



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE

Cordell Bank National Marine Sanctuary  
P.O. Box 159  
Olema, CA 94950

MEMORANDUM FOR: John Armor  
Director, Office of National Marine Sanctuaries

FROM: Daniel F. Howard  
Superintendent

THROUGH: William Douros  
Regional Director, West Coast

SUBJECT: Evaluation of Sanctuary Management Plan Completed

DATE: April 23, 2019

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Date: 2019.04.23 13:00:23 -0700

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Pursuant to section 304(e) of the National Marine Sanctuaries Act (NMSA; 16 U.S.C. § 1434(e)), the National Oceanic and Atmospheric Administration (NOAA), Office of National Marine Sanctuaries (ONMS), Cordell Bank National Marine Sanctuary (CBNMS) staff conducted an evaluation of the substantive progress made toward implementing the CBNMS Final Management Plan published in December 2014. As part of this evaluation, the sanctuary staff considered the effectiveness of site-specific management techniques and strategies, and also considered the ongoing prioritization of management goals. Based on this review, ONMS has determined that no urgent or immediate revisions to the management plan or the regulations are needed at this time. This evaluation demonstrates the overall sustained relevance of the goals, objectives, and priorities of the existing management plan.

#### Highlights

- After approximately four years, CBNMS staff has completed four percent of its management plan activities and successfully implemented 54 percent of programs, resulting in almost 60 percent of the management plan activities being either completed or ongoing.
- The multi-year effort to expand the sanctuary begun in 2012 to nearly double its former size was successfully completed.
- Exhibits were installed at a new Point Reyes National Seashore Lighthouse Visitor Center.
- ONMS staff and partners worked to implement a voluntary Vessel Speed Reduction project to reduce lethal ships strikes of whales.
- All high priority habitats in CBNMS were mapped.
- ONMS continued conducting the Applied California Current Ecosystem Studies (ACCESS) in conjunction with multiple collaborators, adding to the body of scientific knowledge about the sanctuary. This offshore work has been conducted for fifteen years.



## Background

The 2014 CBNMS management plan,<sup>1</sup> published in December 2014, was the product of a multi-year process with extensive public involvement. NOAA's expansion of the sanctuary became effective on June 9, 2015,<sup>2</sup> at which point NOAA began implementing the portions of this plan specific to the newly-expanded area.

The 2014 management plan is comprised of action plans and was developed with an approximately five year planning horizon. Section 304(e) of the NMSA requires NOAA to review sanctuary management plans at intervals not exceeding five years (16 U.S.C. § 1434(e)). Specifically, NOAA must (1) evaluate the substantive progress toward implementing the management plan and goals for the sanctuary; (2) include a prioritization of management objectives; and (3) revise the management plan and regulations as necessary to fulfill the purposes and policies of the NMSA.

## Result of Evaluation

In November and December 2018, the NOAA reviewed the substantive progress made in implementing the nine action plans identified in the 2014 CBNMS management plan.

The current management plan is organized into nine action plans, which are of two types. The first five are site-specific action plans that pertain only to CBNMS management. The remaining four are cross-cutting action plans intended to address management of certain priority issues in a cross-cutting manner for the ONMS West Coast Region and the three national marine sanctuaries located adjacent to one another within the region: GFNMS, CBNMS, and MBNMS. The CBNMS management plan prioritizes the implementation of specific strategies and actions and acknowledges that greater funding is required for full implementation (see Table 1, pages 22-25 of CBNMS Management Plan).

Staff listed the total number of activities in each action plan; then, for each action plan strategy, summarized the total numbers of activities completed, not progressed, in process, and ongoing. For each action plan, staff also included a short narrative highlighting key accomplishments and factors contributing to the progress made on the strategies. In its review of the cross-cutting action plans, staff counted all the strategies but only evaluated progress made to implement the strategies from the perspective of CBNMS.

The summary assessment spreadsheet accompanies this memo, in Appendix A, and summary assessments of the action plans are in Appendix B. Activities that are described as "ongoing" are successfully implemented over the long term. Activities that are partially completed are described as "in process."

The management plan is organized into nine action plans, described below:

### **1. Education and Outreach Action Plan**

Of the 53 activities in this action plan, 15 have not progressed, six are in process, 30 are ongoing, and two are completed. Notable achievements include hosting a Teacher At Sea annually with the ACCESS program; installing exhibits at the new Point Reyes National Seashore Lighthouse Visitor Center and at the Gualala Point Regional Park Visitor Center; continuing a podcast that was highlighted by Oceana as one of 12 top ocean podcasts; updating content of the CBNMS website to

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<sup>1</sup> <https://cordellbank.noaa.gov/management/plan.html>

<sup>2</sup> 80 FR 34047 (June 15, 2015).

reflect the expansion of the sanctuary in 2015; and redoing the CBNMS website to reflect ONMS best practices for websites. Several activities that did not progress involved developing whole new programs such as an extensive, formal volunteer program for education and outreach, and a workshop series or partnering with local community colleges to offer courses. With only one full-time education and outreach person on staff, CBNMS did not have the capacity to take on these major initiatives. Other activities were discontinued on a regional level, such as the Multicultural Education for Resource Issues Threatening Oceans (MERITO) program. Lastly, some activities were addressed in a different way than originally planned. One ongoing activity entails creating event-specific communication plans rather than a stand-alone CBNMS communication plan. Also, in order to reach more people, the staff focused on bringing the sanctuary to the people remotely through various ongoing or in process activities rather than bringing the people to this offshore sanctuary in partner-led excursions (an activity that has not progressed during the review period).

## **2. Resource Protection Action Plan**

Of the 47 activities in this action plan, nine have not progressed, 10 are in process, 23 are ongoing, and five are completed. Notable achievements include the expansion of the sanctuary to nearly double its former size; continuing work with partners to implement a voluntary Vessel Speed Reduction project to reduce lethal ship strikes of whales; re-deployment of acoustic monitoring equipment (a conservation science activity) to obtain results that may help in addressing that issue; and completing the first CBNMS Incident Response Plan. Another significant activity, conducted in coordination with GFNMS and ONMS regional and headquarters staff members, was to finalize a rulemaking to allow certain U.S. Coast Guard (USCG) vessel and aircraft discharges to continue within the expanded portion of CBNMS (and within the expanded portion of GFNMS, seaward of three nm from shore) to enable USCG to conduct its missions in those areas, a number of which support protection of the sanctuaries' resources. Some of the activities in this plan were not started during the assessment period because of lack of need or opportunity. For example, no emergency response drills were organized by the region, damage assessment guidelines were not prioritized by NOAA's Office of Response and Restoration, and the need for a programmatic permit to allow any particular entity to conduct activities in CBNMS did not arise. For other activities, such as encouraging and assisting with the efforts of local and regional entities and agencies to improve availability and use of wastewater pump-out facilities, CBNMS is not the lead agency funding and maintaining such facilities, and has not had funds to assist those entities. Some of the activities were dependent on other projects moving forward that did not progress, such as participation in a national-level review of national marine sanctuary regulations pertaining to cruise ships; and working with a variety of existing naturalist programs to include CBNMS interpretive enforcement content. Finally, progress was primarily dependent upon the efforts of the Resource Protection Coordinator and the Resource Protection Specialist; only part of these two positions is allocated to resource protection duties, with the remainder allocated to sanctuary management and administration functions.

## **3. Partnerships with Community Groups Action Plan**

Of the 17 activities in this action plan, 16 are ongoing and one is completed. Notable achievements include continuing to partner with the Cordell Marine Sanctuary Foundation, which works to raise funds for CBNMS research and education activities; identifying opportunities with other organizations for supporting research interns and scholars, which resulted in hosting several Nancy Foster Scholarship recipients; and continuing to partner with Point Blue Conservation Science, a major fundraiser for ACCESS work.

#### **4. Conservation Science Action Plan**

Of the 46 activities in this action plan, 17 have not progressed, six are in process, and 23 are ongoing. Notable achievements include mapping all high priority habitats of the sanctuary; continuing ACCESS to maintain a 15-year data gathering effort; conducting multiple remotely operated vehicle benthic habitat surveys, including in partnership with Ocean Exploration Trust and other collaborators; utilizing the E/V *Nautilus* to explore the seafloor and collect samples in areas that were added to the sanctuary in 2015 but had never been visited; and starting to monitor oxygen levels (to determine hypoxic conditions) at two locations, as part of assessing changing ocean conditions. Six activities that were not started focused on potential additional research activities, to take place if time and resources allowed. Without any additional staffing and funding during the assessment period, these additional topics were not explored. Six other activities that were not started focused on population genetics, oceanography, and infaunal communities, which have not been the main focus of the CBNMS research enterprise since 2014, absent partners who could contribute to this body of research. The remainder were about coordinating or conducting literature search activities, which did not happen due to staff limitations. .

#### **5. Administration Action Plan**

Of the 18 activities in this action plan, one was completed, six have not progressed, two are in process, and nine are ongoing. A notable achievement includes increasing the staff's ability to access the marine waters of the sanctuary by contracting vessel time (e.g., 2018 cruises conducted using the NOAA Ship *Bell M. Shimada*). Several of the activities that were not addressed focused on expanding facilities and staffing, which was not possible due to the lack of funding since 2014, though CBNMS has been able to partner California State University system to host two interns at CBNMS. Two activities not addressed focused on annual performance measure and management plan implementation tracking, although this 2018 review constitutes overall implementation tracking, done at the four-year mark following plan publication. Lastly, one activity focused on creating Advisory Council working groups; however, the CBNMS staff does not create working groups; that is the purview of the Advisory Council itself; which has not created any such groups during the assessment period.

#### **6. Administration and Operations Cross-Cutting Action Plan**

Of the 20 activities in this action plan, five have not progressed, one is in process, and 14 are ongoing. The CBNMS staff continued to build upon collaborative efforts that began prior to the plan's publication, including maintaining regular communications among superintendents, jointly planning for offshore conservation science activities, and sharing responsibilities for preparing permits that affect more than one site in the region. During this period, CBNMS developed a site-specific Incident Response Plan. One of the six activities not started involved interview panels for new staff members; however, CBNMS staff members were not assigned to this task during the period reviewed, and no new CBNMS staff members were hired during the review period. Two of the activities not started were specific to GFNMS and MBNMS, and so were not applicable to CBNMS. CBNMS was not intended to be the lead in implementing the West Coast Region Emergency Response plan; rather, the plan noted GFNMS staff would lead efforts to coordinate and implement site-specific activities, and oversight of the task would be done by the region. Lastly, CBNMS did not contribute to, nor have oversight over, an activity to make the Sanctuary Hazardous Incident Emergency Logistics Database System (SHIELDS) functional and operative for the three sanctuaries.

### **7. Community Outreach Cross-Cutting Action Plan**

Of the 10 activities in this action plan, four have not progressed and six are ongoing. Notable achievements include developing media plans with GFNMS for joint research cruises, such as ACCESS; conducting informal training to organizations that support large docent programs that interpret the ocean ecosystem, such as Point Reyes Seashore Docents; and working with other West coast sites to identify program areas where working together makes sense, such as ocean acidification education tools. Of the four activities that did not progress since 2014, two targeted joint volunteer programs that ended up not including CBNMS. One was geared toward expanding the regional MERITO multi-cultural program, but it was discontinued. The last one was to increase programming through the use of volunteers; however, with only one CBNMS education staff person, there was no capacity to create and manage a volunteer program on that scale.

### **8. Ecosystem Monitoring Cross-Cutting Action Plan**

Of the 12 activities in this action plan, four have not progressed and eight are ongoing. The most notable achievements include implementation of the 15-year ACCESS cruises and management of the data gathered during them, done in collaboration with GFNMS, MBNMS, and other partners, notably Point Blue Conservation Science. During the review period, MBNMS staff conducted ACCESS activities for the first time. Also, the CBNMS Research Coordinator works effectively to coordinate various research activities with other sites in the region, most often GFNMS and MBNMS; coordination included leveraging research funds and ship time on an annual basis. One of the activities for which there was no progress was related to the West Coast Observation Project, which was discontinued. Two of the other activities were not designed to include CBNMS. The three sanctuary research teams work effectively to leverage research funds and ship time on an annual basis.

### **9. Maritime Heritage Cross-Cutting Action Plan**

Of the 20 activities in this action plan, 18 have not progressed, one is ongoing and one is completed. Prior to the expansion of the sanctuary in 2015, there were no known maritime heritage resources in CBNMS; post-expansion, records indicate there is one historic ship within CBNMS boundaries. Due to this fact, only six of the activities in this plan were deemed to pertain directly to CBNMS. Because many of these activities have a regional scope and CBNMS does not have a dedicated maritime heritage coordinator, the Regional Maritime Heritage Coordinator is the lead, and works across all the West Coast sites to implement management plan activities, such as the ones reported as "no action" (e.g., establishing a shipwreck monitoring program and inventory, coordinating threats to and from shipwrecks with partners, training, etc.). The CBNMS Resource Protection Specialist works with the regional coordinator or with other ONMS staff members on some maritime heritage activities, and, with respect to permitting in CBNMS, ensures compliance with the National Historic Preservation Act.

### **Consideration of Revisions and Prioritization of Management Objectives**

Since the publication of the 2014 management plan (implemented in the expanded portion of the sanctuary starting in June 2015), NOAA has made significant progress in implementing the strategies and highest priority activities associated with these action plans. Overall, nearly 54 percent of the activities are ongoing, which means they are successfully implemented over the long term. More than 14 percent of the activities are done or partially completed (*i.e.*, in process). All of the action plans still contain activities that would benefit from further efforts. Lastly, a third of the

activities have not progressed since 2014. This lack of completion does not indicate that the goals and objectives of the management plan have lost relevance. Rather, a large number of the activities are designed to be ongoing (e.g., monitoring programs, collaborative management, education programs, etc.), so while they were successfully implemented, they cannot be considered “completed.” The total results for the activities in the five CBNMS site-specific action plans show that we have completed five percent of the activities in those plans and successfully implemented 69 percent of them, resulting in 74 percent of the CBNMS site-specific action plan activities being either completed or ongoing.

While some aspects of the human and environmental setting have changed since 2014, most strategies are broad enough to address existing and predicted conditions, and can be continued as prioritized in the 2014 management plan. All the action plans are still highly relevant and we will continue to pursue strategies to address them. Our evaluation showed that the action plans of the 2014 management plan accurately reflect the current management priorities and resource protection issues for CBNMS and are adequate to continue guiding CBNMS operations and programs for the next five years. There continues to be a need for ongoing implementation of strategies, program development, and completion of in-process activities. While some activities have shifted focus in the last four years (e.g., monitoring for hypoxia events linked to changing ocean conditions), no new or different strategies, themes, or programs have been identified during this evaluation.

Overall, while revision would be appropriate to remove the 3.7 percent of completed activities and the few activities that are no longer relevant from the action plans, there is no urgent or immediate need for overall revision of the management plan. The action plans strategies and priorities continue to be relevant for guiding operations and programs. Potential revisions can be considered during the next periodic evaluation that will follow completion of a new condition report. We are scheduled to begin drafting the new version of the CBNMS condition report in 2020, with the next periodic management plan evaluation scheduled to follow, beginning in 2022. Any revisions can wait until future priorities are identified following condition report completion.

### Conclusion

The completion of this evaluation of the 2014 CBNMS management plan satisfies the requirements of NMSA section 304(e). Based upon this review, no urgent or immediate revisions to the management plan or to the regulations are needed at this time. NOAA will use this evaluation, an updated condition report, and other relevant program reports as the management and scientific information bases to undertake the next periodic management plan review. The CBNMS Advisory Council will receive a briefing of the highlights of the 2018 management plan review final results at its April 2019 meeting.

Approved as written  \_\_\_\_\_  
Denied \_\_\_\_\_

Approved with modifications (see below) \_\_\_\_\_  
Request for additional information \_\_\_\_\_

  
\_\_\_\_\_  
John Armor  
Director, Office of National Marine Sanctuaries

5/2/2019  
\_\_\_\_\_  
Date

Attachments

Appendix A: Summary table of all action plans

Action Plan	Activities				
	Total Number of Activities	No progress or on hold (no action)	Partially complete (in process)	Ongoing	Completed (done)
Education and Outreach	53	15	6	30	2
Resource Protection	47	9	10	23	5
Partnerships with Community Groups	17	0	0	16	1
Conservation Science	46	17	6	23	0
Administration	18	6	2	9	1
Administration and Operations XC	20	5	1	14	0
Community Outreach XC	10	4	0	6	0
Ecosystem Monitoring XC	12	4	0	8	0
Maritime Heritage XC	20	18	0	1	1
<b>TOTAL</b>	<b>243</b>	<b>78</b>	<b>25</b>	<b>130</b>	<b>10</b>

Appendix B: Summary of Each Action Plan

Summary: Action Plan #1: Education and Outreach

Strategies	Activities				2014 Priority Level
	No Action	In Process	Ongoing	Done	
<b>Strategy ED-1: Develop community support and partnerships for ocean conservation through targeted outreach efforts.</b>			4		H
Activity 1.1-A Develop tailored outreach messages for specific users and audiences and implement in CBNMS communication plan.			1		
Activity 1.1-B Develop joint outreach materials for CBNMS, GFNMS and MBNMS, including products, lectures, and programs based on established priorities that address ocean literacy, and inspire stewardship by supporting and acknowledging behaviors that protect ocean resources.			1		
Activity 1.1-C Work with the Sanctuary Advisory Council, scientists, users, and regulatory agencies on identifying appropriate messages for reaching out to constituents.			1		
Activity 1.1-D Identify and target outreach/education strategies that are relevant to reach culturally diverse and underserved communities.			1		
<b>Strategy ED-2: Utilize volunteers and interns to assist sanctuary staff in communicating sanctuary messages to a broader audience and carrying out program needs.</b>	4		5		L
Activity 2.1-A Create a framework and plan for supporting or collaborating with a long term volunteer Sanctuary Naturalist Program that trains volunteers and interns to deliver outreach and educational messages; and deliver interpretive programs to schools, community groups, and at public events.	1				
Activity 2.1-B Explore potential partnership with organizations to collaborate or develop volunteer programs to facilitate learning opportunities with volunteers and docents about ocean stewardship.	1				
Activity 2.1-C Develop training program and materials for volunteers and interns and provide ongoing learning opportunities for volunteer and interns including opportunities at sea.	1				
Activity 2.1-D Evaluate volunteer/intern satisfaction and effectiveness of outreach program and add new training and volunteering opportunities as appropriate.			1		
Activity 2.1-E Explore long term educator/outreach format/informal opportunities.			1		
Activity 2.2-A Identify and survey potential organizations for needs and willingness to partner with CBNMS to distribute sanctuary and ocean conservation messaging.	1				
Activity 2.2-B Develop general training presentation on CBNMS to reach a variety of education and interpretation audiences and continually update with current issues, topics of interest, and more effective media such as videos and animations.			1		
Activity 2.2-C Create and distribute outreach materials about CBNMS.			1		
Activity 2.2-D Maintain regular communication with partners and provide materials to staff and volunteers as needed.			1		
<b>Strategy ED-3: In coordination with other California national marine sanctuaries, leverage local, regional, and national media opportunities to increase Californians' ocean awareness.</b>	1	1	4	1	H
Activity 3.1-A Complete CBNMS media and communications plan and review site plan annually as needed. Incorporate ONMS Communication Playbook tools as appropriate.	1				
Activity 3.1-B Define staff's roles and advisory council's roles in working with the media and have all staff and advisory council members and alternate participants in media training.		1			
Activity 3.1-C Develop an annual media plan for upcoming events, including identifying and creating media opportunities, roles, and timelines.			1		
Activity 3.1-D Continue a regular CBNMS spot on local radio station (KWIAR). Continue posting podcast of show on CBNMS website.			1		
Activity 3.1-E Develop and maintain relationships with local media.			1		
Activity 3.1-F Develop and distribute press kits at events as appropriate.			1		
Activity 3.1-G Participate in NOAA's Ocean Communicators network (Thank You Ocean campaign). Apply campaign tools to media work at the site.				1	
<b>Strategy ED-4: Promote ocean literacy and stewardship to far-reaching audiences through the development of education and outreach tools.</b>		1	10		H
Activity 4.1-A Identify audience, purpose, need and justification to design portable products such as, but not limited to multimedia audiovisual products, internet based, hands on activities, teaching aids, exhibits, displays, photo database accessible to the public.			1		
Activity 4.1-B Identify audience, purpose, and need to plan and design printed materials about CBNMS, such as posters, brochures, and one-pagers. Evaluate those in existence and use results in future publications.			1		
Activity 4.1-C Maintain an active, dynamic, and robust website that is continually reflecting changing programs and activities at Cordell Bank NMS and design standards.			1		
Activity 4.1-D Incorporate NOAA approved social media outlets into outreach and communication strategies (e.g., Facebook).			1		
Activity 4.2-A Identify ocean themes relevant to people's everyday lives.			1		
Activity 4.2-B Identify Ocean Literacy themes, and how these topics apply to National/State based standards.			1		
Activity 4.2-C Develop a finite number of standards-based activities in one or two different age groups (i.e., 4-6th, 7-8th, 9-12 grades).			1		
Activity 4.2-D Engage partners and assemble an advisory group to review and provide feedback on activity sets.			3		
Activity 4.2-E Present activities at science and environmental education related conferences to engage users.			3		
Activity 4.2-F Lead activities at partners' teacher trainings around northern California.			1		
Activity 4.2-G Develop in class program to be delivered in classrooms by interns/volunteers.			1		
<b>Strategy ED-5: In coordination with West Coast Region, increase awareness of CBNMS through interpretive signage and exhibits throughout the region.</b>		3	2	1	H
Activity 5.1-A Choose significant locations based on diversity of visitors, both geographically, culturally, and relevance to messages.			1		
Activity 5.1-B Establish and coordinate partnerships with staff at key locations where signage and exhibits are identified as high priority to message to visitors.				1	
Activity 5.1-C Secure funding and create culturally and geographically relevant messages, content and designs.			1		
Activity 5.1-D Construct and install signs and exhibits, beginning with highest priority locations as outlined in the regional Long Range Interpretive Plan.			1		
Activity 5.1-E Complete process and implement facilities plan for visitor centers as outlined in the regional Long Range Interpretive Plan.			1		
Activity 5.1-F Continue to work closely with the Oakland Museum of California to update Cordell Bank exhibit and content as necessary.			1		
<b>Strategy ED-6: Increase awareness and knowledge of CBNMS Conservation Science and Resource Protection programs by creating opportunities, programs, and materials for teachers and students.</b>	2	1	4		H
Activity 6.1-A Collaborate with NOAA Teacher at Sea program to place a teacher on CBNMS research/monitoring cruises. Note: due to variability of weather and ship time, and projects, this program may vary from year to year.			1		
Activity 6.1-B Collaborate with scientists conducting research in the sanctuary to interpret their findings so results can be understood by broader audiences including students, teachers and media.			1		
Activity 6.1-C Work with participants from teacher at sea programs to develop activities and curriculum associated with field experiences in the sanctuary.			1		
Activity 6.2-A Explore partnerships to further sanctuary awareness through education programs that teach marine technology.		1			
Activity 6.2-B Create materials that are relevant to the Next Generation Science Standards for teachers that utilize marine technology skills and information.	1				
Activity 6.2-C Explore use of GIS technology and partnerships to utilize sanctuary related data sets for curriculum.			1		
Activity 6.2-D Implement marine technology workshops at sanctuary sites to integrate marine technology activities into high school and/or college curriculum.	1				
<b>Strategy ED-7: Increase awareness, knowledge, and appreciation of CBNMS through adult education programming.</b>	3				M
Activity 7.1-A Facilitate on the water excursions to CBNMS and surrounding waters with partners.	1				
Activity 7.1-B Create adult education course through community education programs or community colleges in Marin and Sonoma, and create syllabus/curriculum to include a broad overview of topics relating to the sanctuary and broad surrounding ecosystem.	1				
Activity 7.1-C Develop educator focused coastal ecology workshop series to help teachers gain knowledge and experience with the coastal environment, California Current ecosystem and sanctuaries.	1				
<b>Strategy ED-8: Support the Sanctuary Advisory Council in creating an Education Working Group for specific projects or issues.</b>	2				L
Activity 8.1-A Provide recommendations and guidance on CBNMS outreach and education programs, or on issues where education can address a CBNMS management issue.	1				
Activity 8.1-B Explore collaborations to create innovative education and outreach programs and reduce potential duplication of efforts.	1				
<b>Strategy ED-9: Develop a multicultural education plan targeting changing demographics in the CBNMS region of northern California.</b>	3		1		L
Activity 9.1-A Assess demographic data from counties of Marin, Sonoma and southern Mendocino counties.	1				



Activity 9.1-B Seek partnerships with other agencies, organizations looking to reach underserved audiences in environmental/ocean literacy related content.			1		
Activity 9.1-C Collaborate with West Coast Region sites implementing multi-cultural programming at their sites (e.g., MERITO program at MBNMS and CINMS).	1				
Activity 9.1-D Create plan for CBNMS to implement culturally relevant programming for non-English speaking populations, including secure funding scheme and partners' roles.	1				
<b>Total</b>	<b>15</b>	<b>6</b>	<b>30</b>	<b>2</b>	<b>N/A</b>

Summary: Action Plan #2. Resource Protection

Strategies	Activities				2014 Priority Level
	No Action	In Process	Ongoing	Done	
<b>Strategy RP-1: Establish ongoing process to track humanuse activities and their impacts in and around sanctuary waters.</b>			3		H
Activity 1.1-A Work with the Sanctuary Advisory Council to establish appropriate representation from the fishing community, other stakeholders, interest groups, NGOs and agencies to sit on resource protection working groups as needed and advise the Sanctuary Advisory Council on how to address specific types of activities that may not be compatible with the CBNMS primary purpose of resource protection.			1		
Activity 1.2-A Work with the Sanctuary Advisory Council to identify current, new, and emerging activities taking place in and around sanctuary waters.			1		
Activity 1.2-B Work with the fishing community, mariners, the research community, and other resource management agencies to identify current, new, and emerging activities taking place in and around sanctuary waters.			1		
<b>STRATEGY RP-2: Address the issue of ship strikes of whales in CBNMS, GFNMS and MBNMS</b>			5		H
Activity 2.1-A Continue to work with GFNMS, MBNMS, and the ONMS West Coast Region to support activities that reduce ship strikes to whales.			1		
Activity 2.1-B Implement recommendations from the final report (June 2012) produced by GFNMS and CBNMS Sanctuary Advisory Council Joint Working Group on Vessel Strikes and Acoustic Impacts.			1		
Activity 2.1-C Continue monitoring whale abundance with at sea surveys, land based observation points and aerial flight to collect data.			1		
Activity 2.1-D Use near real time data to communicate with USCG and have a USCG advisory broadcast to vessels traveling in the vicinity of whale aggregations.			1		
Activity 2.1-E Develop an education and outreach plan focused on engaging and informing the commercial maritime industry about the ship strike issue.			1		
<b>STRATEGY RP-3: Profile fishing activities and communities in and around the sanctuary to better understand levels of impacts specific to CBNMS.</b>				1	M
Activity 3.1 Update fishing activities and socioeconomic profile for fishing in the sanctuary.				1	
<b>STRATEGY RP-4: Assess acoustics impacts from anthropogenic sources on sanctuary resources.</b>	1	3			M
Activity 4.1-A Gather more information and data on the effects of sound in the marine environment.		1			
Activity 4.1-B Work with partners to conduct passive acoustic monitoring to identify and quantify sources of anthropogenic noise underwater and continue to be apprised of survey and monitoring activities that are evaluating the effects of sound.		1			
Activity 4.2-A Continue evaluating individual proposals on a case-by-case basis to determine impacts of proposed projects, and make management recommendations.	1				
Activity 4.2-B Work with NMFS and other partners to determine acceptable sound levels in the different frequency ranges affecting wildlife.		1			
<b>Strategy RP-5: Assess impacts from marine debris on sanctuary resources and conduct mitigation activities.</b>			3	1	L
Activity 5.1 Work with partners to expand GIS database to track and characterize type, location and amounts of benthic marine debris in CBNMS observed during benthic monitoring, mapping and characterization research activities.			1		
Activity 5.2 Continue to monitor pelagic marine debris and incorporate into monitoring activities.			1		
Activity 5.3-A Work with partners to assess the feasibility and test new methods of removing derelict fishing gear from deep water environments like Cordell Bank.			1		
Activity 5.3-B Work with partners in the removal of derelict fishing gear from deep water benthic habitats.				1	
<b>STRATEGY RP-6: Enhance resource protection through increased compliance with CBNMS regulations and other applicable state and federal statutes.</b>	5	1	2		H
Activity 6.1 Coordinate with other enforcement authorities on patrols in CBNMS or its airspace, investigations, regulatory violations, permit violations, incidents, and citizen complaints.			1		
Activity 6.2-A Train Sanctuary Naturalist Program volunteers to use interpretive enforcement (see Education STRATEGY ED-2).	1				
Activity 6.2-B Develop signage program at Bodega Harbor.		1			
Activity 6.2-C Work with California Department of Motor Vehicles to include informational inserts in boat license renewal packets (to be coordinated with all California national marine sanctuaries).	1				
Activity 6.2-D Give presentations at yacht clubs and to Coast Guard Auxiliary Fleets.			1		
Activity 6.2-E Provide follow-up letters to possible violators with "you may be in violation" notices that inform the boater about CBNMS regulations.	1				
Activity 6.3 Encourage and assist the efforts of local and regional port, harbor, and marina management entities and state and local agencies to improve availability and use of wastewater pump-out facilities and dump stations for vessels.	1				
Activity 6.4 Participate in a national-level review of national marine sanctuary regulations pertaining to cruise ships, to determine if NOAA might consider a future proposed rule to amend existing cruise ship regulations.	1				
<b>STRATEGY RP-7: Develop a plan that prepares sanctuary staff to respond to an emergency in or adjacent to the sanctuary. This plan will provide the framework for a seamless operation in cooperation with other federal, state, and local emergency response agencies in California. The plan will be developed in coordination with GFNMS and MBNMS.</b>	2	4	2	2	H
Activity 7.1-A Lay out emergency response notification plans (including all relevant agencies, user groups and media) and preparation procedures.			1		
Activity 7.1-B Include coordination and decision-making responsibilities on use of dispersants.				1	
Activity 7.1-C Identify specific duties for sanctuary staff.				1	
Activity 7.1-D Develop damage assessment guidelines.	1				
Activity 7.2-A Train all appropriate sanctuary staff on understanding the ICS.		1			
Activity 7.2-B Train all appropriate sanctuary staff on familiarization with the ACP.			1		
Activity 7.2-C Train all appropriate sanctuary staff on certification for assigned emergency response duties.		1			
Activity 7.2-D Train all appropriate sanctuary staff on taking part in emergency response drills.	1				
Activity 7.2-E Train all appropriate sanctuary staff on developing Natural Resource Damage Assessment skills.		1			
Activity 7.2-F Train all appropriate sanctuary staff on understanding alternative response technologies.		1			
<b>STRATEGY RP-8: Continuously evaluate the appropriateness and effectiveness of current CBNMS regulations, including permit procedures in addressing the priority resource management issues identified in the management plan.</b>	1	2	8	1	H
Activity 8.1-A Evaluate the appropriateness and effectiveness of current regulatory language on a regular basis.			1		
Activity 8.1-B Propose new regulations or amendments to current regulations based on the evaluation and need for action to respond to current, new and emerging human-use activities that may be inconsistent with the CBNMS primary goal of resource protection.				1	
Activity 8.1-C Provide guidance and understanding of policy in the NMSA.			1		
Activity 8.1-D Ensure, to the extent appropriate, coordination and consistency with other resource management agencies' regulations and permits.			1		
Activity 8.1-E Track, review, and comment on environmental assessments and environmental impact statements prepared by other agencies.			1		
Activity 8.2-Ai In order to understand, measure, and control prohibited activities within the sanctuary, and to minimize cumulative impacts from these activities, the permit program will Evaluate permit requests on a case-by-case basis.			1		
Activity 8.2-Aii Develop permit requirements to applicants on procedures and operations to avoid or reduce impacts to sanctuary resources.			1		
Activity 8.2-Aiii Monitor permitted activities to ensure compliance with permit conditions and to understand direct and cumulative impacts.			1		
Activity 8.2-Aiv Require applicants provide the sanctuary staff with the data and findings gained through research conducted with research permits.			1		
Activity 8.2-B Certain educational or research activities may violate CBNMS prohibitions, although actual environmental impacts to sanctuary resources may be negligible. A streamlined application process could be developed for activities that clearly fall within this category.		1			
Activity 8.2-Bi Develop a streamlined application process by creating a simple form on which applicants can submit concise and relevant information.		1			
Activity 8.2-Bii Develop a system to issue programmatic permits that may include many activities conducted by one organization or institution under one permit.	1				
<b>Total</b>	<b>9</b>	<b>10</b>	<b>23</b>	<b>5</b>	<b>N/A</b>

Summary: Action Plan #3, Partnership with Community Groups

Strategies	Activities				2014 Priority Level
	No Action	In Process	Ongoing	Done	
Strategy PC-1: Develop partnerships with the research and education community to leverage opportunities and expertise to fulfil the CBNMS research and education goals			7		H
Activity 1-1-A Identify potential research and education partners, including other resource management agencies, marine research institutions, and individual researchers			1		
Activity 1-1-B Identify ways to collaborate with potential partners. The CBNMS staff should determine what it could offer to the partnership, including but not limited to providing ship time, housing, and/or outreach opportunities. For example, collaborations might include partnering on grants, internship programs, and symposiums			1		
Activity 1-1-C Identify opportunities for funding to support field researchers and an internship program			1		
Activity 1-1-D Partner on outreach components of research/monitoring programs (may also satisfy grant requirements)			1		
Activity 1-2-A Identify potential education partners with shared goals for education			1		
Activity 1-2-B Identify CBNMS education/outreach programs that could be accomplished through collaborations			1		
Activity 1-2-C Identify opportunities for funding to support education/outreach interns to help with lab projects			1		
Strategy PC-2: Continue to develop the Sanctuary Advisory Council's link to the community			3	1	H
Activity 2-1-A Review "lessons learned" from other sanctuary advisory councils and coordinators in the CNMS to learn from successes and failures in reaching out to their community and constituencies			1		
Activity 2-1-B Provide media training to council members. Develop support materials such as PowerPoint or slide presentations for council members to use			1	1	
Activity 2-1-C Work with advisory council members on ways to engage constituents			1		
Activity 2-1-D Clarify and evaluate the council chair's role, responsibilities, and expectations for representing the advisory council			1		
Strategy PC-3: Use media opportunities to promote the CBNMS programs and raise its identity in Marin, Sonoma, and Mendocino counties			3		M
Activity 3-1-A Identify and implement effective use of media tools to reach broad audiences (through newspaper, TV, radio) incorporate key research findings into outreach messages			1		
Activity 3-1-B Keep the media informed about current CBNMS activities			1		
Activity 3-1-C Nurture relationships with key media individuals and organizations. Work with regular columnists to create marine-focused columns and features in the local papers. Work with local radio stations to incorporate feature stories about the sanctuary into their programming			1		
Strategy PC-4: Identify mechanisms to raise and manage additional sources of revenue and in-kind services			3		H
Activity 4-1-A Coordinate with Cordell Marine Sanctuary Foundation (CMSF), a non-profit organization with a mission to support the research, education and management goals of CBNMS			1		
Activity 4-1-B Explore mechanisms such as individual donations, grants, and events to generate additional sources of revenue			1		
Activity 4-1-C Implement mechanisms to build community capacity in helping generate donations			1		
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>1</b>	<b>N/A</b>

Summary: Action Plan #4. Conservation Science

Strategies	Activities				2014 Priority Level
	No Action	In Process	Ongoing	Done	
<b>STRATEGY CS-1: Prepare an oceanographic climatology report.</b>	2				L
Activity 1.1-A Prepare an oceanographic climatology report summarizing existing knowledge about the physical oceanography and meteorology of this region. This information will expose voids and shortcomings in the existing data, and serve as a guide for designing future programs. Conduct short-term data analyses from completed data.	1				
Activity 1.1-B Using existing data, construct a climatology of the oceanographic and meteorological conditions in and around CBNMS and GFNMS. The report will deliver recommendations to the sanctuary management for future studies that are needed to characterize the physical environment in and around the sanctuary.	1				
<b>STRATEGY CS-2: Map and characterize CBNMS's habitats.</b>		2	1		M
Activity 2.1-A Survey entire extent of sanctuary using sonar technology. Analyze information to develop fine-scale bathymetry maps, habitat maps, and submerged cultural resources. This information can be used in conjunction with biological surveys to produce habitat suitability models for selected species.		1			
Activity 2.1-B Habitat maps created using sonar systems will be ground truthed using data collected by manned submersible, ROV, and Autonomous Underwater Vehicle (AUV) surveys over high relief rocky regions of the sanctuary and towed camera systems and grabs on low relief unconsolidated substrates.		1			
Activity 2.1-C Incorporate research findings into CBNMS education/outreach and management programs and messages.			1		
<b>STRATEGY CS-3: Characterize the soft-bottom epifaunal communities of CBNMS.</b>			3		L
Activity 3.1-A Conduct survey of soft-bottom habitats of CBNMS. Survey will provide habitat assessment, estimates of distribution and abundance of epifauna, assessment of disturbance effects and marine debris, species list of invertebrates, and description of any submerged cultural resources.			1		
Activity 3.1-B Results from this survey will be used to refine the habitat map.			1		
Activity 3.1-C Create partnerships to continue monitoring epifaunal communities over time.			1		
<b>STRATEGY CS-4: Characterize soft-bottom infaunal communities of CBNMS.</b>	4				L
Activity 4.1-A Conduct literature review to obtain current knowledge about infaunal communities.	1				
Activity 4.1-B Conduct baseline survey of infaunal communities of CBNMS using bottom grabs. Survey should determine species diversity, distribution, and abundance, as well as describe characteristics of the sediment.	1				
Activity 4.1-C Utilize partnerships to continue monitoring infaunal communities over time.	1				
Activity 4.1-D Use results to ground truth habitat map.	1				
<b>STRATEGY CS-5: Collect, inventory, and catalog new and previously unsorted CBNMS benthic invertebrate specimens.</b>			5		L
Activity 5.1-A Collections of CBNMS specimens at California Academy of Sciences (CAS) will be taxonomically upgraded, computer catalogued, and maintained by CAS as research specimens.			1		
Activity 5.1-B Coordinate with CAS to maintain a computerized species list for CBNMS and provide the data to the sanctuary staff for future investigations.			1		
Activity 5.1-C Target specimens of interest for subsequent identification, description, and future publication.			1		
Activity 5.1-D Coordinate with CAS to identify and describe sponge species collected from CBNMS, including not-yet-described species.			1		
Activity 5.2 Continue to collaborate with CAS on collection and identification of other CBNMS benthic invertebrates. Partner with CAS on future taxonomic identification, database maintenance, and expansion of specimen collection.			1		
<b>STRATEGY CS-6: Survey available museum collections, data archives, and literature indexing services for CBNMS specimens, data, and publications.</b>	2	1	1		L
Activity 6.1-A Search natural history museums and other collections for specimens collected from CBNMS.		1			
Activity 6.1-B Search standard literature indexes for references to CBNMS. Secure regular access to Lexus-Nexus and/or other literature indexes for CBNMS.	1				
Activity 6.1-C Search agency and academic electronic databases (i.e., metadata clearing houses) for data from CBNMS.	1				
Activity 6.1-D Construct and maintain a verified species list and store in an easily accessible data repository (such as National Data Center or Sanctuary Integrated Monitoring Network [SIMoN]).			1		
<b>STRATEGY CS-7: Understand the function and variability of pelagic ecosystems.</b>			6		H
Activity 7.1-A Continue ACCESS with GFNMS and partners to quantitatively assess the distribution and abundance of marine birds, mammals, and sea turtles relative to ocean conditions, seasons, and biological productivity. This study provides long term data on production, populations, and trophic structure, and it will continue to support management. Physical oceanography will be described with data collected in the field and from remotely sensed data. Data will be collected on salinity and temperature at sea surface and at depth. Remote data will include upwelling indices, satellite images, and current information.			1		
Activity 7.1-B Systematically survey along transect lines and record the presence of marine birds, mammals and sea turtles within CBNMS and GFNMS.			1		
Activity 7.1-C Assess biological productivity by sampling zooplankton and phytoplankton using hydro-acoustics and net sampling.			1		
Activity 7.1-D Use an echosounder to map the distribution of zooplankton and fish.			1		
Activity 7.1-E Observe and document human activities within CBNMS and GFNMS.			1		
<b>STRATEGY CS-8: Continue monitoring fish and invertebrate assemblages and marine debris in relation to the fine-scale habitat on and adjacent to the hard bottom areas of CBNMS.</b>	1		6		H
Activity 8.1-A Perform submersible, ROV, or AUV field surveys (one- to three- year intervals) to monitor the distribution and abundance of fishes and invertebrates on and adjacent to the hard bottom areas. Assess and monitor distribution, abundance, and life history (size and maturity) of fishes around Cordell Bank and other hard bottom areas.			1		
Activity 8.1-B Assess and monitor percent cover of invertebrates and distribution and abundance of specific macroinvertebrate species.			1		
Activity 8.1-C Identify locations and quantity of derelict fishing gear and other trash/marine debris using submersible transects and video footage.			1		
Activity 8.1-D Use video transects and rock grab samples to further characterize habitats identified by the sonar survey.			1		
Activity 8.1-E Compare the biota of Cordell Bank with other deep reefs along the west coast (e.g., Bowie Seamount in British Columbia, Point Sur Bank in California, and Heceta Bank in Oregon).	1				
Activity 8.1-F Determine the fish assemblages associated with different habitat types.			1		
<b>STRATEGY CS-9: Continue to manage and store data in easily accessible and secure formats and locations. Data collected by CBNMS should be accessible to interested public and should be securely stored to prevent loss.</b>		2	2		H
Activity 9.1 Maintain handwritten records from research cruises. Records will be kept in the CBNMS office and the second set kept offsite. These records provide information that help (e.g., location, time) describe the sampling environment.			1		
Activity 9.2 Electronic media collected on research cruises (files and tapes) will be copied and stored in the CBNMS office. Electronic media (files and video tapes) provide the detailed information (e.g., water temperature profiles, number of organisms observed).			1		
Activity 9.3 Data obtained from laboratory analyses of video transects or plankton collections will be stored in a relational database, modeled after the National Park Service's (NPS's) Natural Resources Database Template. All electronic data are available to sanctuary staff through the CBNMS local area network.			1		
Activity 9.4 Ensure data are compliant with federal standards for accessibility and quality, and formatted to be compatible with Federal Geospatial Data Center (FGDC) and other relevant agency initiatives (e.g., the Integrated Ocean Observing System [IOOS]).			1		
<b>STRATEGY CS-10: Assess the role of Cordell Bank in the supply and receipt of fish larvae within the regional marine ecosystem by linking population genetics and oceanography.</b>	2				L
Activity 10.1 Determine the genetic make-up of adult, juvenile and larval populations of fish with pelagic larval stages within the Cordell Bank region relative to regional populations to understand levels of mixing and retention of early life history stages. Collect adult, juvenile, and larval stages of several common species with pelagic larvae from Cordell Bank as well as at multiple locations north and south of the Bank within the California Current System. Conduct genetic analyses on collected individuals to determine likely birthplaces of individuals.	1				
Activity 10.2 Examine larval dispersal through simulations of coupled bio-physical models. Develop or modify an existing 3-D biophysical simulation model to determine: 1) the geographic fate of larvae released from Cordell Bank; 2) the geographic origin of larvae that are likely to settle on Cordell Bank. Examine predicted dispersal patterns for larvae with different behavioral characteristics as well as larval periods. Examine predicted dispersal patterns given various oceanographic conditions.	1				
<b>STRATEGY CS-11: Assess potential to conduct additional research activities in the future, when time and resources allow.</b>	6	1	1		L
Activity 11.1-A Quarterly Temporal Patterns of Galathea Zooplankton: Use of Tucker trawl or vertical haul sampling and acoustics to assess seasonal and interannual patterns of abundance and community composition of gelatinous zooplankton as part of the CBNMS pelagic monitoring program.			1		

Activity 11.1-B Assess Primary Productivity within the CBNMS Ecosystem. Examine spatial and temporal variability in primary productivity and phytoplankton standing stock using simulated in-situ and photosynthesis-irradiance incubations coupled with satellite remote sensing data of ocean color.	1				
Activity 11.1-C Directed Oceanographic Field Studies. Use of current meter arrays and acoustic Doppler current profiler to measure currents at different levels in the water column around Cordell Bank, drifters to track motion at and near the surface, and remotely sensed observations from satellites to provide information on both local and regional conditions.	1				
Activity 11.1-D Marine Mammal Observations Using Ships of Opportunity. Use of volunteer observers riding on ships of opportunity (e.g., wildlife viewing trips) to survey the distribution and abundance of marine mammals.	1				
Activity 11.1-E Understanding the Emerging Role of Humboldt Squid in the CBNMS Ecosystem. Use of submersible or ROV to conduct surveys within CBNMS to acquire basic information on squid abundance and distribution. Use of hook and line sampling to assess squid foraging habits and diet.	1				
Activity 11.1-F Geomorphology of Cordell Bank and Nearby Shelf and Slope. Subsurface Geology. Collect sub-bottom profile data and synthesize with rock samples from Cordell Bank to summarize the subsurface geology and surficial geomorphology of the region.	1				
Activity 11.1-G Water quality assessment. Assess potential environmental degradation of sanctuary waters arising from certain changing physical processes and anthropogenic inputs by reviewing and summarizing existing data sets to better understand the potential water quality threats to the sanctuary waters.	1				
Activity 11.1-H Benthic contaminant assessment. Assess potential environmental degradation of benthic habitats and bottom dwelling species (as well as transfer further along the food chain) arising from concentrations of contaminants such as pesticides, hydrocarbons, and heavy metals by collecting and analyzing benthic samples.	1				
<b>Total</b>	<b>17</b>	<b>6</b>	<b>23</b>	<b>0</b>	<b>N/A</b>

Summary: Action Plan #5. Administration

Strategies	Activities				2014 Priority Level
	No Action	In Process	Ongoing	Done	
STRATEGY AD-1: CBNMS will expand its facilities to include satellite offices, visitor centers, signage, and vessels located throughout the region as necessary to support implementation of the management plan.	2		1		M
Activity 1.1 Increase presence in Bodega Bay, the nearest access point to CBNMS, by opening a satellite office and visitor center with GFNMS that would serve both research and outreach needs and assist in the further development of partnerships.	1				
Activity 1.2 Work with the PRNS to identify intern/researcher housing options on park lands. These facilities may also include wet labs for researchers' use. Several possible sites (existing buildings) have been identified and preliminary investigations into potential partnerships are taking place.	1				
Activity 1.3 Increase the sanctuary staff's ability to access the marine waters of the sanctuary by contracting more vessel time on the NOAA R/V FULMAR to support research and monitoring efforts. This effort will include annual vessel time planning for research and education programs. Vessel planning will include NOAA ship time and chartered boat time.			1		
STRATEGY AD-2: CBNMS will fill basic staffing requirements to provide support for administration and the program areas of conservation science, education and outreach, and resource protection.	1		1		L
Activity 2.1 CBNMS staff skills should collectively represent expertise in policy, marine resource management, education, outreach, volunteer development, research, monitoring, geographic information systems (GIS), information technology, and administration.	1				
Activity 2.2 Each staff member must exhibit general knowledge about all CBNMS program areas and the ability to effectively communicate with constituents, other professionals, and the community at large. In an effort to attract and maintain a consistent and high caliber staff base, the CBNMS superintendent will encourage and support staff participation in professional development.			1		
STRATEGY AD-3: With limited staff and financial resources, CBNMS will develop partnerships and identify outside funding sources and in-kind services to assist in the implementation of the management plan.			2		M
Activity 3.1 In partnership with regional research and educational institutions and agencies, establish a CBNMS-supported internship program with graduate students to assist the sanctuary staff with monitoring, research, and education priorities.			1		
Activity 3.2 Maintain and expand informal working relationship with federal, state, and local agencies. Partnership activities include coordination on education and outreach projects, research projects, data analysis, and cruise operations.			1		
STRATEGY AD-4: Support the Sanctuary Advisory Council in its primary roles of providing advice to the sanctuary superintendent and serving as a liaison between CBNMS and the sanctuary community.	1		2	1	H
Activity 4.1 In consultation with the Sanctuary Advisory Council, strengthen the structure of the council by evaluating and amending as necessary the Sanctuary Advisory Council charter, evaluating and developing organizational strategies to enhance the Sanctuary Advisory Council's level of participation and effectiveness, evaluating and adjusting, if necessary, Sanctuary Advisory Council membership, and providing support to help the Sanctuary Advisory Council develop a respected voice in the community.			1		
Activity 4.2 Identify the role of the Sanctuary Advisory Council in addressing resource management issues by developing a format for assisting in the building of CBNMS policies and procedures.				1	
Activity 4.3 Provide support, resources, and guidance to help the council engage and educate the public about current, new, and emerging resource management issues in the sanctuary.			1		
Activity 4.4 Working groups will be convened by the Sanctuary Advisory Council, as needed, to focus on specific issues and to allow for participation by additional stakeholders and community experts.	1				
STRATEGY AD-5: CBNMS will formalize intra- and interagency partnerships to ensure coordination and cooperation with federal, state, and local jurisdictions within or adjacent to the sanctuary. NOAA and CBNMS recognize all other authorities in and around sanctuary waters as important components of effective ecosystem management.		1	2		M
Activity 5.1 CBNMS will engage other agencies in reviewing each other's proposed actions, responding to Environmental Impact Statements, participating in CBNMS panels and working groups.			1		
Activity 5.2 CBNMS will formalize agreements with federal co-trustee managers signaling that the cooperative and integrated management approach established for CBNMS has been adopted by other agencies. To formally implement cooperative management of the sanctuary, a number of separate types of agreements may be entered into, including: cooperative agreements, memoranda of understanding, memoranda of agreement, and consultation.			1		
Activity 5.3 CBNMS will formalize agreements for the following programs: (1) Protected Resources Enforcement Plan (USCG, NMFS, Sonoma County Sheriff's Department, CDFW); and (2) Emergency Response Plan (local, state and federal emergency response agencies).		1			
STRATEGY AD-6: Develop and make use of performance indicators to measure effectiveness of the management of the sanctuary as a whole, as well as to evaluate specific strategies within the management plan.	2		1		H
Activity 6.1 CBNMS staff will conduct routine performance evaluations to collect and record data on CBNMS performance over time. Using this data, staff will determine the effectiveness of management plan strategies by (a) evaluating progress towards achievement of each action plan's desired outcomes and (b) assessing the role or added value of those outcomes in the overall accomplishment of site goals and objectives.			1		
Activity 6.2 An annual assessment on the implementation of the CBNMS management plan will be conducted. This assessment will be conducted internally by CBNMS staff who will consider the progress and effectiveness of activities implemented over the previous year. In this activity, successes or weaknesses of specific activities will be determined. Activities deemed less than successful in achieving desired outcomes will be addressed to correct or improve the outcomes/outputs. Successful activities will be recognized with application of positive lessons learned to other programs.	1				
Activity 6.3 Performance data will be generated from internal annual assessment and shared with advisory council to determine if management strategies need to be changed to better meet their stated targets. The targets themselves may also be analyzed to determine their validity (if, for instance, they are too ambitious or unrealistic given current site capacity to address during a particular year). This activity will be conducted with the management plan review which takes place every five to ten years.	1				
STRATEGY AD-7: Consider conducting a public regulatory process, under the statutory authority of the NMSA and in accordance with the NEPA, to examine if additional regulatory amendments or additions are needed to manage the expanded CBNMS.		1			H
Activity 7.1 Work with GFNMS and the CBNMS advisory council to determine interest in conducting a public regulatory process to consider amending or adding to CBNMS regulations, separately or in conjunction with any public regulatory process to amend or add to GFNMS regulations for the expanded GFNMS.		1			
<b>Total</b>	<b>6</b>	<b>2</b>	<b>9</b>	<b>1</b>	<b>N/A</b>

Summary: Action Plan #6. Administration and Operations Cross-Cutting

Strategies	Activities			
	No Action	In Process	Ongoing	Done
<b>STRATEGY XAO-1: Improve internal communications among the three sanctuaries.</b>			<b>6</b>	
Activity 1.1 Maintain regular communications between the sanctuary superintendents. Superintendents will engage in informal (impromptu phone calls) and formal (regularly scheduled calls or meetings) communications. GFNMS and MBNMS superintendents will meet monthly by phone to discuss common issues.			1	
Activity 1.2 The west coast superintendents will meet monthly by phone with the West Coast Region staff to discuss regional issues and will meet annually in person to develop annual regional priorities.			1	
Activity 1.3 Maintain a new employee orientation program that includes information from the three sanctuaries and the ONMS. If funding allows, the orientation program will include travel to the other sites to meet staff and learn about their program and activities. These efforts should be coordinated with similar efforts at headquarters.			1	
Activity 1.4 The program coordinators will meet at least once per year to share information and plan joint activities prior to the development of the annual operating plans. In cooperation with the regional office, the regional lead for each program will facilitate bringing this group together, either via conference call or in person if budgets allow.			1	
Activity 1.5 Schedule annual joint advisory council chair and sanctuary superintendent meeting. The MBNMS and GFNMS advisory councils currently meet biannually to discuss issues and program activities in the MBNMS NMA. GFNMS and CBNMS advisory councils will meet jointly on an annual basis to discuss the expansion area.			1	
Activity 1.6 Encourage and provide opportunities for site staff to give presentations at each other's advisory council meetings. Superintendents, council chairs and coordinators should encourage program staff presentations at each other's meetings.			1	
<b>STRATEGY XAO-2: Improve the efficiency and cost-effectiveness of program operations and administration.</b>	<b>1</b>	<b>1</b>	<b>3</b>	
Activity 2.1 Contact and inform the other sites early in the planning stages of field operations to provide opportunities to plan joint missions and to share information and data. Individual sites may have program personnel, technology or information that would benefit the field operations of another site.			1	
Activity 2.2 As opportunities arise, create short-term opportunities for staff exchanges, rotations, details and informal staff loans for specific projects or to fulfill on-going needs across the West Coast Region.			1	
Activity 2.3 Participate in each other's interview panels to review candidates for new and vacant positions, where possible. This is particularly important when hiring for positions that work with other sites on a regular basis.	1			
Activity 2.4 Cordell Bank and Gulf of the Farallones superintendents and other planning staff will discuss administrative and operational needs and expectations related to the expansion area. Staff will meet to determine needs and best opportunities for efficiency in addressing the management of the new expansion area. This relates to all programs, shared staffing, and budget allocation across the two sites.			1	
Activity 2.5 Evaluate alternative management strategies for offshore portions of northern expansion areas. GFNMS and CBNMS superintendents and WCRO will conduct a series of discussions regarding the most efficacious means to manage the offshore portions of the expanded areas of GFNMS and CBNMS, ensuring effective marine science, outreach and resource protection.		1		
<b>STRATEGY XAO-3: Improve the coordination of sanctuary resource protection activities and programs.</b>	<b>4</b>		<b>5</b>	
Activity 3.1 Improve staff awareness and understanding of each site's regulations. Establish a basic and consistent understanding of each site's regulations. Ensure all staff have and are familiar with the portion of the WCRO web page which consolidates the management documents for the West Coast Region: regional regulations, terms of designation and management plans. Produce a table listing all regulations of West Coast sanctuaries.			1	
Activity 3.2 The West Coast sanctuaries will continue to work closely on any future proposed regulatory changes that could affect other sites. The GFNMS and MBNMS Resource Protection Teams will closely coordinate on any future proposed regulatory changes that could impact the NMA.			1	
Activity 3.3 GFNMS will facilitate a public process in the next five years to consider whether the San Francisco Exemption Area should be incorporated into the MBNMS. Such an action would require changing the MBNMS regulations and designation document and require coordination with MBNMS staff, and approval from the MBNMS Superintendent. Public scoping for this process was initiated in 2012.	1			
Activity 3.4 The West Coast sanctuaries will share responsibilities for preparing regional permits. GFNMS will be responsible for permit activities in the NMA. West Coast sanctuaries will inform each other of any new permit applications or other activities that could affect any of the sanctuaries. GFNMS will process permits within the NMA, except for water quality permits, which will continue to be overseen by MBNMS.			1	
Activity 3.5 MBNMS staff will continue to implement Water Quality Protection Program activities including conducting site water quality needs assessment, review water quality permits and authorizations. MBNMS Water Quality staff will participate on Technical Advisory Committees that implement strategies within the WQPP Action Plans, implement volunteer water quality monitoring events including First Flush and Snapshot Day, review and comment on NPDES permits, respond to discharges entering the MBNMS NMA, coordinate and collaborate with partners participating in the Agriculture Water Quality Alliance, and oversee monitoring of Areas of Special Biological Significance in a sub-contract to the San Mateo Resource Conservation District.	1			
Activity 3.6 Coordinate emerging issues among the West Coast sanctuaries and develop coordinated strategies to address emerging issues. As an individual site staff identifies emerging issues, staff members will determine the significance and potential to impact another site, and communicate this to the potentially affected site(s).			1	
Activity 3.7 Implement West Coast Region emergency response plan. The West Coast Region emergency response plan addresses broad emergency response issues that affect the region, identifies ONMS staffing responsibilities and expertise, and outlines how the ONMS will coordinate with existing federal, state and local emergency response agencies in California.	1			
Activity 3.8 Coordinate with the ONMS Damage Assessment Team on populating and making the Sanctuary Hazardous Incident Emergency Logistics Database System (SHIELDS) functional and operative for the three sanctuaries and integrating it with the existing SiMoN database.	1			
Activity 3.9 Continue to work closely on enforcement activities in the region. Regional enforcement staff will coordinate and cooperate on enforcement activities as they relate to other sites. GFNMS staff will provide assistance as appropriate in the planning and implementation of enforcement activities in the NMA and will coordinate with MBNMS to ensure consistency across sites.			1	
<b>Total</b>	<b>5</b>	<b>1</b>	<b>14</b>	<b>0</b>

Summary: Action Plan #7. Community Outreach Cross-Cutting

Strategies	Activities			
	No Action	In Process	Ongoing	Done
<b>STRATEGY XCO-1: Build upon and expand existing ocean and coastal outreach</b>			4	
Activity 1.1 Develop or strengthen coordinated regional outreach programs and opportunities. Outreach staff should coordinate on public service announcements, issue-specific workshops and brochures (e.g., tide pool etiquette), docent programs, signage, learning centers, exhibits and displays at community events that encompass or represent the region.			1	
Activity 1.2 Plan and conduct regional sanctuary outreach events. Outreach staff should promote the importance of national marine sanctuaries, conservation science and resource protection programs, working together to improve understanding of marine conservation and management.			1	
Activity 1.3 Develop and implement joint media communications plan, e.g., print, radio, TV, Internet. Media personnel at respective sites should coordinate with the WCRO media liaison to develop a plan.			1	
Activity 1.4 Identify and partner with external programs and partners to incorporate sanctuary-related messages. Identify best practices and achieve common goals. Regional outreach personnel should work together to target partners and programs that can effectively communicate ONMS messages on a regional level, and assign appropriate leads to initiate contact and follow-up.			1	
<b>STRATEGY XCO-2: Enhance and coordinate ocean and coastal education</b>	3			
Activity 2.1 Collaborate on existing site-specific education programs and products as a means to enhance and expand educational offerings. Each year, the education staff will jointly meet to identify collaborative projects for inclusion in their respective AOPs.	1			
Activity 2.2 Take a multicultural/multilingual approach to all outreach efforts. Assess demographics of geographic areas with programming and ensure multicultural relevance to diverse audiences. Develop multicultural educational curricula and materials in response to demographic assessment.	1			
Activity 2.3 Identify and implement new education programs that can be developed jointly with other sites. Education leads should identify and implement new programs as needs arise and as budgets allow.	1			
<b>STRATEGY XCO-3: Enhance ocean and coastal stewardship</b>	1		2	
Activity 3.1 Create, maintain and promote sanctuary and partner volunteer programs. Cultivate volunteers to provide opportunities for stewardship as well as expand resource protection, education, and outreach capabilities of the three sanctuaries.	1			
Activity 3.2 Create new ways to inspire coastal and ocean stewardship in local communities. The three sites will conduct needs assessments with targeted constituents and audiences to identify innovative and creative methods of engaging specific groups of people in sanctuary activities.			1	
Activity 3.3 Identify partners to incorporate stewardship messages. Regional outreach personnel should work together to target partners that can effectively communicate ONMS stewardship messages, and assign appropriate leads to initiate contact and follow-up.			1	
<b>Total</b>	<b>4</b>	<b>0</b>	<b>6</b>	<b>N/A</b>



Summary: Action Plan #8. Ecosystem Monitoring Cross-Cutting

Strategies	Activities			
	No Action	In Process	Ongoing	Done
<b>STRATEGY XEM-1: Coordinate existing targeted monitoring activities to promote greater efficiency and effectiveness.</b>	2		2	
Activity 1.1 Regional science staff should coordinate regarding intertidal monitoring programs. Coordinate individual sanctuary rocky intertidal monitoring programs and continue to collaborate with other large-scale rocky intertidal monitoring efforts, such as PISCO and MARINe.	1			
Activity 1.2 Beach Watch and Beach COMBERS will continue to collaborate on sharing information on the health of seabirds and trends in beachcast wildlife. GFNMS Beach Watch staff should evaluate the feasibility of expanding existing citizen science monitoring in the expansion area.	1			
Activity 1.3 Maintain and expand ACCESS Integrated sanctuary marine mammal, seabird and sea turtle surveys. CBNMS and GFNMS science staff should evaluate the feasibility of expanding existing at-sea monitoring to the expansion area.			1	
Activity 1.4 Regional science staff should coordinate regarding benthic habitat surveys. Jointly develop research cruise plans and standards for sampling and reporting results for benthic habitat survey work. Augment the benthic habitat survey work with new technologies such as ROV and ALV surveys.			1	
<b>STRATEGY XEM-2: Implement existing regional ecosystem monitoring activities.</b>	1		4	
Activity 2.1 Continue the West Coast Observation Project at CBNMS, GFNMS and MBNMS. The West Coast Observation Project integrates ocean observation data collected at GCNMS, CBNMS, GFNMS and CINMS.	1			
Activity 2.2 Develop and implement an Integrated Sanctuary System-Wide Monitoring (ISWIM) program for CBNMS, GFNMS and MBNMS by publishing Condition Reports and collaborating with CaNCCOS.			1	
Activity 2.3 Continue expanding the Sanctuary Integrated Monitoring Network (SIMoN).			1	
Activity 2.4 Look for partnerships to support ecosystem monitoring.			1	
Activity 2.5 Look for innovative ways to support ecosystem monitoring. Evaluate and identify ongoing funding opportunities to support regional and larger scale ongoing monitoring activities.			1	
<b>STRATEGY XEM-3: Establish a joint internal monitoring coordination team.</b>	1		2	
Activity 3.1 Continue to coordinate research and monitoring across CBNMS, GFNMS and MBNMS.			1	
Activity 3.2 The CBNMS, GFNMS, and MBNMS science staff will continue to work jointly with the site and West Coast Region media staff to develop a research and communications plan.	1			
Activity 3.3 Develop annual ecosystem-based research and monitoring operating plans in collaboration with each other to meet site, regional, and national monitoring needs. CBNMS, GFNMS and MBNMS science staff should share research and monitoring information between sites as annual operating plans are developed.			1	
<b>Total</b>	<b>4</b>		<b>8</b>	

Summary: Action Plan #9. Maritime Heritage Cross-Cutting

Strategies	Activities			
	No Action	In Process	Ongoing	Done
STRATEGY XMHR-1: Continue to build the Maritime Heritage Program	1			
Activity 1.1 Continue to identify potential maritime heritage partners and sources of funding.	1			
STRATEGY XMHR-2: Inventory and assess submerged sites	3			1
Activity 2.1 Inventory shipwrecks across the region. Continue to establish external partnerships to inventory potential shipwreck sites with other federal, state, and local agencies as well as avocational archaeologists, commercial divers and fishermen, and recreational divers.				1
Activity 2.2 Conduct systematic research and surveys of archaeological sites, including the remains of prehistoric, as well as historic sites, representing ship and aircraft losses.	1			
Activity 2.3 Establish a shipwreck reconnaissance and site monitoring program. Use a model similar to that used at CINMS to record and monitor submerged sites and to document new artifact discoveries and evaluation of human site disturbance. Record site positions in NOAA's National Marine Sanctuary Archeological Site (ARCH) GIS database.	1			
Activity 2.4 Assess and nominate appropriate submerged archaeological sites for inclusion in the National Register of Historic Places.	1			
STRATEGY XMHR-3: Assess shipwrecks and submerged structures for hazards	3		1	
Activity 3.1 As needed, add to the inventory of shipwrecks, inside and outside of sanctuary boundaries, posing environmental threats to sanctuary marine resources.	1			
Activity 3.2 Monitor shipwreck sites. Direct efforts to monitor sites that have been located and are considered a threat to sanctuary marine resources. Use protocols for site evaluation based on the monitoring work at such sites as the Jacob Luckenbach and the Montebello.	1			
Activity 3.3 Coordinate with partners to reduce threats from shipwrecks.	1			
Activity 3.4 For historic shipwrecks, ensure compliance under Section 106 of the NHPA and the NMSA.			1	
STRATEGY XMHR-4: Protect and manage submerged archaeological resources.	3			
Activity 4.1 Coordinate stewardship of submerged resources. Jointly develop a uniform protocol to manage, monitor, and protect submerged sites within the three sanctuaries in partnership with appropriate local law enforcement agencies.	1			
Activity 4.2 Provide training to sanctuary staff and facilitate training for partners. The training will focus on the importance of submerged archaeological resources and the need and tools to manage and protect them and Section 106 requirements.	1			
Activity 4.3 Identify archaeological and historic resources currently outside sanctuary boundaries that may be of significant historic interest or may pose a threat to sanctuary resources.	1			
STRATEGY XMHR-5: Conduct public outreach with traditional user and ocean-dependent groups and communities.	4			
Activity 5.1 Identify traditional user and ocean-dependent groups.	1			
Activity 5.2 Develop collaborative programs and initiatives.	1			
Activity 5.3 Create an inventory of historic and present maritime heritage communities. Focus on traditionally associated people to support mapping, traditional place names, and interpretive programs. Assess and nominate appropriate sites for the National Register of Historic Places.	1			
Activity 5.4 Map and document traditional communities and sites.	1			
STRATEGY XMHR-6: Continue to provide maritime heritage-focused education and outreach programs	4			
Activity 6.1 Improve information sharing and dialogue. Hold an annual maritime heritage event to highlight specific cultural and historic resources that the sites are mandated to protect, such as archeological sites, shipwrecks, etc., and link to adjacent communities and human uses.	1			
Activity 6.2 Create, expand and populate individual sanctuary websites and/or the West Coast Shipwreck Database.	1			
Activity 6.3 Develop and implement education and outreach programs and materials for the MHP. Incorporate traditional users/ocean-dependent groups and submerged archaeological resources into existing and new education/outreach programs.	1			
Activity 6.4 Collaborate on maritime heritage resource exhibits and signage. The three sites will incorporate maritime heritage themes and messages as part of the California Statewide Signage, Exhibits, and Facilities plan.	1			
<b>Total</b>	<b>18</b>		<b>1</b>	<b>1</b>