
4 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

4.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

This chapter evaluates the environmental consequences of proposed changes to existing NMSA regulations for the Management Plan Update for the CINMS. The environmental impacts of the Proposed Action, Alternative 1, and No-Action Alternative are evaluated in Sections 4.1, 4.2, and 4.3, respectively. A total of 13 proposed regulatory updates or changes are discussed under the Proposed Action within this EIS; a total of 14 proposed regulatory updates or changes are discussed under Alternative 1. Also discussed below are changes to the description of the sanctuary boundary, Department of Defense exemption and requirements language, and CINMS permit procedures and issuance criteria.

Current conditions presented in Chapter 3.0 and conditions under the No-Action Alternative provide a baseline for analysis of the Proposed Action and Alternative 1. Impacts are defined in the following categories:

- Significant adverse impact;
- Significant adverse impact but mitigable to less than significant;
- Less than significant adverse impact;
- No impact; and
- Beneficial impact

To determine whether an impact is significant, CEQ regulations require the consideration of context and intensity of potential impacts (40 CFR 1508.27). Context normally refers to the setting, e.g., local or regional, and intensity refers to the severity of the impact. Impacts can either be direct or indirect, and short-term or long-term. Direct impacts are those caused by implementing the proposed activities that occur at the same time and place as the proposed activities. Indirect impacts are those caused by implementing the proposed activities, but the impacts occur later in time or are farther removed in distance from those activities.

Table 4.0-1 summarizes the environmental impacts associated with the Proposed Action. Text supporting these conclusions is presented below, and mitigation measures are listed for all significant impacts. Mitigation is the reduction or elimination of the severity of an impact. The intention of mitigation is to reduce the effects of an action on the environment.

NEPA, or related requirements, requires additional evaluation of the project's impacts with regards to:

- Significant unavoidable adverse impacts;
- The relationship between short-term uses and long-term productivity;
- Any irreversible or irretrievable commitment of resources (e.g., renewable resources such as wetlands or wildlife habitat);
- Environmental justice; and
- Growth-inducing impacts.

An EIS must describe any significant unavoidable impacts for which either no mitigation or only partial mitigation is feasible. NEPA requires that an EIS also consider the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity. Finally, NEPA requires that an EIS analyze the extent to which the proposed project's effects would involve irreversible or irretrievable commitments of renewable resources (e.g., wetlands, wildlife habitat). A discussion of each of these impacts is discussed in Section 4.4 below.

The socioeconomic impacts of the proposed project are discussed for each proposed regulatory changes, and then summarized in Section 4.5 below. Evaluating and comparing the potential socioeconomic impacts of each alternative involves assessing how implementing the proposed prohibitions would directly and indirectly affect user groups and/or industries, as well as the local economy. In conjunction with evaluating and comparing impacts on the physical, biological, and historical environments, this socioeconomic assessment is an important step in the process of selecting a preferred alternative.

CEQ regulations implementing NEPA also require that the cumulative impacts of a proposed action be assessed (40 CFR Parts 1500-1508). A cumulative impact is an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions" (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over time. CEQ's guidance for considering cumulative effects states that NEPA documents "should compare the cumulative effects of multiple actions with appropriate national, regional, state, or community goals to determine whether the total effect is significant." Cumulative impacts are discussed in Section 4.6 below.

This EIS analyzes regulatory changes, not the action plans proposed in the DMP (Vol. 1). The DMP action plans describe non-regulatory management strategies and actions that Sanctuary staff would use to address various issues identified during the management plan review process. Nested within each action plan is a series of strategies, each of which contains detailed actions Sanctuary staff would take over the next five years in order to meet CINMS goals and objectives. These strategies comprise activities ranging from program planning, budgeting, administrative services, mapping, vessel and aircraft operations, to basic and applied research and monitoring activities, education and outreach services, and advisory body activities. Section 6.03(c)(3)(d) of NOAA Administrative Order 216-6 specifies that these and other administrative or routine program functions that have no potential for significant environmental impacts are eligible for a categorical exclusion. The NMSP has determined that the proposed actions within the DMP (Vol. I) individually and cumulatively will have no potential for significant impact on the environment and, therefore, qualify for a categorical exclusion from NEPA's requirement for conducting an environmental assessment or preparing an EIS. Thus, the DMP's planned activities are not included or analyzed within this DEIS.

4.1 PROPOSED ACTION

4.1.1 Prohibition 1 (Oil and Gas)

Proposed revisions to Prohibition 1 regarding oil and gas activities (15 CFR 922.71(a)(1)), would yield a regulation nearly identical to the existing regulation except that outdated language related to cleanup equipment requirements for potential oil spills would be deleted.

4.1.1.1 Effects on Physical, Biological and Historical Resources

Because the proposed revision to Prohibition 1 would not result in any physical effects on the environment, there would be no impacts on the physical or biological environment, or on historical resources within the Sanctuary.

4.1.1.2 Socioeconomic Effects

The proposed revisions to Prohibition 1 would not create any new requirements for the oil and gas industry, but rather would simply eliminate from the regulation the outdated and unnecessary spill response equipment requirements. Oil and gas operations would, however, continue to be required to adhere to current standards and follow current procedures for cleanup of oil spills as stipulated in CERCLA and other federal, state and local regulations, although this would not be stipulated by the Sanctuary's regulations. Therefore, implementation of revised Prohibition 1 would have no impact on offshore oil and gas operations. In addition, no other human uses would be affected by revisions to Prohibition 1.

Table 4.0-1 Summary of Impacts Under the Proposed Action

Legend	Physical Environment	Biological Environment	Cultural/Historical Resources	Human Use												
				Oil & Gas	Tele-communications	Minerals Mining	Vessels & Harbors	Commercial Fishing	Recreation & Tourism (consumptive and non-consumptive)	Marine Salvage Businesses	Motorized Personal Watercraft	Aviation	Research & Education	Department of Defense		
<ul style="list-style-type: none"> - No impact < Less than significant adverse impact > Significant adverse impact + Beneficial impact <p>Note: Proposed regulatory changes are summarized</p>																
Prohibition 1 (modification): Exploring for, Developing, or Producing Hydrocarbons																
Remove outdated and unnecessary oil spill contingency equipment requirements for offshore oil industry operations at leased areas partially within the Sanctuary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prohibition 2 (new): Exploring for, Developing, or Producing Minerals	+	+	+	-	-	<	-	+	+	-	-	-	+	-	-	-
Prohibition 3 (modifications): Discharging or Depositing																
Specify that the existing exception for discharging or depositing fish, fish parts, or chumming materials (bait) applies only to lawful fishing activity within the Sanctuary	-	+	-	-	-	-	-	-	<	-	-	-	<	-	-	-
Remove an exception for discharging or depositing meals on board vessels	-	+	-	-	-	-	<	<	<	<	-	-	<	-	-	-
Clarify that discharges allowed from marine sanitation devices apply only to Type I and Type II marine sanitation devices	+	+	-	-	-	-	<	<	<	<	-	-	<	-	-	-
Prohibit discharges and deposits of any material or other matter from beyond the boundary of the Sanctuary that subsequently enters the Sanctuary and injures a Sanctuary resource or quality	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Legend	Physical Environment	Biological Environment	Cultural/Historical Resources	Human Use										
				Oil & Gas	Tele-communications	Minerals Mining	Vessels & Harbors	Commercial Fishing	Recreation & Tourism (consumptive and non-consumptive)	Marine Salvage Businesses	Motorized Personal Watercraft	Aviation	Research & Education	Department of Defense
<ul style="list-style-type: none"> - No impact < Less than significant adverse impact > Significant adverse impact + Beneficial impact <p><u>Note: Proposed regulatory changes are summarized</u></p>														
Prohibition 4 (modification): Altering the Seabed														
Extend from 2 NM to 6 NM from Islands the existing prohibition on alteration of the submerged lands of the Sanctuary	+	+	+	-	<	<	-	+	+	-	-	-	+	-
Prohibition 5 (new): Abandoning any structure, material or other matter on or in the submerged lands of the Sanctuary	+	+	+	-	-	-	<	+	+	+	-	-	+	-
Prohibition 6 (modification): Nearshore Operation of Vessels														
Prohibit vessels of 300 gross registered tons or more (excluding fishing and kelp harvesting vessels) from approaching within 1 NM of the Islands	+	+	+	-	-	-	-	+	<	-	-	-	<	-
Prohibition 7 (modification): Disturbing a Seabird or Marine Mammal by Aircraft Overflight – minor wording changes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prohibition 8 (modification): Moving, Removing, or Injuring a Historical Resource														
Revise and strengthen to prohibit “moving, possessing, injuring or attempting to move, remove, or injure any Sanctuary historical resource”	-	-	+	-	-	-	-	-	+	-	-	-	+	-
Prohibition 9 (new): Taking a Marine Mammal, Sea Turtle, or Seabird except as authorized under the Marine Mammal Protection Act, the Endangered Species Act, or the Migratory Bird Treaty Act	-	+	-	-	-	-	-	-	+	-	-	-	+	-

Legend	Physical Environment	Biological Environment	Cultural/Historical Resources	Human Use											
				Oil & Gas	Tele-communications	Minerals Mining	Vessels & Harbors	Commercial Fishing	Recreation & Tourism (consumptive and non-consumptive)	Marine Salvage Businesses	Motorized Personal Watercraft	Aviation	Research & Education	Department of Defense	
<ul style="list-style-type: none"> - No impact < Less than significant adverse impact > Significant adverse impact + Beneficial impact <p><u>Note: Proposed regulatory changes are summarized</u></p>															
Prohibition 10 (new): Possessing Marine Mammals, Sea Turtles, or Seabirds except as authorized under the Marine Mammal Protection Act, the Endangered Species Act, or the Migratory Bird Treaty Act	-	+	-	-	-	-	-	-	-	+	-	-	-	+	-
Prohibition 11 (new): Protection of Sanctuary Signs and Markers	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
Prohibition 12 (new): Releasing an Introduced Species within or into the Sanctuary	+	+	+	-	-	-	-	+	+	-	-	-	-	+	-
Prohibition 13 (new): Operation of Motorized Personal Watercraft within Channel Islands National Park	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
Sanctuary Boundary Description and Coordinates Clarifications (modifications)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exemptions and Requirements for Department of Defense Activities (modifications)	<	<	<	-	-	-	-	<	<	-	-	-	-	<	-
Permit Procedures and Issuance Criteria (modifications)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

4.1.2 Prohibition 2 (Mineral Activities)

4.1.2.1 Effects on Physical, Biological and Historical Resources

Implementation of Prohibition 2, a prohibition of exploration, development, or production of minerals in the Sanctuary, would protect the physical environment within the Sanctuary from potential negative effects on the seabed and water quality due to mineral mining, and therefore would have a direct long-term beneficial impact on the physical environment. Mineral extraction activities could involve scraping the Sanctuary's seabed surface and/or excavation of pits and tunnels into the seabed. In addition to the physical impacts on the seabed structure, mining could decrease water quality through the discharge of drill cuttings and mud. Discharge of drill cuttings and mud could also increase turbidity that could cause interference with the filtering, feeding, or respiratory functions of marine organisms. Drill cuttings and mud often have elevated concentrations of metals that can be toxic to marine life (e.g., arsenic, mercury). Other potential impacts could include: destruction and direct smothering of the benthic biota; potential harm to fisheries; loss of food sources and habitat for some species; possible lowered photosynthesis and oxygen levels; and degraded appearance of the water itself. Implementation of Prohibition 2 would therefore result in added protection of biological resources such as invertebrates and fishes that utilize benthic habitats and rely on high water quality in the Sanctuary. Implementation of Prohibition 2 also would protect against noise levels associated with mining that could have the potential to disturb seabirds, marine mammals or other organisms. Therefore, Prohibition 2 would result in a direct long-term beneficial impact to biological resources in the Sanctuary. Finally, prohibition of mining within the Sanctuary would reduce the risk of potential disturbance to underwater historical resources either through physical disturbance or increased turbidity, which would result in direct long-term beneficial impact to historical resources. Such protections would be consistent with the Sanctuary prohibition on alteration of or construction on the seabed.

4.1.2.2 Socioeconomic Effects

The proposed new Prohibition 2 would affect the potential for future mineral exploration, production, and development within the Sanctuary boundary to the extent that such activities could potentially have been conducted in compliance with other existing Sanctuary regulations (e.g., see Prohibitions 3 and 4). This activity has not occurred within the Sanctuary, and there is no known present or foreseeable future plan or project to conduct mineral exploration, production, or development within the Sanctuary boundary. Therefore, proposed new Prohibition 2 would have a less than significant adverse impact on this potential human use.

Because implementation of Prohibition 2 would help to protect biological and historical resources, it would have indirect long-term benefits on other human uses such as fishing, recreation, tourism, research, and education. No other human uses would be affected by implementation of Prohibition 2.

4.1.3 Prohibition 3 (Discharging or Depositing)

Prohibition 3 is proposed to remain largely the same as the existing discharge and deposit regulation, with some wording changes aimed at improving clarity of the regulation in a manner consistent with its original intent. There are, however, also some important substantive changes proposed.

- New language clarifying that discharging or depositing of fish, fish parts, or chumming materials (bait) is allowed only if it is from, and conducted during, lawful fishing activities in the Sanctuary;

- A new prohibition on discharging or depositing food waste from vessels; and
- A new prohibition on discharging or depositing any material or other matter outside the Sanctuary that subsequently enters and injures a Sanctuary resource or quality.
- A clarification that the Marine Sanitation Device (MSD) discharge exception from the Sanctuary's discharge prohibition specifically applies to Type I and Type II (U.S. Coast Guard classification) MSDs, and not to Type III MSDs.

Impacts associated with each of these changes are discussed below. The revised regulation would continue other aspects of the current discharge and deposit regulation.

4.1.3.1 Discharging or Depositing of Fish, Fish Parts, or Chumming Materials (Bait)

The new proposed language regarding this exception would specify that the existing regulatory provision that allows for the deposit of fish, fish parts or chumming materials (bait) applies only when such activity is associated with lawful fishing activity, and when such discharge/deposit occurs while conducting lawful fishing activity. This new language would specify that discharging or depositing fish, fish parts, or chumming material (bait) for non-fishing purposes is not allowed in the CINMS.

Effects on Physical, Biological, and Historical Resources

This new language would have a beneficial impact to biological resources of the Sanctuary by preventing discharge or depositing of fish, fish parts, or chumming material (bait) from activities other than fishing, such as dumping of waste fish product, and from fishing that did not occur in the Sanctuary. Such dumping of fish, fish parts, or chumming material could promote negative biological effects associated with fish feeding (e.g., providing unnatural food sources to marine life, altering community structure, and changing species behavior) and could lead to conflicts among uses (e.g., dumping of chum to attract sharks in close proximity to surfers or SCUBA divers). This new language would have no impact on the physical or historical resource environment.

Socioeconomic Effects

This new language would continue to have no impact on lawful fishing in the CINMS because it is complementary to fishing activities. This new language would have less than significant adverse impacts on recreational and research use in the CINMS, as chumming practices for purposes other than fishing (e.g., to attract marine life for research, photography or other recreational purposes) is not known to occur within the Sanctuary. Other uses of the Sanctuary would not be affected by this regulatory change.

4.1.3.2 Discharging or Depositing of Food Waste from Vessels

Addition of human food waste into the Sanctuary provides an artificial source of food and nutrients to fish and other species and can be disruptive to the nutrient cycle and food chain dynamics of the natural ecosystem. Artificial feeding may encourage the growth of fish and invertebrate populations that tolerate and often thrive on artificial food sources, and that sometimes can outcompete other species, thereby reducing overall species diversity in localized areas (Alevizon 2000).

Some commercial and recreational vessels that operate within the Sanctuary currently dispose of their food waste (or meals on board vessels) by dumping it into the ocean. However, vessels are currently restricted from discharging or depositing food waste within 3 NM of land and from discharging or

depositing food wastes unless ground to less than one inch within 3 to 12 NM of land by regulations implementing MARPOL (33 CFR, Part 151 et seq. and see Section 3.4.3.1 for more details). A proposed revised prohibition (Prohibition 3) would require that all vessels either dispose of their food waste as solid waste upon arrival at ports and harbors or properly discharge/deposit their food waste into the ocean beyond the Sanctuary's 6 NM boundary. Therefore, Prohibition 3 would have the effect of extending an absolute prohibition on discharge/deposit of food waste to the Sanctuary area between 3 and 6 NM from the Islands.

Effects on Physical, Biological and Historical Resources

Implementation of Prohibition 3 would have a long-term beneficial impact to biological resources within the Sanctuary by protecting the natural ecosystem from such disruption (the impacts of which are discussed above at 4.1.3.2). The physical environment and historical resources would not be affected by this regulation change.

Socioeconomic Effects

Potential effects on vessel-based commercial or recreational activities would be highest during multi-day trips to the islands or within the Sanctuary. Alternate disposal options for food waste, other than within the Sanctuary, are feasible and affordable. No health standards or hazards would be expected to be violated from retaining food waste on board until appropriate discharge/deposit outside the Sanctuary is possible or upon returning to port. Therefore, less than significant adverse impacts to vessel-based commercial, recreational, and research user groups would occur with implementation of revised Prohibition 3. Implementation of Prohibition 3 also would have indirect long-term benefits on other resource-dependent human uses such as fishing, recreation, tourism, research, and education by preventing disruptions to the nutrient cycle and food chain dynamics of the natural ecosystem.

4.1.3.3 Marine Sanitation Device Discharge/Deposit Exception Clarification

The proposed changes concerning the existing exception for vessel sewage discharge/deposit (biodegradable effluent) from a marine sanitation device provide greater clarity and specificity on the original intent of the regulation. Although the existing regulation requires that vessel wastes be "generated by marine sanitation devices" and this is meant to prohibit the discharge/deposit of untreated sewage into the Sanctuary, the proposed new language provides greater clarity with regard to this by specifying that such discharges/deposits are allowed only if generated by Type I or II marine sanitation devices. Type I and II marine sanitation devices treat wastes, while a Type III marine sanitation device does not.

Effects on Physical, Biological, and Historical Resources

This proposed change would produce a direct long-term beneficial impact to biological resources and the physical environment (water quality) of the Sanctuary, because, in being more clear, it would provide a more effective deterrent to illegal discharges/deposits of sewage into the Sanctuary, thus providing greater protection to these resources and qualities. Historical resources would receive no impact from this proposed regulatory change.

Socioeconomic Effects

The proposed modification to the Sanctuary's discharge/deposit regulation clarifying that discharges/deposits allowed from marine sanitation devices apply only to Type I and Type II marine

sanitation devices is applicable to all vessels operating in Sanctuary waters, but would not actually introduce any new restrictions. This change would clarify the original intent of the Sanctuary's discharge/deposit regulation, which is that raw sewage may not be discharged/deposited from vessels into the Sanctuary, but rather it must first be treated by a marine sanitation device. There is no quantitative data available on the extent of raw sewage discharge/deposit occurring from vessels into Sanctuary waters, but anecdotal information and direct observations of this practice by Sanctuary staff confirm that it does take place. To the extent that this clarification might affect customary though illegal sewage discharge/deposit practices of some vessel operators not using Type I or Type II marine sanitation devices, the effect on those activities is expected to be less than significant. The basis for this is that such discharges/deposits may still legally occur outside the Sanctuary's 6 NM boundary and vessel sewage may be pumped out and disposed of at mainland ports and harbors. In addition, commercial fishing, recreational and tourism use, and research and educational use may receive indirect benefits from this regulatory clarification, especially as it might pertain to preventing large volume discharges from larger vessels, since it may contribute to sustaining favorable environmental quality in their areas of operation.

4.1.3.4 Discharge or Deposit from beyond the Sanctuary

Currently, accidental or intentional discharge/deposit from beyond the Sanctuary boundary of oil, hazardous substances, or other matter from vessels, offshore facilities, or possibly mainland-based sources have the potential to enter and injure a Sanctuary resource or quality. This proposed revision to Prohibition 3 would prohibit the discharge or deposit of any material or other matter that enters the Sanctuary and injures Sanctuary resources or qualities, including oil, hazardous substances, or any other matter.

The NMSA defines "injure" as "to change adversely, either in the short or long-term, a chemical, biological or physical attribute of, or the viability of. This includes, but is not limited to, to cause the loss of or destroy" (15 CFR 922.3). "Sanctuary resource" is defined at 15 CFR 922.3 as "any living or non-living resource of a National Marine Sanctuary that contributes to the conservation, recreational, ecological, historical, research, educational, or aesthetic value of the Sanctuary, including, but not limited to, the substratum of the area of the Sanctuary, other submerged features and the surrounding seabed, carbonate rock, corals and other bottom formations, coralline algae and other marine plants and algae, marine invertebrates, brine-seep biota, phytoplankton, zooplankton, fish, seabirds, sea turtles and other marine reptiles, marine mammals and historical resources." "Sanctuary quality" is defined at 15 CFR 922.3 as "any of those ambient conditions, physical-chemical characteristics and natural processes, the maintenance of which is essential to the ecological health of the Sanctuary, including, but not limited to, water quality, sediment quality and air quality."

Adverse environmental effects may result from incidents originating outside CINMS, such as oil spills, that could introduce harmful substances into the Sanctuary that subsequently cause the injury of Sanctuary resources or qualities. Such incidents would need to be reviewed on a case-by-case basis in order to determine if a Sanctuary resource has been injured by a discharged/deposited substance, and to verify the source of that discharge/deposit.

Types of discharge/deposit that would be excepted from this proposed prohibition are the same as those excepted from the CINMS prohibition on discharges/deposits *within* the Sanctuary. These exceptions are:

- Fish, fish parts or chumming materials (bait) used in or resulting from lawful fishing activity beyond the boundary of the Sanctuary, provided that such discharge or deposit is during the conduct of lawful fishing activity there;

- Biodegradable effluent incidental to vessel use and generated by an operable Type I or II marine sanitation device (U.S. Coast Guard classification) approved in accordance with section 312 of the Federal Water Pollution Control Act, as amended, (FWPCA), 33 U.S.C. sec. 1321 *et seq.* Vessel operators must lock all marine sanitation devices in a manner that prevents discharge of untreated sewage;
- Biodegradable matter from a vessel resulting from deck wash down, vessel engine cooling water, or graywater as defined by section 312 of the FWPCA;
- Vessel engine or generator exhaust;
- Effluents routinely and necessarily discharged or deposited incidental to hydrocarbon exploration, development or production allowed by CINMS regulations; and
- Discharges allowed under section 312(n) of the FWPCA for military vessels.

With this regulation, the activities that result in discharges or deposit outside the Sanctuary would not be directly regulated by the NMSP, but parties responsible for injuries to sanctuary resources or qualities resulting from such activities would be subject to penalty under the NMSA.

Discharge of oil or hazardous substances into the environment is regulated under CERCLA and the FWPCA (as amended by OPA). Under CERCLA, the FWPCA, and section 312 of the NMSA, natural resource trustees, such as NOAA, may seek to recover damages caused by injury to natural resources within the Sanctuary due to direct or indirect discharges of oil and hazardous substances into the Sanctuary. The discharge of fill and dredged material is also regulated under the FWPCA. Implementation of the proposed revised Prohibition 3 would prohibit via regulation subject to civil penalties the discharge or depositing of any matter that causes injury to Sanctuary resources or qualities.

Adding this prohibition to the CINMS regulations would not only provide greater protection for Sanctuary resources and qualities, but would also increase the level of regulatory consistency among national marine sanctuaries. This same prohibition is found in the regulations for several other sanctuaries designated more recently than CINMS. These sites include the Monterey Bay National Marine Sanctuary, Flower Garden Banks National Marine Sanctuary, Stellwagen Bank National Marine Sanctuary, Olympic Coast National Marine Sanctuary, and Florida Keys National Marine Sanctuary.

Effects on Physical, Biological, and Historical Resources

Prohibition 3 would have a direct long-term beneficial impact on biological resources and the physical environment (water quality), because it would act as an additional deterrent of illegal discharge/deposit and subsequent injury to Sanctuary resources or qualities and would also address additional discharges/deposits if they cause injury. This regulation would not affect historical resources.

Socioeconomic Effects

This proposed regulation would except measurable discharges/deposits likely to come from vessels, including: fish, fish parts or chumming materials (bait) used while conducting lawful fishing activity; biodegradable effluent incidental to vessel use and generated by an operable Type I or II marine sanitation device (U.S. Coast Guard classification) approved in accordance with section 312 of the Federal Water Pollution Control Act (33 U.S.C. sec. 1321 *et seq.*); biodegradable matter from a vessel resulting from deck wash down, vessel engine cooling water, or graywater as defined by section 312 of the FWPCA; and

vessel engine or generator exhaust. Other discharges/deposits would only be illegal under this regulation if it could be proved they both entered the Sanctuary and injured Sanctuary resources or qualities. As such, this regulation would have a less than significant adverse impact on vessels, commercial fishing, recreation and tourism, marine salvage, and research and educational human uses adjacent to the CINMS.

4.1.4 Prohibition 4 (Altering the Seabed)

The proposed revised Prohibition 4, which addresses alteration of the seabed, would be similar to the existing regulation except (1) it would expand seabed protection beyond 2 NM off the Islands out to the full extent of the 6 NM CINMS boundary and (2) it would replace the term “seabed” with “submerged lands” to attain consistency with the NMSA. The proposed revised Prohibition 4 would affect the potential for future human uses that might entail alteration of submerged lands beyond 2 NM of the Islands within the CINMS that are not already allowed under Sanctuary regulations (i.e., exploring for, developing, or producing hydrocarbons within the Sanctuary pursuant to leases executed prior to March 30, 1981, and laying of pipeline pursuant to exploring for, developing, or producing hydrocarbons). There is no present activity or known foreseeable future plan or project to alter the submerged lands within the CINMS boundary from 2 to 6 NM offshore, other than oil and gas industry activities already exempted from Sanctuary regulations (see Prohibition 1). Certain activities with the potential to impact the submerged lands of the Sanctuary could be allowed pursuant to a CINMS permit as authorized under the existing regulation (e.g., modification of CINP piers, appropriate research projects, etc.). Exceptions to this regulation would remain unchanged with one exception, and consist of the following:

- anchoring a vessel;
- installing an authorized navigational aid;
- conducting lawful fishing activity;
- laying pipeline pursuant to exploring for, developing or producing hydrocarbons; and
- exploring for, developing or producing hydrocarbons as allowed by Prohibition 1.

The third exception is proposed to be changed from “bottom trawling from a commercial fishing vessel” because not just bottom trawling but also other types of lawful fishing, e.g., pot and trap fishing, could alter the submerged lands.

Effects on Physical, Biological, and Historical Resources

Implementation of Prohibition 4 would protect the physical environment within the CINMS from potential negative effects of alterations on the seabed, island reefs, and water quality, and would therefore have a long-term beneficial impact on the physical environment. In addition to the physical impacts on the seabed or reef structure, some activities that alter submerged lands (e.g., drilling operations) can decrease water quality by increasing turbidity. Therefore, implementation of Prohibition 4 also would result in protection of biological resources such as invertebrates and fishes in the CINMS that utilize the seabed or reef as substrate and rely on high water quality. This would result in a long-term beneficial impact to biological resources. Finally, prohibiting alteration of submerged lands within the CINMS would reduce the risk of potential disturbance to underwater historical resources either through physical disturbance or increased turbidity, thereby having a long-term beneficial impact on historical resources.

Socioeconomic Effects

Because implementation of Prohibition 4 would result in a beneficial impact on physical, biological, and historical resources, it would also provide indirect long-term benefits to resource-dependent human uses such as fishing, recreation, tourism, research, and education. Protection of the seabed will protect benthic habitats that play an important role in the ecosystem, which in turn may provide indirect benefits to ecosystem dependent human uses such as those listed above. This prohibition would not negatively impact lawful commercial and recreational fishing activities since lawful fishing activity is excepted from this prohibition.

Prohibition 4 would have a less than significant adverse impact on potential human uses that may involve alteration of submerged lands within the Sanctuary, as no such activities are not known to be proposed for installation or development within the Sanctuary at this time or in the foreseeable future. Other existing human uses, which do not normally involve, depend upon, or result in alteration of the submerged lands of the Sanctuary, would not be adversely affected by this regulation. Marine salvage operators when engaged in vessel salvage recovery operations would not be adversely affected by this proposed regulation because the operator may apply for a salvage permit. For those entities that do occasionally need to temporarily place materials on the submerged lands of the Sanctuary, such as research entities, the Sanctuary permitting process could be used to potentially allow acceptable activities.

4.1.5 Prohibition 5 (Abandoning)

The proposed new Prohibition 5 would prohibit abandoning any structure, material, or other matter on or in the submerged lands of the CINMS.

4.1.5.1 Effects on Physical, Biological and Historical Resources

This new regulation would protect against abandonment of shipwrecks or other debris. Implementation of Prohibition 5 would protect the physical environment within the CINMS from potential negative effects on the seabed, reefs, and water quality due to abandonment of destructive or potentially polluted matter. It would, therefore, have direct long-term beneficial impact on the physical environment. In addition to the physical impacts on the seabed, abandonment of structures or other matter increases solid waste within the CINMS and could decrease water quality due to leaching of hazardous materials, depending upon the nature of the debris, and increase physical damage and stress on habitats due to smothering and abrasion. Therefore, implementation of Prohibition 5 also would result in protection of biological resources such as invertebrates and fishes in the CINMS that use benthic habitats and/or rely on high water quality. In addition, prohibiting abandonment of matter within the CINMS would reduce the risk of potential disturbance to underwater historical resources through physical disturbance, and would therefore result in a direct long-term beneficial impact to historical resources.

4.1.5.2 Socioeconomic Effects

The NMSP knows of no present activity or foreseeable future plan or project that would result in the expected abandonment of a structure or any other matter within the CINMS boundary. Therefore, Prohibition 5 would have a less than significant adverse impact on human uses within the Sanctuary that require abandonment of structures or other matter.

Protection of the natural habitats within the Sanctuary, free from abandoned wreckage or other debris, can enhance conditions for recreational and commercial users of the Sanctuary, such as those engaged in diving or lawful fishing (especially bottom fishing and trawling operations) or for those engaged in

research of and education about natural marine environments. As such, fishing, recreation and tourism, research and education would experience an indirect long-term beneficial impact from this proposed regulation. In addition, marine salvage businesses engaged in removing wrecked vessels, thus assisting boaters with compliance of Sanctuary regulations, would experience a beneficial impact from this proposed regulation. Other Sanctuary users are expected to experience no impact from this proposed regulation.

4.1.6 Prohibition 6 (Nearshore Operation of Vessels)

Revised Prohibition 6 would expand the Sanctuary's existing vessel regulation, which prohibits cargo carrying vessels and vessels engaged in the trade of servicing offshore installation from within 1 NM of Island shores, by proposing to also apply this prohibition to vessels of 300 gross registered tons or more. This proposed revision prohibits large vessels from coming within close proximity of an Island. An accident involving a large vessel has the potential to cause much greater damage to reefs or other nearshore Sanctuary habitats than an accident involving a smaller vessel. In addition, louder and lower frequency noise levels often are associated with larger vessels and may disturb marine mammals and seabirds on or near the Islands.

Existing exceptions to the vessel operation prohibition would remain in effect, and are the following:

- transporting persons or supplies to or from an Island;
- fishing vessels and kelp harvesting vessels.

4.1.6.1 Effects on Physical, Biological, and Historical Resources

This revised regulation would provide additional protection against grounding accidents of large vessels on the Islands and collisions and potential noise impacts on marine mammals and seabirds. Implementation of Prohibition 6 would protect the physical environment within the CINMS from potential negative effects of accidents on nearshore habitats, and would have a direct long-term beneficial impact on the physical environment. Therefore, implementation of Prohibition 6 also would result in protection of biological resources such as invertebrates and fishes in the CINMS that use the seabed or reef as habitat, seabirds that use Island cliffs and shores, and marine mammals that use beaches, and thus would have a direct long-term beneficial impact on the biological environment. Finally, the proposed additional protection against grounding accidents with large vessels would reduce the risk of potential disturbance to underwater historical resources through physical disturbance and would thus have a direct long-term beneficial impact on historical resources.

4.1.6.2 Socioeconomic Effects

Currently, no known commercial passenger or recreational vessels over 300 gross registered tons approach within 1 NM of the Islands within CINMS. Many cruise ships are larger than 300 gross registered tons, and would be reached by this prohibition, but cruise ships have not been seen within the nearshore waters of the Sanctuary for more than ten years and the NMSP is not aware of any routes close to the Channel Islands planned by the cruise line industry. In addition, access inside of 1 NM from the Islands would be allowed for smaller craft that may be stowed on large vessels located beyond 1 NM (such as Zodiaks or skiffs). Therefore, this regulation would have no impact on current recreational or tourism use but could have less than significant negative affects on potential future uses of the CINMS by some large vessels.

It is unlikely that a marine salvage vessel would ever be large enough to be affected by this prohibition, and in any case the operators of such vessels could apply for a permit. Fishing and kelp-harvesting vessels would remain excepted, as they are under the current regulation. For these reasons, there is no impact expected for the above mentioned uses. However, research vessels of the >300 gross registered ton size class needing to transit within 1 NM of the Islands (an uncommon--less than once per year--but anticipated occurrence) would need to apply for and receive a permit from CINMS, the adverse impact of which is expected to be less than significant.

According to the *Port of Long Beach Master Plan* (POA of Long Beach 2003), the Port Authority plans to expand capacity of the harbor, which will increase both the number and size of vessels that use the Santa Barbara Channel (see Chapter 3.0 for more details). It is reasonable to expect that travel by vessels greater than 300 gross registered tons within the CINMS is a foreseeable future activity, although that activity is expected to remain within the Santa Barbara Channel's vessel traffic separation scheme that passes through the eastern portion of CINMS (and is beyond 1 NM from Island shores) or transit well outside the Channel Islands. As such, Prohibition 6 would have no negative impact on use of the CINMS by large vessel traffic (shipping activity) and associated ports and harbors.

Because implementation of Prohibition 6 would benefit biological and historical resources, it would also have an indirect long-term beneficial impact to other human uses such as fishing, recreation, tourism, research, and education. These uses may benefit from a nearshore marine environment that is not subjected to large-scale vessel groundings, hazardous spills, and/or wildlife disturbance risks that very large vessels can pose. No other existing human uses would be affected by implementation of Prohibition 6.

4.1.7 Prohibition 7 (Disturbing a Seabird or Marine Mammal by Aircraft Overflight)

Revised Prohibition 7—prohibiting disturbance of marine mammals and seabirds from aircraft overflights below 1000 feet within 1 NM of Island shores—would remain essentially identical to the existing regulation except for minor wording changes (see Table 2.1-1) which specify that exceptions to this regulation do not override the obligation to comply with proposed Prohibition 9 (taking a marine mammal, seabird or sea turtle).

4.1.7.1 Effects on Physical, Biological and Historical Resources

The proposed wording changes to this existing regulation would provide no adverse impact on the physical, biological, or historical environment.

4.1.7.2 Socioeconomic Effects

The proposed wording changes to this existing regulation would provide no adverse impact on any of the human uses within the Sanctuary.

4.1.8 Prohibition 8 (Moving, Removing, or Injuring a Sanctuary Historical Resource)

The Sanctuary's existing historical resource protection regulation prohibits "removing or damaging any historical or cultural resource." Revised Prohibition 8 would be very similar to the existing regulation except for: (1) minor wording changes that have no effect on the environment or on human uses; and (2) expanding the range of prohibited actions to include "moving," "injuring" (deleting "damaging") or "possessing," and "attempting to move, remove, injure, or possess" a Sanctuary historical resource.

4.1.8.1 Effects on Physical, Biological, and Historical Resources

By increasing the specificity of prohibited actions, and adding possession and attempts, this revised regulation would become more enforceable and otherwise provide additional protection to Sanctuary historical resources. Revised Prohibition 8, therefore, would have a direct long-term beneficial impact on CINMS historical resources. Added enforceability would serve as an additional deterrent to illegal activities with historical resources in the CINMS. This revised regulation would not affect the physical or biological environment within the CINMS.

4.1.8.2 Socioeconomic Effects

Because removing or damaging a historical resource is prohibited within the Sanctuary, this revised regulation would have no adverse impact on human uses of the CINMS. The added enforceability of this revised prohibition would have an indirect long-term beneficial impact on human uses such as recreation, tourism, research, and education by helping to preserve these resources and leaving them intact for their heritage, educational, and scientific values as well as enjoyment by the general public.

4.1.9 Prohibition 9 (Taking a Marine Mammal, Sea Turtle, or Seabird)

Prohibition 9 is a proposed new Sanctuary regulation that would prohibit the take of any marine mammal, sea turtle, or seabird within or above the Sanctuary except as expressly authorized by the MMPA, ESA, or MBTA. This revised regulation would provide additional protection to marine mammals, sea turtles, and seabirds beyond what is currently afforded.

Per the NMSA regulations, “take or “taking” is defined as follows: (1) for any marine mammal, sea turtle, or seabird listed as either endangered or threatened pursuant to the ESA, to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect or injure, or to attempt to engage in any such conduct; (2) for any other marine mammal, sea turtle, or seabird, to harass, hunt, capture, kill, collect or injure, or to attempt to engage in any such conduct. For the purposes of both (1) and (2) of this definition, this includes, but is not limited to, collecting any dead or injured marine mammal, sea turtle, or seabird, or any part thereof; restraining or detaining any marine mammal, sea turtle, or seabird, or any part thereof, no matter how temporarily; tagging any sea turtle, marine mammal, or seabird; operating a vessel or aircraft or any other act that results in the disturbance or molestation of any marine mammal, sea turtle, or seabird (15 CFR 922.3).

This proposed new regulation would not apply if an activity that might cause take of marine mammals, seabirds, or sea turtles has already been expressly authorized under the MMPA, ESA, or MBTA (e.g., federal- or state-approved fisheries with authorization under those acts). This new regulation would bring a special focus to protection of the diverse and abundant marine mammal and sea bird populations of the Sanctuary as well as the occasional sea turtles present within the CINMS. This regulation, with its focus on protecting populations within the CINMS, is complementary to the jurisdiction and efforts of other resource protection agencies (i.e., NMFS, USFWS, CDFG), as these other authorities must spread limited resources over much wider geographic areas than the CINMS. In addition, this proposed regulation would provide a greater deterrent per the civil penalties in the NMSA, thus assisting in increasing compliance with laws that provide protection to marine mammals, seabirds and sea turtles. This same regulation has been in place at national marine sanctuaries established at Monterey Bay, Stellwagen Bank, Olympic Coast, and the Florida Keys.

Additional exceptions to this proposed Sanctuary “take” prohibition would allow for activities to occur that are:

- necessary to respond to an emergency threatening life, property, or the environment;
- necessary for valid law enforcement activities;
- exempted Department of Defense activities (see Table 2.1-1).

With this proposed regulation, if NMFS or the USFWS issues a permit for the take of a marine mammal, seabird, or sea turtle, it would not be regulated by the NMSP and therefore would not require a permit from the Sanctuary unless the activity would also violate another Sanctuary regulation.

4.1.9.1 Effects on Physical, Biological and Historical Resources

This new regulation would have a direct long-term beneficial impact on biological resources. This regulation would not affect the physical or historical environment within the CINMS.

4.1.9.2 Socioeconomic Effects

Because take of most of these species is already illegal except when expressly authorized by the MMPA, ESA, MBTA, this regulation would have no significant adverse impact on human uses of the CINMS. Because the Sanctuary would not need to authorize take under a CINMS permit for activities permitted pursuant to the MMPA, ESA, or MBTA, this regulation would not impact the permit processes of other agencies (e.g., USFWS, NMFS, CDFG, etc.). In addition, commercial fishing or certain research activities which may involve the occasional take of these species may lawfully operate as such under authorizations granted pursuant to the MMPA, ESA, or MBTA. Further strengthening the prohibition of unpermitted, illegal activities that cause take of these species would have an indirect long-term beneficial impact on human uses such as recreation, tourism, research, and education. For example, the added protection of marine mammals, seabirds, and sea turtles can complement business activities focused on whale watching, kayaking, or other marine excursion tours within the Sanctuary.

4.1.10 Prohibition 10 (Possessing Marine Mammals, Sea Turtles, or Seabirds)

Related to proposed new Prohibition 9, this regulation would prohibit possessing within the Sanctuary (regardless of where taken from, moved, or removed from) any marine mammal, sea turtle, or seabird, except as expressly authorized by the MMPA, ESA, MBTA, or any regulation, as amended, promulgated under the MMPA, ESA, or MBTA. This revised regulation would provide added protection to these species beyond what is currently afforded.

This proposed new regulation would not apply if an activity involves possession of a marine mammal, seabird, or sea turtle the take of which has already been expressly authorized under the MMPA, ESA, or MBTA (e.g., federal- or state-approved fisheries with authorization under those acts). Like proposed Prohibition 9, this new regulation would bring a special focus to protection of the diverse and abundant marine mammal and sea bird populations and the sea turtles of the CINMS. This Sanctuary-focused regulation providing protection to these important species is complimentary to the jurisdiction and efforts of other resource protection agencies (i.e., NMFS, USFWS, CDFG), as these other authorities must spread limited resources over much wider geographic areas than the CINMS. In addition, this proposed regulation would provide a greater deterrent per the civil penalties in the NMSA, thus assisting in increasing compliance with laws that provide protection to marine mammals, seabirds and sea turtles. A similar prohibition has been in place at national marine sanctuaries established at Monterey Bay, Stellwagen Bank, Olympic Coast, and the Florida Keys.

Exceptions to this proposed Sanctuary “possession” prohibition would allow for activities to occur:

- except as in accordance with the scope, purpose, terms and conditions of a National Marine Sanctuary permit issued pursuant to 15 CFR sec. 922.48 and 922.73;
- except for an activity necessary to respond to an emergency threatening life or the environment;
- except for an activity necessary for valid law enforcement purposes in the Sanctuary.

With this proposed regulation, if NMFS or the USFWS issues a permit for the possession of a marine mammal, seabird, or sea turtle, it would not be regulated by the NMSP and therefore would not require a permit from the Sanctuary unless the activity would also violate another Sanctuary regulation.

4.1.10.1 Effects on Physical, Biological and Historical Resources

Like Prohibition 9, this proposed regulation would have a direct long-term beneficial impact on biological resources. This revised regulation would not affect the physical environment or historical resources within the CINMS.

4.1.10.2 Socioeconomic Effects

Because take of these resources is already illegal except when expressly authorized by the MMPA, ESA, or MBTA, this regulation would have no adverse impact on human uses of the CINMS. Because the Sanctuary would not need to authorize possession under a CINMS permit for activities permitted pursuant to the MMPA, ESA, or MBTA, this regulation would not impact the permit processes of other agencies (e.g., USFWS, NMFS, CDFG). As under Prohibition 9, further strengthening the prohibition of unpermitted, illegal activities involving possession of these species would have an indirect long-term beneficial effect on human uses such as recreation, tourism, research, and education.

4.1.11 Prohibition 11 (Tampering with Signs)

Prohibition 11 is a proposed new Sanctuary regulation that would prohibit tampering with signs, notices, placards, monuments, stakes, posts, or boundary markers within the CINMS. This proposed regulation is consistent with regulations adopted for some other national marine sanctuaries. Addition of this regulation would serve as an additional deterrent to violation of the NMSA and its regulations.

4.1.11.1 Effects on Physical, Biological, and Historical Resources

This revised regulation would help to enhance protection and enjoyment of the Sanctuary’s physical environment, biological, and historical resources—in addition to what is currently afforded—by making it illegal to tamper with CINMS signs, monuments, and other markers that are necessary to adequately manage all of the resources and uses within the Sanctuary. As such, this proposed regulation would have an indirect long-term beneficial effect on these resources.

4.1.11.2 Socioeconomic Effects

Existing human uses of the Sanctuary and its facilities neither involve nor are likely to result in damage to Sanctuary signs. As such, this regulation would have no impact on human uses of the CINMS.

4.1.12 Prohibition 12 (Introducing or otherwise releasing an Introduced Species)

Prohibition 12, a proposed new regulation, would prohibit introducing or otherwise releasing from within or into the Sanctuary an introduced species, except striped bass (*Morone saxatilis*) released during catch and release fishing activity. "Introduced species" is defined to mean: (1) species (including but not limited to any of its biological matter capable of propagation) that are non-native to the ecosystem(s) protected by the Sanctuary; or (2) any organism into which genetic matter from another species has been transferred in order that the host organism acquires the genetic traits of the transferred genes. In general, introduced species in the marine environment can threaten the diversity and/or abundance of native marine species, may hamper the ecosystem's ability to support itself, and therefore can adversely impact recreational and commercial activities. This proposed prohibition would help to prevent injury to Sanctuary resources, to protect the biodiversity of the CINMS ecosystems, and to preserve the native functional aspects of the ecosystems.

Introduced species could be introduced and become established in the CINMS from, for example, the release of live bait into the ocean, exchange of ballast water containing introduced species, or if introduced species attach themselves to vessels and subsequently are released within the Sanctuary or release offspring or viable reproductive material into the Sanctuary. For example, DeRivera et al. (2005) identified 16 non-native sessile invertebrates in the Channel Islands region that were originally introduced elsewhere on the west coast through vectors including shipping (hull-fouling), fisheries (accidental introduction via oysters), and ballast water. Release of live bait to the ocean within 3 NM is regulated strictly by the California Fish and Game Commission and CDFG. Implementation of Prohibition 12 would provide an added deterrent and support enforcement of state regulations already in place to prevent release of introduced species to the marine environment, and would extend these protections from the state waters portion of the Sanctuary (0-3 NM) to the outer boundary at approximately 6 NM from Island shores.

The exception for striped bass released during catch and release fishing activity is not anticipated to have an effect on physical, biological and historical resources. Striped bass were introduced to California in 1897 and are managed by the state under the Striped Bass Management Conservation Plan, which considers potential effects of striped bass on other species. (Leet et al. 2001)

This proposed regulation would help prevent unintentional introductions and intentional introductions of introduced species. This proposed regulation is based on a comparable prohibition in place at the Florida Keys National Marine Sanctuary. The Sanctuary staff would keep watch for and be prepared to act on introduced species sightings or elevated risks within or near the Sanctuary (see the Emerging Issues Action Plan in the Draft Management Plan, Vol. I.).

4.1.12.1 Effects on Physical, Biological, and Historical Resources

Implementation of Prohibition 12 would provide added protection to the marine ecosystems from the threat of introduced species introduction, consistent with Executive Order 13112 and other applicable federal and state laws (see also Sec. 5.0). A discussion of the numerous types of adverse impacts that introduced species can have on native coastal marine species is presented at Section 3.5.5. Therefore, Prohibition 12 would have a direct long-term beneficial impact on Sanctuary resources and qualities.

4.1.12.2 Socioeconomic Effects

The release of introduced species is not part of the expected business or operational practices associated with any of current human uses of the Sanctuary. Furthermore, projects involving use or release of

introduced species are not currently proposed within the CINMS, and none are anticipated within the foreseeable future. Therefore, a less than significant adverse impact on foreseeable future human uses of the CINMS would be expected by implementation of Prohibition 12. Implementation of Prohibition 12 is not expected to affect current fishing or boating within the CINMS and as such there would be no adverse impact to these current human uses. This proposed prohibition acknowledges that striped bass are the focus of an established state-managed sport fishery and since they consequently may be caught within the Sanctuary an exception is proposed for striped bass released during catch and release fishing activity. The proposed prohibition would therefore have no impact on the striped bass sport fishery, and supporting businesses, in California.

Prohibition 12 would also have a direct long-term beneficial impact on resource-dependent human uses of the Sanctuary (fishing, recreation, tourism, research, and education) by helping to protect and maintain its native resources and qualities.

4.1.13 Prohibition 13 (Operation of Motorized Personal Watercraft)

Prohibition 13 is a proposed new regulation that would prohibit operation of motorized personal watercrafts (MPWCs) within waters of the Channel Islands National Park, established by 16 U.S.C. sec. 410(ff). Operation of MPWCs within waters of the CINP is already prohibited by the NPS, due to the potential noise impacts on marine mammals and seabirds and potential impacts on water and air quality (36 CFR 3.24).

For purposes of this proposed new regulation, the definition of “motorized personal watercraft” is the same as that provided by the National Park Service (NPS). The NPS definition at 36 CFR 1.4(a) is “a vessel, usually less than 16 feet in length, which uses an inboard, internal combustion engine powering a water jet pump as its primary source of propulsion. The vessel is intended to be operated by a person or persons sitting, standing or kneeling on the vessel, rather than within the confines of the hull. The length is measured from end to end over the deck excluding sheer, meaning a straight line measurement of the overall length from the foremost part of the vessel to the aftermost part of the vessel, measured parallel to the centerline. Bow sprits, bumpkins, rudders, outboard motor brackets, and similar fittings or attachments, are not included in the measurement. Length is stated in feet and inches.”

In combination with the existing NPS ban, this proposed CINMS regulation would provide added deterrence for purposes of ensuring protection of wildlife and habitats within the Sanctuary and Park.

The noise, air, and water quality pollution generated by MPWCs, as well as the nearshore operation of MPWC, may adversely impact the living marine resources within the CINMS through direct disturbances as well as environmental degradation. MPWCs operate in a manner unique among recreational vehicles and pose a threat to wildlife. Their shallow draft enables them to penetrate areas not available to conventional motorized watercraft (NPS 2000, MOCZM 2002). The high speed and maneuverability of MPWCs, along with the tendency to operate them near the shore and in a repeated fashion within a confined area, results in recurring disturbance to animals and habitats (Rodgers and Smith 1997, Snow 1989). Studies have shown that the use of MPWCs in nearshore areas can increase flushing rates, reduce nesting success of certain bird species, impact spawning fish, and reduce fishing success (Burger 1998, Snow 1989). The NPS (2000, 2004) identified several of these impacts along with interruption of normal activity, avoidance and displacement, loss of habitat use, interference with movement, direct mortality, interference with courtship, alteration of behavior, change in community structure, elevated noise levels, and damage to aquatic vegetation. Further, offshore marine mammals or surfacing birds may be unaware of the presence of these vehicles due to their low frequency sound; when the inability to detect the

vehicles is combined with their high speed and rapid and unpredictable movements, both animals and operators are at risk (Snow 1989).

Water quality concerns related to use of MPWC, and in particular those with two-stroke engines, include discharge of oil and gas, and air pollutants. MPWC using two-stroke engines may discharge as much as 25 percent of their gas and oil emissions directly into the water (NPS 2000). Two-stroke engines may also expel lubricating oil as part of their exhaust, and emit air pollutants such as volatile organic compounds, nitrogen oxides, particulate matter, and carbon monoxide (NPS 2004).

A review of information currently available from MPWC manufacturers indicates that they have made efforts to reduce emissions and noise through use of more efficient four-stroke engines as well as other technology (e.g., Bombardier Recreational Products, Inc. 2005a, 2005b; Personal Watercraft Industry Association 2005). However, it is not clear whether such improvements have rendered emission and noise impacts due to motorized personal watercraft insignificant. While industry sponsored studies indicate that MPWCs are no louder than similar motorized vessels under analogous conditions, other studies indicate that because MPWCs travel repeatedly in the same area, continually leaving and reentering the water, they create rapid cycles of noise that disturb humans and wildlife (MOCZM 2002). Industry improvements in noise and other emissions do not address impacts associated with the high speed, maneuverability, shallow draft and nearshore operation of motorized personal watercraft.

In addition to the types of impacts described above, NOAA's review of MPWCs at the Gulf of the Farallones National Marine Sanctuary also identified several other issues pertaining to MPWC:

- MPWCs have been operated in such a manner as to create a safety hazard to other nearby resource users.
- MPWCs may interfere with marine commercial users.
- MPWCs may disturb natural quiet and aesthetic appreciation.
- MPWCs have interfered with other marine recreational uses.

4.1.13.1 Effects on Physical, Biological, and Historical Resources

As indicated above, this proposed new MPWC regulation would provide added deterrence for purposes of ensuring protection to the Sanctuary's biological resources and habitats. This would provide a direct long-term beneficial impact to these resources, and cause no impact to historical resources.

4.1.13.2 Socioeconomic Effects

Because this activity is already illegal (36 CFR Part 3 sec. 3.24), this regulation would have no adverse impact on human uses of the Sanctuary. The proposed Sanctuary regulation would provide an additional deterrent to this currently illegal activity.

Further strengthening the prohibition of illegal activities within the CINMS would have an indirect long-term beneficial impact on human uses such as fishing, recreation, tourism, research, and education by helping preserve and maintain biological resources and habitats within the Sanctuary.

4.1.14 Sanctuary Boundary Description Clarification

Clarification of the legal description of the Sanctuary boundary is proposed (see Sec. 2.1.1 and Table 2.1-1). Changes proposed would specify that the submerged lands (i.e., the lands underlying the waters of the Sanctuary) are part of the CINMS boundary. There would be no practical change resulting from this revision because the Sanctuary has administered protective measures for the submerged lands since designation in 1980. The NMSP has authority to include submerged lands as part of national marine sanctuaries and this is reflected in amendments to the NMSA passed in 1984 (16 U.S.C. 1432(3)). This change would thus clarify the CINMS boundary description.

The Sanctuary's outer boundary coordinates and description of the shoreline boundary demarcation are also proposed for technical corrections and clarification. Specifically, the boundary description is proposed to be amended to clearly state that the shoreline boundary is the Mean High Water Line (MHWL) of Island shores. In addition, the list of latitude/longitude coordinates for the outer boundary at approximately six NM from Island shores is proposed to be updated with more accurate information, using the North American Datum of 1983. These technical changes would not significantly affect the actual size of the Sanctuary.

Since designation the area of CINMS has been described as approximately 1252.5 square nautical miles. However, adjusting for technical corrections and using updated technologies, the CINMS area is now calculated as approximately 1243 square nautical miles. The legal description of CINMS is proposed to be updated to reflect this change (see Sec. 2.1.1). This update would not constitute a change in the geographic area of the Sanctuary but rather an improvement in the estimate of its size.

4.1.14.1 Effects on Physical, Biological, and Historical Resources

The proposed boundary description changes and technical corrections to boundary coordinates would have no effect on the physical, biological, or historical environment of the Sanctuary.

4.1.14.2 Socioeconomic Effects

The proposed boundary description changes and technical corrections to boundary coordinates would have no adverse impact on human uses of the Sanctuary.

4.1.15 Department of Defense Activities

The revised language regarding the exemption of Department of Defense (DOD) activities (see Table 2.1-1) from Prohibitions 3 through 13 is more protective of the physical, biological, and historical environments than the original regulation, with the addition of clause (3), which requires that the DOD restore or replace any injured or destroyed Sanctuary resource or quality and mitigate damage, and clause (4), which requires that all DOD activities be carried out in a manner that avoids to the maximum extent practicable any adverse impacts on Sanctuary resources and qualities. This proposed revised regulation would continue to allow most DOD activities within the CINMS.

4.1.15.1 Effects on Physical, Biological and Historical Resources

The exemption language within this proposed revised regulation has the potential to impact the physical environment, biological environment, and historical resources by allowing the continuation of current DOD activities in the CINMS. Many of the military activities conducted today are different than those when the last management plan was developed for the CINMS (1982). The variety of military activities

discussed in Section 3.4.9 potentially have noise impacts (including sonic boom impacts) on Sanctuary wildlife; physical impacts on habitats in the Sanctuary that can cause the destruction or loss of plants, invertebrates, fish, or wildlife; and physical impacts on the seabed, water quality, or air quality. These impacts potentially have indirect impacts on fishing, recreation, tourism, research, and education. However, many of these DOD activities are no longer conducted within the boundary of the CINMS, or only rarely take place within the Sanctuary (see sec. 3.4.9). In addition, all of the military activities discussed in Section 3.4.9 are required to undergo an environmental impact evaluation under the NEPA process—in addition to many permit processes. Furthermore, as explained above, DOD must restore or replace injured or destroyed Sanctuary resources or qualities. Therefore, the DOD regulation would have a less than significant adverse impact on the physical environment, biological environment, and historical resources of the Sanctuary.

4.1.15.2 Socioeconomic Effects

The exemption language within this proposed revised regulation has the potential to impact some resource-dependent uses of the Sanctuary (fishing, recreation, tourism, research and education) by allowing the continuation of pre-existing DOD activities in the CINMS. However, many of these DOD activities are no longer conducted within the boundary of the CINMS, or only rarely take place within the Sanctuary (see Sec. 3.4.9). In addition, all of the military activities discussed in Section 3.4.9 are required to undergo an environmental impact evaluation under the NEPA process—in addition to many permit processes. Therefore, the DOD regulation would have a less than significant adverse impact on fishing, recreation, tourism, research, and educational uses of the Sanctuary. This proposed revised regulation would introduce no added adverse impact on the DOD activities because it retains exemptions for pre-existing military activities and specifies consultation and impact mitigation requirements and the like in a manner consistent with existing requirements in the NMSA. Proposed revised DOD regulation language would not affect other human uses in the Sanctuary.

4.1.16 Regulation on Permit Procedures and Issuance Criteria

The proposed revised permit regulations would maintain the status quo scope of activities for which a permit may potentially be issued (research, education, and salvage), and also add one more such activity category (for activities that will assist in managing the Sanctuary), in effect slightly broadening the types of otherwise prohibited activities for which a permit may be granted. To clarify what information the permit applicant must provide in his/her application the revised permit regulations indicate that in addition to the information listed in 15 CFR 922.48(b), all permit applications must include information the Director of the National Marine Sanctuary Program needs to make the required findings described in 15 CFR 922.73(b) and (c).

The need for this type of information is already implied in the status quo permitting regulation, which tells the Director to evaluate such matters when determining whether to grant a permit. In similar fashion, the proposed revised permit regulations clarify other concepts implicit in the status quo regulation, clarify existing requirements for permit applications found in the Office of Management and Budget approved applicant guidelines (OMB Control Number 0648-0141), and further refine current requirements and procedures from general National Marine Sanctuary Program regulations (15 CFR 922.48(a) and (c)). The intent of these clarifications and refinements is to make the permit regulations easier to comply with and enforce, while maintaining the same basic requirements of the permittee.

4.1.16.1 Effects on Physical, Biological, and Historical Resources

The revised language regarding the procedures and criteria for issuing a CINMS permit for an otherwise prohibited activity strengthens the language in the current regulation, thereby providing more protection to the physical, biological, and historical environments (See Section 2.1.17 and Table 2.1-1). Specifically, criteria were added that must be met to ensure protection of the resources (e.g., the proposed activity must have, at most, only short-term and negligible adverse effects on Sanctuary resources and qualities). These revised permit procedures and issuance criteria would have a direct long-term beneficial impact on these resources.

In addition, it is important to note that proposed activities that would require issuance of a Sanctuary permit also undergo a case-by-case NEPA review to ensure that in addition to Sanctuary permitting criteria, NEPA standards and process, as appropriate, are adhered to for assessing and analyzing potential environmental impacts.

4.1.16.2 Socioeconomic Effects

The revised language is of the same general nature as the language in the current regulation. The revised language would have no adverse impact on human uses in the Sanctuary that require a Sanctuary permit and would be expected to cause no effect on other uses.

4.2 ALTERNATIVE 1

Alternative 1 would be identical to the regulations and impacts described for the Proposed Action, with the exception of the slightly more stringent wording and restrictions described below:

4.2.1 Prohibition 3 (Discharging or Depositing)

Prohibition 3 (Discharging or Depositing) under Alternative 1 would exclude any vessel of 300 gross registered tons or more from discharging or depositing treated sewage waste within the CINMS.

4.2.1.1 Effects on Physical, Biological, and Historical Resources

Prohibition 3 under Alternative 1 would have a direct long-term beneficial impact on biological resources and the physical environment (water quality) because it would prevent large-quantity discharges/deposits of treated sewage, which could adversely affect Sanctuary resources and qualities. This regulation would not affect historical resources.

4.2.1.2 Socioeconomic Effects

Prohibition 3 under Alternative 1 would provide an additional protection to the Sanctuary's water quality by preventing large-volume discharges/deposits of treated sewage wastes (untreated discharges are already prohibited). However, less than significant adverse impacts to large vessel operators would be expected from this vessel restriction because: 1) the presence of such vessels inside CINMS is not common (with the exception of the brief duration that large ships pass through the section of the vessel traffic separation scheme that partially overlaps the eastern edge of the Sanctuary); 2) such discharges/deposits of untreated sewage are already prohibited in the state waters portion of the Sanctuary (from 0-3 NM from shore); and 3) moving beyond the 6 NM Sanctuary boundary before discharging is not expected to be infeasible for such large vessels but may potentially yield minimal additional costs, for

example, fuel and time costs. This regulation would have no adverse impact on other human uses of the CINMS.

4.2.2 Prohibition 6 (Nearshore Operation of Vessels)

Prohibition 6 (Nearshore Operation of Vessels) under Alternative 1 would exclude any vessel of 150 gross registered tons or more from operating within 1 NM of any Island within the CINMS. This would decrease the proposed upper vessel size limit from 300 gross tons (Proposed Action) to 150 gross tons (Alternative 1), thus potentially applying to a greater number of vessels and, as such, further reducing the number and risk of vessel groundings or collisions in sensitive nearshore areas.

As with the Proposed Action, existing exceptions to the CINMS vessel transit prohibition would remain in effect with this alternative, and include the following:

- transporting persons or supplies to or from an Island; and
- fishing and kelp-harvesting vessels (including those used for kelp harvesting).

4.2.2.1 Effects on Physical, Biological, and Historical Resources

Like the proposed action, this revised regulation would provide additional protection against collision and grounding accidents of large vessels on or near the Islands and potential noise impacts to marine mammals and seabirds. Implementation of this regulation would protect the physical environment within the CINMS from potential negative effects of accidents on nearshore habitats, and would have a direct long-term benefit on the physical environment. Therefore, implementation of this regulation would also result in protection of biological resources such as invertebrates and fishes in the CINMS that use the seabed or reef as habitat, seabirds that use Island cliffs and shores, and marine mammals that use beaches, and thus would have a direct long-term beneficial impact on the biological environment. Finally, the proposed additional protection against grounding accidents with large vessels would reduce the risk of potential disturbance to underwater historical resources through physical disturbance and would thus have a direct long-term beneficial impact on historical resources.

4.2.2.2 Socioeconomic Effects

Currently, no known commercial passenger or recreational vessels over 150 gross registered tons approach within 1 NM of the Islands within CINMS. Research vessels of that size class would be required to obtain a permit from CINMS, while fishing and kelp-harvesting vessels would remain exempt. Therefore, this regulation would have no impact on current human use but could affect potential future use of the CINMS by some larger vessels.

This restriction would be expected to have no impacts on human uses since there are currently no known vessels of 150 gross registered tons or greater using the CINMS waters within 1 NM. However, this regulation would be more restrictive to future uses than the Proposed Action. This regulatory change would preclude the potential for large non-cargo vessels to use the CINMS waters within 1 NM. This change, if implemented, would be expected to have greater future beneficial impacts on the physical environment, biological environment, historical resources, recreation, tourism, research, and education than the Proposed Action by protecting the Sanctuary from groundings of large vessels or other accidents.

4.2.3 Prohibition 15 (Lightering)

Prohibition 15 would prohibit lightering (at-sea transfer of petroleum-based products from vessel to vessel) within the CINMS.

4.2.3.1 Effects on Physical, Biological and Historical Resources

This prohibition would help protect Sanctuary resources and qualities from the adverse effects of spillage that may occur during non-emergency lightering operations. This new regulation would provide added protection to the Sanctuary's physical and biological resources by making it illegal to lighter within the CINMS. Although spills have occurred infrequently during lightering (see Section 3.4.1.4), this would eliminate the potential risk of a spill during lightering in the CINMS (except under emergency lightering conditions). As such, this regulation would provide a long-term beneficial impact to the physical and biological resources of the Sanctuary. This regulation would also not affect the historical environment within the CINMS.

4.2.3.2 Socioeconomic Effects

Currently, there are no designated lightering zones within the CINMS, and no otherwise approved lightering activities have taken place within CINMS or are planned to occur. Prohibiting lightering within the CINMS would subsequently have an indirect beneficial impact on human uses such as fishing, recreation, tourism, research, and education in the long-term by preserving and maintaining physical and biological resources within the Sanctuary. Because this activity is currently not being conducted in the CINMS unless in an emergency (which is exempt from this prohibition), this regulation would have no adverse impact on other human uses of the CINMS.

4.3 NO-ACTION ALTERNATIVE

The No-Action Alternative would not update or otherwise change any of the existing regulations for the Sanctuary. All of the existing Sanctuary regulations would remain as they are currently written. This alternative would not allow the NMSP to regulate certain activities that pose a threat to Sanctuary resources, as identified during the public and internal review processes. In addition, with the No-Action Alternative, some outdated information would remain in place for CINMS regulations (e.g., technical description of the boundary, obsolete oil spill cleanup equipment requirements). Therefore, implementation of the No-Action Alternative would be expected to, at best, maintain the status quo environmental condition of the Sanctuary. It is expected, however, that over time the No-Action Alternative would result in adverse impacts to Sanctuary resources and qualities because current management issues as identified during public scoping would not be addressed by Sanctuary management.

Specific impacts resulting from the no action alternative are described below.

4.3.1 Oil and Gas Exploration, Development, and Production

If the outdated portion of the status quo oil and gas regulation remains in place (i.e., the outdated cleanup equipment requirements and standards), it would render that part of the regulation meaningless because other laws and requirements now supercede the Sanctuary regulation's stated standards. While the utility of that portion of the regulation is diminished to a point of uselessness, it also would contribute to potential continued public confusion about what current spill preparedness requirements actually are. However, this outdated language by itself would not actually cause any impacts to the physical, biological

or historical environment of the Sanctuary, and would not cause any adverse socioeconomic impact on users of the Sanctuary.

4.3.2 Exploring for, Developing, or Producing Minerals

If the proposed new prohibition on exploring for, developing, or producing minerals within the Sanctuary, except producing by-products incidental to authorized hydrocarbon production, were not adopted, the Sanctuary could be left vulnerable to the impacts of future minerals mining activities. The potential biological and physical resource impacts of such activities could include: physical impacts on the seabed structure; reductions in water quality through the discharge of drill cuttings and mud; increases in turbidity that could cause interference with the filtering, feeding, or respiratory functions of marine organisms; potential introduction of elevated concentrations of metals (e.g., arsenic, mercury) that can be toxic to marine life; destruction and direct smothering of the benthic biota; loss of food sources and habitat for some species; possible lowered photosynthesis and oxygen levels; and degraded appearance of the water itself. The no action alternative could therefore potentially leave the Sanctuary open to possible significant adverse impacts to the biological and physical environment of the Sanctuary should in the future such activities be proposed and legally approved within CINMS. Similarly, adverse socioeconomic impacts could include degraded fishing conditions due to habitat and water quality impairment, as well as a potential diminishing of aesthetic qualities (i.e., water quality, noise) within the Sanctuary.

4.3.3 Discharging or Depositing Material or Matter

The potential impacts of the no action alternative with regard to the discharge and deposit of material and matter are described below for each of four issues dealt with in the proposed regulatory action: 1) use of marine sanitation devices; 2) fish, fish parts and chumming; 3) food waste from vessels; and 4) discharge or deposit from beyond the Sanctuary.

4.3.3.1 Discharging or Depositing of Fish, Fish Parts, or Chumming Materials (Bait)

Without adoption of the proposed modification to the discharge/deposit regulation specifying that the exception for discharging or depositing fish, fish parts, or chumming materials (bait) applies only to lawful fishing activities within the Sanctuary, the Sanctuary would likely experience such discharge/deposits and could see an increase in this practice if boater visitation rises along with regional population growth. As a result, the no action alternative would leave the Sanctuary open to potential adverse impacts to the biological environment known to be associated with fish feeding (e.g., providing unnatural food sources to marine life, altering community structure, and changing species behavior) and could also experience adverse socioeconomic effects such as possible conflicts among uses (e.g., discharge/deposit of chum to attract sharks in close proximity to surfers or SCUBA divers).

4.3.3.2 Discharging or Depositing of Food Waste from Vessels

Without adoption of the proposed modification to the discharge/deposit regulation specifying that the exception will be removed which currently allows for discharging or depositing food wastes within or into the Sanctuary, the Sanctuary would likely experience such discharge/deposits and could see an increase in this practice if boater visitation rises along with regional population growth. As a result, the no action alternative would leave the Sanctuary open to potential adverse impacts to the biological environment known to be associated with the artificial feeding of marine life, including disruptions to the nutrient cycle and food chain dynamics of the natural ecosystem, a possible increase in fish and invertebrate populations that tolerate and/or may come to thrive on artificial food sources, and a potential

increase in fish and invertebrate populations that can sometimes outcompete other species, thereby reducing overall species diversity in localized areas (Alevizon 2000). Those potential biological impacts could correspond to adverse socioeconomic impacts on human activities within the Sanctuary, such as fishing, recreation, tourism, research, and education, all of which benefit from a healthy natural ecosystem left unimpaired by disruptions to the nutrient cycle and food chain dynamics that can be triggered by food wastes and the introduction of artificial food sources.

4.3.3.3 Marine Sanitation Device Discharge/Deposit Exception Clarification

Without adoption of the proposed modification to the discharge/deposit regulation exception clarifying that discharges allowed from marine sanitation devices (MSDs) apply only to Type I and Type II MSDs, the Sanctuary would likely continue to experience vessel discharges of raw sewage from some boaters who do not understand that Type III MSDs may not legally be discharged in the federal waters portion of CINMS (from 3-6 NM). In other words, maintaining the regulation as it is currently written allows for potential continued confusion with some boaters not understanding the intent of the existing Sanctuary regulation and as a result engaging in raw sewage discharge into Sanctuary waters. The status quo no action alternative therefore continues to leave the Sanctuary exposed to risks posed by raw sewage discharge practices. Such practices could contribute to adverse effects on the physical environment (i.e., degraded water quality) and biological resources (i.e., cumulative pollutant effects on the health of marine life). Adverse socioeconomic impacts on certain uses of the Sanctuary could include both degraded water quality conditions for commercial and recreational fishing and aesthetic impacts affecting recreational (e.g., diving) and tourism use, especially as it might pertain to large volume sewage discharges from larger vessels.

4.3.3.4 Discharge or Deposit from beyond the Sanctuary

Without adoption of the proposed modification to the discharge/deposit regulation prohibiting discharges and deposits of any material or other matter from beyond the boundary of the Sanctuary that subsequently enter the Sanctuary and injure a Sanctuary resource or quality, the Sanctuary could experience associated adverse impacts to its biological and physical environment. In addition, without a legal deterrent the Sanctuary would be less able to influence proposed projects outside the boundary that hold strong potential to cause such discharge/deposit injuries to CINMS resources or qualities. Therefore, depending on the type of incident, the potential adverse impacts to the Sanctuary environment could include impairment of water quality from spills or other harmful discharges or harmful toxic, suffocating or entanglement effects on marine life. In addition, those types of biological and physical impacts could also adversely affect human uses of the Sanctuary, including commercial and recreational fishing, recreational activities, and research and education activities.

4.3.4 Altering the Seabed

Without adoption of the proposed modification to the existing seabed alteration regulation to extent protection from 0-2 NM from the Islands to the entire CINMS, the Sanctuary could experience adverse impacts to its biological and physical environment within the 2-6 NM area. The severity of such impacts would depend on the nature and location of the activity altering the submerged lands but might generally be expected to cause physical damage to benthic habitats, introduce possible impairment to localized water quality (e.g., increased turbidity from drilling operations) that could in turn harm certain fish or benthic invertebrates, and possible damage submerged cultural and historic resources. Socioeconomic adverse impacts from the no action alternative could include the possible introduction of new deepwater obstructions to bottom-tending fishing gear, and the potential loss of opportunity or quality of experience associated with deepwater research of submerged cultural/historic resources.

4.3.5 Abandoning any Structure, Material, or Other Matter on or in the Submerged Lands

Without adoption of the proposed new regulation prohibiting abandoning any structure, material, or other matter on or in the submerged lands of the Sanctuary, the Sanctuary could experience adverse impacts to its biological, physical and historic resources. The severity of such impacts would depend on the nature and location of the activity leading to abandonment and the material or other matter being abandoned. For example, under the no action alternative a large shipwreck containing hazardous cargo potentially could be abandoned on the submerged lands, thus causing a range of physical impacts (destruction of benthic habitat), biological impacts (possible toxic contamination of marine life), impacts to historical resources (damage to existing submerged cultural or historical resource sites), and socioeconomic impacts (impaired fishing conditions, loss of trawling area, dangerous diving hazard, etc.).

4.3.6 Operation of Vessels within 1 NM of Islands

Without adoption of the proposed modification to the existing vessel operation regulation such that the scope is expanded to also prohibit any vessels of 300 gross registered tons or more (while continuing to except fishing vessels, kelp harvest vessels, and vessels transporting supplies to or from an Island) from operating within 1 NM of Island shores, the Sanctuary could experience adverse impacts to its nearshore biological, physical and historic resources.

Large vessels (> 300 gross registered tons) not already explicitly prohibited from operating within 1 NM of the Islands could include, for example, a cruise ship. Although cruise lines are not currently using the nearshore waters of the Sanctuary as a planned destination, such an activity could potentially occur in the future and pose similar grounding risks to Sanctuary resources. The existing regulation, prohibiting vessels carrying cargo, including, but not limited to, tankers and other bulk carriers and barges, or vessels engaged in the trade of servicing offshore installations, would not apply to cruise ships or other types of large vessels. The no action alternative would therefore leave the Sanctuary vulnerable to potential adverse impacts on the physical environment (e.g., reef scarring and habitat destruction from a large vessel grounding), possible adverse impacts to the biological environment (e.g., harm to marine life and seabirds from spilled hazardous substances), and corresponding possible adverse socioeconomic impacts to human uses such as fishing, recreation, tourism, research, and education that would be potentially displaced or impaired by a large-scale vessel grounding, nearshore hazardous spill, and/or associated disturbances to wildlife.

4.3.7 Disturbing a Seabird or Marine Mammal by Aircraft Overflight

Without adoption of the proposed minor modification to the existing regulation prohibiting disturbance of a seabird or marine mammal by flying a motorized aircraft at less than 1,000 feet over the waters within 1 NM of any Island, except to engage in kelp bed surveys or to transport persons or supplies to or from an Island, there would be little or no direct additional impact on the physical, biological, historical, or socioeconomic environment of the Sanctuary. Although the no action alternative would result in this regulation lacking an important clarification explaining that exceptions to this regulation do not override the obligation to comply with proposed Prohibition 9 (taking a marine mammal, seabird, or sea turtle), the status quo regulation would continue to provide the same protection to seabirds and marine mammals as provided by the status quo regulation.

4.3.8 Moving, Removing, Possessing, or Injuring a Sanctuary Historical Resource

Without adoption of the proposed modification to the existing regulation prohibiting moving, removing, or injuring a Sanctuary historical resource, the Sanctuary's submerged cultural and historic resources would be vulnerable to acts not expressly prohibited such as "possessing," "attempting to move," or "attempting to remove" these resources. As such, the no action alternative could result in an adverse impact on historic resources, as well as an adverse socioeconomic impact on recreational users who appreciate visiting or learning about these fragile resources and researchers attempting to study and interpret these sites.

4.3.9 Taking or Possessing a Marine Mammal, Sea Turtle, or Seabird

Without adoption of the proposed new regulation prohibiting taking any marine mammal, sea turtle or seabird in or above the Sanctuary, except as expressly authorized by the Marine Mammal Protection Act, as amended, (MMPA), 16 U.S.C. sec. 1361 et seq., Endangered Species Act, as amended, (ESA), 16 U.S.C. sec. 1531 et seq., Migratory Bird Treaty Act, as amended, (MBTA), 16 U.S.C. sec. 703 et seq., or any regulation, as amended, promulgated under the MMPA, ESA or MBTA, these Sanctuary resources would remain protected but not to the extent possible with this Sanctuary regulation in place. The proposed regulation is intended to afford special protection for and civil penalty deterrence from take of the abundant marine mammal and seabird populations found in the CINMS, as well as special protection for sea turtles occasionally found within the Sanctuary. Thus, the no action alternative would not directly pose a serious risk of adverse impact to these species, but some adverse biological impacts could be possible if appropriate administration and enforcement of the ESA, MMPA and MBTA were not maintained within the CINMS. In addition, adverse socioeconomic impacts associated with the no action alternative would be possible for users dependent upon continued protection of these species within the Sanctuary (e.g., recreation, tourism, research and education), but only under a possible but not expected scenario of unsatisfactory administration and enforcement of the ESA, MMPA, and MBTA within CINMS.

Similarly, without adoption of the proposed new regulation prohibiting possessing within the Sanctuary (regardless of where taken from, moved, or removed from) any marine mammal, sea turtle, or seabird, except as expressly authorized by the MMPA, ESA, MBTA, or any regulation, as amended, promulgated under the MMPA, ESA, or MBTA, these Sanctuary resources would remain protected but not to the extent possible with this Sanctuary regulation in place. The proposed regulation is intended to afford special protection for and civil penalty deterrence from possession of the abundant marine mammal and seabird populations found in the CINMS, as well as special protection for sea turtles occasionally found within the Sanctuary. Thus, the no action alternative would not directly pose a serious risk of adverse impact to these species, but some adverse biological impacts could be possible if appropriate administration and enforcement of the ESA, MMPA and MBTA were not maintained within the CINMS. In addition, adverse socioeconomic impacts associated with the no action alternative would be possible for users dependent upon continued protection of these species within the Sanctuary (e.g., recreation, tourism, research and education), but only under a possible but not expected scenario of unsatisfactory administration and enforcement of the ESA, MMPA, and MBTA within CINMS.

4.3.10 Tampering with Sanctuary Signs

Without adoption of the proposed new regulation prohibiting marking, defacing, damaging, moving, removing, or tampering with any sign, notice, or placard, whether temporary or permanent, or any monument, stake, post or other boundary marker related to the Sanctuary, there would be no expected adverse impact to the biological or historical resources of the sanctuary. To the extent that the physical

environment of the Sanctuary includes signage, the no action alternative could potentially result in adverse impacts from vandalism, theft, or other damage to these signs and markers because there would not be a legal deterrence mechanism as would be provided by the proposed prohibition. If such damages did occur to Sanctuary signs, there could be some temporary minor socioeconomic impact to any users of the Sanctuary dependent upon or interested in learning from the Sanctuary's signage or markers.

4.3.11 Releasing an Introduced Species

Without adoption of the proposed new regulation prohibiting introducing or otherwise releasing an introduced species from within or into the Sanctuary, except striped bass (*Roccus saxatilis*) released during catch and release fishing activity, the Sanctuary environment would be at additional risk of adverse biological impacts from such introductions. Although other laws and regulations establish federal programs to help prevent introduced species introductions via ballast water, and although spawning, incubating or cultivating transgenic and exotic species is prohibited in California marine waters (Fish and Game Code sec. 15007), existing rules do not afford prohibitions against non-transgenic introduced species introductions in state waters, and against any form of introduced species introductions in federal waters of the CINMS. As such, under the no action alternative the Sanctuary would remain vulnerable to introductions that might otherwise be prevented using the legal civil penalty deterrence of the NMSA. Resulting biological impacts are numerous, and presented at Section 3.5.5. Possible socioeconomic impacts associated with the release of introduced species within the Sanctuary are numerous as well, and include such impacts as altering or degrading commercial and recreational fisheries, altering habitat and species assemblages in a manner that degrades non-consumptive recreational or tourism activities such as diving or wildlife viewing, and compromise research and education activities.

4.3.12 Operation of Motorized Personal Watercraft

Without adoption of the proposed new regulation prohibiting the operation of motorized personal watercraft within waters of the Channel Islands National Park, the Sanctuary would still remain legally protected from the adverse impacts of these craft but not to the extent possible with the proposed Sanctuary regulation in place. The intent of this proposed Sanctuary regulation is to augment the Park's enforcement capabilities by providing additional and stronger legal deterrence from higher NMSA penalties levied through an administrative (civil) rather than a criminal process. Thus, the no action alternative would not directly increase adverse impacts to Sanctuary resources and qualities from the MPWC use (see section 4.1.13 for details on those possible impacts), but some adverse biological impacts could be possible if appropriate administration and enforcement of the National Park Service ban within CINP were not maintained. In addition, some adverse socioeconomic impacts associated with the no action alternative would be possible for users dependent upon protection of wildlife that MPWC might disturb or aesthetic conditions that MPWC might disrupt (e.g., recreation, tourism, research and education), but only under a possible but not expected scenario of unsatisfactory administration and enforcement of the National Park Service ban within CINP.

4.3.13 Department of Defense Activities

Without adoption of the proposed modification of the existing regulation pertaining to Department of Defense (DOD) activities, the Sanctuary would be providing DOD an exemption to other CINMS regulations for military operations based on an out-of-date (1982) list of activities. In addition, a no action alternative would mean the current DOD regulation would not be expressly consistent with the NMSA, which has been reauthorized several times since the DOD regulation went into effect (1982). The proposed regulation would require that all DOD activities be carried out in a manner that avoids to the maximum extent practicable any adverse impacts on Sanctuary resources and qualities, and would also

require that in the event of destruction of, loss of, or injury to a Sanctuary resource or quality resulting from an incident, including, but not limited to, discharges, deposits, and groundings, caused by a DOD activity, DOD, in coordination with the NMSP Director, must promptly prevent and mitigate further damage and must restore or replace the Sanctuary resource or quality in a manner approved by the NMSP Director. Because these safeguards to Sanctuary resources and qualities would not be part of the no action alternative, the no action alternative would continue to expose the Sanctuary environment to possible adverse impacts to biological, physical, and historical resources that might be caused by military operations.

4.3.14 Permit Procedures and Issuance Criteria

Without adoption of proposed modifications to the existing permit procedure regulation, the Sanctuary would continue to operate with regulations that do not provide a clear mechanism to guide issuance of permits for activities that would further Sanctuary management. Although the no action alternative would therefore not provide the additional clarity desired and needed, it is not expected that the status quo permit language would necessarily result in adverse impacts to the biological, physical, historical, or socioeconomic environment of the Sanctuary.

4.4 OTHER REQUIRED EIS SECTIONS

4.4.1 Irreversible and Irretrievable Commitment of Resources

No irreversible or irretrievable commitment of Sanctuary natural resources would occur with the implementation of the proposed regulatory changes under the Proposed Action or Alternative 1. The primary focus of these regulations is to enhance and improve management of the Sanctuary and its natural resources, therefore long-term beneficial impacts would be expected upon implementation of these proposed changes under either the Proposed Action or Alternative 1.

4.4.2 Relationship Between Short-Term Costs and Maintenance and Enhancement of Long-Term Productivity

The short-term costs of updating the existing regulations of the NMSA for the CINMS, under the Proposed Action or Alternative 1, would be minor when compared to benefit to Sanctuary resources resulting from improved resource protection and management. Alternative 1 would have higher short-term costs on human uses than the Proposed Action. As described above, the regulatory changes are designed to protect Sanctuary resources as well as to improve management of the area. Therefore, the minor short-term costs incurred from these regulatory updates would be minimal when compared to the long-term benefits under both the Proposed Action and Alternative 1.

4.4.3 Unavoidable Significant Adverse Impacts

As described in Section 4.1, no unavoidable significant adverse impacts were identified for any of the proposed regulatory updates under either the Proposed Action or Alternative 1. The project would instead be expected to have a long-term beneficial impact on the CINMS and its resources and qualities.

4.4.4 Environmental Justice

Environmental justice is defined by the U.S. EPA as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”

The proposed regulatory updates under the Proposed Action and Alternative 1 would have no negative effect on the natural or physical environment or health that would affect minority or low-income populations or children when compared to the general population. The CINMS is an uninhabited region. In addition, the project would *not increase* the risk or rate of environmental hazard exposure by a minority or low-income population; conversely, it would *reduce* those risks within the CINMS boundary by eliminating potential for hazards to occur. Finally, the proposed regulatory updates under both the Proposed Action and Alternative 1 would have less than significant adverse impacts on human use of the Sanctuary. Therefore, no impacts would occur for any issue related to environmental justice.

4.4.5 Growth-Inducing Impacts

Growth inducement encompasses economic or population growth, or the construction of additional housing in the area surrounding the Proposed Action or Alternative 1. The proposed regulatory changes would incur no growth-inducing impacts since the regulatory changes would not affect growth in the Sanctuary and no development is proposed under the Proposed Action and Alternative 1.

4.5 SOCIOECONOMIC IMPACTS SUMMARY (ALL ALTERNATIVES)

User groups potentially affected by the proposed regulatory changes under the Proposed Action or Alternative 1 include: Offshore oil and gas industry, telecommunications industry, minerals mining operations, shipping and other large vessel operators, ports and harbors, commercial fishing industry, recreational users and associated marine recreation and tourism business operations, marine salvage businesses, motorized personal watercraft users, pilots and charter aircraft businesses, research and scientific users, educational users, and the Department of Defense.

As mentioned throughout sections 4.1 and 4.2, there would be either no impacts to human uses of the Sanctuary from the proposed regulatory changes or such impacts would be less than significant. As a result, no significant socioeconomic impacts to any of these user groups have been identified for any of the proposed regulatory changes for both the Proposed Action and Alternative 1. Although the proposed regulations would have the potential to preclude certain *future* uses, such as mineral mining, and the “opportunity cost” of these uses would not be realized, no significant adverse impact would be anticipated since these uses do not currently occur and are generally not anticipated to occur within the CINMS boundary.

4.6 CUMULATIVE IMPACTS

As stated at the beginning of this chapter, CEQ regulations implementing NEPA require an assessment of the cumulative impacts of a proposed action (40 CFR Parts 1500-1508). A cumulative impact is an “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over time, and may be additive, countervailing, or synergistic. There are four types of cumulative effects: single action/additive, single action/interactive, multiple action/additive, and multiple action/interactive. This section identifies potential cumulative impacts from the Proposed Action as a single action, along with potential cumulative impacts that may result from a combination of the Proposed Action and other actions that overlap those of the proposed action, and/or whose impact zones overlap areas occupied by resources affected by the proposed action.

As a single action, the Proposed Action is not likely to have additive cumulative impacts on the Sanctuary environment and may potentially only have very limited additive cumulative effects on human uses of the Sanctuary. In terms of the Sanctuary environment, just as the Proposed Action is a single action that would take immediate effect upon its adoption and be applied consistently thereafter, so would its beneficial impact upon the Sanctuary be achieved immediately and remain consistent thereafter. However, in some instances, such as prohibiting the discharge of meals from vessels and clarifying that the discharge regulation prohibits discharge of untreated sewage, there may be some lag time between the adoption of the Proposed Action and recognizable benefits to the Sanctuary environment. This is not seen as an additive cumulative impact as once beneficial impacts are realized they should remain consistent as long as the suite of regulations contained in the Proposed Action are in effect. As a single action, the Proposed Action may result in some additive cumulative impacts upon existing human uses of the Sanctuary. Potential additive cumulative impacts may result from the prohibition of discharging meals from vessels in the case of Sanctuary users opting to travel outside the Sanctuary boundary solely for the purpose of discharging food wastes. Since other existing federal regulations prohibit the discharge of food from 0 to 3 NM offshore (33 CFR Part 151 *et seq.*), the potential cumulative impacts may result strictly from the requirement that food waste be discharged beyond 6 NM offshore from the Islands rather than merely at 3 NM offshore. Additive cumulative impacts are most plausible for users who engage primarily in multi-day trips within the Sanctuary and could result from the cumulative added costs associated with traveling from 3 to 6 NM offshore to dispose of food waste during individual visits to the Sanctuary over the long-term. However, cumulative additive effects are not likely to result if Sanctuary users opt to hold food wastes on board during their visits to the Sanctuary and subsequently discharge them beyond 6 NM offshore during their final departure from the Sanctuary, or dispose of them appropriately once onshore. No other elements of the Proposed Action are anticipated to have the potential for additive cumulative effects on Sanctuary users. This is because the remaining elements of the Proposed Action that have been identified as having the potential for direct but less than significant adverse impacts on human uses of the Sanctuary are either related to potential human uses of the Sanctuary not presently known to occur (e.g. minerals mining and non-fishing-related discharge of fish, fish parts, or chumming material), or are anticipated to result in no substantive difference from the status quo scenario of lawful activities.

As a single action the Proposed Action has the potential for interactive cumulative impacts on the Sanctuary environment, as well as interactive cumulative impacts on human uses of the Sanctuary. In both cases interactive cumulative impacts are anticipated to be beneficial in nature. As discussed in preceding portions of this section, many elements of the Proposed Action are anticipated to have a beneficial impact on components of the Sanctuary environment. These individual beneficial impacts may cumulatively yield an even greater benefit to the Sanctuary environment as a whole, and in turn may benefit select human uses of the Sanctuary. For example, clarifying that discharges from MSDs are only allowed via operable Type I or Type II (USCG classification) MSDs, prohibiting discharge of food wastes within the Sanctuary, and prohibiting introducing or otherwise releasing introduced species may result in potential benefits to Sanctuary water quality, sustain natural food webs (rather than altering these through anthropogenic food sources), and aid in maintaining a natural community structure within the CINMS ecosystem. Each of these potential impacts is singularly beneficial, but these impacts may interact to sustain a healthier Sanctuary environment than possible through any of the singular impacts alone. In turn, these potential interactive cumulative impacts may potentially foster beneficial impacts to human uses such as commercial fishing, recreational fishing, and non-consumptive recreational activities.

Since cumulative impacts may also result from the Proposed Action coupled with other actions that have the potential to impact the same resources, below is a discussion of other actions which have been completed or are being conducted and that are closely related to the Proposed Action.

- **Federal Marine Reserves and Conservation Areas and CINMS Boundary Expansion.** Two other major projects are being developed by CINMS: the consideration of establishing federal marine reserves within the Sanctuary and a potential boundary expansion for the CINMS. As described in Chapter 1.0 (as well as the Marine Zoning Action Plan and Boundary Evaluation Action Plan in Vol. 1, Draft Management Plan), these processes will be considered separately and evaluated in a separate EIS and SEIS, respectively. Therefore, the cumulative effects of these projects are currently unknown. However, since the regulatory changes proposed here would not affect any of the uses (e.g., fishing) that would occur as a result of designating additional marine reserves in federal waters, and the existing or proposed CINMS regulations would not necessarily apply to an expanded boundary, were the boundary to be expanded, cumulative effects of these projects combined with the proposed regulatory changes would not be considered significant at this time.
- **Pacific Coast Groundfish Fishery Management Plan and Essential Fish Habitat Designation.** A 2000 court order in *American Oceans Campaign et al. v. Daley et al.*, Civil Action No. 99-982 (GK) (D.D.C. September 14, 2000) required the Pacific Fishery Management Council (and several other fishery management councils) to prepare EISs to evaluate the effects of fishing on essential fish habitat (EFH) and identify measures to minimize those impacts, to the extent practicable. In response, in 2005 the National Marine Fisheries Service prepared a DEIS, *Pacific Coast Groundfish Fishery Management Plan Essential Fish Habitat Designation and Minimization of Adverse Impact*. In this DEIS the National Marine Fisheries Service considers: alternatives for designation of EFH, alternatives for designation of habitat areas of particular concern (HAPC), and alternatives for minimization of adverse effects of fishing on EFH, and data gaps. The Pacific Fishery Management's Council's preferred alternative included fishing closures within the federal waters of the Sanctuary previously identified by the California Department of Fish and Game as part of that agency's recommended network of marine reserves and marine conservation areas. Since the Sanctuary's proposed action does not have direct effects on the fishing uses affected by the pending EFH action, cumulative effects of this action with the proposed regulatory changes would not be significant.
- **Channel Islands National Park Management.** Existing NPS regulations in effect at CINP coupled with the Proposed Action would have additive cumulative impacts upon illegal MPWC use as both would ban this activity within waters of the Park, and each regulation has an associated penalty for illegal use. CINP current management, and future implementation of a new General Management Plan currently under development, address the terrestrial management issues for the CINP and develop long-term policy recommendations to enhance the management of the Channel Islands under CINP jurisdiction. Since the CINP and CINMS work closely together in managing the overlapping areas of their jurisdiction, the regulatory updates proposed by the CINMS would complement future management strategies of the terrestrial environment. Cumulatively, interactive beneficial impacts of the two agencies' management plans would be expected to enhance and protect the environment in and around the CINMS.
- **U.S. Navy Point Mugu Sea Range Expansion.** In 2002 the U.S. Navy published a Final Environmental Impact Statement in which they analyzed the impacts of expanding the Naval Air Warfare Center Weapons Division Point Mugu in order to: accommodate Theatre Missile Defense testing and training, to accommodate an increase in Fleet

training exercises and special warfare training, and to modernize facilities at Naval Air Station Point Mugu and San Nicolas Island to support existing and future operations. A current description of Navy activities that may occur within the Sanctuary is described at section 3.5.9 of this DEIS, and a description of the potential impacts of these activities is described at section 4.1.15 of this DEIS.

- **Offshore Oil and Gas Leasing.** Currently, there are 79 Outer Continental Shelf (OCS) oil and gas leases offshore of Southern California. These include 39 producing leases and 36 non-producing leases offshore from San Luis Obispo, Santa Barbara, and Ventura Counties and four producing leases offshore from Los Angeles and Orange Counties. Production from these leases is expected to continue for the next five to 20 years. The Minerals Management Service (MMS) currently has no proposals for decommissioning offshore facilities. Development of the 36 non-producing leases is uncertain due to ongoing litigation. In addition, four undeveloped leases are under appeal. MMS has prepared six Environmental Assessments (EAs) to analyze the environmental impacts of granting lease suspensions for the undeveloped leases and six Consistency Determinations for the California Coastal Commission. If lease suspensions are granted oil and gas exploration may occur within those leases, one of which (the Cavern Point Unit) straddles the Sanctuary's eastern boundary. Exploration activities, depending on how they are conducted, could potentially lead to adverse impacts on Sanctuary resources and qualities (e.g., seismic surveys may possibly result in acoustic impacts on marine life).
- **Port of Long Beach Expansion.** According to the *Port of Long Beach Master Plan* (2003), the Los Angeles Port Authority plans to expand capacity of the harbor, which will increase both the number and size of the vessels that use the Santa Barbara Channel. Because large vessel traffic tends to adhere to the voluntary traffic separation scheme established in the Santa Barbara Channel, and since neither of the associated shipping lanes lies within 1 NM of Islands shores, no cumulative impact on large vessel traffic is expected to result from the Proposed Action coupled with the Port of Long Beach Expansion.
- **Proposed Liquefied Natural Gas Terminals.** Two separate proposals to develop liquefied natural gas terminals to the east of the Sanctuary (outside the Sanctuary boundary) are currently being developed and evaluated. Crystal Energy is proposing to use Platform Grace, an existing oil and gas platform currently owned by Venoco, Inc., as an LNG import and regasification facility. The platform is located approximately 12.1 miles offshore from Ventura County, in federal waters and approximately 10 miles north of Anacapa Island. BHP Billiton LNG International, Inc. submitted a Deepwater Port Act application to the U.S. Coast Guard and the U.S. Maritime Administration (MARAD) and an application for a lease of State lands to the California State Lands Commission to own, construct and operate Cabrillo Port LNG Deepwater Port, to be located about 14 miles off the coast of Ventura County and about 12.43 miles from the nearest CINMS boundary. While neither proposal would overlap with the Proposed Action, both have the potential to result in an impact on Sanctuary resources and qualities either directly, or indirectly. Potential indirect impacts of concern in terms of cumulative impacts would be the potential for increased shipping traffic associated with both proposed facilities. This potential for increased traffic for these facilities coupled with the potential for increased shipping traffic resulting from the Port of Long Beach

expansion could result in additive cumulative impacts upon Sanctuary resources and qualities from large vessel traffic.

- **Proposed Aquaculture Facility.** The Hubbs-SeaWorld Research Institute (HSWRI), with support from ChevronTexaco Environmental Management Corporation and Venoco, Inc., is seeking approvals to operate an experimental marine aquaculture project for three years at Platform Grace, which is located about 12.1 miles offshore from Ventura County, and approximately 10 miles north of Anacapa Island, in federal waters. The potential for release of introduced species from this facility that could subsequently enter the Sanctuary and injure Sanctuary resources or qualities could act against the Sanctuary's Proposed Action in its intent to deter such impacts. The NMSP will have the opportunity to review this and any similar future proposed actions to ensure that the likelihood of releasing introduced species from such facilities is minimal to none.
- **California Legislation on Large Passenger Vessels.** In 2004 the Governor of California signed legislation effective in January 2005 pertaining to discharges from large passenger vessels within the State waters of California (0 to 3 NM offshore). California Assembly Bill (AB) 2672 prohibits such vessels from dumping sewage from toilets within three miles of shore in California waters. In addition, California AB 2093 prohibits large passenger vessels of 300 gross registered tons or more from discharging "graywater" in State waters. Graywater in this case is defined as drainage from dishwashers, showers, laundry, bath and washbasins. AB 2093 also establishes specific reporting requirements for releases of graywater in State waters of the four national marine sanctuaries in offshore from California, including CINMS. No large passenger vessels are currently known to visit the Sanctuary. Should this activity be conducted within the Sanctuary in the future it may yield an additive cumulative impact in terms of large vessel traffic within the Sanctuary, especially when coupled with the potential for increase in large vessel traffic from the Port of Long Beach expansion and proposed liquefied natural gas terminals in the region. There is also the potential for additive cumulative impacts of these State actions coupled with the Proposed Action upon large passenger vessel traffic. Such vessels would not be permitted to approach within 1 NM of shore, would not be allowed to discharge graywater, sewage from toilets, or food waste within 3 NM, and would not be allowed to discharge untreated sewage and food waste from 3 to 6 NM offshore.

While the Proposed Action does in effect overlap with additional applicable Federal and State regulations (see Chapter 5), no other cumulative effects are anticipated. This is due to: the clarifying nature of many elements of the Proposed Action, which are not anticipated to result in any individual nor cumulative new impacts upon existing human uses; the elements of the Proposed Action aimed at prohibiting activities which have not historically, do not currently, and have not been proposed to occur in the foreseeable future (e.g. minerals mining, altering the seabed from 2 to 6 NM offshore) and therefore are not predicted to have individual or cumulative significant impacts on such activities; and those elements of the Proposed Action aimed at complementing existing prohibitions enforced by other agencies, with the intent of adding greater civil penalty deterrence against already illegal activities when they occur within the Sanctuary, or simply to bring greater place-based focus to the importance of protecting the nationally significant resources and qualities of the Channel Islands.

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