

# 2015 MANAGEMENT PLAN IMPLEMENTATION STATUS REPORT



September 1, 2015

# Introduction

This report provides an assessment of implementation progress for the management plan of Monterey Bay National Marine (MBNMS), and describes a general approach for revision of the plan over the next three years.

## Planning Background

Many years of planning went into the development of the sanctuary's 2008 management plan and revised regulations. This included public scoping sessions, issue refinement with the close involvement of the Sanctuary Advisory Council and its active working groups, compliance with the National Environmental Policy Act requiring the development of a draft, supplemental draft, and final Environmental Impact Statement, the consideration of hundreds of public comments, numerous consultations with other agencies, and a federal rulemaking process requiring the publication of a Proposed Rule and a Final Rule. The results were a comprehensive final management plan and a revised set of sanctuary regulations published in October 2008, with the new regulations taking legal effect in February 2009.

The final management plan contains information about the sanctuary's environment and resources, staffing and administration, regulations and boundaries, priority management issues and actions proposed to address them. The plan contains 23 action plans designed to guide sanctuary management.

As part of the management plan revision process, NOAA's Office of National Marine Sanctuaries (ONMS) made a number of regulatory changes to improve sanctuary resource protection. A final environmental impact statement (FEIS), released on September 15, 2008, contains a range of alternatives considered for modified and new sanctuary regulations, and provides environmental and socioeconomic impact analyses of those regulatory alternatives. The FEIS also contains responses to thousands of written public comments received. The regulation changes adopted by NOAA were published as a Final Rule in the Federal Register on November 20, 2008, taking effect in February 2009.

All final documents are available from the management plan section of the sanctuary's web site (<http://montereybay.noaa.gov>). The management plan's key elements and a summary of regulations are described in this document.

# The Management Plan

This management plan is a revision of the original management plan, adopted with sanctuary designation in 1992, and is focused on how best to understand and protect the sanctuary's resources. It includes twenty-three action plans guiding the sanctuary, grouped into four main marine management themes: coastal development, ecosystem protection, water quality, and wildlife disturbance. Two additional sections, partnerships and opportunities as well as operations and administration, comprise action plans and strategies addressing how the sanctuary will function and operate. Finally, five crosscutting plans with Gulf of the Farallones and Cordell Bank National Marine Sanctuaries are included. Successful implementation of each of the action plans relies on partnerships with federal, state, and local agencies in addition to local stakeholders. Much of the work to be accomplished crosses many jurisdictions and exceeds the resources of any one agency.

2009 was the first implementation year for the sanctuary's current management plan and revised regulations. Over the last 6 years, important progress has been made on plan implementation, with several notable accomplishments. At the same time, progress was constrained due largely to resource limitations. Significant implementation accomplishments and challenges are highlighted here.

## **Coastal Development Action Plans, Implementation and Needs**

Coastal development plans aim to reduce expansion of hard coastal armoring in the coastal areas, minimize the impacts to sanctuary resources and qualities from desalination activities, address the need for proper disposal of dredged material and provide clear guidance regarding installation, operation or removal of submerged cables to protect the resources and qualities of the sanctuary.

***Coastal Armoring:*** The armoring of the coastline for protection of private and public structures continues to expand throughout the sanctuary. This action plan proposed to address coastal armoring issues through development of a program to coordinate with the California Coastal Commission and other agencies to identify planning regions and guidelines and where possible, alternatives to armoring.

*Implementation:* Two coastal regional sediment plans have been developed for Southern Monterey Bay and the Santa Cruz Littoral Cell and implement in late 2015, See *Evaluation of Erosion Mitigation Alternatives for Southern Monterey Bay* (2012) and the Draft Coastal Regional Sediment Management Plan for Santa Cruz Littoral Cell (2015) at

<http://montereybay.noaa.gov/resourcepro/resmanissues/coastal.html>

*Looking forward:* Many of the current activities have been fulfilled; a new plan would focus on the implementation of recommendations the new sediment management plans.



California's coastline is highly erosive and heavily developed, creating situations like this.

**Desalination:** Increased demand for water in various communities adjacent to the sanctuary, requirements to return flow to Carmel River and advancements in technology have made desalination an attractive and actively pursued source of freshwater. The sanctuary proposed development of a regional program and policy regarding desalination facility locations. The action plan includes development of facility siting guidelines and a modeling and monitoring program for desalination discharges.

*Implementation:* Guidelines for Desalination Plants in MBNMS have been developed and describe a comprehensive regional approach to desalination issues. In 2014, sanctuary staff completed a final Environmental Assessment and Finding of No Significant Impacts (FONSI) for the California American Water test slant well project at the CEMEX site in Marina and authorized the Coastal Commission Coastal Development permit. The sanctuary created a public webpage detailing the different desalination projects in Monterey Bay. MBNMS will be the federal lead on two to three of the proposed desalination projects.

*Looking forward:* Much of the plan is still relevant and will require continued application of NOAA guidelines for citing desalination facilities in MBNMS, modeling and monitoring.

**Harbors and Dredge Disposal:** The sanctuary continues to review the disposal of dredged material in approved locations at sea or along the shoreline. This action plan proposed several agency coordination improvements and the development of review guidelines. It would also implement a sediment monitoring and reduction program, address fine grain material disposal at sea, and evaluate alternative disposal methods for the four harbors in the sanctuary.



*Implementation:* MBNMS worked with other state and federal agencies to ensure sanctuary resources are protected during dredge disposal. Some of the main accomplishments over the past six years involved approving many projects protecting resources, streamlining the harbors and dredge disposal permit process, consulting with Elkhorn Slough of its new sill, which reduces sediment erosion.

*Looking forward:* In the near future, MBNMS plans on coordinating with the US Army Corp of Engineers (USACE), Greater Farallones NMS (GFNMS) and Surfer's Beach stakeholders for a pilot beach nourishment project. MBNMS will also continue to coordinate with the local harbors on dredge disposal activities and beach nourishment as needed and appropriate.

**Submerged Cables:** The installation, operation and removal of submerged cables have the potential to disturb sensitive habitats and negatively impact areas of the seafloor. The plan proposed the implementation of administrative guidelines for cable applications and defined sensitive sanctuary habitats to be avoided. This includes a program to provide siting guidelines in a Geographic Information System (GIS) to identify environmental constraints.

*Implementation:* Some of the main accomplishments over the past six years involved streamlining the harbors and dredge disposal permit process, consulting with Elkhorn Slough on its new sediment sill, which reduces sediment erosion.

*Looking forward:* Due this action plan being mostly accomplished, it will be assessed for new elements or incorporation into the permitting process.

## **Ecosystem Protection Action Plans**

Ecosystem protection plans encompass a wide range of issues and impacts to sanctuary resources, from the watersheds of Big Sur to down to the Davidson Seamount, assessing the effects of bottom trawling, invasive species and emerging issues in the sanctuary and exploring marine protected areas in federal waters and the solidification of an integrated monitoring network in California sanctuaries.

***Big Sur Coastal Ecosystem Plan:*** The sanctuary proposed development of a program to coordinate and integrate management plans from seven coastal agencies coastal region while improving resource agency coordination and providing enhanced protection and management of coastal and marine resources. Full implementation would integrate management plans into one comprehensive regional plan and identify potential methods and locations of disposal associated with landslides and maintenance of Highway 1 in Big Sur.

*Implementation:* Communications with Caltrans, State Parks, Forest Service and other agencies within the Big Sur Region have been improved. A three-year study assessing rocky shore and subtidal ecology impacts of the Alder Creek Slide was completed. This improved communication and ecological study has enabled MBNMS to address landslides in a more efficient manner.

*Looking forward:* MBNMS attends Big Sur Multi-agency quarterly meetings and will also continue to coordinate with Caltrans on landslide disposal activities. Updates will be made to the GIS Sensitivity Index, which is used for management decisions during emergencies.

***Bottom Trawling Effects on Benthic Habitats:*** The effects of bottom trawling on benthic habitats in areas of the sanctuary are not completely known. Implementation of this action plan included development of a program to examine where trawling occurs and its impacts to sanctuary resources. If found necessary, potential protective measures would be presented to the National Marine Fisheries Service, the Pacific Fishery Management Council, and the California Department of Fish and Game.

*Implementation:* Some of the main accomplishments include characterization of the continental shelf between Piedras Blancas and Big Creek; assisting with California State University, Monterey Bay (CSUMB) and Nature Conservancy on their study of the central coast trawl impact study, completed in 2012 in partnership with fishing community; the collaborative groundfish essential fish habitat (2013) proposal; and identification of Sanctuary Ecologically Significant Areas (2013); see publications:

- Deep-water characterization, Institute for Applied Ecology and Monterey Bay National Marine Sanctuary. 2011. Characterizing the Deep: Surveys in the Monterey Bay National Marine Sanctuary 2007-2010. 14pp. <http://sep.csUMB.edu/ifame/publications>.
- Assisted with CSUMB and TNC led study, "Central Coast Trawl Impact and Recovery Study: 2009 - 2012." (in partnership with fishermen) Submitted Collaborative Proposal to Pacific Fishery Management <http://montereybay.noaa.gov/research/techreports/trlindholm2013.html>
- Council to request modifications to Groundfish Essential Fish Habitat, 2013 [http://montereybay.noaa.gov/resourcepro/ebmi/130731efh\\_proposal.pdf](http://montereybay.noaa.gov/resourcepro/ebmi/130731efh_proposal.pdf)

*Looking forward:* Efforts will continue to track PFMC process for Groundfish EFH modifications and SESAs will be fully implemented.

**Davidson Seamount:** The Davidson Seamount is a pristine undersea volcano that was proposed for inclusion in the sanctuary as part of the Joint Management Plan Review. Inclusion of the Davidson Seamount would provide additional protection of the seamount, additional regulations, and a new management zone. Implementation of the action plan would initiate monitoring, research, and education activities focused on the Davidson Seamount increasing the public's knowledge of seamounts, and the variety of deep sea flora and fauna inhabiting the area.

**Implementation:** After protecting the 775 square mile Davidson Seamount Zone as part of MBNMS, a series of research cruises to the seamount were completed with the Monterey Bay Aquarium Research Institute and NOAA ships. Since the implementation of the 2009 management plan, MBNMS staff have identified the Davidson Seamount as one of the better explored and best protected seamounts in the world. In 2010 a mission was undertaken to survey the marine mammals and birds utilizing waters above the seamount. In 2013, the Davidson Seamount Management Zone management plan was developed and a taxonomic guide was completed identifying six species new to science. A 2015 science mission to the seamount resulted in more valuable information on oceanography and biology.

**Looking forward:** The new Davidson Seamount Management Zone plan will be used to inform a new plan.

**Emerging Issues:** This action plan provided a framework for staff to evaluate and adequately address emerging resource issues in a timely and responsible manner. The strategies include the need to develop a system to identify, track and appropriately respond to emerging issues presenting potential threats to MBNMS resources.

**Implementation:** Some of the key accomplishments include influencing US Coast Guard regulatory changes on lost shipping containers (International Maritime Organization); and developing and implementing two regional workshops on climate adaptation in collaboration with the Center for Ocean Solutions and local agencies.

**Looking forward:** MBNMS will continue to work on lost shipping containers, climate adaptation, etc. and update its list of emerging issues. New issues may be identified.

**Introduced Species:** The introduction of non-native species can destroy natural biological communities and potentially harm commercial activities. The developed a program to prevent introduction, collect baseline information, and develop a research and monitoring program. The action plan also included development of a detection and response program for potential introductions or releases of non-native species.

**Implementation:** Since 2009, sanctuary staff have characterized, monitored, and attempted

to manage the spread of *Undaria*, and *Watersipora* species. For more information please see

([http://www.sanctuarysimon.org/projects/project\\_info.php?projectID=100184&site=true](http://www.sanctuarysimon.org/projects/project_info.php?projectID=100184&site=true)).

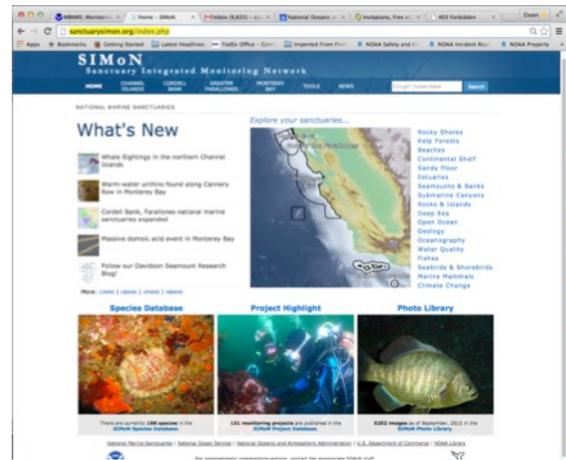
MBNMS also promulgated a regulation banning invasive species in federal waters; the final rule was issued in March 2015.



The invasive bryozoan *Watersipora subtorquata*, is abundant in the Monterey harbor and has been sighted in kelp forests in the Monterey Bay.

*Looking forward:* This section of the management plan will need a complete update and MBNMS will continue to coordinate with NOAA and the National and Regional Aquatic Nuisance Species group.

***Sanctuary Integrated Monitoring Network (SIMoN):*** Comprehensive, long-term monitoring is a fundamental element of resource management and conservation. The MBNMS, in collaboration with the regional science and management community, designed SIMoN to identify and track natural and human induced changes to the MBNMS. This action plan outlined how SIMoN should integrate and interpret results of individual efforts in a large ecosystem-wide context and continuously update and disseminate data summaries to facilitate communication between researchers, managers, educators, and the public. Timely and pertinent information was provided to all parties through tools such as a SIMoN web site, an annual symposium and a series of technical and public reports.



Visit <http://sanctuarysimon.org>

*Implementation:* Since the last management plan, MBNMS has identified monitoring priorities, produced Condition Reports assessing sanctuary resources, and created a robust SIMoN website. The SIMoN website has expanded to include Gulf of the Farallones (now Greater Farallones, Cordell Bank and Channel Islands NMSs) and over 130 research groups provide monitoring information to SIMoN.

*Looking forward:* MBNMS plans on pursuing funding mechanisms and the feasibility of building SIMoN out for all sanctuary sites.

***Marine Protected Areas (MPAs):*** The action plan outlined how the sanctuary could examine the utility of additional marine protected areas in maintaining the integrity of biological communities. It outlined a program for identifying various types of ocean uses, integrated management, MPA design criteria, socioeconomic impact analysis, MPA enforcement, outreach and monitoring. This plan also provided a framework to identify how the sanctuary will coordinate with the National Marine Fisheries Service (NMFS), Pacific Fishery Management Council (PFMC) and California Department of Fish and Wildlife.

*Implementation:* Some of the major accomplishments to date include phasing MPAs process into the development of Sanctuary Ecologically Significant Areas (SESAs); establishing non-regulatory SESAs; collaborating on MPA SCUBA surveys and continental surveys of State MPAs. In 2013, a comprehensive literature and data review was completed for the offshore areas of MBNMS and published in the ONMS Conservation Series, *The Natural Resources of Monterey Bay National Marine Sanctuary: a focus on federal waters*; and collaborative Essential Fish Habitat Proposal was submitted to the Pacific Fisheries Management Council.

*Looking forward:* This action plan will focus more on implementing SESAs and continuing MPA SCUBA surveys.

## **Operations and Administration Action Plans**

The Operations and Administration plans address the planning, support and assessment needs of the management plan and sanctuary operations.

*Operations and Administration:* This action plan provided the administrative guidelines for programs such as operational planning, staffing and infrastructure needs, volunteer programs, administrative initiatives, interagency coordination, and reviewing requests to conduct prohibited activities that may injure sanctuary resources. Other activities consisted of streamlining the permit review process, including improved outreach and interagency coordination; improved permit compliance; and monitoring and enforcement of permit conditions. Part of this action plan also addressed operation of the Sanctuary Advisory Council and the standing working groups (Conservation Working Group, Sanctuary Education Panel, Business and Tourism Activity Panel, and Research Activities Panel).

*Implementation:* Since implemented in 2009, MBNMS has accomplished robust, safe dive operations (detected sea star wasting syndrome), maintained an active and engaged Sanctuary Advisory Council, continued to streamline its permitting process, established the Law Enforcement Tactical Advisory Group (LETAC) and trained over 1000 volunteers who were enriched and recognized on a regular basis since 2009.

*Looking forward:* Most of this plan is relevant and ongoing, however revisions will be made to boat and aircraft operations, refining dive operations and potentially adding elements of cross cut plans. Several aspects of the cross cut Operations Plan will be incorporated into the new plan.

*Performance Evaluation:* MBNMS has the need to effectively and efficiently incorporate performance measurement into the regular cycle of management. This action plan detailed how strategies and related activities should be measured for effectiveness during implementation by staff. This action plan also detailed the process by which the Sanctuary will measure its management performance over time and report its progress in meeting goals and objectives.

*Implementation:* Since 2009, MBNMS has assessed the management plan three times: 2011, 2013 and 2015; reported to the Sanctuary Advisory Council and aligned the management plan with an Annual Operating Plan and staff work plans.

*Looking forward:* New performance measures with achievable, realistic milestones will need to be put in place in order to effectively assess action plans in the future.

### **Partnerships and Opportunities Action Plans**

The partnerships and opportunities plans incorporate the sanctuary's efforts to connect with communities through programs and interpretive facilities in addition to developing stronger relationships with the fishing community by collaborating on educating and research efforts.

*Fishing-Related Education and Research:* This plan outlined how sanctuary staff would work with the fishing community to develop education programs; enhance stakeholder communication; promote understanding of sustainable fisheries; increase involvement in education and research; promote fishery, socioeconomic, cultural, and historical data collection and distribution; and help educate the public on the role of healthy ecosystems and fish populations.

*Implementation:* Some of the major accomplishments include: the establishment of fisheries exhibits and signage within the Sanctuary Exploration Center; developing fisheries based programs, *Voices of the Bay* and *Fishermen in the Classroom*; assisted with the facilitation of a community supported fishery, “Local Catch Monterey Bay” [Now “Real Good Fish”], and completing a study, *A profile of the hook and line fishery for California Halibut in Monterey Bay, California: learning from fishermen through collaborative research.*

*Looking forward:* As we move forward, a new emphasis is needed for communication between fishermen and researchers.

***Interpretive Facilities:*** This action plan described the need for and location of interpretive facilities including visitor centers, kiosks, virtual experiences, and signage at various locations along the coastline. Implementation included development of a Sanctuary visitor center in Santa Cruz and provide for a key education and outreach tool component for all of the priority action plans.



Sanctuary Exploration Center in Santa Cruz, CA

*Implementation:* July 23, 2012 the Sanctuary Exploration Center was constructed and has been fully operational. Additionally, Coastal Discovery center exhibits have been updated and a signage inventory has been reorganized and significantly expanded. A new MBNMS website was created and social media efforts have been implemented.

*Looking forward:* Since the interpretive facilities have been functioning for a few years, new efforts will need to focus on operations, cyclic maintenance and updates and a forward looking plan for operations, programming, media and new signage.

***Ocean Literacy and Constituent Building:*** This action plan addressed the need to cultivate an informed, involved constituency who care about restoring, protecting and conserving our precious ocean resources. Sanctuary staff will implement an integrated, multicultural outreach program to pull together specific outreach and education activities outlined in other sections of this management plan and coordinate their execution, further developing the sanctuary’s relationships with its constituencies.

*Implementation:* Some of the key accomplishments include establishing a variety of volunteer programs, developing quality classroom and informal education programming serving over 12,000 students through MERITO, visitor centers and in-class/special programs. The MERITO program operated for 12 years and was a successful program for students, teachers, interns and communities. Finally, this year marked the 25<sup>th</sup> Sanctuary Currents Symposium, highlighting research topics in Monterey Bay.

*Looking forward:* K-12 programming focused on citizen science and refining a recreation and business outreach program will be primary foci for Ocean Literacy and Constituent Building as well as strengthening the organization of volunteer programs. Continuing to incorporate lessons learned from the popular MERITO program are integral to engaging the local Latino communities in sanctuary stewardship.

## **Water Quality Action Plans**

Water quality action plans address issues from land based pollutants affecting sanctuary beaches and resources, the potential affects of cruise ship discharges and MBNMS water quality plans related to urban runoff, monitoring data, marinas and boating and agricultural lands.

### ***Beach Closures and Microbial Contamination:***

In the last ten years, beach closures and warnings due to microbial contamination have become more common. This action plan provided a comprehensive program to identify sources of contamination; research pathogen sources; increase monitoring, education, and enforcement; expand notification and emergency response; and develop a database and a source control program to reduce beach closures and postings due to microbial contamination.



*Implementation:* Some of the major accomplishments associated with this plan involve data collection completed through citizen science programs such as First Flush, Urban Watch, Snapshot Day and acquiring millions in grant money to local cities based on WQPP data. These volunteer programs have played a large role in educating the community about our impacts on water quality and efforts we can take as individuals.

*Looking forward:* Water quality monitoring is on going in nature and will continue to be a key component to the updated management plan.

***Cruise Ship Discharges:*** Cruise ships can carry upwards of 3,000 people, and the discharge of waste may harm the water quality and resources. The sanctuary proposed to prohibit discharges from cruise ships and conduct outreach and coordination with the cruise ship industry, providing it with information about MBNMS. Sanctuary staff would also monitor and enforce potential cruise ship discharges.

*Implementation:* Major accomplishments include coordination of unscheduled, random USCG/NOAA inspections of cruise ships; cruise lines initiated internal guidance and operational compliance materials for crew while in MBNMS and other national marine sanctuaries. There have been no MBNMS discharge related violations detected since prohibitions were put in place.

*Looking forward:* MBNMS will continue to collaborate with the City of Monterey and USCG on cruise ship discharge activities.

***Water Quality Protection Program Implementation:*** Pollutants running off the land often lower the quality of the water as both a habitat and resource for recreational and commercial use. The sanctuary has four existing action plans that are in place to prevent pollution and facilitate water quality improvements as part of the Water Quality Protection Program: Urban Runoff, Regional Monitoring, Marinas and Boating and Agriculture and Rural Lands. This action plan integrated the four existing plans into the sanctuary management plan and provides for full implementation to address pollutants and their sources.

*Implementation:* Major accomplishments include, a draft plan for a region-wide water quality monitoring program was developed and supported by coastal jurisdictions, the Central Coast

Action Tracker portal was established and coordination and participation continues in Agriculture Water Quality Alliance with sanctuary staff.

*Looking forward:* Revisions will need to be made regarding regional monitoring, access to data and areas where harbors and municipalities have taken the lead. Additionally, activities related to wetland and riparian areas will be incorporated into the new action plan.

### **Wildlife Disturbance Action Plans**

Wildlife disturbance action plans designed to protect marine mammals, seabirds and sea turtles from human disturbance, minimize the impacts of motorized personal watercraft use while allowing MPWC operations and assessing threats to tidepool habitats.

#### ***Marine Mammal, Seabird, and Turtle***

***Disturbance:*** Various activities occurring on the water, in the air, or on land have the potential to harm the sensitive wildlife inhabiting the sanctuary.

Through increased monitoring, education, outreach, and enforcement, the sanctuary sought to address disturbance to marine mammals, birds and turtles from vessels, aircraft, shore-based activities, marine debris, commercial harvest and acoustic disturbance.



***Implementation:*** With multiple volunteer programs such as Team OCEAN and Bay Net, outreach efforts have amounted to a total of approximately 211,000 contacts preventing wildlife disturbance. Federal Aviation Administration charts now include NOAA overflight zones and MBNMS has been a primary responder for whale entanglement issues. In 2009, 2010 and 2012, lost fishing gear removal cruises were completed. A method for monitoring maritime industry compliance was developed and an ONMS Noise Working Group was established to address acoustics in the sanctuary.

***Looking forward:*** Portions of this action plan will include revisions for enforcement, acoustics, sea turtles, whale entanglement and impacts from commercial harvesting activities.

***Motorized Personal Watercraft (MPWC):*** MPWC use has increased in the sanctuary with the development of larger and more powerful vehicles for use in the marine environment. MBNMS proposed an updated definition of MPWC to address the original intent of the existing MBNMS regulation, which was to restrict these watercraft to four certain zones outside of the surf area. This action plan included education and enforcement procedures and exploration of the need for certain exceptions.

***Implementation:*** Since 2009, the Mavericks conditional seasonal zone was created in conjunction with the Maverick's Big Wave surfing competition; MBNMS created and administered a permit system for official use by public safety agencies and developed and implemented standard conditions for permitting paddle-in contests utilizing MPWC for safety purposes.

***Looking forward:*** A major component of this plan needing revision will be the training of public safety personnel using motorized personal watercraft to comply with the new permit system.

**Tidepool Protection:** MBNMS needed to evaluate and prioritize high-visitation tidepool areas and address possible impacts associated with potentially excessive use. The action plan included education and enforcement programs and implementation include the development of guidelines for tidepool access and enjoyment.

*Implementation:* Multiple coordination and outreach efforts have been implemented since 2009. Some key accomplishments include coordination with the Partnership for Interdisciplinary Study of Coastal Oceans (PISCO) monitoring; creation and installation of tidepool etiquette signage; coordination of the Long-term Monitoring Program and Experiential Training for Students (LiMPETS) program, now done through the Pacific Grove Museum of Natural History; and conducting multiple MERITO school field programs.

*Looking forward:* A large portion of this plan has not yet been implemented but parts remain relevant.

### **Cross Cut Action Plans**

The management plan includes several crosscutting plans, which have been implemented through coordination among each of the three sanctuaries.

*Implementation:* The Cross Cut Administration and Operations, Community Outreach, Ecosystem Monitoring and Northern Management Area Transition plans have been partially implemented, but the collaborative nature behind the plans has been institutionalized with the establishment of regional cross-cut education, research and resource protection teams which conference monthly and implement collaborative projects, resource sharing, events and standardization of regulations and approaches to resource protection where appropriate.

*Looking forward:* These cross cut action plans may be incorporated in the Operations and Administration, Sanctuary Integrated Monitoring Network and Constituent Building plans of the new MBNMS management plans, while Maritime Heritage will most likely have a stand alone plan.

**Maritime Heritage:** Implementation of this action plan will established a maritime heritage program at each of the three sites, outline how the West Coast Marine Heritage program will conduct a submerged-site inventory and assessment, identify and address submerged hazards, and provide for extensive education and outreach.



*Implementation:* With this framework MBNMS, in connection with Gulf of the Farallones (now Greater Farallones) and Channel Islands NMSs, characterized the wreck site of the USS *Macon*. This characterization was accepted into the National Register of Historic Places on February 11, 2010. The National Register of Historic Places is the nation's official list of cultural locations worthy of preservation. In 2011, the oil tanker *Montebello*, located approximately seven miles off the California coast near Cambria, in San Luis Obispo County, was surveyed in detail, at depth and determined not to be an oil spill hazard. Outreach materials and webpages have been developed for both wrecks.

*Looking Forward:* This plan has largely been superseded by the West Coast Regional Maritime Heritage Program plan which will be utilized in the development of MBNMS' new plan.

## Summary

The results of the staff assessment of the current MBNMS Management Plan show considerable progress on the plan's implementation and a need to update the current activities.

Work done on the Big Sur, Cables and Cruise ship action plans is either complete or will be incorporated into in the Operations & Admin Action Plan. It is yet to be determined if the majority of cross cut action plans will be completely incorporated into existing plans, as there are standing cross cut regional teams in place to promote collaboration and the major

elements could be incorporated into other more appropriate similar plans. The majority of the Davidson Seamount and Interpretive Facilities action plans have been implemented, but will remain with major revisions pointed to the future.

Minor revisions will occur with Coastal Armoring, Harbors and Dredge, SIMoN, Ops & Admin, Motorized Personal Water Craft, Water Quality Protection and Beach Closures. The Maritime Heritage crosscut will become a new action plan and based on the current regional plan.

Major revisions will have to be made to Introduced Species, Desalination, Ocean Literacy and Constituent Building, Performance Measures, Bottom Trawling, Emerging Issues, Fishing Related Education and Research, Tidepool Protection, Marine Mammals, Seabirds and Turtles and Interpretive Facilities. The current Davidson Seamount plan will be replaced with the more current Davidson Seamount Management Plan.

Most of the action plans requiring minor revisions are ongoing in nature, with 42% of initiated activities identified as such; Ocean Literacy, Interpretive facilities, Davidson and Maritime Heritage round out this "ongoing" category.

The Marine Protected Areas action plan will likely be replaced with a new Sanctuary Ecologically Significant Areas action plan. Additional proposed new plans might include Climate Change and Acoustics and the above-mentioned Maritime Heritage plan.

