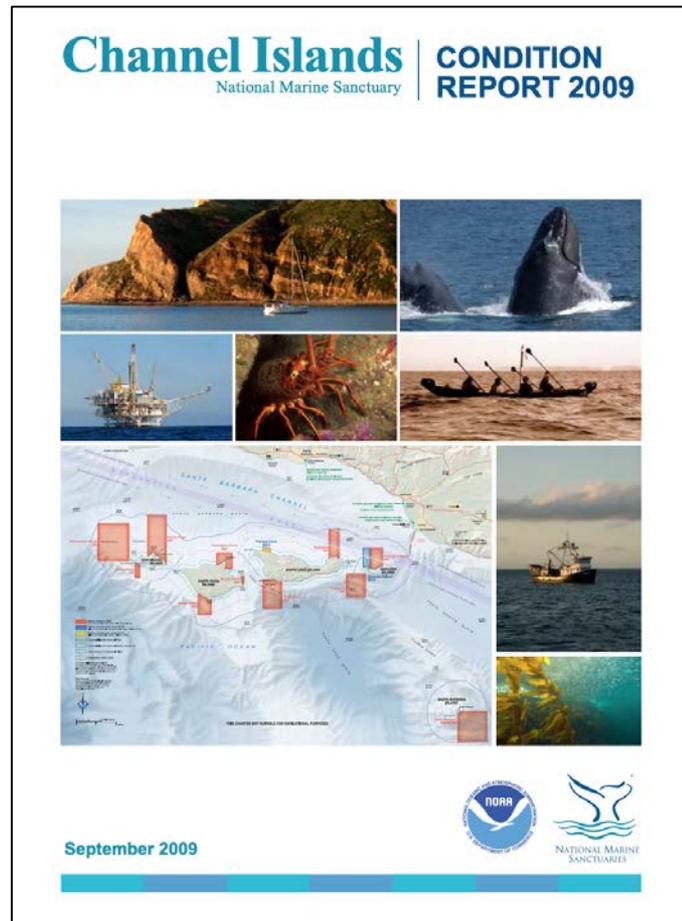


Strategies

- Sanctuary aerial monitoring and spatial analysis program
- Comprehensive data management
- Support monitoring and site characterization programs
- Collaborative marine research project
- Biological monitoring of MPA network
- Socioeconomic monitoring of MPA network
- Automated Identification System vessel tracking

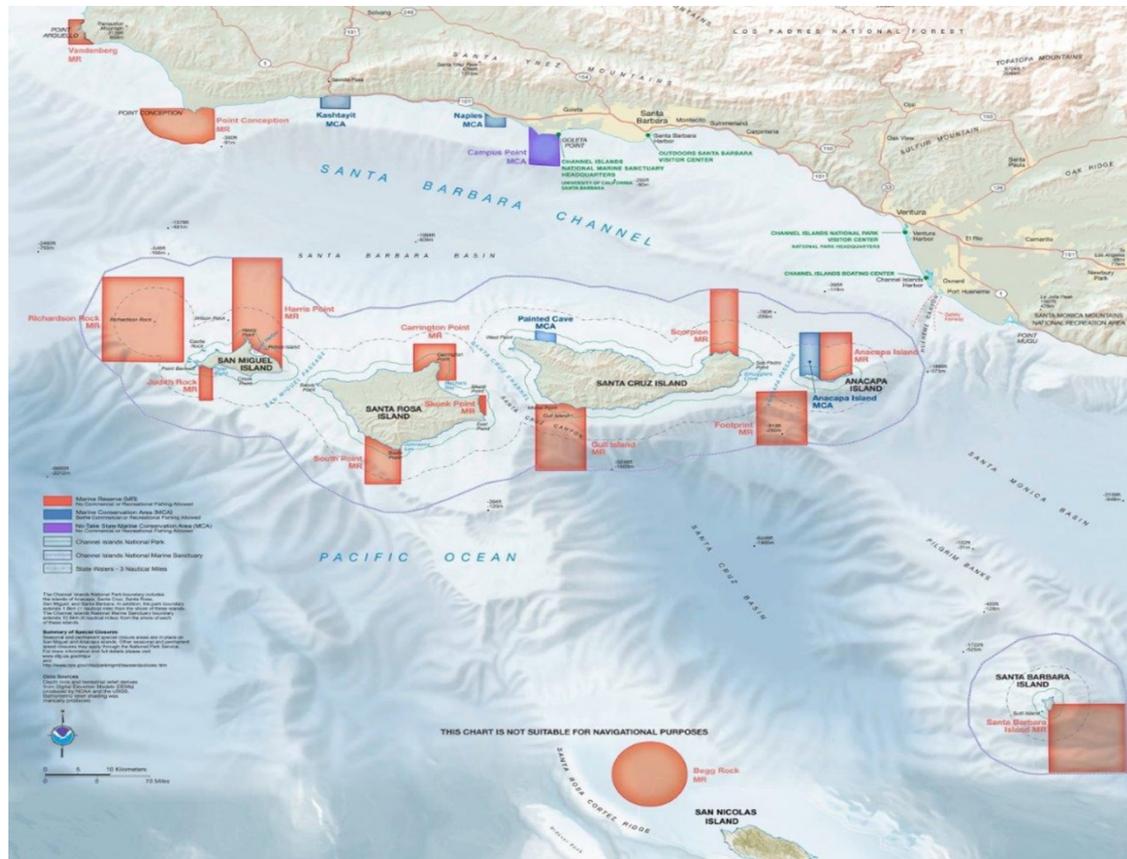
Conservation Science

Completion of the sanctuary's 1st Condition Report in 2009 and development of an update in 2017 (estimated completion in mid-2018). Provides an assessment of the status and trends of marine resources within the sanctuary.



Conservation Science

Ongoing support for ecological monitoring activities of the network of marine reserves established within the sanctuary. In general, biomass and abundance of targeted species are increasing at a higher rate inside reserves compared to reference areas open to fishing.



Conservation Science

Significant progress in deep sea research by attracting and supporting an increasing number of NOAA research ships and exploration vessels

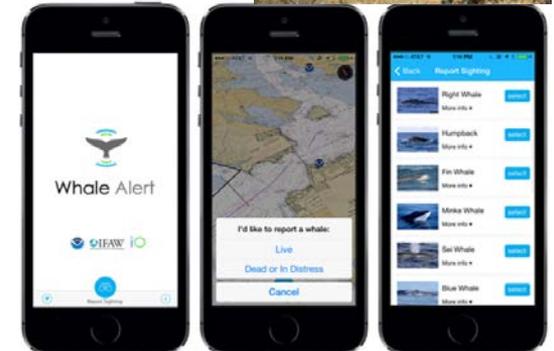
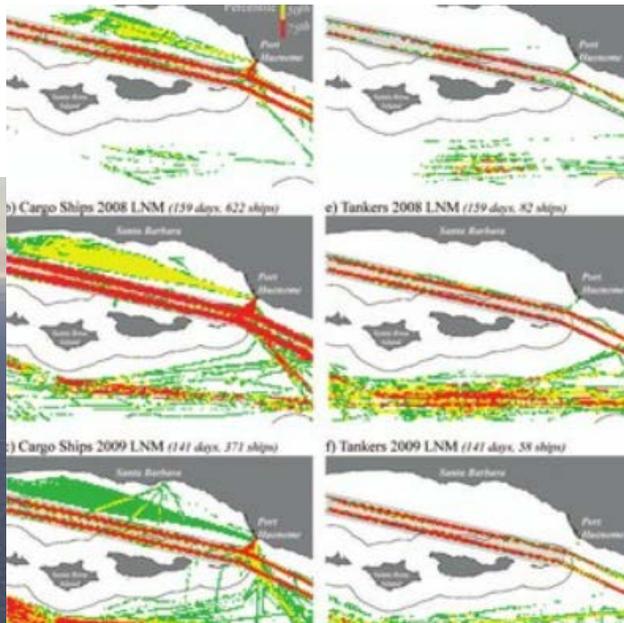
- High-resolution benthic mapping data coverage increased from 42% to 82%
- Discovery, characterization and monitoring of rare and fragile deep sea coral colonies important to understanding the effects of ocean acidification



Conservation Science

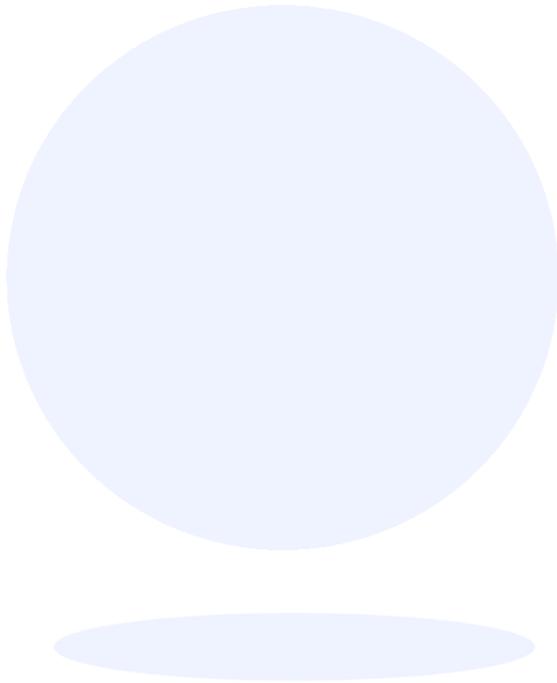
Sanctuary Aerial Monitoring & Spatial Analysis Program (SAMSAP):

- Adversely affected by NOAA aircraft being removed from Santa Barbara, and then from the west coast
- Stopped flying regular SAMSAP transects
- Large vessel tracking aided by rise of Automated Identification System (AIS) data transmissions
- Marine mammal (whale) surveillance via periodic chartered aircraft
- Citizen-science data: volunteers trained in whale ID; use of SpotterPro and WhaleAlert apps



Boundary Evaluation

2 Activities



Strategies

- Process to consider, analyze, and make a final determination on changing the boundary of the sanctuary

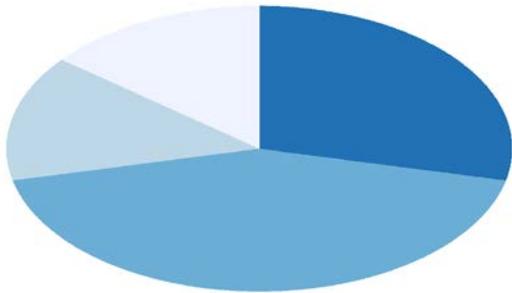
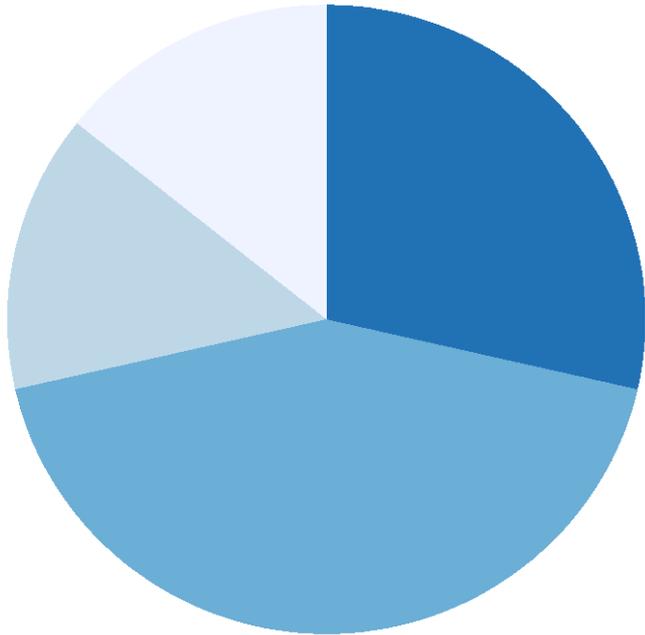
Boundary Evaluation

Not pursued at CINMS in part because the spatial area contemplated in this action plan was subsequently included in an ONMS-accepted nomination package for a new national marine sanctuary.



Water Quality

7 Activities

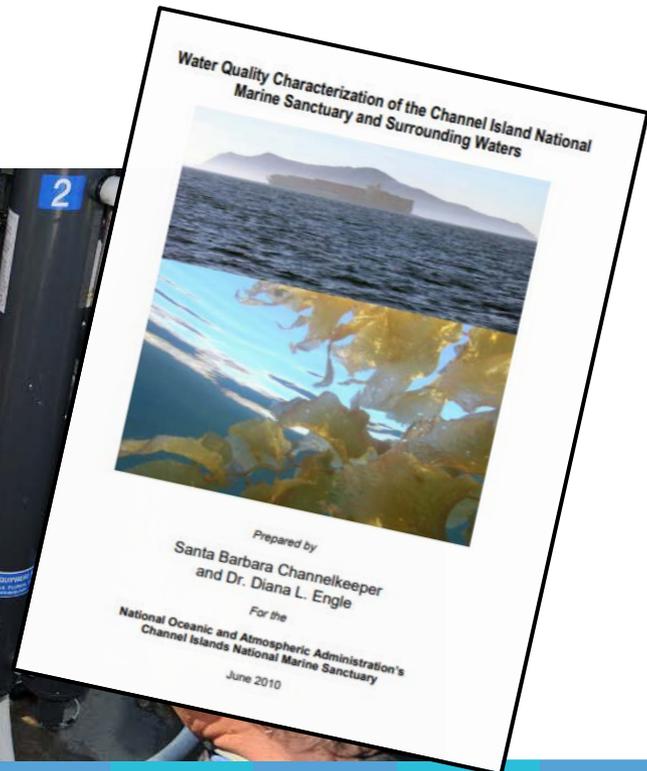


Strategies

- Offshore water quality monitoring
- Water quality protection planning

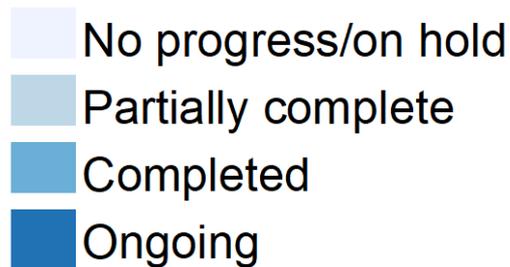
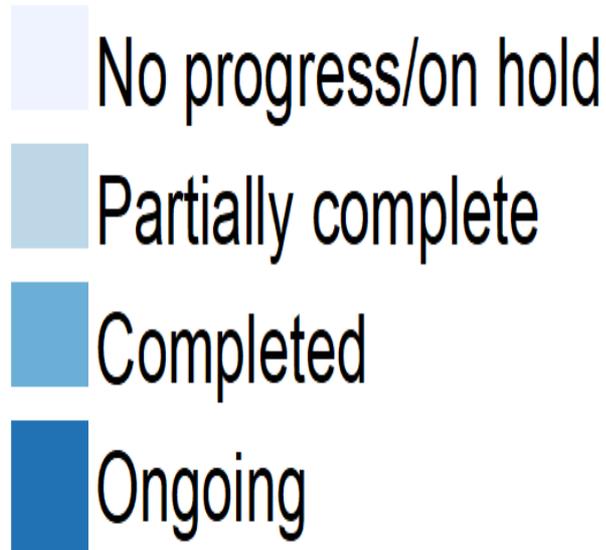
Water Quality

- Sanctuary water quality assessments through:
 - 2009 Condition Report
 - Comprehensive water quality characterization report for CINMS (2010) Condition Report update (2017/18)
- Ongoing partnership with the Southern California Coastal Water Research Project to ensure continued periodic water quality sampling and analysis within CINMS



Emergency Response and Enforcement

8 Activities

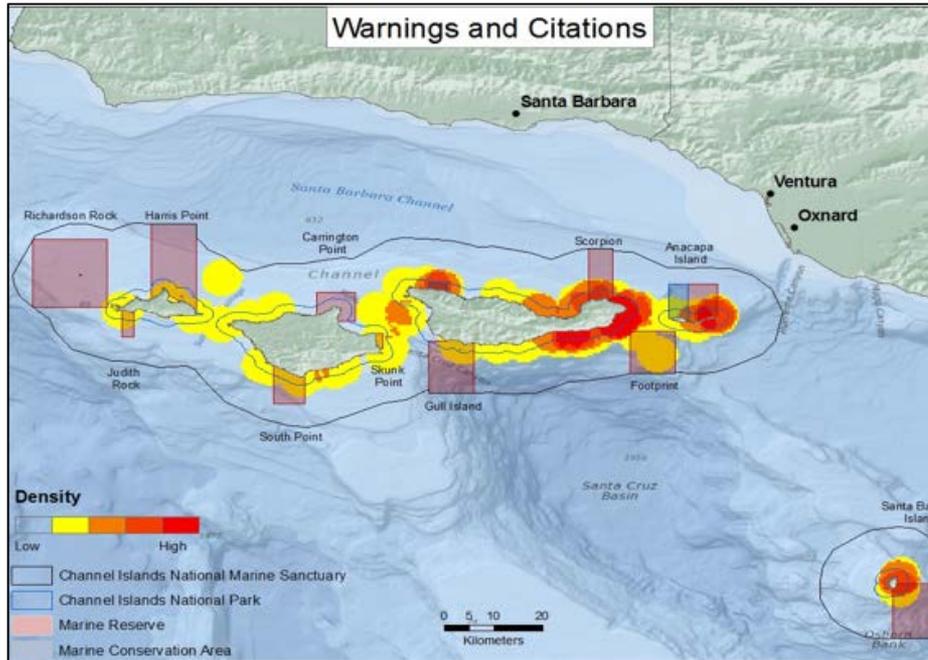


Strategies

- Emergency response planning and implementation
- Expanding enforcement efforts

Emergency Response and Enforcement

Development and deployment of tools to enhance law enforcement efforts within CINMS, including the eFINS app and an emerging advanced shore-based marine radar system



Emergency Response and Enforcement

- Conducted oil spill and emergency response training and preparedness drills
- Assisted with a multi-agency response to the 2015 Refugio Beach Oil Spill
- Pioneering use of Unmanned Aerial Systems for responding to oil spills.



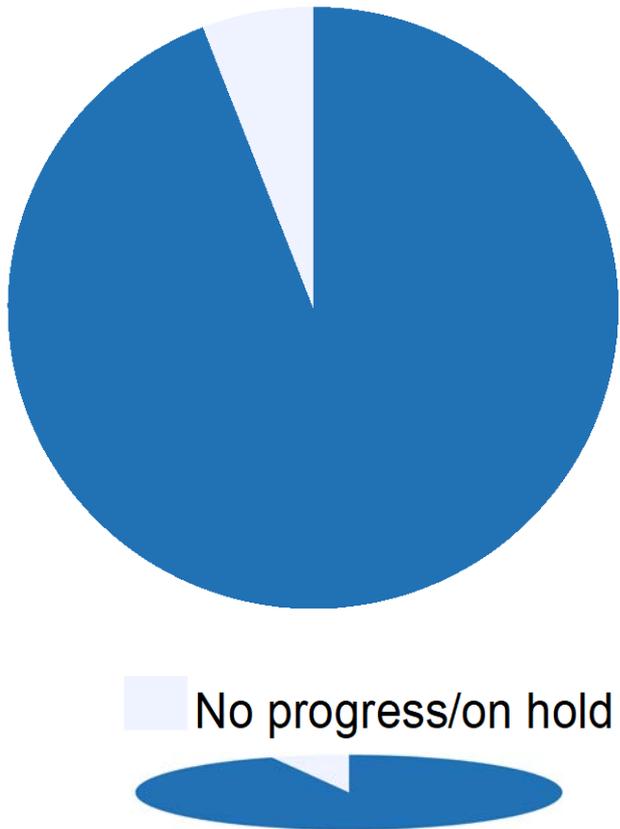
Emergency Response and Enforcement

- Emergence, development and use of technologies to provide tools (e.g. eFINS, radar, UAS)
- Focus on cooperative approach with law enforcement and emergency response partners
- Moved away from more resource-intensive plans:
 - Unable to use locally-based NOAA aircraft to help with emergency response
 - Did not pursue development of an on-water interpretive enforcement program (Marine Watch).



Maritime Heritage

17 Activities



Strategies

- Shipwreck reconnaissance program
- Maritime Heritage Resources (MHR) volunteer program
- Partnering with the Santa Barbara Maritime Museum
- Implementing a coordinated MHR protection outreach effort
- Upgrading the maritime heritage website
- Supporting public education of Chumash Native American maritime heritage

Maritime Heritage

Discovery of the long lost shipwreck of the *George E. Billings* near Santa Barbara Island in 2012 as a result of sanctuary maritime heritage program efforts.



Maritime Heritage

Continuing support for Chumash Community activities, including annual tomol channel crossing.



Maritime Heritage

CINMS shipwreck exhibits at the Santa Barbara Maritime Museum, public lectures, shipwreck brochure.

CHANNEL ISLANDS SHIPWRECKS

<http://channelislands.noaa.gov>

Exploring Your Maritime Heritage

Diving Satisfactory Experiences
 Marine science education programs where students can explore and enjoy the treasures of the underwater world. Many of the experiences at Channel Islands National Marine Sanctuary are accessible to students at depths accessible to a variety of skill levels. Some of the sanctuary's shallow reefs are ideal for children and all visitors of the waters, including on water recreation and research day groups. Local charter boat operators offer the best in scuba diving experiences.

Wild Shipwrecks without Getting Wet
 From deep-sea dives to beach strolls, visitors can explore maritime heritage without getting on a wet suit. At the Santa Barbara Maritime Museum, visitors witness the history of Channel Islands shipwrecks through interactive exhibits and a state-of-the-art multimedia theater. The museum offers exhibits on the community's experiences and maritime archaeological and historical sites, sea transportation, and the local and national and international sea-watching from ongoing field research. For information on current and upcoming educational exhibits, visit <http://channelislands.noaa.gov/education/>.

Resource Protection
 Shipwrecks and other sites that are historically significant, such as shipwrecks and aircraft, are protected and preserved for future generations. The National Oceanic and Atmospheric Administration (NOAA) works to protect and preserve these sites.

Regulated Activities
 National Marine Sanctuaries, National Oceanic and Atmospheric Administration, Channel Islands National Marine Sanctuary

MAPPING THE SHIPWRECK S.S. CUBA
 Maritime archaeologists opened an understanding of history by mapping inside the Pacific Mail Steamship Co. vessel S.S. Cuba, which ran aground on San Miguel Island in 1923. Today, a satellite view across the island of the wreck site.

A Rich Maritime Heritage
 From traditional to modern times, maritime cultures have used the waters around the Channel Islands for anything from fishing to trading. The proximity of the Pacific American Channel Islands Sea to the Islands for thousands of years before European contact, creating a rich maritime and historical legacy. Following the arrival of Europeans in the 18th century, the region has seen a steady flow of trade, sea and air travel, and a rich maritime heritage. These islands are a testament to the rich maritime history of the Channel Islands National Marine Sanctuary.

Channel Islands National Marine Sanctuary
 Channel Islands National Marine Sanctuary was established in 1980 to preserve, protect and understand the precious natural and cultural resources in the waters around the islands. Today, sanctuary staff work with scientists and partners to help the islands to best preserve and protect their history, allowing them to be an important resource for our nation's heritage.

CHANNEL ISLANDS SHIPWRECKS

Channel Islands National Marine Sanctuary

Mapping from the Pacific Coast of the Island of Southern California
 The Channel Islands have been a meeting place for centuries. The region's rich maritime heritage, from the arrival of the first humans to the arrival of the first Europeans, has shaped the islands' history. Today, Channel Islands National Marine Sanctuary is home to numerous shipwrecks that tell the story of California's maritime heritage.

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Sanken Relics of California's Coast
 Every group of people that has visited the Channel Islands has left behind a trail of artifacts and stories. From the early days of exploration to the present, the islands have been a place of discovery and adventure. Today, the Channel Islands National Marine Sanctuary is home to a collection of shipwrecks that tell the story of California's maritime heritage.

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SHIPWRECKS NOAA.GOV



Maritime Heritage

Create and Distribute Shipwreck Interpretive Underwater Slates

- Completion of underwater sites maps is pending funding to continue the shipwreck reconnaissance program

Incorporating “Living Journals” Into the Website

- Looking ahead it’s still a goal to incorporate additional interviews, such as the grandson of one the captains of the *George E. Billings*

Shipwreck Reconnaissance program

– seeking funding

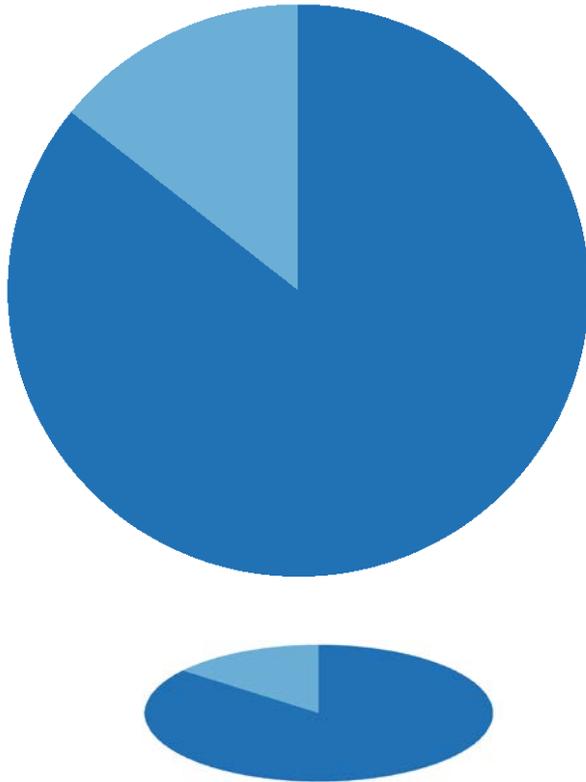
CINMS Maritime Heritage Program

Coordinator – needed regionally/nationally



Resource Protection

7 Activities



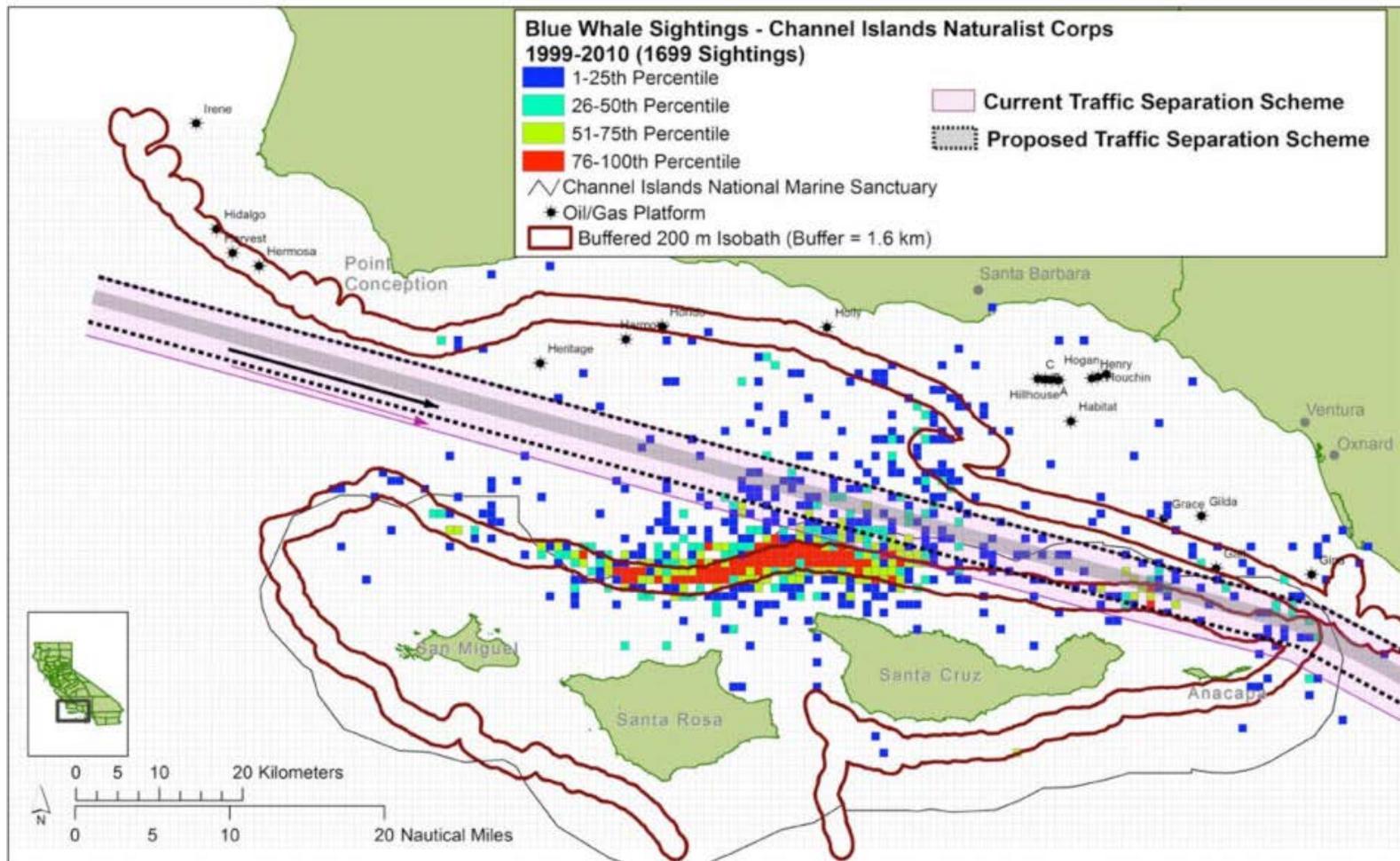
Strategies

- Identifying and assessing current and emerging issues
- Responding to identified issues
- General marine zoning

Resource Protection

Significant progress towards addressing the threat of ship strikes to whales including:

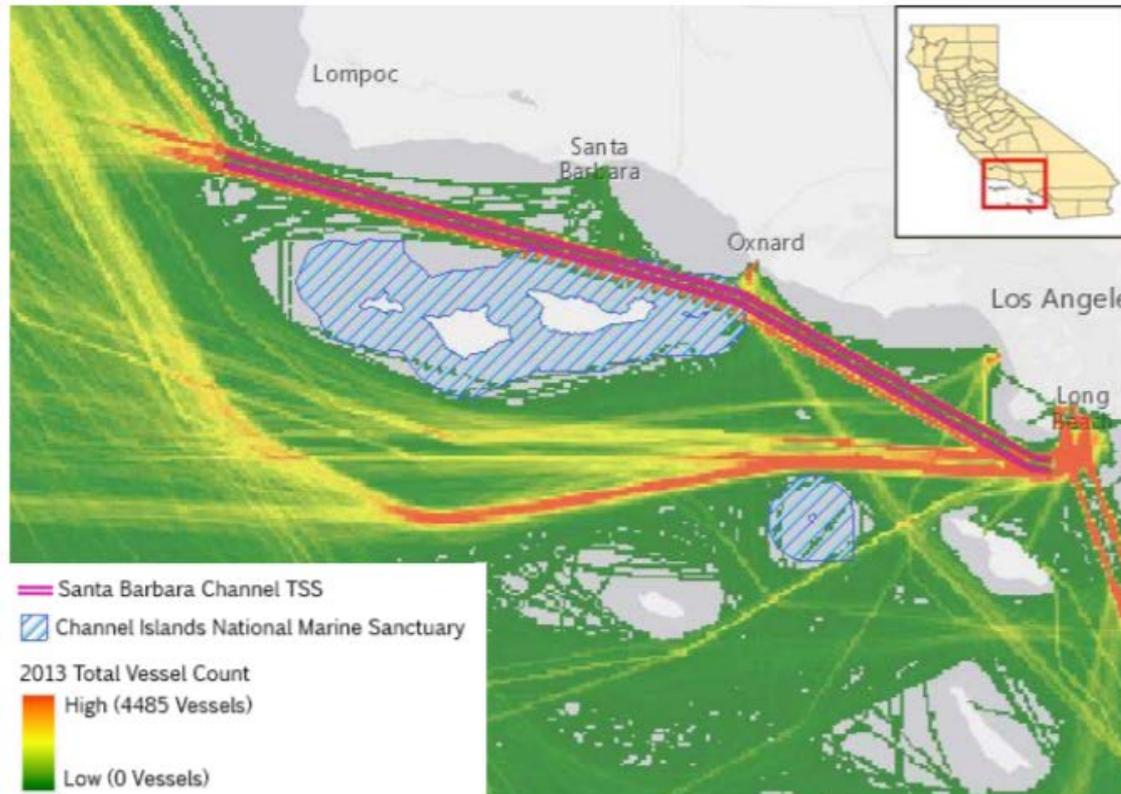
- **Adjusting shipping lanes**



Resource Protection

Significant progress towards addressing the threat of ship strikes to whales including:

- Adjusting shipping lanes
- **Receiving well researched and thoroughly deliberated advice from SAC Marine Shipping Working Group**



Resource Protection

Significant progress towards addressing the threat of ship strikes to whales including:

- Adjusting shipping lanes
- Receiving well researched and thoroughly deliberated advice from SAC Marine Shipping Working Group
- **Launching an incentive-based *Blue Whales and Blue Skies Vessel Speed Reduction* program that has slowed ships in the Santa Barbara Channel**



Resource Protection

Development and launch of two apps that have digitized and streamlined whale sightings data collection efforts, and have been opened to public participation



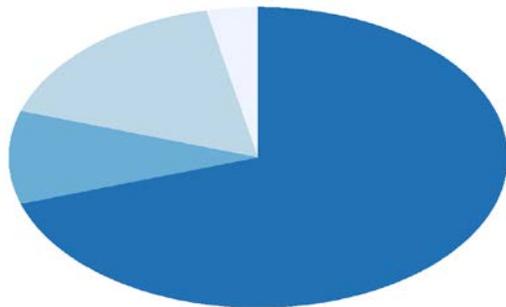
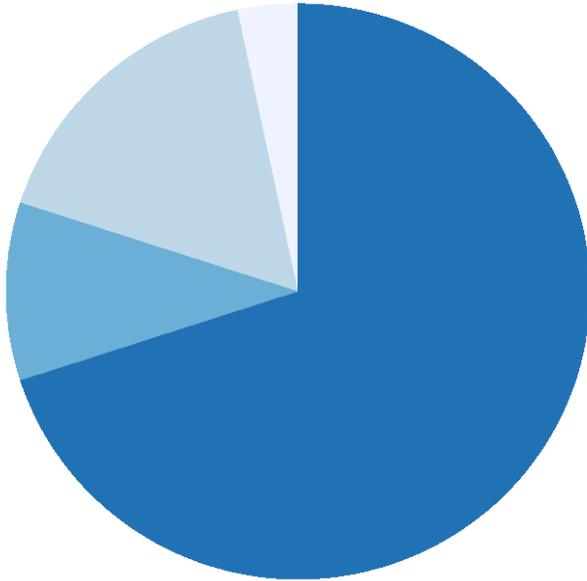
Spotter Pro



Whale Alert

Operations

30 Activities



Strategies

- Sanctuary Advisory Council operations
- Permitting and activity tracking
- Building relationships with other authorities
- Vehicle, boat and aircraft operations
- Administrative initiatives
- Human resources
- Office space expansion
- Greening facilities and operations

Operations

Successfully moved sanctuary's main office to the Ocean Science Education Building at the University of California Santa Barbara in 2013

- Boosted partnerships and collaborations with on-campus partners
- Enhanced student interactions and involvement with sanctuary programs



Operations

Research vessel renovations and new vessel construction

- Shark Cat to be re-powered with cleaner (less polluting) engines in 2018
- Building new Santa Barbara Channel Work boat with CSU Channel Islands



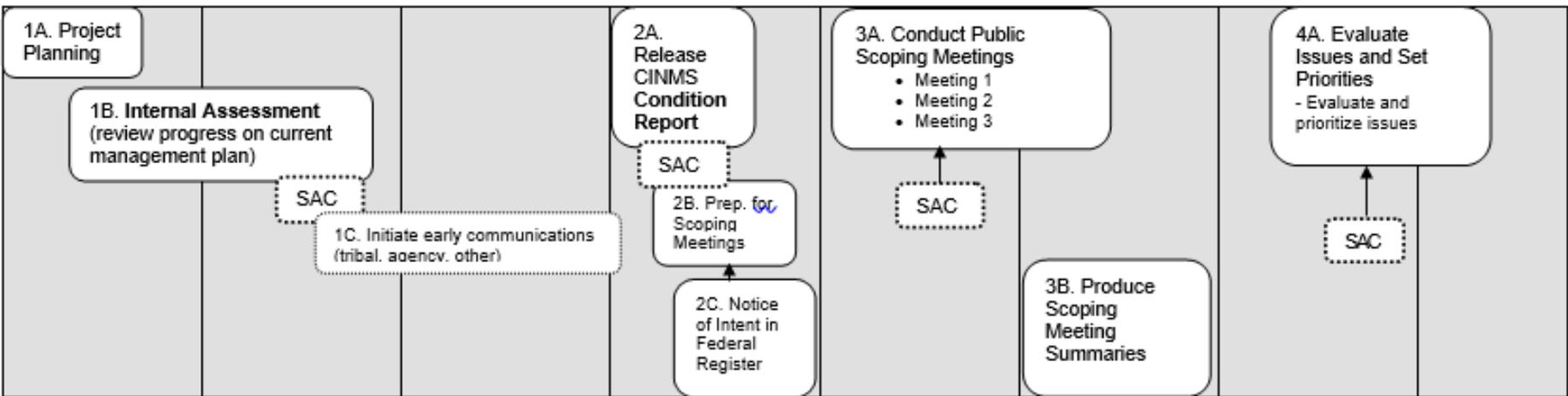
Operations

Unmanned Aircraft Systems development

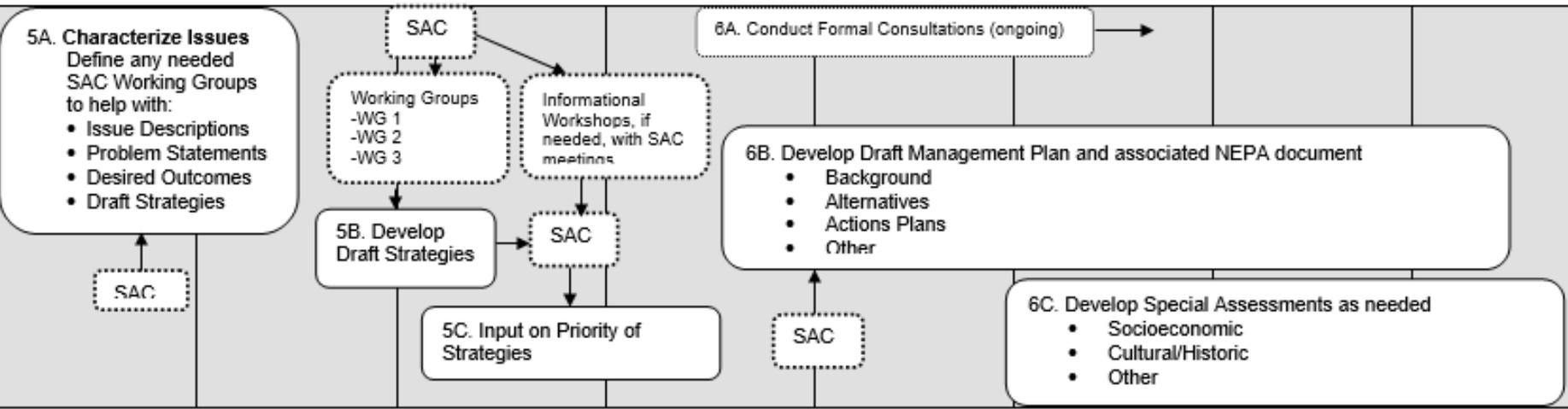
- Developed the ONMS Collaborative Center for Unmanned Technology
- Conducted many unmanned aircraft tests in the Point Mugu sea range and at Vandenberg Air Force Base in support of NOAA natural resources

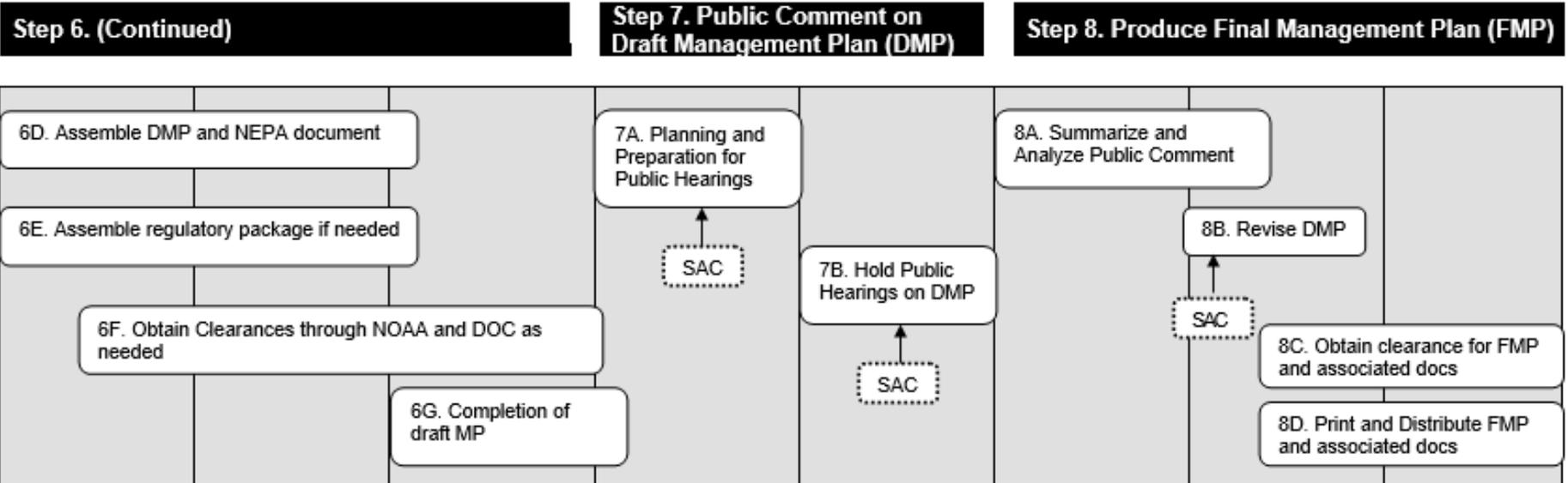


Step 1. Initial Preparation Step 2. Pre-Scoping Step 3. Scoping Step 4. Evaluation of Issues



Step 5. Characterize Priority Issues and Develop Recommendations Step 6. Develop Management Plan (MP)





NOTE: The process duration for a management plan update is directly related to the complexity of proposed changes. For example, changes to regulations, boundaries, or the sanctuary's terms of designation may extend the project beyond an anticipated schedule.