

CHAPTER 3

DESCRIPTION OF ALTERNATIVES

This chapter describes the proposed range of alternatives, including the no action alternative, and detailed descriptions of the individual components of each alternative. Each action alternative includes the following components: (1) implementing routine field activities, (2) the sanctuary management plan, and (3) sanctuary-wide regulations. To implement the proposed action, NOAA is considering three alternatives:

Alternative A: No action – continued implementation of routine field activities, the 2008 sanctuary management plan, and existing sanctuary-wide regulations.

Alternative B: Continued implementation of routine field activities and existing sanctuary-wide regulations, and adoption of a revised sanctuary management plan.

Alternative C (Preferred): Continued implementation of routine field activities, adoption of a revised sanctuary management plan, and revision of sanctuary-wide regulations.

Section 3.1 summarizes the scoping and prioritization process that informed the development of the alternatives. **Sections 3.2 to 3.4** provide a description of the alternative components. **Section 3.5** summarizes the alternatives under consideration. **Section 3.6** describes the alternatives that were initially considered but eliminated from further consideration.

3.1 Development of Alternatives

The components of the proposed alternatives described below are based on Sanctuary Advisory Council recommendations and the professional expertise of NOAA staff (see **Section 1.6.1** for more details on the public involvement process). In particular, NOAA developed the draft management plan and proposed regulations based on recommendations presented by the advisory council at the February and June 2017 advisory council meetings. These recommendations included the work completed by five advisory council working groups and one subcommittee. Through an extensive multi-year review process, MBNMS staff presented draft action plan outlines to the Sanctuary Advisory Council and its working groups for recommendations. The resulting draft plans incorporated advisory council input, local agencies, and experts. Sanctuary staff reviewed and, where appropriate, further revised the components of the alternatives based on additional input from preliminary discussions with staff at the four adjacent

harbors, Elkhorn Slough National Estuarine Research Reserve, U.S. Coast Guard, and the USFWS.

The content and structure of the proposed alternatives are based upon the need for increased resource protection at MBNMS. In developing the alternatives and identifying the preferred alternative for analysis in this draft EA, NOAA considered both regulatory changes and non-regulatory management plan changes consistent with achieving the goal of increased resource protection of the sanctuary.

NOAA staff and MBNMS's advisory council members used the following questions as screening criteria to determine a range of reasonable alternatives:

- Does ONMS have the institutional responsibility and/or authority to address this issue pursuant to the NMSA?
- Does addressing this issue have positive site benefits to natural resources/ecosystem, cultural resources, habitat protection, protection of biodiversity, or resolving user conflicts of the sanctuary?
- Would addressing this issue have major, moderate, or minimal site benefits to the sanctuary?
- What is the urgency of this issue/problem?
- What is the level of response/urgency needed for this issue?
- What is the feasibility of addressing the issue?
- What is the level of effort required?
- What is the best agency to address this issue?
- Would the alternative meet the purpose and need of the proposed action?
- Would the proposed action/alternative be consistent with statutory requirements?

NOAA then applied these screening criteria to determine the appropriate types of field activities, new or revised non-regulatory management plan actions, or regulatory changes to be included in the alternatives. NOAA developed alternatives that include each component (as described in detail below). NOAA structured the alternatives to be sequentially more protective of the MBNMS sanctuary resources in order to address the current environmental threats within the sanctuary (described in **Section 2.3**). The proposed alternatives are summarized in **Table 1**.

Table 1. Summary of the Components within Each Alternative

	Alternative A: No Action Alternative	Alternative B	Alternative C
Field Activities	Current field activities	Current field activities	Current field activities
Management Plan	2008 management plan	Revised management plan	Revised management plan
Regulations	Current regulations	Current regulations	Revised regulations

3.2 Proposed Routine Field Activities by Alternative

As part of NOAA’s management responsibilities for the sanctuary’s resources, NOAA conducts routine field activities in MBNMS, along adjacent shorelines, and in sanctuary offices and visitor centers. Field activities aim to further resource protection goals, promote stewardship among local stakeholders, and educate the public and research community on the sanctuary. See **Section 3.2.4** for a summary table showing the estimated level of field activities that NOAA would conduct under alternatives A, B, and C. Generally, the same types of field activities would be conducted under all alternatives, but the estimated level of activity may vary slightly.

3.2.1 Alternative A: No Action (Status Quo)

Under the no action alternative, NOAA would continue to conduct the current levels of routine field activities to support management of the sanctuary, including implementation of the sanctuary management plan and regulations. Field activities fall into the following categories:

3.2.1.1 Operating and Maintaining ONMS Vessels

Vessel operations are generally conducted on the R/V *Fulmar*, *R4107*, and a Rigid-hull Inflatable Boat, which are shared assets operated by the ONMS West Coast Regional Office that work on behalf of Cordell Bank, Greater Farallones, and Monterey Bay national marine sanctuaries. Vessel operations within MBNMS are generally episodic and low intensity with an estimated 90 days at sea during a typical year. ONMS small boats are operated according to all NOAA Small Boat Program guidelines (<https://www.oma.noaa.gov/learn/small-boat-program>) and follow additional, voluntary sanctuary standing orders to minimize impacts on sanctuary resources, particularly large whales, sea turtles, and other smaller marine mammals. These standing orders are to be followed anytime large whales are known to be present or believed to be present in an area of operation, regardless of time of year. See **Appendix C** for a full list of standing orders.

The majority of vessel maintenance and training activities occur in or near the vessel homeport in Monterey, California. The R/V *Fulmar* and *R4107* are hauled out for dry

dock maintenance annually. Minor maintenance such as oil changes and hull cleanings generally occur up to 10 times per year and may occur both in and out of the water in harbors and associated marine repair facilities outside the sanctuary. Fueling occurs dockside in harbors outside of the sanctuary. The Rigid-hull Inflatable Boat is removed from the water for service. Vessel crew training and safety drills occur up to 25 times per year inside and outside of sanctuary waters. Training activities may include fire drills, man overboard, and scuba diver rescue.

Vessel operations in (and in transit to and from) MBNMS support the following management actions:

- On-the-water research, sampling, and monitoring activities such as geological, biological, and oceanographic characterization of the marine environment, including Sanctuary Ecologically Significant Areas, and implementing monitoring and research programs to understand natural and human caused changes in sanctuary resources;
- Routine maritime heritage activities such as locating and characterizing cultural and maritime heritage resources;
- Resource protection and stewardship, such as implementing control and eradication plans for introduced species, responding to whales entangled in fishing gear, response to vessel casualties, and conducting oil spill planning drills; and
- On-the-water monitoring and enforcement activities.

3.2.1.2 Scuba and Snorkel Operations

Science diving operations conducted by NOAA staff include nearshore characterization studies, habitat studies, species studies, oceanographic studies, benthic studies, and natural resource damage assessments. Dives typically occur along the Big Sur coast as well as proficiency dives in Monterey. Big Sur dives are sometimes multi-day missions. NOAA staff may conduct up to 250 dives per year. Depending on location and sea state, up to three dives can typically occur per day.

Scuba and snorkel operations in MBNMS support the following management actions:

- On-the-water research, sampling, and monitoring activities such as geological, biological, and oceanographic characterization of the marine environment, including Sanctuary Ecologically Significant Areas, and implementing monitoring and research programs to understand natural and human caused changes in sanctuary resources;
- Routine maritime heritage activities such as locating and characterizing cultural and maritime heritage resources; and
- Resource protection and stewardship, such as implementing control and eradication plans for introduced species, and response to vessel casualties.

3.2.1.3 Onshore Fieldwork

Onshore fieldwork in MBNMS generally involves NOAA staff, volunteers, and members of the public participating in onshore citizen science and volunteer programs. Below are some examples of these programs and the intensity of onshore fieldwork involved:

- The annual First Flush program involves up to 100 volunteers collecting water samples at storm drain outfalls during the first significant rain event of the fall season for water quality analysis.
- Snapshot Day is a spring event involving up to 250 volunteers collecting water samples from creeks and rivers for analysis.
- Urban Watch is a summer dry-weather monitoring program, involving up to 50 volunteers collecting effluent samples at key urban storm drain outfalls to test for chemical discharges into storm drains impacting MBNMS.
- As part of the Beach COMBERS (Coastal Ocean Mammal/Bird Education and Research Surveys) program, up to 100 volunteers collect baseline information on rates of beach stranding for all species of marine birds and mammals in Monterey Bay, as well as presence of tar and oil. Each volunteer conducts a visual survey of an assigned 5 km beach segment up to three times per month. The length of total shoreline visually surveyed each month is up to 50 miles. Occasionally beachcast organisms and tar/oil samples are collected.

Onshore fieldwork can also be a part of the routine work of the resource protection and research teams at MBNMS. Onshore visual surveys can be necessary to respond to vessel casualties and assess resource damage. Response to these types of vessel casualties generally occur up to 30 times per year in MBNMS.

In sum, onshore fieldwork activities support the following management actions:

- Onshore education, outreach, visitor, and volunteer field activities, such as leading and supporting citizen science and volunteer programs to conduct water quality monitoring or remove debris from coastal watersheds;
- Onshore research, sampling, and monitoring activities, such as monitoring programs to measure plastic debris in surface waters, harmful algal bloom (HAB) monitoring, conducting source tracking to reduce pollutant discharges to storm drains, monitoring introduced species, and characterizing population densities; and
- Resource protection and stewardship activities such as implementing monitoring, control, and eradication plans for introduced species, onshore restoration projects, enforcement and spill response monitoring, and removal of marine debris or grounded vessels.

3.2.1.4 Operations of Non-Motorized Craft

Operations of non-motorized craft in MBNMS are generally undertaken by NOAA staff and volunteers to support education, outreach, and citizen science activities. For example, the Team OCEAN program puts trained and knowledgeable naturalists out on the water in MBNMS-owned kayaks to greet and interact with day kayakers. The naturalists serve as docents and promote respectful wildlife viewing and protection of marine mammals from disturbance. Naturalists tend to work on weekend days for up to 50 days of effort each spring and summer.

3.2.1.5 Deployment of Equipment on the Seafloor

Research and monitoring activities that deploy equipment on the seafloor inform sanctuary condition reports and ongoing management of sanctuary resources. For example, NOAA deploys (1) water sampling devices that gather information on pollutants through time, (2) hydrophones that measure anthropogenic sounds, and (3) particle traps that measure ocean productivity to assess sanctuary health. In addition, NOAA deploys research equipment on the seafloor to answer basic science and exploration questions, and to provide material for education and outreach efforts. Specific deployments include: (1) weighted markers to identify individual deep-sea corals, (2) instruments that measure ocean temperature and oxygen in massive octopus brooding gardens, (3) camera systems placed on the seafloor to count fishes in marine reserves, and (4) hydrophones to monitor the soundscape in the sanctuary. These scientific instruments are all retrieved after data collection is completed. In Davidson Seamount, equipment is temporarily placed on the seafloor to measure water quality parameters associated with corals and octopus brooding areas. Individual animals are sometimes identified by putting weighted markers next to them. To study impacts of climate change, respirometers are used to assess the metabolism of organisms collected and placed in chambers with different water chemistry.

In addition to the instruments described above, NOAA also deploys buoy-based scientific equipment for research and monitoring, mooring buoys for marking zone boundaries for motorized personal watercraft use, hydrophones, and oil spill response booms. All of these require deployment of mooring hardware on the seafloor. The mooring hardware can range from weighted moorings systems to screw anchors that go below the marine substrate.

NOAA maintains marker buoys for three motorized personal watercraft zones outside the harbors of Monterey, Moss Landing, and Santa Cruz. This involves recovery, refurbishing, and redeployment of up to 15 Class IV ionomer foam-can marker buoys in a given year. Moorings are placed in sandy locations ranging in depth from 50 – 270 feet. Each mooring consists of a buoy, a light (for Monterey moorings), 1/2" top chain, 1" nylon riser line (for deep moorings), 3/4" chafe chain, additional 1/2" bottom chain (for deep moorings), a 200 lb steel DorMor anchor, and multiple steel shackles and swivels.

3.2.1.6 Deployment of Autonomous Underwater Vehicles, Remotely Operated Vehicles, Gliders, and Drifters

Deployment of remotely operated vehicles (ROVs) can be part of the routine work of the resource protection and research teams at MBNMS. ROV deployment can be necessary to respond to vessel casualties and assess resource damage. Response to these types of vessel casualties generally occur up to 30 times per year in MBNMS. In addition, NOAA research staff use ROVs to conduct underwater video documentation over areas that are deemed ecologically significant and to characterize and establish a baseline of seafloor habitats and associated taxa. These research activities can involve up to 10 ROV deployments per year. ROVs would generally operate at depths of approximately 300 meters. Deployment of ROVs or automated underwater vehicles (AUVs), gliders, and drifters can also support routine maritime heritage activities in MBNMS such as visual reconnaissance surveys associated with historic documentation on last reported positions of ship and aircraft wreck sites.

NOAA would also support deployment of AUVs, gliders, and drifter buoys by other individuals or organizations conducting activities in the sanctuary. The intensity of these activities would depend on the permit applications received by the sanctuary staff from outside researchers. Deployment of AUVs, gliders, or drifters is considered a discharge and requires the issuance of a Letter of Authorization under the MBNMS superintendent's permit. In addition, if an ROV or similar unmanned autonomous device were placed on the seabed in the sanctuary that action would also require a Letter of Authorization under the MBNMS superintendent's permit. At the time when sanctuary staff receive a specific permit application for such activities, they would be evaluated for compliance with NEPA and other applicable laws and regulations before issuance of a permit or Letter of Authorization.

3.2.1.7 Aircraft Operations

Aircraft operations in MBNMS would support the following management actions:

- Estimation of marine mammal, seabird, and leatherback turtle abundances by MBNMS or other resource management agencies;
- Enforcement and emergency response activities; and
- Mapping habitats using drones including kelp beds and monitoring species distribution and abundance.

Increasingly, researchers are using aerial drones to map kelp beds habitat and to monitor species distribution and abundance. Aircraft operations would be a particularly important tool for conducting aerial surveys of the Davidson Seamount Management Zone, as it is expensive to access by ships. There are regulatory overflight zones in MBNMS where flights below 1,000 feet are prohibited. These activities are either conducted outside of MBNMS regulated overflight zones where flights below 1,000 feet are prohibited or they are individually permitted after individual environmental review.

Bird and mammal rookeries are also avoided. NOAA anticipates there could be up to 10 four-hour research flights per year using unmanned aircraft systems (UAS). These systems can have land-based and ship-based uses. This is an estimate of up to 40 flight hours per year.

3.2.2 Alternative B

In Alternative B, NOAA would continue to implement all categories of routine field activities as described in the no action alternative.

3.2.3 Alternative C (Preferred)

In Alternative C, NOAA would continue to implement all categories of routine field activities as described in Alternative A, except as modified below.

3.2.3.1 Deployment of Equipment on the Seafloor

As part of implementing the revisions to motorized personal watercraft zone boundaries, NOAA would reduce the number of marker buoys deployed and maintained at the harbors of Monterey, Moss Landing, and Santa Cruz from 15 to 9 Class IV ionomer foam-can marker buoys in a given year. See **Section 3.2.1.5** for more details on buoy and mooring placements.

3.2.4 Comparison of Estimated Field Activities by Alternative

Table 2 below summarizes the categories and anticipated intensity of routine field activities NOAA would conduct to manage Monterey Bay National Marine Sanctuary under each alternative.

Table 2. Estimated Annual Field Activities by Category (All Alternatives)

Category	Estimated Activity Level (Alternative A)	Estimated Activity Level (Alternative B)	Estimated Activity Level (Alternative C)
Vessel Operations and Maintenance (number of vessels; days at sea/year)	Up to three vessels operated and maintained by sanctuary staff; each vessel is up to 65 feet in length and 20 knots cruising speed. Up to 90 total vessel days at sea/year for all three vessels, including: <ul style="list-style-type: none"> • Up to 25 vessel days at sea/year for crew training and safety drills • Up to five vessel days¹ at sea/year for whale disentanglement support 	Same as Alternative A.	Same as Alternative A.
Scuba or Snorkel Operations (dives/year)	Up to 250 dives/year	Same as Alternative A.	Same as Alternative A.
Onshore Fieldwork (number of people x days of fieldwork)	Up to 1200 person days/year for volunteer beach and water quality surveys (BeachCOMBERS: Up to 100 volunteers x 12 surveys x .5 day; water quality volunteers: Up to 400 volunteers x 3 surveys x .5 day) Up to 60 person days/year for response to vessel grounding incidents (1 person x 2 days x up to 30 grounding incidents ²)	Same as Alternative A.	Same as Alternative A.
Non-Motorized Craft (e.g., kayaks) (number of people; days at sea/year)	Up to 50 days at sea/year by up to 50 people for volunteer and outreach activities	Same as Alternative A.	Same as Alternative A.

¹ This number is highly variable dependent upon the number of whale entanglement incidents that occur in or adjacent to MBNMS that require support from MBNMS staff. These activities are conducted in close coordination with NMFS and the Whale Entanglement Team and are conducted under NMFS permits for large whale disentanglement.

² This number is highly variable dependent upon the number of vessel grounding incidents that occur in or adjacent to MBNMS that require response or salvage support from MBNMS staff.

Category	Estimated Activity Level (Alternative A)	Estimated Activity Level (Alternative B)	Estimated Activity Level (Alternative C)
<p>Deployment of Equipment on the Seafloor (deployments/year)</p>	<p>Up to 15 buoy deployments/year for mooring buoys for marking zone boundaries for motorized personal watercraft use, hydrophones, and oil spill response booms.</p> <p>Up to 20 deployments/year of small research and monitoring equipment (e.g., drop cameras, weighted markers, temperature, and oxygen sensors)</p>	<p>Same as Alternative A.</p>	<p>Up to nine buoy deployments/year for mooring buoys for marking zone boundaries for motorized personal watercraft use, hydrophones, and oil spill response booms.</p> <p>Up to 20 deployments/year of small research and monitoring equipment (e.g., drop cameras, weighted markers, temperature and oxygen sensors)</p>
<p>Deployment of AUVs, ROVs, Gliders, or Drifters (deployments/year)</p>	<p>Up to 40 ROV deployments/year; including:</p> <ul style="list-style-type: none"> Up to 30 ROV deployments/year for visual assessment of injury or damage associated with vessel casualty incidents <p>Up to 20 AUV deployments/year with each deployment lasting eight to 10 hours.</p> <p>Up to eight drifter buoy deployments/year Up to seven glider deployments/year</p>	<p>Same as Alternative A.</p>	<p>Same as Alternative A.</p>
<p>Aircraft Operations (flight hours/year)</p>	<p>Up to 40 flight hours/year of drone/unmanned aircraft systems (UAS).</p>	<p>Same as Alternative A.</p>	<p>Same as Alternative A.</p>
<p>Deployment of Remote Sensing Equipment</p>	<p>None known at this time. As described in Section 1.5.3, if a future project included remote sensing surveys that require the use of active acoustics (e.g., echosounders), NOAA would evaluate the need for environmental compliance under NEPA, ESA, and other relevant statutes at that time.</p>		

3.3 Proposed Modifications to Sanctuary Management Plan by Alternative

As part of NOAA's management responsibilities for the sanctuary's resources, NOAA periodically reviews the MBNMS sanctuary management plan. The management plan serves as a guide for implementing management activities. The purpose is to ensure the sanctuary's natural living and cultural resources are properly conserved and protected.

3.3.1 Alternative A: No Action (Status Quo)

Under the no action alternative, NOAA would continue to manage MBNMS under the current sanctuary management plan without revision. The current sanctuary management plan, published in 2008, can be found at: <https://montereybay.noaa.gov/intro/mp/welcome.html>. It is a detailed plan for resource protection, research, education, and administrative services at MBNMS, with special emphasis on key resource protection issues. The action plans in the current sanctuary management plan address the following topics:

Coastal Development Action Plans

- Coastal Armoring
- Desalination
- Harbors and Dredge Disposal
- Submerged Cables

Ecosystem Protection Action Plans

- Big Sur Coastal Ecosystem
- Bottom Trawling Effects on Benthic Habitats
- Davidson Seamount
- Emerging Issues
- Introduced Species
- Sanctuary Integrated Monitoring Network (SIMoN)
- Marine Protected Areas

Operations and Administration Action Plans

- Operations and Administration
- Performance Evaluation

Partnerships and Opportunities Action Plans

- Fishing Related Education and Research
- Interpretive Facilities

- Ocean Literacy and Constituent Building

Water Quality Action Plans

- Beach Closures and Microbial Contamination
- Cruise Ship Discharges
- Water Quality Protection Program

Wildlife Disturbance Action Plans

- Marine Mammal, Seabird, and Turtle Disturbance
- Motorized Personal Watercraft
- Tidepool Protection

Cross-Cutting Action Plans

- Administration and Operations
- Community Outreach
- Ecosystem Monitoring
- Maritime Heritage
- Northern Management Area Transition

Various proportions of the 2008 sanctuary management plan are completed, ongoing, or in progress. In 2015, MBNMS staff conducted a review of progress toward completing the action plans in the 2008 sanctuary management plan. This analysis (summarized in **Table 3**) informed the decision to undertake a full management plan review and the identification of priority topics to be addressed in the new management plan. Activities that are **in progress** are at various stages of completion and were not expected to be completed by the start of the management plan review process. Activities that are described as **completed** are successfully accomplished and do not continue year to year. Activities that are described as **ongoing** are successfully implemented over the long term, i.e., they are activities that continue year to year.

Table 3. Percent of Action Plan Activities from 2008 Management Plan by Stage of Completion

Topic	Action Plan	Number of Activities in Action Plan	Not Initiated	In progress	Completed	Ongoing
Coastal Development	Coastal Armoring	22	9%	27%	37%	27%
	Desalination	16	12%	44%	25%	19%
	Harbors and Dredge Disposal	13	0	23%	8%	69%
	Submerged Cables	7	0	0	86%	14%
Ecosystem Protection	Big Sur Coastal Ecosystem	11	69%	15%	6%	8%
	Bottom Trawling Effects on Benthic Habitats	19	17%	55%	22%	6%
	Davidson Seamount	23	4%	56%	17%	23%
	Emerging Issues	8	25%	38%	0	39%
	Introduced Species	10	30%	30%	10%	30%
	Sanctuary Integrated Monitoring Network (SIMoN)	28	0	4%	21%	75%
	Marine Protected Areas	41	46%	54%	0	0
Operations and Administration	Operations and Administration	61	0	16%	6%	78%
	Performance Evaluation	5	0	40%	0	60%
Partnerships and Opportunities	Fishing Related Education and Research	24	9%	22%	55%	14%
	Interpretive Facilities	13	0	30%	62%	8%
	Ocean Literacy and Constituent Building	20	5%	50%	25%	15%
Water Quality	Beach Closures and Microbial Contamination	29	4%	61%	0	36%
	Cruise Ship Discharges	7	28%	14%	58%	0

Topic	Action Plan	Number of Activities in Action Plan	Not Initiated	In progress	Completed	Ongoing
	Water Quality Protection Program	73	8%	31%	7%	54%
Wildlife Disturbance	Marine Mammal, Seabird, and Turtle Disturbance	31	23%	22%	13%	42%
	Motorized Personal Watercraft	14	8%	39%	31%	15%
	Tidepool Protection	26	50%	42%	4%	4%
Cross Cutting	Administration and Operations	20	27%	45%	22%	6%
	Community Outreach	10	10%	10%	10%	70%
	Ecosystem Monitoring	19	42%	21%	26%	11%
	Maritime Heritage	21	26%	37%	11%	26%
	Northern Management Area Transition	34	16%	29%	37%	18%

Note: Total percentage may not always add up to 100% due to rounding.

Under the no action alternative, NOAA would continue to implement the current sanctuary management plan focusing on the action plans that are not yet completed. NOAA would undertake the following types of activities to support continued implementation of the remaining action plans in the current sanctuary management plan.

3.3.1.1 Office and Classroom-Based Activities

NOAA staff would conduct meetings, policy development and planning, risk assessments, education and training programs, prepare research reports, and produce and maintain online resources and databases. These activities would take place in existing facilities.

3.3.1.2 Administration of the Sanctuary

NOAA staff would perform budgeting, staffing, information technology support, and provide support to the MBNMS Advisory Council. These activities would take place in existing facilities.

3.3.1.3 Permitting Administration

NOAA staff would process permit applications and authorizations, monitor permit compliance, and use the sanctuary's permitting authority to reduce negative impacts from introduced species, marine debris, and wildlife disturbance. As described in **Section 1.5.3**, NOAA evaluates all permit applications and authorizations on a case-by-case basis. For each application, ONMS evaluates all environmental compliance requirements, including NEPA and other environmental statutes (e.g., Endangered

Species Act, Coastal Zone Management Act, National Historic Preservation Act). The environmental documentation to support a permit or authorization decision may incorporate by reference relevant portions of this EA as appropriate.

3.3.1.4 Education and Outreach Activities

NOAA staff would produce and maintain visitor exhibits and interpretive signage in the field; create programming and host events at visitor centers, museums, libraries, conferences, community events, and online media; and lead and support citizen science and volunteer wildlife disturbance prevention programs within sanctuary waters or along adjacent shorelines.

3.3.1.5 Coordination and Collaboration with Local and Regional Partners and Stakeholders

NOAA staff would work with local and regional partners and stakeholders on research, resource protection, and other sanctuary management topics. Topics include: policy development, beach nourishment, dredge material and emergency landslide disposal, encouraging research on sanctuary priorities, and public outreach on best practices to avoid wildlife disturbance and marine debris in sanctuary waters.

3.3.1.6 Research, Sampling, and Monitoring Activities

NOAA staff would conduct research, sampling, and monitoring activities within the sanctuary or along adjacent shorelines, such as: characterization and oceanographic surveys³ of marine environments, species distribution studies, monitoring marine debris and pollutant loads flowing into MBNMS, sound monitoring, research and monitoring of natural and human caused changes in sanctuary resources, developing new technologies for studying the ocean, developing restoration methods for species and habitats, and studying the use of motorized personal watercraft zones and boater implementation of wildlife approach distances.

3.3.1.7 Resource Protection and Stewardship Activities

NOAA staff would conduct resource protection and stewardship activities within the sanctuary or along adjacent shorelines, such as: implementing early detection, monitoring, eradication, and restoration programs for introduced species; coordinating with U.S. Coast Guard; responding to emergency marine vessel incidents and other discharge incidents (e.g., sunken and grounded vessels, vehicles going off road, downed aircraft); implementing restoration and recovery plans for habitat damages and endangered species; and oil spill response planning.

³ As described in **Sections 1.5.3 and 1.5.4**, if a future management action included surveys that require the use of active acoustics (e.g., echosounders), NOAA would evaluate the need for environmental compliance under NEPA, ESA, and other regulatory statutes at that time.

3.3.1.8 Maritime Heritage Activities

NOAA staff would conduct activities to implement its maritime heritage program, such as: shipwreck reconnaissance expeditions, submitting nominations to the National Register of Historic Places, conducting research on maritime cultural landscapes, and monitoring hazardous shipwreck sites. Pursuant to the National Historic Preservation Act (NHPA), MBNMS addresses preservation mandates to inventory and protect historical and cultural resources for the benefit of the public. This includes locating, visually surveying, and monitoring potentially polluting wrecks in MBNMS; providing early notification of potential leaks of hazardous cargoes and bunker fuel; and taking appropriate steps to mitigate negative impacts to water quality within the sanctuary.

3.3.2 Alternative B: Implement Revised Sanctuary Management Plan

Under Alternative B, NOAA proposes to implement a revised sanctuary management plan that would serve as an overarching framework for sanctuary management and outline the non-regulatory activities the sanctuary would undertake in the next five to 10 years. As a result of the public scoping process and internal prioritization exercises, NOAA determined that the revised sanctuary management plan for MBNMS would outline actions and activities aiming to accomplish one or more of the following goals:

- Collaborate with strategic partners to conserve natural habitats, populations, and ecological processes by preventing, minimizing, and/or mitigating stressors on resources in the sanctuary.
- Enhance the understanding of ecosystem processes and inform ecosystem-based management efforts through scientific research, monitoring, and characterization.
- Enhance ocean and climate literacy, promote awareness of the sanctuary, and foster ocean stewardship through education, outreach, and interpretation efforts.
- Maintain and protect the sanctuary's natural biological diversity and, where appropriate, restore and enhance sanctuary ecosystems.
- Increase knowledge and appreciation of maritime heritage (living cultures, traditions, and cultural resources).
- Facilitate wise and sustainable use in sanctuaries to the extent such uses are compatible with resource protection.
- Build, maintain, and enhance an operational capability and infrastructure.

The revised sanctuary management plan would consist of 14 action plans to support these goals: eight are issue-based (i.e., intended to address a specific environmental topic or concern) and six are program-based (i.e., intended to address the administrative aspects of sanctuary management). Each new or revised action plan was designed to address a priority management issue. In 2015, MBNMS staff analyzed progress toward completing the action plans in the 2008 sanctuary management plan, as described in **Section 3.3.1**. Using this analysis, as well as input from the public scoping report and

MBNMS Advisory Council, MBNMS staff identified the priority environmental concerns and management priorities for inclusion in the revised sanctuary management plan. Then, NOAA consulted with regional experts to develop and refine the strategies and activities contained in each action plan.

NOAA identified the following new environmental concerns, which are not addressed in the 2008 sanctuary management plan, to be addressed in new action plans in the revised sanctuary management plan:

- climate change;
- implementation of coastal erosion and sediment management plans;
- marine debris;
- impacts to and management options for Sanctuary Ecologically Significant Areas (SESAs);
- assessing use of motorized personal watercraft in the sanctuary; and
- evaluating offshore wind energy and artificial reefs.

NOAA also identified the following environmental concerns and management topics to be addressed through revisions to existing action plans in the 2008 sanctuary management plan:

- addressing wildlife entanglement and anthropogenic ocean noise in the Wildlife Disturbance Action Plan;
- identifying and implementing new programs at MBNMS visitor centers;
- outlining an approach to media (print, television, and social) in the Education, Outreach and Communications Action Plan;
- expanding research and monitoring efforts at Davidson Seamount and extending those research efforts to Sur Ridge; and
- outlining a clear approach to addressing invasive species in sanctuary waters.

Provided below is a brief summary of each proposed new or revised action plan in the revised sanctuary management plan. A detailed list of the specific activities that would take place to implement each action plan is included in **Appendix B**. The draft revised sanctuary management plan is available at <https://montereybay.noaa.gov/intro/mp/2015review/welcome.html>. The proposed new or revised action plans address the following topics.

3.3.2.1 Issue-Based Action Plans (Alternative B)

- *Climate Change* – (New) Proposes to address coastal resilience, climate adaptation, and ocean acidification through capacity building and collaborative partnerships.
- *Coastal Erosion and Sediment Management* – (New) Implements plans to reduce human-caused coastal erosion through collaboration with local, state, and

- federal agencies to address and restore sediment balance in nearshore habitats throughout the sanctuary.
- *Davidson Seamount* – (Existing, new elements) Proposes to increase our understanding of the Davidson Seamount Management Zone and Sur Ridge through characterization and ecological process studies, and the development of education programs of these unique features of the sanctuary.
 - *Emerging Issues* – (Existing, new elements) Focuses on developing a framework to identify and address future resource protection issues.
 - *Introduced Species* – (Existing) Outlines efforts to prevent the introduction, spread, and establishment of introduced species, and to control and eradicate populations of introduced species already established in the sanctuary.
 - *Marine Debris* – (New) Assesses and seeks to reduce the amount of marine debris in or entering the sanctuary.
 - *Water Quality Protection Program* – (Existing, new elements) Raises awareness of water quality issues and improves the quality of water entering the sanctuary.
 - *Wildlife Disturbance* – (Existing, new elements) Increases efforts to maintain and improve protection of sanctuary wildlife by evaluating and remediating adverse impacts from human activities.

3.3.2.2 Program-Based Action Plans (Alternative B)

- *Education, Outreach, and Communication* – (Existing, new elements) Increases protection and appreciation of sanctuary resources by building greater public understanding, engagement, and stewardship throughout our highly diverse coastal communities.
- *Marine Spatial Planning* – (New) Seeks to balance uses and protections of sanctuary resources and improve scientific understanding.
- *Maritime Heritage* – (Existing, new elements) Inventorying, locating, surveying⁴, and monitoring historic shipwrecks and those posing potential threats to sanctuary resources; and characterizing and protecting maritime heritage resources.
- *Operations and Administration* – (Existing, new elements) Addresses the necessary operations and administration activities required for implementation of an effective program, including identifying staffing, infrastructure needs, and operational improvements.
- *Research and Monitoring* – (Existing, new elements) Assesses changes in species, habitats, and ecosystem processes, to better characterize and understand the sanctuary ecosystem, and support ecosystem-based management, resource protection, and education.

⁴ As described in **Sections 1.5.3** and **1.5.4**, if a future management action included surveys that require the use of active acoustics (e.g., echosounders), NOAA would evaluate the need for environmental compliance under NEPA, ESA, and other regulatory statutes at that time.

- *Resource Protection* – (Existing, new elements) Seeks to protect and restore the biological, historical, and cultural resources in the sanctuary.

Implementation of these proposed revised and new action plans would involve undertaking the same broad types of management activities described in Alternative A (see **Section 3.3.1**).

3.3.3 Alternative C: Implement Revised Sanctuary Management Plan (Preferred)

In Alternative C, NOAA would implement the draft revised sanctuary management plan outlined in **Section 3.3.2**.

3.4 Proposed Modifications to Sanctuary-Wide Regulations by Alternative

As described in detail below, in the no action alternative and Alternative B, NOAA would continue to implement the existing MBNMS sanctuary-wide regulations with no change (codified at 15 CFR Part 922 Subpart M). NOAA most recently amended the sanctuary-wide regulations for MBNMS in 2008 and analyzed the impacts of these regulatory modifications in a final EIS published on September 26, 2008 (73 FR 55842). Under Alternative C, NOAA proposes to make the following revisions to the MBNMS sanctuary-wide regulations:

- add a definition for the phrase “beneficial use of dredged material” and new regulatory language to clarify MBNMS’s ability to authorize beneficial use of clean and suitable dredged material for beach nourishment restoration purposes within MBNMS (see **Section 3.4.1**);
- modify the prerequisite conditions for motorized personal watercraft access to the riding zone at Mavericks surf break (see **Section 3.4.2**);
- reconfigure four motorized personal watercraft zones (see **Section 3.4.3**); and
- make a minor technical correction to document the list of exempted Department of Defense activities at the Davidson Seamount Management Zone that was inadvertently left out of the 2008 final EIS (see **Section 3.4.4**).

Below is a summary of the proposed regulatory changes that would be included within the proposed rule that will be published concurrently with this draft EA.

3.4.1 Beneficial Use of Clean and Suitable Dredged Material Definition (New)

3.4.1.1 Alternative A

Under the no action alternative, NOAA would continue to implement the existing sanctuary-wide regulations regarding discharge or disposal of any dredged material. The current regulations prohibit “[d]ischarging or depositing from within or into the

Sanctuary... any material or other matter” (15 CFR § 922.132(a)(2)(i)). There is also a list of exceptions to this prohibition at 15 CFR § 922.132(a)(2)(i)(A-F). In addition, current regulations prohibit MBNMS from issuing a permit or authorization for “the disposal of dredged material within the Sanctuary other than at sites authorized by the U.S. Environmental Protection Agency (in consultation with the U.S. Army Corps of Engineers (COE)) prior to January 1, 1993” (15 CFR § 922.132(f)). MBNMS staff can currently accommodate requests for beneficial use of sediment for beach nourishment in locations where the bathymetry and topography allow space for sediment placement above the mean high water line (outside the sanctuary boundary).

3.4.1.2 Alternative B

Alternative B would be the same as Alternative A.

3.4.1.3 Alternative C (Preferred)

Under Alternative C, NOAA proposes to add a new definition for “beneficial use of dredged material” and to clarify NOAA’s ability to authorize beneficial use of clean and suitable dredged material for habitat restoration purposes within MBNMS.

To do this, NOAA would amend the sanctuary-wide regulations to add a definition for the phrase “beneficial use of dredged material” at 15 CFR § 922.131, as proposed below:

Beneficial use of dredged material means the use of dredged material removed from any of the four public harbors immediately adjacent to the shoreward boundary of the sanctuary that has been determined by the director to be clean (as defined by 15 CFR § 922.131) and suitable (as consistent with regulatory agency reviews and approvals applicable to the proposed beneficial use) as a resource for habitat restoration purposes only. Beneficial use of dredged material is not considered the disposal of dredged material.

In addition, NOAA would amend 15 CFR § 922.132(f) by inserting the following sentence immediately before the last sentence in the existing paragraph: “For the purposes of this Subpart, the disposal of dredged material does not include the beneficial use of dredged material as defined by 15 CFR § 922.131.”

The new definition would clarify that the existing prohibition on permitting the disposal of dredged material in MBNMS does not apply to habitat restoration projects using clean dredged material, because such a beneficial use of dredged material would not be considered “disposal.” In addition, this definition would apply only to dredged material removed from any of the four harbors immediately adjacent to the sanctuary (Pillar Point, Santa Cruz, Moss Landing, or Monterey). This action would also amend 15 CFR § 922.132(f) to clarify that the disposal of dredged material does not include the beneficial use of dredged material.

This regulatory change would clarify that the language in the terms of designation and MBNMS regulations that prohibit permitting the disposal of dredged material within the sanctuary other than at sites authorized by the U.S. Environmental Protection Agency prior to the effective date of designation (Article V of the MBNMS Terms of Designation, 73 Fed. Reg. 70477, 70494 (Nov. 20, 2008); 15 CFR § 922.132(f)), does not preclude the sanctuary from authorizing the beneficial use of clean dredged material within sanctuary boundaries when suitable for habitat restoration purposes. This action would clarify that NOAA has the authority to review and permit beneficial use of dredged material projects within the sanctuary (i.e., below the mean high water line) for the purpose of habitat restoration.

The beneficial use of dredged material for restoration at sites within the sanctuary would require a sanctuary permit or authorization; additional rigorous testing and screening of the material to ensure that the material is both clean and suitable for habitat restoration; additional review of the proposed project under NEPA and other applicable statutes; and permitting, as applicable, by other federal, state, and local regulatory authorities over the proposed beneficial use project. Furthermore, proposed projects involving use of dredged material would only be eligible for approval by NOAA if the projects demonstrated a sanctuary habitat restoration purpose under the proposed definition language of 15 CFR §§ 922.131, and if the projects otherwise met the permit or authorization procedures and review criteria described in 15 CFR §§ 922.48, 922.49, and 922.133. The permit and environmental reviews of the proposed beneficial use projects would continue to prevent the disposal of unsuitable and unclean material into the sanctuary that could adversely affect sanctuary resources.

This proposed action, which would clarify NOAA's ability to authorize beneficial use of clean and suitable dredged material for habitat restoration purposes within the sanctuary, would be consistent with the regulatory framework for dredge, fill, and disposal projects as outlined by the Clean Water Act (33 U.S.C. §§ 1251 *et seq.*), the Ocean Dumping Act (33 U.S.C. §§ 1401 *et seq.*), and applicable U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (EPA) regulations. The existing regulatory framework differentiates between the disposal (i.e., discarding) of dredged material and its beneficial use (i.e., purposeful application). For example, the "disposal into ocean waters" of dredged material is regulated under provisions of the Ocean Dumping Act, whereas discharge of dredged material for fill, including beach restoration, is regulated under Section 404 of the Clean Water Act (33 CFR § 336.0). Furthermore, any proposed project for beneficial use of dredged material in MBNMS would be subject to applicable permit and regulatory reviews of other federal, state, and local authorities with jurisdiction over the proposed project.

Finally, pursuing this proposed action would be consistent with current state and federal coastal management practices that favor softscape approaches to restoring and

protecting beaches and shorelines over hardscape methods (e.g., riprap, groins, and seawalls). For example, the USACE Engineering and Design Manual on Dredging and Dredged Material (July 2015) states, “Interest in using dredged material as a manageable, beneficial resource, as an alternative to conventional placement practices, has increased” (USACE, 2015 at p. 5-1). In addition, the USACE/EPA Beneficial Use Planning Manual states, “the promotion of beneficial uses continues to require a shift from the common perspective of dredged material as a waste product to one in which this material is viewed as a valuable resource that can provide multiple benefits to society.” The planning manual further notes that in general, “clean, coarse-grained sediments (sands) are suitable for a wide variety of beneficial uses” (USACE/EPA, 2007a at p. 9). Finally, the USACE/USEPA Manual on The Role of the Federal Standard in the Beneficial Use of Dredged Material indicates, “a beneficial use option may be selected for a project even if it is not the Federal Standard for that project” (USACE/EPA, 2007b at p. 3).

3.4.2 Access to Motorized Personal Watercraft Zone at Mavericks Surf Break (Proposed Update)

3.4.2.1 Alternative A

Under the no action alternative, NOAA would continue to implement the existing sanctuary regulation regarding the motorized personal watercraft zone at Mavericks surf break. In 2009, NOAA created a seasonal-conditional motorized personal watercraft zone at Mavericks (Zone 5) primarily to allow motorized personal watercraft to support big-wave surfing at Mavericks during winter months. Wildlife activity in this area during winter months is significantly reduced. Currently, motorized personal watercraft can freely access the Mavericks seasonal-conditional zone only when High Surf Warning conditions are in effect (predicted breaking waves at the shoreline of 20 feet or greater), as announced by the National Weather Service for San Mateo County during the months of December, January, and February (15 CFR § 922.132(a)(7)). However, due to the unique bathymetric features at Mavericks, waves can exceed 20 feet well before High Surf Warning conditions are announced county-wide. Surfers have developed new techniques for paddling onto larger and larger waves, so paddle surfers now routinely surf extremely large waves at Mavericks during winter High Surf Advisory conditions (predicted breaking waves at shoreline of 15 feet or greater), when motorized personal watercraft access to the zone is currently prohibited.

The Mavericks surf break lies within three overlapping marine protected areas: MBNMS, the Pillar Point State Marine Conservation Area, and the James V. Fitzgerald Area of Special Biological Significance. It also lies immediately adjacent to San Mateo County’s James V. Fitzgerald Marine Reserve, where federally protected harbor seals pup each spring. These designations by federal, state, and local governments denote an area of

high ecological value and special protection for the natural resources present in the coastal zone and nearshore waters.

3.4.2.2 Alternative B

Alternative B would be the same as Alternative A.

3.4.2.3 Alternative C (Preferred)

Under Alternative C, NOAA would amend the sanctuary regulations to change the current High Surf Warning requirement for motorized personal watercraft access to Mavericks to a less stringent High Surf Advisory requirement. High surf warnings and advisories are issued for specified periods of time by the National Weather Service. Access to Zone 5 would continue to be seasonal, only allowed during winter months (December, January, and February). Allowing motorized personal watercraft access to Mavericks during High Surf Advisory conditions would allow for their presence at the surf break approximately three to five more days per year to provide safety assistance to surfers operating in a highly energized surf zone.

3.4.3 Motorized Personal Watercraft Zone Boundary Changes (Proposed Update)

3.4.3.1 Alternative A

Under the no action alternative, NOAA would continue to implement the existing sanctuary regulations that establish boundaries for four motorized personal watercraft zones in the sanctuary. The current zone boundaries are listed at 15 CFR Part 922 Subpart M, Appendix E. NOAA established these zones in 1992 to safeguard marine wildlife and habitats from the unique capability of motorized personal watercraft to sharply maneuver at high speeds in the ocean environment and freely access remote and sensitive marine habitat areas. NOAA established the zones near each of the four harbors in the sanctuary where motorized personal watercraft typically launch: Half Moon Bay, Santa Cruz, Moss Landing, and Monterey. NOAA currently maintains 15 buoys and mooring stations within the sanctuary to implement the current zone boundaries.

3.4.3.2 Alternative B

Alternative B is the same as Alternative A.

3.4.3.3 Alternative C (Preferred)

Under Alternative C, NOAA would amend the sanctuary regulations to modify the boundaries of the four motorized personal watercraft riding zones. The proposed modifications would reduce the number of deployed boundary buoys from 15 to nine and reduce associated navigational hazards, aesthetic impacts, and mooring failures that create public safety hazards, marine debris, seafloor impacts, and excessive maintenance

effort. The current zone boundaries were delineated without consideration of practical matters such as buoy station integrity or sustainability. As a result, current zone boundary buoys stationed off rocky points have experienced repeated mooring failures due to heavy wave diffraction/reflection, abrasive and mobile rocky substrate impacts on mooring tackle, and lack of soft sediments for secure anchor set. Deeper moorings have repeatedly failed due to suspected interactions with vessels and commercial fishing gear. Failed moorings cause deposition of chain and anchors on the seafloor and pose a hazard to mariners and the public from drifting buoys. Even when buoys hold station, they could present navigation obstacles and affect visual aesthetics.

NOAA proposes to change the size and shape of the four zones at Half Moon Bay, Santa Cruz, Moss Landing, and Monterey, while maintaining the original intent of the zones: *to provide recreational opportunities for motorized personal watercraft within the sanctuary, while safeguarding sensitive sanctuary resources and habitats from unique threats of disturbance by these watercraft*. NOAA proposes to reduce the number of boundary buoys by utilizing more existing marks and geographical features (e.g., U.S. Coast Guard navigational buoys and points of land), with a goal of reducing navigational hazards, mooring failures, and aesthetic impacts. NOAA also proposes to reconfigure the zones to be smaller and closer to shore in order to aid zone enforcement, allow for more secure shallower mooring depths, and support visual surveys of zone use, as described in the draft revised sanctuary management plan.

Each zone would remain in its current geographical area, with the following changes:

Half Moon Bay Zone

Modify the year-round Half Moon Bay zone to use U.S. Coast Guard red bell buoy “2” and U.S. Coast Guard green gong buoy “1S” as boundary points instead of current MBNMS buoys PP2 and PP3. By re-shaping the current zone from a parallelogram to a concave pentagon, the zone’s general position south of Pillar Point Harbor would be maintained, the zone area would increase by 9% (from 0.87 sq mi to 0.96 sq mi), and two buoys would be permanently removed from the waterway.

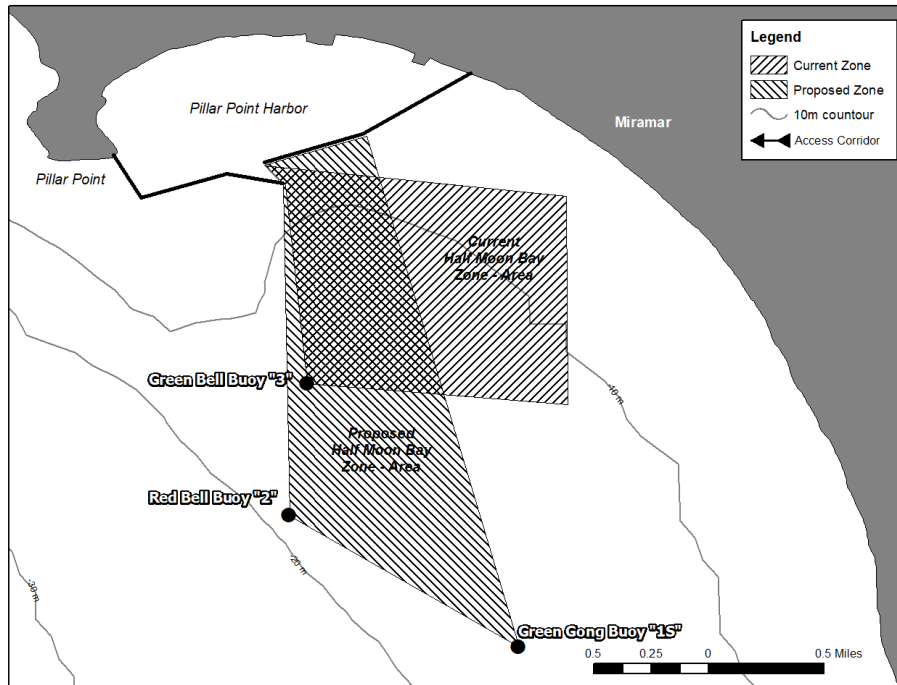


Figure 2. Map of Proposed Boundary Changes to Zone 1 at Half Moon Bay

Santa Cruz Zone

Modify the year-round Santa Cruz zone to use U.S. Coast Guard red/white whistle buoy “SC” as a boundary point instead of current MBNMS buoy SC7. By re-shaping the current zone from a rectangle to a parallelogram, the zone position would rotate 45° clockwise to the NE and the zone area would be reduced by 59% (from 6.36 sq mi to 2.63 sq mi). One MBNMS buoy would be permanently removed from the waterway, one buoy would remain on station, and two buoys would be redeployed to shallower depths. The redistributed buoys would be positioned within better visible range of one another, in softer sediments, and away from rocky points.

These proposed reconfigured zone boundaries would shift the zone closer to shore, providing motorized personal watercraft operators easier and quicker access to the riding area and improved safety. In addition, the transit route to the zone from the entrance of the Santa Cruz Small Craft Harbor would be reduced from 1.35 miles to 0.5 miles, providing a 66% shorter route and transit time for motorized personal watercraft operators.

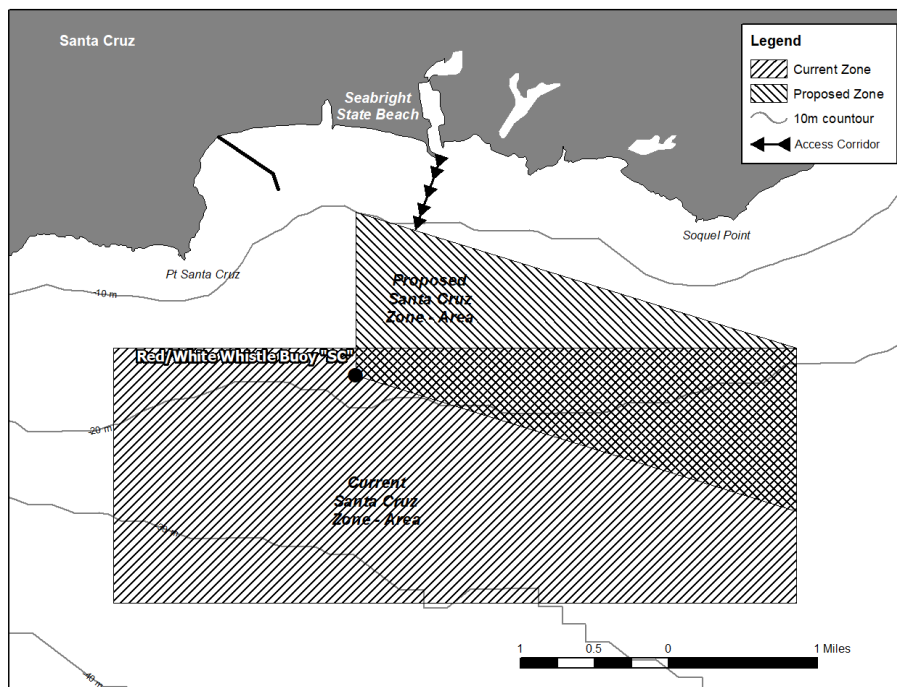


Figure 3. Map of Proposed Boundary Changes to Zone 2 at Santa Cruz

Moss Landing Zone

Modify the year-round Moss Landing zone to eliminate current MBNMS buoys ML4 and ML5. By re-shaping the current zone from an irregular hexagon to a trapezoid, the eastern portion of the zone would remain in its current position, the zone area would be reduced by 72% (from 8.10 sq mi to 2.29 sq mi), and two MBNMS buoys would be permanently removed from the waterway.

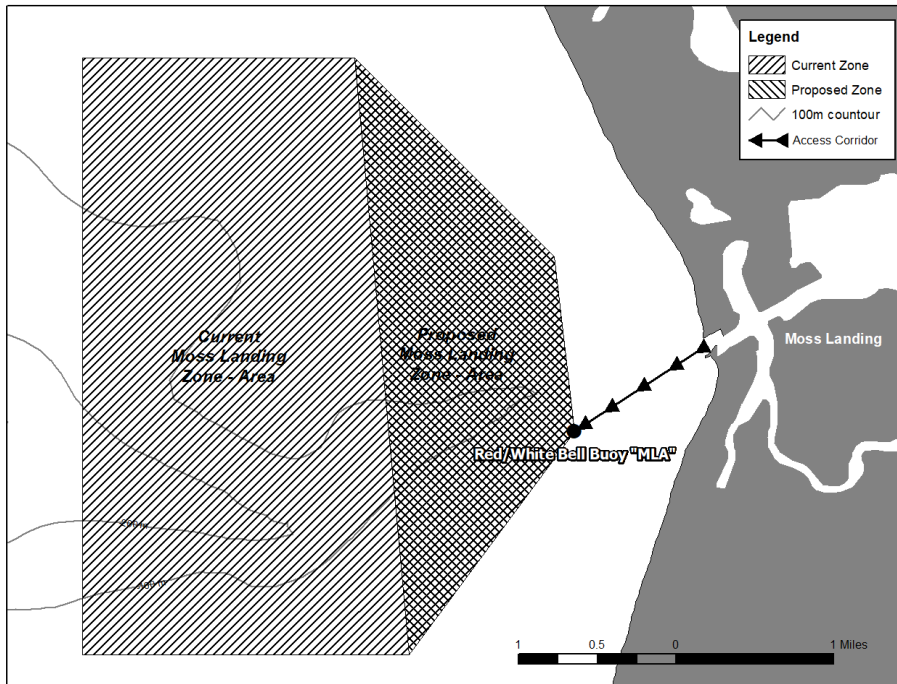


Figure 4. Map of Proposed Boundary Changes to Zone 3 at Moss Landing

Monterey Zone

Modify the year-round Monterey zone to use U.S. Coast Guard red bell buoy “4” as a boundary point instead of MBNMS buoy MY3. By re-shaping the current zone from a trapezoid to a parallelogram, the zone position would rotate 90° clockwise to the NE, and the zone area would be reduced by 51% (from 6.36 sq mi to 3.10 sq mi). One MBNMS buoy would be permanently removed from the waterway, one buoy would remain on station, and two buoys would be redeployed to shallower depths. The redistributed buoys would be positioned within better visible range of one another, in softer sediments, and away from rocky points and popular commercial squid fishing grounds.

The length of the prescribed zone transit route from Monterey Harbor would decrease from 1.00 mile to 0.77 mile, reducing the length of the transit corridor by 23% and facilitating more immediate access to and from the harbor by motorized personal watercraft operators. In addition, the transit corridor would be rotated 52° further east from the harbor entrance, away from the predominant marine traffic pattern to/from the harbor.

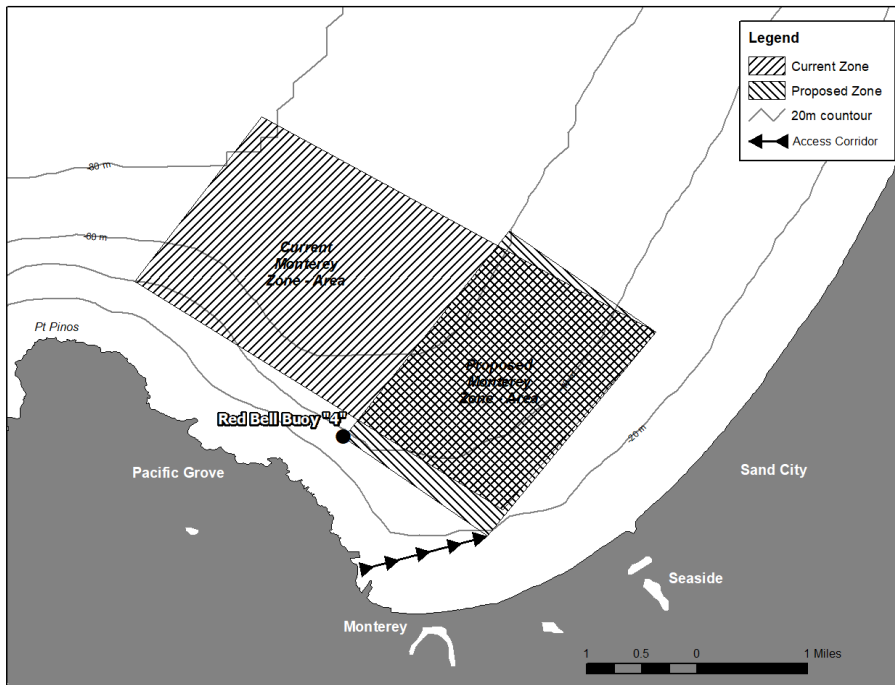


Figure 5. Map of Proposed Boundary Changes to Zone 4 at Monterey

3.4.4 Technical Correction (Alternative C)

Under Alternative C, NOAA proposes to make a minor technical revision to the sanctuary-wide regulations at 15 CFR § 922.132(c)(1) to correct an error. This regulation

currently states, in part, that a list of exempted Department of Defense activities at the Davidson Seamount Management Zone is published in the final EIS for the 2008 MBNMS management plan review and regulatory changes. Due to an administrative error, this list of exempted activities (identified in a December 18, 2006 letter to NOAA from the U.S. Air Force 30th Space Wing), though affirmed by NOAA, was not included in the 2008 final EIS as intended. The MBNMS superintendent subsequently confirmed in a January 5, 2009 letter to the U.S. Air Force 30th Space Wing that NOAA acknowledged the list of exempted activities as valid from the effective date of inclusion of the Davidson Seamount Management Zone within MBNMS (March 9, 2009). This letter also stated that NOAA would correct the administrative record and regulations to properly document the exempted Department of Defense activities within the Davidson Seamount Management Zone. This correspondence between MBNMS and the U.S. Air Force 30th Space Wing is included in **Appendix E**. Accordingly, NOAA proposes to modify 15 CFR § 922.132(c)(1) by replacing “2008 Final Environmental Impact Statement” with the phrase “2020 Environmental Assessment for the MBNMS Management Plan Review.”

Appendix E of this EA serves as the published list of exempted Department of Defense activities within the Davidson Seamount Management Zone referenced and confirmed by the January 5, 2009 letter to the U.S. Air Force 30th Space Wing from the MBNMS superintendent. As such, the proposed technical correction is not further analyzed in this EA because it is purely administrative and would not result in any environmental effects.

3.5 Summary of Alternatives

Alternative A: The no action alternative would allow many current programs and functions (administration, resource protection, research, education and outreach, and maritime heritage) to continue, but would not address a suite of new environmental concerns and programs that were identified as priority management topics during public scoping. The no action alternative would not provide an opportunity for MBNMS to update the management plan and regulations as needed to fulfill the purposes and policies of the NMSA, as required by Section 304(e) of the NMSA (16 U.S.C. § 1434(e)). As such, the no action alternative would not adequately address the purpose and need for this action.

Alternative B: Alternative B would address the following needs of MBNMS: (1) updating an out-of-date management plan to address issues that have emerged since the publication of the 2008 sanctuary management plan; (2) filling data gaps critical to furthering resource protection goals; and (3) incorporating the use of new technologies into research, monitoring, and outreach. Alternative B would meet the purpose and need of this proposed action in a non-regulatory manner compatible with the existing programs, policies, and regulations of MBNMS, as well as those of key ocean management and conservation partners in the region. However, Alternative B would not enable NOAA to update the sanctuary regulations as necessary to fulfill the purposes and

policies of the NMSA, as required by Section 304(e). In this way, Alternative B would not allow MBNMS to fully meet the purpose and need of the proposed action.

Alternative C: Alternative C (Preferred Alternative) would include many of the same components as Alternative B, including: (1) a revised sanctuary management plan and (2) continued field activities to manage the sanctuary. In addition, Alternative C would allow NOAA to meet the purpose and need of the proposed action by incorporating the management plan changes in Alternative B and proposing regulations that would address several resource protection concerns at MBNMS. If finalized, the proposed regulatory changes would:

- make available an additional option for addressing shoreline erosion in the sanctuary by clarifying NOAA’s ability to identify and permit application of clean dredged material suitable for beach nourishment;
- allow modest increased access for motorized personal watercraft users at the Mavericks surf zone (Zone 5) by reducing the requirement of High Surf Warning conditions to High Surf Advisory conditions;
- improve buoy station integrity and reduce the likelihood of detached buoys by changing the configuration of four motorized personal watercraft zones; and
- rectify an omission of Department of Defense’s exempted activities in the 2008 final EIS.

In sum, implementing Alternative C would enable NOAA to revise the management plan and propose updates to the regulations as necessary to fulfill the purposes and policies of the NMSA, as required by Section 304(e) of the NMSA (16 U.S.C. § 1434(e)).

3.6 Alternatives Identified but Removed from Consideration

This section summarizes the management plan activities and regulatory changes that the public raised during scoping or NOAA considered internally, but that NOAA removed from further consideration in this proposed action. The majority of the topics identified through public scoping are addressed in some manner in the draft revised sanctuary management plan and proposed regulations. However, a few topics raised during public scoping were not incorporated into the alternatives analyzed in this draft EA. NOAA could consider any of these eliminated topics during future sanctuary management plan reviews.

NOAA eliminated topics from further consideration for the following reasons:

- lack of feasibility;
- failure to fulfill the stated purpose and need of the proposed action;
- other regulatory agencies could provide a more direct response to the environmental concern;

- the topic needs further analysis beyond the scope of this management plan review process; or
- based on recommendations and feedback from the MBNMS Advisory Council.

3.6.1 Boundary Expansion to the South and Clarification of Shoreward Boundaries

Several public comments requested that NOAA expand MBNMS to the south if the proposed Chumash Heritage National Marine Sanctuary nomination does not progress. The Chumash Heritage nomination is still under consideration by NOAA. For additional information regarding the current status of the Chumash Heritage nomination, please see <https://nominate.noaa.gov/nominations/>. Given that NOAA is still considering this nomination, it is too early to determine whether this area should be included within MBNMS's boundary. The expansion of MBNMS to the south could be considered, as applicable, after a decision is made regarding the Chumash Heritage nomination.

Additional public comments discussed better defining the sanctuary's boundary lines across entrances to annual/seasonal streams and lagoons. In considering these comments, NOAA determined the current boundary of MBNMS is sufficient for management purposes and therefore changes to the shoreline boundaries are not needed. NOAA did not further analyze this topic in the alternatives presented in this document.

3.6.2 Boundary Expansion to Include the San Francisco – Pacifica Exclusion Area

On August 7, 2012, NOAA published a notice in the Federal Register requesting public comment on a possible expansion of MBNMS in the San Francisco – Pacifica Exclusion Area off San Mateo County (77 FR 46985). The public comments received during scoping indicated the potential for significant conflict with existing public and private uses of the area. For additional information regarding scoping comments, please see: <https://www.regulations.gov/docket?D=NOAA-NOS-2012-0153>. A comment from the U.S. Coast Guard on the proposed expansion of MBNMS off San Mateo County as well as the proposed expansion of Greater Farallones and Cordell Bank national marine sanctuaries to include an area off of Sonoma and Mendocino Counties (77 FR 75601) indicated that expanding sanctuary discharge regulations to both of the then proposed expansion areas would curtail the U.S. Coast Guard's ability to stay "mission ready" (<https://www.regulations.gov/document?D=NOAA-NOS-2012-0228-0143>).

NOAA acknowledges and supports the U.S. Coast Guard mission to enforce all applicable federal laws, and U.S. Coast Guard activities supporting resource protection, such as emergency oil spill response, and facilitating public and private uses, particularly within national marine sanctuaries. In addition, NOAA recognizes that the U.S. Coast Guard is charged with conducting missions that are of national importance, such as national

security readiness, even if not related to sanctuary management. Though this action could have been included in this sanctuary management plan review with certain exemptions for U.S. Coast Guard discharges necessary to support their mission or other state or local agencies and utilities, NOAA decided not to pursue expanding MBNMS to include the area of San Mateo County. As a result of the comments on expanding MBNMS into the Exclusion Area that identified potential conflict with existing public and private uses of the area, NOAA believes that it would not be feasible to resolve these conflicts while maintaining a high standard of resource protection under the NMSA in that area. NOAA did not further analyze this topic in the alternatives presented in this document.

3.6.3 Fishing Impacts Including Anchovy Management

NOAA received 77 postcards and emails on this topic during the public scoping period. Several comments described an incident that resulted in a loss of forage fish for humpback whales, and suggested that NOAA take steps to reduce the impacts from the anchovy fishing industry on humpback whales. Specifically, a highly publicized incident occurred when a purse seiner was fishing for northern anchovy near feeding humpback whales. The purse seiner captured too many fish causing the vessel to capsize and lose the netted fish. The subsequent mass of dead fish and loss of a food source for humpback whales and other sanctuary animals generated public concern regarding the sustainability of the northern anchovy fishery. NOAA chose to refer this issue to those regulatory agencies whose jurisdictional authority is more appropriate for addressing fishery management issues. MBNMS staff work closely with the National Marine Fisheries Service (NMFS), Pacific Fisheries Management Council (PFMC), and the California Department of Fish and Wildlife (CDFW) on a wide variety of fishery related issues. NOAA did not further analyze this topic in the alternatives presented in this document.

3.6.4 Joint Powers Authority for the MBNMS Advisory Council

Four public comments suggested the MBNMS Advisory Council be decoupled from MBNMS oversight and a Joint Powers of Authority be established so the membership of the advisory council could be selected independent of sanctuary management input. Section 315 of the NMSA describes the responsibilities of sanctuary advisory councils (16 U.S.C. § 1445A), and requires that the advisory councils advise and make recommendations to MBNMS and ONMS, as delegated. As such, this proposal is beyond the scope of the current sanctuary management plan review and rulemaking process. Therefore, NOAA did not further analyze this topic in the alternatives presented in this document.

3.6.5 Motorized Personal Watercraft Safety Training

Concerns for big wave surfers prompted comments for an exemption to current sanctuary regulations for motorized personal watercraft on the water for safety and training purposes. The existing MBNMS regulations allow an individual or entity to apply for a permit to use motorized personal watercraft in the sanctuary for safety training. Consistent permit criteria are applied to entities conducting public safety search and rescue. Any group or organization requesting such a permit would be required to meet the same permit criteria as public search and rescue agencies. NOAA did not further analyze this topic in the alternatives presented in this document.

3.6.6 Install Mooring Buoys at Popular Dive Sites

Comments from divers suggested installation of mooring buoys at several popular dive sites in sanctuary waters. Mooring buoys for dive boats are regularly seen at popular dive sites in other places and can be very beneficial to boaters and the environment since it allows a boater to easily identify the dive site. In addition, in calm water the mooring buoy prevents individuals from anchoring in and potentially disturbing benthic habitats.

At MBNMS, the deep depths coupled with dynamic ocean waves create a situation where buoy chains from the surface to the seafloor would have to carry significant slack. This could result in buoy chains becoming scouring agents along the seafloor during high surf situations. Implementing this proposal would require NOAA to issue permits for seafloor disturbance and to conduct frequent maintenance of buoys and mooring hardware. As a result, NOAA determined that installing moorings would create more of a benthic impact than current anchoring activities. NOAA did not further analyze this topic in the alternatives presented in this document.

3.6.7 Wildlife Disturbance Regulations

Several public comments suggested NOAA establish a regulation that sets a minimum distance for approaching whales. As a result of these comments, the draft revised sanctuary management plan includes many strategies and activities aimed at addressing emerging wildlife disturbances issues including close approaches to marine mammals, turtles, and nesting and roosting birds, and impacts to marine life from underwater sound. Current MBNMS regulations protect these species from “take” as defined in ONMS regulations and from low overflights in specific zones. As a result, NOAA determined that current regulations combined with new action plan strategies in the revised sanctuary management plan would be sufficient for management purposes at this time. NOAA did not further analyze this topic in the alternatives presented in this document.

3.6.8 Topics Removed as a Result of Advisory Council Recommendations Adopted by MBNMS

After the public scoping period, the MBNMS Advisory Council conducted a prioritization process, ranking each issue using the criteria outlined in **Section 3.1**. After subsequent discussions on topics in the middle ranking area, the advisory council recommended MBNMS staff exclude several topics from the proposed action. NOAA adopted that recommendation and did not include the following topics in the development of alternatives:

- **Topic:** Explore the designation of a new overflight zone at Devil’s Slide Rock to protect seabirds.
Rationale: The Greater Farallones National Marine Sanctuary Advisory Council issued a 2017 report (https://nmsfarallones.blob.core.windows.net/farallones-prod/media/archive/manage/pdf/sac/17_02/final_overflight_recommendations011917.pdf) recommending more education and outreach and suggesting a symbol on the aeronautical sectional chart at this location in lieu of a regulation at this time. NOAA is pursuing that recommendation in partnership with the Seabird Protection Network, and will focus efforts in the next few years on monitoring the area to determine if this non-regulatory approach is effective.
- **Topic:** Do not allow/permit desalination.
Rationale: Water supply is a great need for communities along the central coast of California. The sanctuary developed guidelines for permitting the siting and sizing of facilities and is the federal lead for permits and environmental reviews of proposed desalination projects in sanctuary waters.
- **Topic:** Address drought related issues as related to the protection of steelhead.
Rationale: Steelhead protection is more appropriately addressed by NMFS and the state of California.
- **Topic:** Establish a visitor center in Monterey.
Rationale: MBNMS does not currently have the capacity to open a second visitor center in Monterey. MBNMS partners with numerous existing facilities and local organizations to conduct public involvement and outreach regarding the sanctuary in Monterey.
- **Topic:** Increase business representation on the advisory council.
Rationale: The MBNMS Advisory Council is limited to 20 voting seats. There is currently a Business seat as well as seats for Recreation and Tourism, Diving, Agriculture, and Commercial Fishing, which includes all the various business types in the region.
- **Topic:** Monitor for radiation from the nuclear power plant fallout in Fukushima, Japan.
Rationale: Monitoring for radioactive material is currently being conducted by the U.S. Environmental Protection Agency.
- **Topic:** Allow chumming to attract seabirds.

Rationale: MBNMS allows individuals and entities to apply for a permit to use chumming techniques to attract seabirds.

- **Topic:** Expand management focus to include more avian species of concern that use MBNMS resources (e.g., California condors and ashy storm petrels).

Rationale: USFWS and the California Department of Fish and Wildlife currently lead several activities to manage these species and MBNMS staff work collaboratively with them on a variety of projects.

3.6.9 Alternative Regulations

NOAA developed and initially considered several regulatory actions, mostly minor in nature (e.g., clarifications), and presented them to the Sanctuary Advisory Council during the development of the proposed action. The regulatory changes NOAA considered but did not include in the development of the alternatives include:

- **Topic:** Clarification of shoreward boundary lines across seasonal streams and river mouths.

Rationale: The issue is primarily related to the need for seasonal opening of specific rivers and streams to prevent flooding upstream. Current coastal erosion conditions make it difficult to address with regulatory changes, which are not adaptive at the same time scale as environmental conditions. As this proposal is fairly limited in scope, NOAA proposes to work with permittees and local municipalities on identification of these boundaries on a case-by-case basis in lieu of a regulatory change.

- **Topic:** Modification of the definition of motorized personal watercraft to include remotely operated motorized personal watercraft.

Rationale: This is not a current issue in the sanctuary, but is a topic MBNMS staff wished to address in a proactive manner. Remotely operated motorized personal watercraft raise concerns related to wildlife disturbance. However, NOAA concluded that current regulations to address “take” of sanctuary resources are sufficient to address resource protection concerns regardless of the status of the definition.

- **Topic:** Modification of the definition of “motorized aircraft” to include model aircraft and unmanned aircraft.

Rationale: The major concern associated with deployment of drones in MBNMS is the potential for wildlife disturbance. NOAA intends to address potential environmental concerns associated with drones at a higher level. Therefore, MBNMS staff decided to wait before pursuing any action at a sanctuary-level. Current sanctuary regulations prohibit “take” regardless of the type of aircraft or activity conducted. Therefore, MBNMS determined that existing sanctuary regulations are currently sufficient to address this environmental concern, pending further guidance from NOAA.

- **Topic:** Providing a definition for “mean high water.”

Rationale: This term is currently defined, and while not updated regularly, it might prove confusing to have two sources of information with different results based on when updates occur.

- **Topic:** Providing a definition for “emergency.”

Rationale: This mainly occurs when emergency permitting is required. NOAA concluded it would determine what constitutes an emergency and when prohibited activities may occur on a case-by-case basis since each permitting situation is unique.

- **Topic:** Inclusion of a prohibition against tampering with MBNMS signage, buoys, or other property.

Rationale: It was determined there are prohibitions in place, outside of the National Marine Sanctuaries Act, to address this issue.

- **Topic:** A few other potential regulatory changes related to definitions, such as the definition of a cruise ship or what constitutes deserting a vessel or disturbing historical resources.

Rationale: NOAA considered making some changes to definitions in the MBNMS regulations to increase the effectiveness of enforcement efforts for existing regulations. However, after receiving input from enforcement partners, NOAA concluded that it could achieve the desired enforcement outcomes without making changes to the regulations.