

Chapter 2. Project Description

This chapter describes the Proposed Project, which involves designation of MPAs for the north central coast of California under the MLPA and MMAIA. This chapter discusses the project location, goals and objectives, MPAs, and alternatives.

2.1. Project Location

The Proposed Project is located in state waters along the north central coast of California between Alder Creek (about 5 miles north of Point Arena in Mendocino County) and Pigeon Point (San Mateo County) (Figure 1-1). The north central coast study region covers approximately 763 nm² of coastal waters and includes waters and seafloor from the shoreline (mean high tide) to a maximum water depth of approximately 382 ft (63.7 fm, 116 m) off of the Farallon Islands. The north central coast study region does not include San Francisco Bay but does include state waters around the Farallon Islands, which are located 28 miles offshore of the western edge of San Francisco Bay. Estuarine waters are included in Bolinas Lagoon, Drakes Estero, and Tomales Bay, amongst others. The north central coast study region abuts five coastal California counties: Mendocino, Sonoma, Marin, San Francisco, and San Mateo. More detail on the project location is included in Chapter 1.

2.2. Project Goals and Regional Objectives¹

The goals and objectives of the project are listed below:

- **Goal 1:** To protect the natural diversity and abundance of marine life, and the structure, function, and integrity of marine ecosystems.
 - **Regional Objective 1.1:** Protect species diversity and abundance consistent with natural fluctuations by including and maintaining areas of high native species diversity and representative habitats.
 - **Regional Objective 1.2:** Include areas with diverse habitat types in close proximity to each other.
 - **Regional Objective 1.3:** Protect natural size and age structure and genetic diversity of populations in representative habitats.
 - **Regional Objective 1.4:** Protect natural trophic structure and food webs in representative habitats.
 - **Regional Objective 1.5:** Protect ecosystem structure, function, integrity, and ecological processes to facilitate recovery of natural communities from disturbances both natural and human induced.
- **Goal 2:** To help sustain, conserve, and protect marine life populations, including those of economic value, and rebuild those that are depleted.

¹ Adopted by the BRTF on February 14, 2008.

- **Regional Objective 2.1:** Help protect or rebuild populations of rare, threatened, endangered, depleted, or overfished species, where identified, and the habitats and ecosystem functions upon which they rely.
- **Regional Objective 2.2:** Sustain or increase reproduction by species most likely to benefit from MPAs through retention of large, mature individuals.
- **Regional Objective 2.3:** Sustain or increase reproduction by species most likely to benefit from MPAs through protection of breeding, foraging, rearing or nursery areas.
- **Regional Objective 2.4:** Protect selected species and the habitats on which they depend while allowing the commercial and/or recreational harvest of migratory, highly mobile, or other species where appropriate through the use of state marine conservation areas and state marine parks.
- **Goal 3:** To improve recreational, educational, and study opportunities provided by marine ecosystems that are subject to minimal human disturbances, and to manage these uses in a manner consistent with protecting biodiversity.
 - **Regional Objective 3.1:** Ensure some MPAs are close to population centers, coastal access points, and/or research and education institutions and include areas of educational, recreational, and cultural use.
 - **Regional Objective 3.2:** Sustain or enhance cultural, recreational, and educational experiences by improving catch rates, high scenic value, lower congestion, or increased size or abundance of species.
 - **Regional Objective 3.3:** To enhance the likelihood of scientifically valid studies, replicate appropriate MPA designations, habitats or control areas (including areas open to fishing) to the extent possible.
 - **Regional Objective 3.4:** Develop collaborative scientific monitoring and research projects evaluating MPAs that link with fisheries management information needs, classroom science curricula, volunteer dive programs, and fishermen, and identify participants.
- **Goal 4:** To protect marine natural heritage, including protection of representative and unique marine life habitats in north central California waters, for their intrinsic value.
 - **Regional Objective 4.1:** Include within MPAs the following habitat types: estuaries, the intertidal zone at the Farallon Islands, and subtidal waters (including the water column and benthic habitats).

- **Regional Objective 4.2:** Include and replicate to the extent possible [practicable], representatives of all marine habitats identified in the MLPA or the *California MLPA Master Plan for Marine Protected Areas* across a range of depths.
- **Goal 5:** To ensure that California's north central coast MPAs have clearly defined objectives, effective management measures, and adequate enforcement, and are based on sound scientific guidelines.
 - **Regional Objective 5.1:** Minimize negative socioeconomic impacts and optimize positive socioeconomic impacts for all users, to the extent possible, and if consistent with the MLPA and its goals and guidelines.
 - **Regional Objective 5.2:** For all MPAs in the region involve interested parties to help; develop objectives, a long-term monitoring plan that includes standardized biological and socioeconomic monitoring protocols, and a strategy for MPA evaluation, and ensure that each MPA objective is linked to one or more regional [project] objectives.
 - **Regional Objective 5.3:** To the extent possible, effectively use scientific guidelines in the *California MLPA Master Plan for Marine Protected Areas*.
- **Goal 6:** To ensure that the north central coast's MPAs are designed and managed, to the extent possible, as a component of a statewide network.
 - **Regional Objective 6.1:** Develop a process to inform adaptive management that includes stakeholder involvement for regional review and evaluation of management effectiveness to determine if regional MPAs are an effective component of a statewide network.
 - **Regional Objective 6.2:** Develop a mechanism to coordinate with future MLPA regional stakeholder groups in other regions to ensure that the statewide MPA network meets the goals of the MLPA.

2.3. Types of MPAs

An MPA refers to a named, discrete geographic marine or estuarine area seaward of the high-tide line or the mouth of a coastal river, including any area of intertidal or subtidal terrain, together with its overlying water and associated flora and fauna, with regulations that are more restrictive than the general regulations in the general area and that are designed to protect or conserve marine life and habitat. MPAs are primarily intended to protect or conserve marine life and habitat; therefore, they are a subset of marine managed areas (MMAs), which are broader groups of named, discrete geographic areas along the coast that protect, conserve, or otherwise manage a variety of resources and uses, including living marine resources, cultural and historical resources, and recreational opportunities.

MPA designations used during MLPA planning include: state marine reserves (SMRs), state marine parks (SMPs), and state marine conservation areas (SMCAs). The California Fish and Game Commission has the statutory authority to designate SMRs and SMCAs. The third MPA classification, state marine parks, may only be created, modified, or deleted under the authority of the Park and Recreation Commission. Definitions of these MPA types and associated restrictions and allowances are identified in Table 2-1. In addition to having somewhat different purposes, each type of MPA represents a different level of restriction on activities within MPA boundaries. One other MMA is identified in the Proposed Project—a state marine recreational management area (SMRMA). Other categories of MMAs (state marine cultural preservation areas [SMCPAs] and state water quality protection areas [SWQPAs]) are not a part of the Proposed Project.

Definitions of these different types of MPAs and their associated restrictions and allowances are explained in more detail below.

Table 2-1. MPA Definitions, Restrictions, and Allowable Uses

Characteristic	State Marine Reserve	State Marine Park	State Marine Conservation Area ²
Definition	A nonterrestrial marine or estuarine area that is designated so that the managing agency may achieve one or more of the following: <ul style="list-style-type: none"> • protect or restore rare, threatened, or endangered native plants, animals, or habitats in marine areas; • protect or restore outstanding, representative, or imperiled marine species, communities, habitats, and ecosystems; • protect or restore diverse marine gene pools; or • contribute to the understanding and management of marine resources and ecosystems by 	A nonterrestrial marine or estuarine area that is designated so that the managing agency may provide opportunities for spiritual, scientific, educational, and recreational opportunities, as well as one or more of the following: <ul style="list-style-type: none"> • protect or restore outstanding, representative, or imperiled marine species, communities, habitats, and ecosystems; • contribute to the understanding and management of marine resources and ecosystems by providing the opportunity for scientific research in outstanding, representative, or 	A nonterrestrial marine or estuarine area that is designated so that the managing agency may achieve one or more of the following: <ul style="list-style-type: none"> • protect or restore rare, threatened, or endangered native plants, animals, or habitats in marine areas; • protect or restore outstanding, representative or imperiled marine species, communities, habitats, and ecosystems; • protect or restore diverse marine gene pools; • contribute to the understanding and management of marine resources and ecosystems by

² These areas, recommended by stakeholders to become state marine parks, will be designated as state marine conservation areas, and could subsequently be designated also as state marine parks at the discretion of the State Park and Recreation Commission.

Characteristic	State Marine Reserve	State Marine Park	State Marine Conservation Area ²
	<p>providing the opportunity for scientific research in outstanding, representative, or imperiled marine habitats or ecosystems.</p>	<p>imperiled marine habitats or ecosystems;</p> <ul style="list-style-type: none"> • preserve cultural objects of historical, archaeological, and scientific interest in marine areas; or • preserve outstanding or unique geological features. 	<p>providing the opportunity for scientific research in outstanding, representative, or imperiled marine habitats or ecosystems;</p> <ul style="list-style-type: none"> • preserve outstanding or unique geological features; or • provide for sustainable living marine resource harvest.
Restrictions	<p>It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource, except under a permit or specific authorization from the managing agency for research, restoration, or monitoring purposes. While to the extent feasible the area shall be open to the public for managed enjoyment and study, the area shall be maintained to the extent practicable in an undisturbed and unpolluted state. Therefore, access and use (e.g., walking, swimming, boating, diving) may be restricted to protect marine resources.</p>	<p>It is unlawful to injure, damage, take, or possess any living or nonliving marine resources for commercial exploitation purposes. Any human use that would compromise protection of the species of interest, natural community or habitat, or geological, cultural, or recreational features may be restricted by the designating entity or managing agency.</p>	<p>It is unlawful to injure, damage, take, or possess any specified living, geological, or cultural marine resources for certain commercial, recreational, or combination of commercial and recreational purposes. In general, any commercial or recreational uses that would compromise protection of the species of interest, natural community, habitat, or geological features may be restricted by the designating entity or managing agency.</p>
Allowable Uses	<p>Research, restoration, and monitoring may be permitted by the managing agency. Educational activities and other forms of nonconsumptive human use may be permitted by the designating entity or managing agency in a manner consistent with the protection of all marine resources.</p>	<p>All other uses are allowed, including scientific collection with a permit, research, monitoring, and public recreation (including recreational harvest, unless otherwise restricted). Public use, enjoyment, and education are encouraged in a manner consistent with protecting resource values.</p>	<p>Research, education, recreational activities, and certain commercial and recreational harvest of marine resources may be permitted.</p>

Note: These terms are defined in California Public Resources Code Sections 36700 and 36710.

2.3.1. State Marine Reserve (SMR)

In the simplest terms, an SMR prohibits all take, including injury, damage, or possession of any living, geological, or cultural resource. However, scientific collecting by permit may be allowed for the purpose of research, restoration, or monitoring. SMRs must balance protection and access. The form that this balance takes in an individual SMR depends on the goals and objectives. While the MLPA specifically precludes commercial and recreational fishing in SMRs, it also allows for the possibility of restrictions on other activities, including non-extractive activities (e.g., diving, kayaking, snorkeling). Any such restrictions, however, must be based on specific objectives for an individual site and on the best readily available science. It is important to note that this statement does not imply that navigation will necessarily be restricted through MPAs or that other non-extractive activities will be regulated, although in some instances the latter may be necessary. For example, it may be necessary to protect populations of sensitive marine birds or mammals in their nesting or breeding areas by prohibiting access to some areas in the form of special closure areas.

2.3.2. State Marine Park (SMP)

State Marine Parks differ from SMRs in their purposes and types of restrictions. Unlike SMRs, SMPs allow some or all types of recreational activities. The types of restrictions on allowed take may vary with the focal species, habitats, and objectives of an individual SMP within a region. Where the primary goal of MPAs in general is biodiversity conservation, the primary goal of an SMP may be to enhance recreational opportunities. See Table 2-1 for further MPA definitions and uses.

2.3.3. State Marine Conservation Area (SMCA)

State Marine Conservation Areas also differ from SMRs and SMPs in their purposes and types of restrictions. An SMCA allows for some level of recreational and/or commercial take. The restrictions on fishing may vary with the focal species, habitats, and objectives of an individual MPA within a region, and may, for example, be in the form of restrictions on the catch of particular species and/or the use of certain types of fishing gear. SMCAs may be useful in protecting more sedentary, benthic (bottom-dwelling) species, while allowing the harvest of pelagic finfish³ species. Another use of an SMCA could be to allow the continued use of traps, which typically have

³ *Pelagic finfish* are defined in 14 CCR 632 as northern anchovy (*Engraulis mordax*), barracudas (*Sphyraena* spp.), billfishes (family Istiophoridae), dolphinfish (*Coryphaena hippurus*), Pacific herring (*Clupea pallasii*), jack mackerel (*Trachurus symmetricus*), Pacific mackerel (*Scomber japonicus*), salmon (*Oncorhynchus* spp.), Pacific sardine (*Sardinops sagax*), blue shark (*Prionace glauca*), salmon shark (*Lamna ditropis*), shortfin mako shark (*Isurus oxyrinchus*), thresher sharks (*Alopias* spp.), swordfish (*Xiphias gladius*), tunas (family Scombridae), and yellowtail (*Seriola lalandi*).

relatively low bycatch⁴ rates and are more efficient for harvesting some species of invertebrates, while prohibiting the harvest of finfish species of concern by trawls, which typically have relatively high bycatch rates. At present, the large fishery closures known as the Cowcod Conservation Areas and Rockfish Conservation Area (only the latter occurs in the central coast region) may function similarly to marine conservation areas because bottom fishing for many finfish species, including all 90 species of federally-managed groundfish, is prohibited, but other types of fishing are allowed. Because the specific regulations, boundaries, and depth range prohibited for fishing in these areas are subject to change depending on stock assessments, they are more accurately portrayed as traditional fisheries management tools and do not have the same ecosystem benefits as the more continuous protection afforded by MPAs.

2.3.4. State Marine Recreational Management Area (SMRMA)

In an SMRMA, activities that would compromise the recreational value of an area are restricted. Recreational opportunities may be protected, enhanced, or restricted, while preserving the basic resource values of the area in question. SMRMAs, which are marine managed areas but not marine protected areas, are useful management tools in areas where certain recreational use is allowed, but extraction of subtidal living marine resources is prohibited. For example, the use of this designation allows waterfowl hunting, while preserving the subtidal resources in a manner similar to a SMR.

2.3.5. Special Closure Areas

Special Closure Areas are subject to either a seasonal or year-round closure to all access to help protect sea bird nesting, breeding, and roosting areas and/or marine mammal rookeries, haul-out, and breeding colonies. A Special Closure Area is not a MMAs designation. However, Special Closure Areas are established pursuant to Commission authority and are included in MPA proposal for the purpose of administrative efficiency.

2.3.6. Comparisons of Levels of Protection among MPAs

SMRs provide the greatest level of protection to species and ecosystems by allowing no take of any kind except pursuant to a scientific collecting permit.

SMPs allow some level of extraction of one or more species. SMPs are designed to provide recreational opportunities and therefore can allow some or all types of recreational take of a wide variety of fish and invertebrate species by various means (e.g., hook-and-line, spear fishing). Because of the variety of species that potentially can be taken and the potential magnitude of recreational fishing pressure, SMPs that allow recreational fishing provide a relatively low level of protection and conservation value relative to other, more restrictive MPAs (e.g., SMRs and some SMCAs). In

⁴ *Bycatch* is the fish and other marine animals that are unintentionally caught in fishing gear targeting other species.

addition, the indirect effects of extraction are poorly understood with regard to how other species in the ecosystem are affected (e.g., predators, prey, competitors), and incidental take of other species (e.g., bycatch).

SMCAs potentially have the most variable levels of protection and conservation of the three MPA designations because they allow any combination of commercial and recreational fishing (although this combination is more restrictive than the existing fishing regulations outside the SMCA), as well as other extractive activities (e.g., kelp harvest). MPAs are most effective at protecting species with limited home ranges and with close associations to seafloor habitats. Less protection is afforded to more wide-ranging, transient species like salmon and other pelagic finfish. This relationship may lead to proposals of SMCAs that prohibit take of bottom-dwelling species, while allowing the take of pelagic finfish. However, take of some pelagic finfish like salmon near the bottom or in relatively shallow water increases the likelihood of taking bottom species that are targeted for protection (e.g., California halibut, lingcod, rockfishes). Rates of bycatch in the commercial and recreational salmon fisheries may be higher in shallow water where bottom fish may move closer to the surface and become susceptible to the fishing gear. In addition, for recreational salmon fishing, the practice of “mooching”⁵ has a potentially higher bycatch rate than that of trolling⁶.

The SAT recognized that there is great variation in the type and magnitude of activities that may be permitted within SMPs and SMCAs. This variety intentionally provides designers of MPA network components with flexibility in proposing MPAs, including SMRs, that either individually or collectively fulfill the various goals and objectives specified in the MLPA. However, this flexibility can result in complex and possibly confusing levels of protection afforded by any individual MPA or collection of MPAs. In particular, SMCAs allow for many possible combinations of recreational and commercial extractive activities. MPA network proposals with similar numbers and sizes of SMCAs may in fact differ markedly in the type, degree, and distribution of protection throughout the study region. Therefore, the purpose of categorizing MPAs by their relative level of protection is to clarify comparisons of the overall conservation value of MPAs within and among proposed network components.

2.3.6.1. Levels of Protection

Levels of protection as they apply to the study region are presented below. For an MPA that allows multiple activities, the lowest level of protection for any allowed activity is assigned to that MPA. The SAT acknowledges that multiple uses within an MPA may have cumulative impacts on the ecosystem that exceed those of the

⁵ *Mooching* is a rod-and-reel fishing technique using a cut plug or whole anchovy or herring in locations such as back eddies where fish congregate in large numbers or in places where bait fish school in large numbers.

⁶ *Trolling* is a style of fishing in which bait is trailed behind a boat and dragged in front of the fish to entice it to bite.

individual activities. Such cumulative impacts are difficult to predict and the SAT has not addressed this concern in assigning the following levels of protection (CDFG 2008a).

- **Very High (Level 1)**—no take of any kind allowed (except scientific collection). This designation applies only to SMRs (CDFG 2008a).
- **High (Level 2)**—MPAs were assigned this level of protection if the SAT concluded that the allowed fishing activity has a very low bycatch of resident species, causes minimal habitat damage, and is likely to have little impact on ecosystems in the MPA. The mobility of the target species was an important factor in determining ecosystem impacts. Individuals of highly mobile species are expected to move frequently between MPAs and unprotected waters, so local abundance of these species is unlikely to be enhanced by MPAs. Because the fishing activity is likely to have little impact on populations of target or any other species (low associated bycatch), the activity is expected to have little impact on the ecosystem. For example, fishing activities that received a high level of protection include hook-and-line fishing for pelagic finfish (including salmon) near the surface in deep-water (>50m depth), and pelagic seine fishing for coastal pelagic finfish⁷ in deep water (>50m depth) (CDFG 2008a).
- **Moderate-high (Level 3)**—Fishing activities assigned to this level of protection cause minimal habitat damage, but have either more associated bycatch or a greater likelihood of ecosystem impacts than those in the high protection category. For example, MPAs that allow hook-and-line fishing for pelagic finfish (including salmon) in waters shallower than 50m depth were assigned to this level of protection because: 1) the likelihood of associated bycatch of resident benthic species such as rockfish is higher; and 2) there is a potential impact to the MPA ecosystem if a pelagic predator is removed at this depth. Similarly, MPAs that allow crab fishing with traps/pots were assigned this level of protection because crabs are only moderately mobile and interact directly with the locally resident ecosystem. It is difficult to predict whether local populations of crabs will be affected by MPAs, but if they are, a reduction in the crab population in fished areas could have ecosystem-wide impacts (CDFG 2008a).
- **Moderate (Level 4)**—Fishing activities assigned to this level of protection have higher associated bycatch of resident species or a greater likelihood of ecosystem impacts than those assigned to the mod-high category. Examples of fishing activities that received a moderate level of protection include hook-and-line fishing for halibut and other flatfish, recreational diving for abalone,

⁷ Coastal pelagic finfish: northern anchovy (*Engraulis mordax*), Pacific herring (*Clupea pallasii*), jack mackerel (*Trachurus symmetricus*), Pacific mackerel (*Scomber japonicus*), and Pacific sardine (*Sardinops sagax*).

shorebased fishing with hook-and-line gear in larger MPAs, and hand harvest of giant kelp (CDFG 2008a).

- **Moderate-low (Level 5)**—Fishing activities assigned to this level of protection either directly target resident species, have significant associated bycatch of resident species, or target species whose removal is expected to have an impact on the resident ecosystem. Examples of fishing activities that received a low-mod level of protection include harvest of urchin, lingcod, cabezon, greenling, rockfish, and surfperches (CDFG 2008a).
- **Low (Level 6)**—Only fishing activities that alter habitat were assigned to this category. Harvest of bull kelp, mussels, and other habitat-forming organisms received a low level of protection, as did trawl fishing, mechanical harvest of giant kelp and mariculture (CDFG 2008a).

In assigning MPA protection levels, the SAT considered:

- The proposed allowed uses within each MPA (e.g. specific fishing methods); and
- The depth in which allowed uses could occur (for example, salmon trolling in different depth zones could confer different levels of protection).

2.3.6.2. Protection of Foraging, Breeding and Rearing Areas (Goal 2)

MPAs can protect birds and mammals by protecting their forage base and by reducing human disturbance to roosting sites, haul-outs, breeding colonies, and rookeries. To evaluate the protection afforded by proposed MPAs (i.e., special closures) to birds and mammals the SAT (CDFG 2008a):

- Identified proposed MPAs or special closures that might contribute to protection of birds and mammals.
- Identified focal species likely to benefit from MPAs and for which data are available.
- Analyzed the proportion (of total numbers of individuals) of breeding bird/mammals at colonies and rookeries potentially benefiting by proposed MPAs or special closures.
- Analyzed the proportion of nearby foraging areas protected by proposed MPAs, or special closures, defined by evaluating protection of buffered areas around colonies.

2.4. Proposed Project

The Integrated Preferred Alternative (also known as the IPA; the Commission-preferred alternative) represents the Proposed Project for the purposes of this EIR. Under the Proposed Project, MPAs would be designated as shown in Figure 2-1 and in Tables 2-2 and 2-3, with some existing MPAs being altered or eliminated. Proposed allowed take in MPAs would be as described in Table 2-4. Levels of protection would be as summarized in Table 2-5. The representation of different habitats types would be as described in Table 2-6. Special Closures would be as described in Table 2-7.

Table 2-2. Overall Summary for Proposed Project

Type of MPA ^a	Total Proposed	Area (Square Miles)	Percent of Study Region
State Marine Reserve	11	85.56	11.2%
Special Closures	6	---	<1% ^b
State Marine Conservation Area ^c	2	3.8	0.5%
State Marine Conservation Area	9	63.8	8.4%
State Marine Recreation Management Area (SMRMA)	2	0.24	< 1%
All MPAs and SMRMAs Combined	30	153.3	20.1%

^a These are proposed MPA designations, not levels of protection assigned by the MLPA Master Plan Science Advisory Team. SMRMAs are not marine protected areas; SMRMAs are marine managed areas.

^b The size guidelines do not apply to Special Closures. Special Closure shapes were specifically designed to address local concerns for birds and/or mammals. As a result, Special Closures occupy a negligible percentage of the study region.

^c These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-3. Individual MPAs in Proposed Project

MPA Name ^a	Level of Protection ^b	Size (Square Miles)	Along-Shore Span (Miles) ^c	Depth Range (Feet)
Point Arena SMR	1	4.38	3.0	0–173
Point Arena SMCA	2	6.73	3.0	153-324
Sea Lion Cove SMCA	5	0.22	0.7	0-39
Saunders Reef SMCA	5	9.35	3.0	0-276
Del Mar Landing SMR	1	0.22	0.6	0-87
Stewarts Point SMR	1	25.22	7.0	0-294
Salt Point SMCA ^d	5	3.12	2.4	0-241
Gerstle Cove SMR	1	0.01	0.2	0-10
Russian River SMR	1	0.35	1.8	0-10
Russian River SMCA	4	0.86	1.0	0-57
Bodega Head SMR	1	9.30	2.5	0-266
Bodega Head SMCA	3	12.34	3.8	0-267
Estero Americano SMRMA	1	0.15	1.2	0-10
Estero de San Antonio SMRMA	1	0.09	1.0	0-10
Point Reyes SMR	1	9.38	7.5	0-132
Point Reyes SMCA	3	12.11	4.2	51-217
Estero de Limantour SMR	1	1.49	5.3	0-10
Drakes Estero SMCA	6	2.55	5.6	0-10
Duxbury SMCA ^d	4	0.66	3.0	0-10
Montara SMR	1	11.76	3.1	0-168
Pillar Point SMCA	3	6.66	1.9	0-174
North Farallon Islands SMR	1	18.09	NA	0-275
Southeast Farallon Islands SMR	1	5.34	NA	0-238
Southeast Farallon Islands SMCA	2	12.95	NA	130-382

^a Listed north to south. Special Closures are not included in this table. See table 2-6 for a description of Special Closures associated with the Proposed Project.

^b Level of protection as determined by the SAT: 1 indicates very high, 2 indicates high, 3 indicates moderate-high, 4 indicates moderate, 5 indicates moderate-low, and 6 indicates low.

^c Along-shore span measured as direct line from one end of the MPA to the other.

^d These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-4. Allowed Take for Individual MPAs in Proposed Project

MPA Name ^a	Proposed Take Allowed
Point Arena SMR	Take of all living marine resources is prohibited.
Point Arena SMCA	Take of all living marine resources is prohibited EXCEPT the recreational take of salmon by trolling and the commercial take of salmon by with troll fishing gear.
Sea Lion Cove SMCA	The recreational and commercial take of all marine invertebrates and marine aquatic plants is prohibited. Take of all other species is allowed.
Saunders Reef SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling 2. The commercial take of salmon with troll fishing gear, and urchin.
Del Mar Landing SMR	Take of all living marine resources is prohibited.
Stewarts Point SMR	Take of all living marine resources is prohibited.
Salt Point SMCA ^b	Take of living marine resources is prohibited EXCEPT: the recreational take of abalone and finfish ^c .
Gerstle Cove SMR	Take of all living marine resources is prohibited.
Russian River SMRMA	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Russian River SMCA	Take of all living marine resources is prohibited, EXCEPT: 1. The recreational take of Dungeness crab by trap and surf smelt by hand held dip nests or beach nets. 2. The commercial take of Dungeness crab by trap.
Bodega Head SMR	Take of all living marine resources is prohibited.
Bodega Head SMCA	Take of living marine resources is prohibited, EXCEPT: 1. The recreational take of pelagic finfish ^d by trolling, Dungeness crab by trap and market squid by hand held dip net. 2. The commercial take of pelagic finfish ^d with troll fishing gear or seine, Dungeness crab by trap, and market squid by hand-held dip net.
Estero Americano SMRMA	Take of all living marine resources is prohibited EXCEPT: the recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Estero de San Antonio SMRMA	Take of all living marine resources is prohibited EXCEPT: the recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Point Reyes SMR	Take of all living marine resources is prohibited.
Point Reyes SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, and Dungeness crab by trap. 2. The commercial take of salmon with trolling gear, and Dungeness

MPA Name ^a	Proposed Take Allowed
	crab by trap.
Estero de Limantour SMR	Take of all living marine resources is prohibited.
Drakes Estero SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of clams. 2. The commercial aquaculture of shellfish pursuant to a valid State Water Bottom Lease and permit.
Duxbury SMCA ^b	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish ^c from shore only, and the recreational take of abalone.
Montara or Fitzgerald SMR ^e	Take of all living marine resources is prohibited.
Pillar Point SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of pelagic finfish ^c by trolling, Dungeness crab by trap and squid by hand-held dip net. 2. The commercial take of pelagic finfish ^c with troll fishing gear or seine, Dungeness crab by trap and market squid by net.
North Farallon Islands SMR	Take of all living marine resources is prohibited.
Southeast Farallon Islands SMR	Take of all living marine resources is prohibited.
Southeast Farallon Islands SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling and the commercial take of salmon with troll fishing gear.

^a Listed north to south. Special Closures are not included in this table. See table 2-6 for a description of Special Closures associated with the Proposed Project.

^b These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

^c Finfish are defined in subsection 632(a)(2) as: any species of bony fish or cartilaginous fish (sharks, skates and rays). Finfish do not include amphibians, invertebrates, plants or algae. The definition of finfish provided in Section 159 does not apply to this Section.

^d Pelagic Finfish are defined as: northern anchovy (*Engraulis mordax*), barracudas (*Sphyraena spp.*), billfishes* (family Istiophoridae), dolphinfish (*Coryphaena hippurus*), Pacific herring (*Clupea pallasii*), jack mackerel (*Trachurus symmetricus*), Pacific mackerel (*Scomber japonicus*), salmon (*Oncorhynchus spp.*), Pacific sardine (*Sardinops sagax*), blue shark (*Prionace glauca*), salmon shark (*Lamna ditropis*), shortfin mako shark (*Isurus oxyrinchus*), thresher sharks (*Alopias spp.*), swordfish (*Xiphias gladius*), tunas (family Scombridae), and yellowtail (*Seriola lalandi*). *Marlin is not allowed for commercial take.

^e Two suboptions are provided for alternate names for the proposed SMR. All boundaries and regulations are the same.

Table 2-5. Summary of Level of Protection for Proposed Project

Level of Protection (LOP)	Number Proposed^a	MPA Types	Area (Square Miles)	Percent of Study Region
Very High	13	SMR, SMRMA	85.8	11.2%
High	2	SMCA	19.7	2.6%
Moderate-High	3	SMCA	31.1	4.1%
Moderate	2	SMP, SMCA	1.5	0.2%
Low ^b	4	SMP, SMCA	15.2	2.0%
All MPAs Combined	24		153.3	20.1%

^a Special Closures are not included in this table. See table 2-6 for a description of Special Closures associated with the Proposed Project.

^b The Low category groups together MPAs that are assigned a moderate-low or low LOP.

Table 2-6. Habitat Representation in Proposed Project

Habitat	Area and Percentage of Habitat in Each Type of MPA ^a			
	SMR ^b	SMCA ^c	SMCA	Total
Intertidal				
Sandy or gravel beaches*	12.08 (10%)	0.85 (1%)	1.90 (2%)	14.83 (12%)
Rocky intertidal and cliff*	36.02 (22%)	6.90 (4%)	12.67 (8%)	55.60 (33%)
Coastal marsh	0.26 (17%)	0.00 (0%)	0.21 (14%)	0.48 (31%)
Tidal flats*	4.78 (26%)	0.00 (0%)	1.44 (8%)	6.23 (34%)
Seagrass beds (0–30 meters): Surfgrass *	12.77 (19%)	3.39 (5%)	0.66 (1%)	16.83 (24%)
Seagrass beds (0–30 meters): Eelgrass	1.43 (24%)	0.00 (0%)	2.35 (39%)	3.79 (63%)
Estuary	1.90 (10%)	0.00 (0%)	2.52 (13%)	4.42 (23%)
Soft Bottom				
0–30 meters *	4.49 (4%)	0.48 (1%)	1.24 (1%)	6.20 (6%)
30–100 meters	56.32 (14%)	1.32 (1%)	43.98 (11%)	101.63 (25%)
100–200 meters	NA	NA	NA	NA
>200 meters	NA	NA	NA	NA
Hard Bottom				
0–30 meters *	21.35 (27%)	3.22 (4%)	4.80 (6%)	29.37 (36%)
30–100 meters	8.96 (17%)	0.68 (1%)	7.72 (15%)	17.37 (33%)
100–200 meters	NA	NA	NA	NA
>200 meters	NA	NA	NA	NA
Substrate < 50 m deep				
Hard substrate	10.29 (17%)	0.94 (2%)	6.13 (10%)	17.35 (28%)
Soft substrate	15.98 (6%)	0.15 (<1%)	8.38 (3%)	24.71 (9%)
Kelp Forest				
Average kelp (1989, 1999, 2002, 2003, 2004, 2005) *	8.61 (25%)	3.84 (11%)	1.36 (4%)	13.82 (39%)

* Habitats measured as an area (square miles) except for those with a * notation. Habitats with a * notation are expressed in linear units (miles).

^a These are proposed MPA designations, not levels of protection assigned by the SAT. Special Closures are not included in this table. See Table 2-7 for a description of Special Closures associated with the Proposed Project. The "NA" notation is due to the fact that these habitats are not found or are only found in small areas in this study region.

^b The SMR category groups together SMRs and SMRMAs.

^c These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-7. Special Closures in Proposed Project

Geography	Boundaries	Species Intended to Protect	Seasonality
Point Reyes Headlands	1,000 foot closure.	Common Murre, Pelagic Cormorant, Western Gull, Brandt's cormorant, Pigeon Guillemot, Rhinoceros Auklet, Ashy storm-petrel, and Brown Pelican.	Year Round
Point Resistance	300 foot closure around point.	Common Murre (breeding) and Brown Pelican (roosting).	Year Round
Stormy Stack	300 foot closure.	Common Murre, Brandt's cormorant, Pelagic Cormorant, Pigeon Guillemot, Ashy storm-petrel, and Brown Pelicans. Second largest seabird breeding colony in the southern subregion. Harbor seal (haul-out and breeding); California sea lion (haul-out).	Year Round
Egg Rock (Devil's Slide)	300 - 1,000 foot closure around island and no transit between rock and mainland.	Common Murre, Brandt's cormorant, Brown Pelicans (roosting). Site of a significant USFWS seabird recovery project.	Year Round
North Farallon Islands	1,000 foot closure around North Farallon Island; 300 foot closure around Isle of St. James.	Common Murre, Pigeon Guillemot, Pelagic Cormorant, Brandt's cormorant, Western Gull, and Cassin's Auklet (> 72,000 nesting seabirds); Steller sea lion (haul-out).	Year Round
Southeast Farallon Islands	300 foot closure around Southeast Farallon Island excluding Fisherman's Bay and East Landing.	Steller sea lion (haul-out and rookery); California sea lion (haul-out); Northern fur seal (breeding); Northern elephant seal (breeding); < 180,000 seabirds.	Year Round (except seasonal closure between Fisherman's Bay and East Landing, including Shubrick, and from East Landing to southwest side of Saddle Rock from Dec. 1 to Sept 14.)

2.5. Alternative MPA Networks Considered

2.5.1. Alternative 1

Alternative 1 was developed by the NCCRSR as proposal 1-3. Under Alternative 1, MPAs would be designated as shown in Figure 2-2 and in Tables 2-8 and 2-9, with some existing MPAs being altered or eliminated. Proposed allowed take in MPAs would be as described in Table 2-10. Levels of protection would be as summarized in Table 2-11. The representation of different habitats types would be as described in Table 2-12. Special Closures would be as described in Table 2-13. Alternative 1 would designate slightly more of study region as MPAs than the Proposed Project.

Table 2-8. Overall Summary for Alternative 1

Type of MPA ^a	Total Proposed	Area (Square Miles)	Percent of Study Region
State Marine Reserve	12	87.2	11.4%
Special Closures	7	---	<1% ^b
State Marine Conservation Area ^c	1	0.1	<0.1%
State Marine Conservation Area	10	77.3	10.1%
State Marine Recreation Management Area (SMRMA)	0	---	---
All MPAs and SMRMA Combined	30	164.6	21.6%

^a These are proposed MPA designations, not levels of protection assigned by the MLPA Master Plan Science Advisory Team. SMRMAs are not a marine protected area; SMRMAs are a marine managed area.

^b The size guidelines do not apply to Special Closures. Special Closure shapes were specifically designed to address local concerns for birds and/or mammals. As a result, Special Closures occupy a negligible percentage of the study region.

^c These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-9. Individual MPAs in Alternative 1

MPA Name ^a	Level of Protection ^b	Size (Square Miles)	Along-Shore Span (Miles) ^c	Depth Range (Feet)
Point Arena SMR	1	4.38	3.0	0-173
Point Arena SMCA	2	6.73	3.0	153-324
Saunders Reef SMCA	5	10.52	3.0	0-276
Del Mar Landing SMCA ^d	5	0.10	0.3	0-55
Rocky PT to Horseshoe Pt SMR	1	20.50	5.4	0-294
Gerstle Cove SMR	1	0.01	0.2	0-10
Russian River SMR	1	0.35	1.8	0-10
Russian River SMCA	4	0.86	1.0	0-57
Bodega Head SMR	1	13.23	3.5	0-266
Bodega Head SMCA	3	6.82	2.1	0-267
Estero Americano SMR	1	0.14	1.2	0-10
Estero de San Antonio SMR	1	0.08	0.7	0-10
Point Reyes SMR	1	9.38	7.5	0-132
Point Reyes SMCA	3	12.11	4.2	51-217
Drakes & Limantour Estero SMR	1	1.49	5.3	0-10
Drakes Estero SMCA	6	2.55	5.6	0-10
Double Point SMCA	4	16.25	3.9	0-150
Duxbury Reef SMCA	4	0.08	1.8	0-10
Fitzgerald SMR	1	14.25	2.3	0-170
Montara SMCA	4	8.42	3.8	0-134
North Farallon Islands SMR	1	18.09	NA	0-275
Southeast Farallon Islands SMR	1	5.34	NA	0-238
Southeast Farallon Islands SMCA	2	12.95	NA	130-382

^a Listed north to south. Special Closures are not included in this table. See table 2-13 for a description of Special Closures associated with Alternative 1.

^b Level of protection as determined by the SAT: 1 indicates very high, 2 indicates high, 3 indicates moderate-high, 4 indicates moderate, 5 indicates moderate-low, and 6 indicates low.

^c Along-shore span measured as direct line from one end of the MPA to the other.

^d These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-10. Allowed Take for Individual MPAs in Alternative 1

MPA Name ^a	Proposed Take Allowed
Point Arena SMR	Take of all living marine resources is prohibited.
Point Arena SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling and commercial take of salmon with troll fishing gear.
Saunders Reef SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, abalone, and finfish ^b by hook-and-line or by spear from shore only. 2. The commercial take of salmon with troll fishing gear, and urchin.
Del Mar Landing SMCA ^c	Take of all living marine resources is prohibited, EXCEPT: the recreational take of finfish ^b by hook-and-line or spear.
Rocky Point to Horseshoe Point SMR	Take of all living marine resources is prohibited.
Gerstle Cove SMR	Take of all living marine resources is prohibited.
Russian River SMR (Option 1)	Take of all living marine resources is prohibited.
Russian River SMRMA (Option 2)	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Russian River SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of Dungeness crab by trap, and surf smelt by hand-held dip net or beach net from shore only. 2. The commercial take of Dungeness crab by trap.
Bodega Head SMR	Take of all living marine resources is prohibited.
Bodega Head SMCA	Take of all living marine resources is prohibited, EXCEPT: the recreational and commercial take of pelagic finfish ^d by hook-and-line (recreational salmon take by trolling and commercial salmon take with troll fishing gear only), and Dungeness crab by trap.
Estero Americano SMR (Option 1)	Take of all living marine resources is prohibited.
Estero Americano SMRMA (Option 2)	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Estero de San Antonio SMR (Option 1)	Take of all living marine resources is prohibited.
Estero de San Antonio SMRMA (Option 2)	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Point Reyes SMR	Take of all living marine resources is prohibited.
Point Reyes SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, and Dungeness crab by trap.

MPA Name ^a	Proposed Take Allowed
	2. The commercial take of salmon with troll fishing gear, and Dungeness crab by trap.
Drakes & Limantour Estero SMR	Take of all living marine resources is prohibited.
Drakes Estero SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of clams. 2. The commercial aquaculture of shellfish pursuant to a valid State Water Bottom Lease and permit.
Double Point SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational and commercial take of salmon (recreational salmon take by trolling and commercial salmon take with troll fishing gear), Dungeness crab by trap, halibut by hook-and-line, and coastal pelagic species ^e except market squid.
Duxbury Reef SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish ^b by hook-and-line from shore only.
Fitzgerald SMR	Take of all living marine resources is prohibited.
Montara SMCA	Take of all living marine resources is prohibited EXCEPT 1. The recreational take of salmon by trolling, Dungeness crab by trap, and coastal pelagic species ^e by hook-and-line. 2. The commercial take of salmon with troll fishing gear, Dungeness crab by trap, and coastal pelagic species ^e by hook-and-line.
North Farallon Islands SMR	Take of all living marine resources is prohibited.
Southeast Farallon Islands SMR	Take of all living marine resources is prohibited.
Southeast Farallon Islands SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling and commercial take of salmon with troll fishing gear.

^a Listed north to south. Special Closures are not included in this table. See table 2-13 for a description of Special Closures associated with Alternative 1.

^b Finfish are defined in subsection 632(a)(2) as: any species of bony fish or cartilaginous fish (sharks, skates and rays). Finfish do not include amphibians, invertebrates, plants or algae. The definition of finfish provided in Section 159 does not apply to this Section.

^c These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

^d Pelagic Finfish are defined as: northern anchovy (*Engraulis mordax*), barracudas (*Sphyrnaena spp.*), billfishes* (family Istiophoridae), dolphinfish (*Coryphaena hippurus*), Pacific herring (*Clupea pallasii*), jack mackerel (*Trachurus symmetricus*), Pacific mackerel (*Scomber japonicus*), salmon (*Oncorhynchus spp.*), Pacific sardine (*Sardinops sagax*), blue shark (*Prionace glauca*), salmon shark (*Lamna ditropis*), shortfin mako shark (*Isurus oxyrinchus*), thresher sharks (*Alopias spp.*), swordfish (*Xiphias gladius*), tunas (family Scombridae), and yellowtail (*Seriola lalandi*). *Marlin is not allowed for commercial take.

^e Coastal pelagic species are defined in Section 1.39 as: northern anchovy (*Engraulis mordax*), Pacific sardine (*Sardinops sagax*), Pacific mackerel (*Scomber japonicus*), jack mackerel (*Trachurus symmetricus*), and market squid (*Loligo opalescens*).

Table 2-11. Summary of Level of Protection for Alternative 1

Level of Protection (LOP)	Number Proposed ^a	MPA Types	Area (Square Miles)	Percent of Study Region
Very High	12	SMR	87.2	11.4%
High	2	SMCA	19.7	2.6%
Moderate-High	2	SMCA	18.9	2.5%
Moderate	4	SMCA	25.6	3.4%
Low ^b	3	SMCA	13.2	1.7%
All MPAs Combined	23		164.6	21.6%

^a Special Closures are not included in this table. See table 2-13 for a description of Special Closures associated with Alternative 1.

^b The Low category groups together MPAs that are assigned a moderate-low or low LOP.

Table 2-12. Habitat Representation in Alternative 1

Habitat	Area and Percentage of Habitat in Each Type of MPA ^a			
	SMR ^b	SMCA ^c	SMCA	Total
Intertidal				
Sandy or gravel beaches	13.65 (11%)	0.00 (0%)	4.33 (4%)	17.98 (15%)
Rocky intertidal and cliff	32.80 (20%)	0.45 (0%)	18.31 (11%)	51.56 (31%)
Coastal marsh	0.23 (15%)	0.00 (0%)	0.21 (14%)	0.45 (29%)
Tidal flats	4.74 (26%)	0.00 (0%)	1.44 (8%)	6.19 (34%)
Seagrass beds (0–30 meters): Surfgrass	13.19 (19%)	0.00 (0%)	9.51 (14%)	22.70 (33%)
Seagrass beds (0–30 meters): Eelgrass	1.43 (24%)	0.00 (0%)	2.35 (39%)	3.78 (63%)
Estuary	1.87 (10%)	0.00 (0%)	2.52 (13%)	4.38 (23%)
Soft Bottom				
0–30 meters	5.32 (5%)	0.00 (0%)	6.11 (6%)	11.44 (11%)
30–100 meters	55.77 (13%)	0.00 (0%)	49.38 (12%)	105.15 (25%)
100–200 meters	NA	NA	NA	NA
>200 meters	NA	NA	NA	NA
Hard Bottom				
0–30 meters	20.25 (25%)	0.00 (0%)	5.07 (6%)	25.32 (31%)
30–100 meters	9.35 (18%)	0.00 (0%)	6.24 (12%)	15.60 (30%)
100–200 meters	NA	NA	NA	NA
>200 meters	NA	NA	NA	NA
Substrate < 50 m deep				
Hard Substrate	11.06 (18%)	0.01 (0%)	6.27 (10%)	17.34 (28%)
Soft Substrate	17.83 (7%)	0.00 (0%)	23.76 (9%)	41.59 (15%)
Kelp Forest				
Average kelp (1989, 1999, 2002, 2003, 2004, 2005)	6.91 (20%)	0.00 (0%)	2.14 (6%)	9.06 (26%)

* Habitats measured as an area (square miles) except for those with a * notation. Habitats with a * notation are expressed in linear units (miles).

^a These are proposed MPA designations, not levels of protection assigned by the SAT. Special Closures are not included in this table. See table 2-13 for a description of Special Closures associated with Alternative 1. The “NA” notation is due to the fact that these habitats are not found or are only found in small areas in this study region.

^b The SMR category groups together SMRs and SMRMAs.

^c These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-13. Special Closures in Alternative 1

Geography	Boundaries	Species Intended to Protect	Seasonality
Point Reyes	1000 foot closure.	Common Murre, Pelagic Cormorant, Western Gull, Brandt's cormorant, Pigeon Guillemot, Rhinoceros Auklet, Ashy storm-petrel, roosting Brown Pelican (>100 pelicans), Elephant seal rookery.	Year Round
Point Resistance	500 foot closure.	Common Murre, Cormorant, Pigeon Guillemots, Roosting Brown Pelican (>100 pelicans).	Year Round
Stormy Stack	300 foot closure.	Second largest breeding colony in north central coast (~ 16,000 breeding birds): Common Murres, Brandt's cormorants, Pelagic cormorant, and Ashy storm-petrel. Roosting brown pelicans (>100 pelicans). Harbor seals (700-1,000#) haul-out and breeding along beach; California sea lions haul-out on islets.	Year Round
Egg Rock (Devil's Slide)	1,000 foot closure.	Common Murre, Brandt's cormorant, Pigeon guillemot, pelagic cormorants, western gull, black oystercatcher, and roosting brown pelicans (>100 pelicans).	Year Round
Bean Hollow	300 foot closure.	Harbor seal rookery and haul-out.	Seasonal (Feb-Aug)
North Farallon Islands	1,000 foot closure around North Farallon Island; 300 foot closure around Isle of St. James.	< 72,000 nesting seabirds including Common Murre, Pigeon Guillemot, Pelagic Cormorant, Brandt's cormorant, Western Gull, ad Cassin's Auklet; Steller sea lion haul-out.	Year Round
Southeast Farallon Islands	300 foot closure around Southeast Farallon Island excluding Fisherman's Bay and East Landing.	<180,000 nesting seabirds including Common murre, pelagic cormorant, Brandt's cormorant, Double-crested cormorant, pigeon guillemot, western gull, tufted puffins, Cassin's auklets, rhinosceros aukley, and Ashy storm-petrels. Steller sea lion haul-out and rookery; California sea lion haul-out; Northern elephant seal breeding.	Year Round

2.5.2. Alternative 2

Alternative 2 was developed by the NCCRS as proposal 2-XA. Under Alternative 2, MPAs would be designated as shown in Figure 2-3 and in Tables 2-14 and 2-15, with some existing MPAs being altered or eliminated. Proposed allowed take in MPAs would be as described in Table 2-16. Levels of protection would be as summarized in Table 2-17. The representation of different habitats types would be as described in Table 2-18. Special Closures would be as described in Table 2-19. Alternative 2 would designate the smallest number and area of MPAs.

Table 2-14. Overall Summary for Alternative 2

Type of MPA ^a	Total Proposed	Area (Square Miles)	Percent of Study Region
State Marine Reserve	12	67.41	8.8%
Special Closures	5	---	<1% ^b
State Marine Conservation Area ^c	1	0.7	0.1%
State Marine Conservation Area	8	68.9	9.0%
State Marine Recreation Management Area (SMRMA)	3	0.59	<1%
All MPAs and SMRMA Combined	29	137.5	18.0%

^a These are proposed MPA designations, not levels of protection assigned by the MLPA Master Plan Science Advisory Team. SMRMAs are not a marine protected area; SMRMAs are a marine managed area.

^b The size guidelines do not apply to Special Closures. Special Closure shapes were specifically designed to address local concerns for birds and/or mammals. As a result, Special Closures occupy a negligible percentage of the study region.

^c These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-15. Individual MPAs in Alternative 2

MPA Name ^a	Level of Protection ^b	Size (Square Miles)	Along-Shore Span (Miles) ^c	Depth Range (Feet)
Point Arena SMR	1	5.05	3.5	0-176
Point Arena SMCA	2	7.42	3.5	153-324
Black Point SMR	1	9.61	5.0	0-240
Black Point SMCA	2	9.89	5.0	229-298
Gerstle Cove SMR	1	0.01	0.2	0-10
Russian River Estuary SMRMA	1	0.35	1.8	0-10
Russian River SMCA	6	0.85	1.0	0-57
Bodega Head SMR	1	9.30	2.5	0-266
Bodega Head SMCA	3	12.34	3.8	0-267
Estero Americano SMRMA	1	0.15	1.2	0-10
Estero de San Antonio SMRMA	1	0.09	1.0	0-10
Point Reyes Headlands SMR	1	9.29	7.5	0-132
Point Reyes Headlands SMCA	3	11.99	4.2	51-217
Estero de Limantour SMR	1	1.51	5.0	0-10
Drakes Estero SMCA	6	2.55	5.9	0-10
Duxbury SMCA ^d	4	0.66	3.0	0-10
Montara SMR	1	9.28	2.6	0-165
Pillar Point SMCA	3	10.41	2.8	0-174
North Farallon Islands SMR	1	18.09	NA	0-275
Southeast Farallon Islands SMR	1	5.33	NA	0-238
Southeast Farallon Islands SMCA	2	12.97	NA	130-382

^a Listed north to south. Special Closures are not included in this table. See table 2-19 for a description of Special Closures associated with Alternative 2.

^b Level of protection as determined by the SAT: 1 indicates very high, 2 indicates high, 3 indicates moderate-high, 4 indicates moderate, 5 indicates moderate-low, and 6 indicates low.

^c Along-shore span measured as direct line from one end of the MPA to the other.

^d These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-16. Allowed Take for Individual MPAs in Alternative 2

MPA Name ^a	Proposed Take Allowed
Point Arena SMR	Take of all living marine resources is prohibited.
Point Arena SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of pelagic finfish ^b by hook-and-line (salmon by trolling only) and commercial take of pelagic finfish ^b by hook-and-line (salmon by troll fishing gear only), and coastal pelagic species ^c except market squid, by pelagic seine.
Black Point SMR	Take of all living marine resources is prohibited.
Black Point SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of pelagic finfish ^b by hook-and-line (salmon by trolling only) and commercial take of pelagic finfish ^b by hook-and-line (salmon by troll fishing gear only), and coastal pelagic species ^c except market squid, by pelagic seine
Gerstle Cove SMR	Take of all living marine resources is prohibited.
Russian River Estuary SMRMA	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Russian River SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational and commercial take of marine invertebrates and finfish [subsection 632(a)(2)] EXCEPT: Chinook salmon.
Bodega Head SMR	Take of all living marine resources is prohibited.
Bodega Head SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of pelagic finfish ^b by trolling, Dungeness crab by trap, and commercial take of pelagic finfish ^b by troll fishing gear or pelagic seine, Dungeness crab by trap, and market squid by pelagic seine
Estero Americano SMR	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Estero de San Antonio SMRMA	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Point Reyes Headlands SMR	Take of all living marine resources is prohibited.
Point Reyes Headlands SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of pelagic finfish ^b by hook-and-line (salmon by trolling only), and Dungeness crab by trap. 2. The commercial take of pelagic finfish ^b by hook-and-line (salmon with troll fishing gear only), coastal pelagic species ^c by pelagic seine, and Dungeness crab by trap.
Estero de Limantour SMR	Take of all living marine resources is prohibited.

MPA Name ^a	Proposed Take Allowed
Drakes Estero SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of clams. 2. The commercial aquaculture of shellfish pursuant to a valid State Water Bottom Lease and permit.
Duxbury SMCA ^d	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish ^e from shore only, and the recreational take of abalone.
Montara SMR	Take of all living marine resources is prohibited.
Pillar Point SMCA	Take of all living marine resources is prohibited EXCEPT 1. The recreational take of pelagic finfish ^b by trolling, and Dungeness crab by trap, 2. The commercial take of pelagic finfish ^b with troll fishing gear or pelagic seine, Dungeness crab by trap and market squid by pelagic seine.
North Farallon Islands SMR	Take of all living marine resources is prohibited.
Southeast Farallon Islands SMR	Take of all living marine resources is prohibited.
Southeast Farallon Islands SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of pelagic finfish ^b by hook-and-line (salmon by trolling only) and coastal pelagic species ^c except market squid. 2. The commercial take of pelagic finfish ^b by hook-and-line (salmon with troll fishing gear only) and coastal pelagic species ^c except market squid, by pelagic seine.

^a Listed north to south. Special Closures are not included in this table. See table 2-19 for a description of Special Closures associated with Alternative 2.

^b Pelagic Finfish are defined as: northern anchovy (*Engraulis mordax*), barracudas (*Sphyraena spp.*), billfishes* (family Istiophoridae), dolphinfish (*Coryphaena hippurus*), Pacific herring (*Clupea pallasii*), jack mackerel (*Trachurus symmetricus*), Pacific mackerel (*Scomber japonicus*), salmon (*Oncorhynchus spp.*), Pacific sardine (*Sardinops sagax*), blue shark (*Prionace glauca*), salmon shark (*Lamna ditropis*), shortfin mako shark (*Isurus oxyrinchus*), thresher sharks (*Alopias spp.*), swordfish (*Xiphias gladius*), tunas (family Scombridae), and yellowtail (*Seriola lalandi*). *Marlin is not allowed for commercial take.

^c Coastal pelagic species are defined in Section 1.39 as: northern anchovy (*Engraulis mordax*), Pacific sardine (*Sardinops sagax*), Pacific mackerel (*Scomber japonicus*), jack mackerel (*Trachurus symmetricus*), and market squid (*Loligo opalescens*).

^d These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

^e Finfish are defined in subsection 632(a)(2) as: any species of bony fish or cartilaginous fish (sharks, skates and rays). Finfish do not include amphibians, invertebrates, plants or algae. The definition of finfish provided in Section 159 does not apply to this Section.

Table 2-17. Summary of Level of Protection for Alternative 2

Level of Protection (LOP)	Number Proposed^a	MPA Types	Area (Square Miles)	Percent of Study Region
Very High	12	SMR, SMRMA	68.1	8.9%
High	3	SMCA	30.3	4.0%
Moderate-High	3	SMCA	34.7	4.6%
Moderate	1	SMCA ^c	0.7	0.1%
Low ^b	2	SMCA	3.4	0.4%
All MPAs Combined	21		137.2	18.0%

^a Special Closures are not included in this table. See table 2-19 for a description of Special Closures associated with Alternative 2.

^b The Low category groups together MPAs that are assigned a moderate-low or low LOP.

^c These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-18. Habitat Representation in Alternative 2

Habitat	Area and Percentage of Habitat in Each Type of MPA ^a			
	SMR ^b	SMCA ^c	SMCA	Total
Intertidal				
Sandy or gravel beaches	12.56 (11%)	0.22 (<1%)	1.67 (1%)	14.46 (12%)
Rocky intertidal and cliff	29.98 (18%)	1.64 (1%)	7.14 (4%)	38.76 (23%)
Coastal marsh	0.25 (17%)	0.00 (0%)	0.21 (14%)	0.48 (31%)
Tidal flats	4.78 (26%)	0.00 (0%)	1.44 (10%)	6.23 (34%)
Seagrass beds (0–30 meters): Surfgrass	12.00 (17%)	3.39 (5%)	1.44 (2%)	16.83 (24%)
Seagrass beds (0–30 meters): Eelgrass	1.43 (24%)	0.00 (0%)	2.35 (39%)	3.79 (63%)
Estuary	1.90 (10%)	0.00 (0%)	2.52 (13%)	4.42 (23%)
Soft bottom				
0–30 meters	6.36 (6%)	0.00 (0%)	1.37 (1%)	7.73 (8%)
30–100 meters	40.47 (10%)	0.00 (0%)	51.73 (13%)	92.19 (22%)
100–200 meters	NA	NA	NA	NA
>200 meters	NA	NA	NA	NA
Hard bottom				
0–30 meters	16.32 (20%)	0.00 (0%)	3.06 (4%)	19.39 (24%)
30–100 meters	8.07 (15%)	0.00 (0%)	6.34 (12%)	14.41 (28%)
100–200 meters	NA	NA	NA	NA
>200 meters	NA	NA	NA	NA
Substrate < 50 m deep				
Hard substrate	8.65 (14%)	0.00 (0%)	4.59 (7%)	13.25 (21%)
Soft substrate	15.86 (6%)	0.00 (0%)	10.11 (4%)	25.97 (9%)
Kelp forest				
Average kelp (1989, 1999, 2002, 2003, 2004, 2005)	5.02 (14%)	0.00 (0%)	0.29 (1%)	5.31 (15%)

* Habitats measured as an area (square miles) except for those with a * notation. Habitats with a * notation are expressed in linear units (miles).

^a These are proposed MPA designations, not levels of protection assigned by the SAT. Special Closures are not included in this table. See table 2-19 for a description of Special Closures associated with Alternative 2. The “NA” notation is due to the fact that these habitats are not found or are only found in small areas in this study region.

^b The SMR category groups together SMRs and SMRMAs.

^c These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-19. Special Closures in Alternative 2

Geography	Boundaries	Species Intended to Protect	Seasonality
Point Resistance	300 foot closure.	Common murre and brown pelican.	Year Round
Egg Rock (Devil's Slide)	300 foot closure.	Common murre, Brandt's cormorant, and brown pelican.	Year Round
Stormy Stack	300 foot closure.	Harbor seal, California sea lion, Common murre, Brandt's cormorant, pelagic cormorant, pigeon guillemot, Ashy storm-petrel, brown pelican.	Year Round
North Farallon Islands	300 foot closure around North Farallon Island and Isle of St. James.	Steller sea lion, common murre, pelagic cormorant, Brandt's cormorant, pigeon guillemot, western gull, and Cassin's auklet.	Year Round
Southeast Farallon Islands	300 foot closure around Southeast Farallon Island except in lee of island between and including Sugarloaf and East Landing.	Steller sea lion, Northern fur seal, Northern elephant seal, California sea lion, common murre, pelagic cormorant, Brandt's cormorant, Double-crested cormorant, pigeon guillemot, western gull, tufted puffin, Cassin's Auklet, Rhinoceros auklet, Ashy storm petrel, Leach's storm petrel, black oystercatcher, and brown pelican.	Year Round

2.5.3. Alternative 3

Alternative 3 was developed by the NCCRS as proposal 4. Under Alternative 3, MPAs would be designated as shown in Figure 2-4 and in Tables 2-20 and 2-21, with some existing MPAs being altered or eliminated. Proposed allowed take in MPAs would be as described in Table 2-22. Levels of protection would be as summarized in Table 2-23. The representation of different habitats types would be as described in Table 2-24. Special Closures would be as described in Table 2-25. Alternative 3 would designate the largest number and area of MPAs.

Table 2-20. Overall Summary for Alternative 3

Type of MPA ^a	Total Proposed	Area (Square Miles)	Percent of Study Region
State Marine Reserve	15	105.0	13.8%
Special Closures	7	---	<1% ^b
State Marine Conservation Area ^c	1	2.9	0.4%
State Marine Conservation Area	12	97.1	12.7%
State Marine Recreation Management Area (SMRMA)	0	---	0%
All MPAs and SMRMA Combined	35	204.9	26.9%

^a These are proposed MPA designations, not levels of protection assigned by the MLPA Master Plan Science Advisory Team. SMRMAs are not a marine protected area; SMRMAs are a marine managed area.

^b The size guidelines do not apply to Special Closures. Special Closure shapes were specifically designed to address local concerns for birds and/or mammals. As a result, Special Closures occupy a negligible percentage of the study region.

^c These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-21. Individual MPAs in Alternative 3

MPA Name ^a	Level of Protection ^b	Size (Square Miles)	Along-Shore Span (Miles) ^c	Depth Range (Feet)
Point Arena SMR	1	5.05	3.4	0-175
Point Arena SMCA	2	7.42	3.4	153-324
Sea Lion Cove SMCA	5	0.22	0.7	0-39
Saunders Reef SMCA	5	10.50	3.0	0-276
Del Mar Landing SMR	1	0.22	0.6	0-87
Stewarts Point SMR	1	28.52	7.6	0-298
Salt Point SMCA ^d	4	2.86	2.3	0-241
Gerstle Cove SMR	1	0.01	0.2	0-10
Russian River Estuary SMR	1	0.35	1.8	0-10
Russian River SMCA	4	0.86	1.0	0-57
Bodega SMR	1	9.99	5.8	0-222
Bodega SMCA	2	10.49	5.8	141-267
Estero de Americano SMR	1	0.15	1.2	0-10
Estero de San Antonio SMR	1	0.09	1.0	0-10
Tomales Bay SMR	1	0.66	1.2	0-10
Point Reyes SMR	1	9.44	7.5	0-132
Point Reyes SMCA	3	12.14	4.2	51-217
Drakes Estero SMR	1	1.49	5.3	0-10
Drakes Estero SMCA	6	2.55	5.6	0-10
Double Point SMCA	3	12.29	4.9	0-139
Duxbury SMCA	4	15.50	3.6	0-150
Agate Beach Intertidal SMCA	4	0.26	1.1	0-10
Devil's Slide SMCA	3	11.89	3.2	0-143
Fitzgerald SMR	1	13.01	3.4	0-170
San Gregorio SMR	1	12.53	3.5	0-140
North Farallon Islands SMR	1	18.13	NA	0-275
Southeast Farallon Islands SMR	1	5.31	NA	0-238
Southeast Farallon Islands SMCA	2	12.94	NA	130-382

^a Listed north to south. Special Closures are not included in this table. See table 2-25 for a description of Special Closures associated with Alternative 3.

^b Level of protection as determined by the SAT: 1 indicates very high, 2 indicates high, 3 indicates moderate-high, 4 indicates moderate, 5 indicates moderate-low, and 6 indicates low.

^c Along-shore span measured as direct line from one end of the MPA to the other.

^d These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-22. Allowed Take for Individual MPAs in Alternative 3

MPA Name ^a	Proposed Take Allowed
Point Arena SMR	Take of all living marine resources is prohibited.
Point Arena SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling only, and the commercial take of salmon with troll fishing gear only.
Sea Lion Cove SMCA	Commercial and recreational take of invertebrates and marine aquatic plants is prohibited. Take of all other species is allowed.
Saunders Reef SMCA	Take of all living marine resources is prohibited, EXCEPT: 1. The recreational take of salmon by trolling 2. The commercial take of salmon with troll fishing gear, and urchin.
Del Mar Landing SMR	Take of all living marine resources is prohibited.
Stewarts Point SMR	Take of all living marine resources is prohibited.
Salt Point SMCA ^b	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish ^c , and abalone
Gerstle Cove SMR	Take of all living marine resources is prohibited.
Russian River Estuary SMR (Option 1)	Take of all living marine resources is prohibited.
Russian River Estuary SMRMA (Option 2)	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Russian River SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of Dungeness crab, and surf smelt by hand-held dip net or beach net from shore only. 2. The commercial take of Dungeness crab.
Bodega SMR	Take of all living marine resources is prohibited.
Bodega SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling only and the commercial take of salmon with troll fishing gear only.
Estero Americano SMR (Option 1)	Take of all living marine resources is prohibited.
Estero Americano SMRMA (Option 2)	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Estero de San Antonio SMR (Option 1)	Take of all living marine resources is prohibited.
Estero de San Antonio SMRMA (Option 2)	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).

MPA Name ^a	Proposed Take Allowed
Tomales Bay SMR (Option 1)	Take of all living marine resources is prohibited.
Tomales Bay SMRMA (Option 2)	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Point Reyes SMR	Take of all living marine resources is prohibited.
Point Reyes SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, and Dungeness crab by trap. 2. The commercial take of salmon with troll fishing gear, and Dungeness crab by trap.
Drakes Estero SMR	Take of all living marine resources is prohibited.
Drakes Estero SMCA	Take of all living marine resources is prohibited, EXCEPT: The commercial aquaculture of shellfish pursuant to a valid State Water Bottom Lease and permit.
Double Point SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling and the commercial take of salmon with troll fishing gear.
Duxbury SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, Dungeness crab by trap, halibut, and finfish ^c by hook-and-line from shore only. 2. The commercial take of salmon with troll fishing gear, Dungeness crab by trap, and halibut.
Agate Beach Intertidal SMCA	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, Dungeness crab by trap, halibut, and finfish ^c by hook-and-line from shore only. 2. The commercial take of salmon with troll fishing gear, Dungeness crab by trap, and halibut.
Devil's Slide SMCA	Take of all living marine resources is prohibited, EXCEPT: 1. The recreational take of salmon by trolling, Dungeness crab by trap, market squid, and coastal pelagic species ^d by hook-and-line 2. The commercial take of salmon with troll fishing gear, Dungeness crab by trap, market squid, and coastal pelagic species ^d by hook-and-line or pelagic seine.
Fitzgerald SMR	Take of all living marine resources is prohibited.
San Gregorio SMR	Take of all living marine resources is prohibited.

MPA Name ^a	Proposed Take Allowed
North Farallon Islands SMR	Take of all living marine resources is prohibited.
Southeast Farallon Islands SMR	Take of all living marine resources is prohibited.
Southeast Farallon Islands SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling and the commercial take of salmon with troll fishing gear.

^a Listed north to south. Special Closures are not included in this table. See table 2-25 for a description of Special Closures associated with Alternative 3.

^b These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

^c Finfish are defined in subsection 632(a)(2) as: any species of bony fish or cartilaginous fish (sharks, skates and rays). Finfish do not include amphibians, invertebrates, plants or algae. The definition of finfish provided in Section 159 does not apply to this Section.

^d Coastal pelagic species are defined in Section 1.39 as: northern anchovy (*Engraulis mordax*), Pacific sardine (*Sardinops sagax*), Pacific mackerel (*Scomber japonicus*), jack mackerel (*Trachurus symmetricus*), and market squid (*Loligo opalescens*).

Table 2-23. Summary of Level of Protection for Alternative 3

Level of Protection (LOP)	Number Proposed ^a	MPA Types	Area (Square Miles)	Percent of Study Region
Very High	15	SMR	105.0	13.8%
High	3	SMCA	30.9	4.0%
Moderate-High	3	SMCA	36.3	4.8%
Moderate	3	SMCA	16.6	2.2%
Low ^b	3	SMCA	16.1	2.1%
All MPAs Combined	28		204.9	26.9%

^a Special Closures are not included in this table. See table 2-25 for a description of Special Closures associated with Alternative 3.

^b The Low category groups together MPAs that are assigned a moderate-low or low LOP.

Table 2-24. Habitat Representation in Alternative 3

Habitat	Area and Percentage of Habitat in Each Type of MPA ^a			
	SMR ^b	SMCA ^c	SMCA	Total
Intertidal				
Sandy or gravel beaches	17.61 (15%)	0.45 (0%)	10.25 (9%)	28.31 (24%)
Rocky intertidal and cliff	38.49 (23%)	4.35 (3%)	21.75 (13%)	64.59 (39%)
Coastal marsh	0.70 (45%)	0.00 (0%)	0.21 (14%)	0.92 (59%)
Tidal flats	4.93 (27%)	0.00 (0%)	1.44 (8%)	6.38 (35%)
Seagrass beds (0–30 meters): Surfgrass	14.38 (21%)	0.00 (0%)	15.46 (22%)	29.84 (43%)
Seagrass beds (0–30 meters): Eelgrass	1.43 (24%)	0.00 (0%)	2.35 (39%)	3.79 (63%)
Estuary	2.54 (13%)	0.00 (0%)	2.52 (13%)	5.06 (26%)
Soft bottom				
0–30 meters	8.86 (9%)	0.30 (0%)	11.50 (11%)	20.67 (20%)
30–100 meters	56.92 (14%)	1.31 (0%)	63.57 (15%)	121.80 (29%)
100–200 meters	NA	NA	NA	NA
>200 meters	NA	NA	NA	NA
Hard bottom				
0–30 meters	23.98 (30%)	2.94 (4%)	4.97 (6%)	31.88 (40%)
30–100 meters	13.91 (27%)	0.67 (1%)	4.15 (8%)	18.74 (36%)
100–200 meters	NA	NA	NA	NA
>200 meters	NA	NA	NA	NA
Substrate < 50 m deep				
Hard Substrate	15.27 (25%)	0.77 (1%)	5.81 (9%)	21.85 (35%)
Soft Substrate	24.73 (9%)	0.11 (0%)	35.23 (13%)	60.07 (22%)
Kelp forest				
Average kelp (1989, 1999, 2002, 2003, 2004, 2005)	9.43 (27%)	3.20 (9%)	2.73 (8%)	15.37 (44%)

* Habitats measured as an area (square miles) except for those with a * notation. Habitats with a * notation are expressed in linear units (miles).

^a These are proposed MPA designations, not levels of protection assigned by the SAT. Special Closures are not included in this table. See table 2-25 for a description of Special Closures associated with Alternative 3. The “NA” notation is due to the fact that these habitats are not found or are only found in small areas in this study region.

^b The SMR category groups together SMRs and SMRMAs.

^c These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Table 2-25. Special Closures in Alternative 3

Geography	Boundaries	Species Intended to Protect	Seasonality
Arched Rock	300 foot closure.	Brandt's cormorant, pelagic cormorant, pigeon guillemot, and western gull.	Year Round
Gull Rock	300 foot closure.	Double crested cormorant, Brandt's cormorant, pelagic cormorant, pigeon guillemot, western gull, black oystercatcher, brown pelican, harbor seal.	Year Round
Pt. Reyes Headlands	1,000 foot closure.	Common murres, pelagic cormorants, Brandt's cormorant, pigeon guillemot, western gull, rhinoceros auklet, brown pelican, elephant seal.	Year Round
Egg Rock (Devil's Slide)	1,000 foot closure (from big rock in the middle)	Common murre, Brandt's cormorant, Pigeon guillemot, pelagic cormorant, western gull, black oystercatcher, brown pelicans.	Year Round
Stormy Stack	300 foot closure.	Common murre and brown pelican.	Year Round
North Farallon Islands	1,000 foot. 300 foot closure around North Farallon Island and Isle of St. James.	Steller sea lion, common murre, pelagic cormorant, Brandt's cormorant, pigeon guillemot, western gull, and Cassin's auklet.	Year Round
Southeast Farallon Islands	300 foot closure (except Fisherman's Bay and East Landing).	Steller sea lion	Year Round

2.5.4. Existing Marine Protected Areas (No Project Alternative)

There are currently 13 MPAs in the North Central Coast Study Region, as shown in Figure 1-2. Existing MPAs represent the No Project Alternative under CEQA. Existing MPAs are designated as shown in Table 2-26 and Table 2-27. Allowed take in existing MPAs is described in Table 2-28. Habitat representation within existing MPAs is shown on Table 2-29.

Table 2-26. Overall Summary of Existing MPAs

Type of MPA	Total Existing	Area (Square Miles)	Percent of Study Region
State Marine Reserve	1	0.3	< 0.1%
State Marine Park ^b	2	0.8	0.1%
State Marine Conservation Area	10	25.7	3.4%
All MPAs Combined	13	26.8	3.5%

Table 2-27. Existing Individual MPAs

MPA Name ^a	Size (Square Miles)	Along-Shore Span (Miles) ^c	Depth Range (Feet)
Manchester & Arena Rock SMCA	6.71	3.0	0-141
Del Mar Landing SMP ^b	0.09	0.3	0-55
Salt Point SMCA	1.63	2.2	0-182
Gerstle Cove SMCA	0.01	0.1	0-10
Fort Ross SMCA	0.11	0.9	0-32
Sonoma Coast SMCA	0.91	3.3	0-14
Bodega SMR	0.29	1.1	0-30
Tomales Bay SMP ^b	0.66	1.2	0-10
Point Reyes Headlands SMCA	0.82	3.1	0-80
Estero de Limantour SMCA	0.79	3.1	0-10
Duxbury Reef SMCA	0.67	3.0	0-10
James C. Fitzgerald SMCA	0.78	3.4	0-31
Farallon Islands SMCA	13.34	5.1	0-244

^a Listed north to south.

^b The Marine Life Protection Act recommends reclassification, deletion, or modification to boundaries or allowed take, for one or more existing state marine parks. If adopted by the Commission, concurrence would be sought with the State Park and Recreation Commission in a later regulatory process.

^c Along-shore span measured as direct line from one end of the MPA to the other.

Table 2-28. Allowed Take for Existing Individual MPAs

MPA Name ^a	Take Allowed
Manchester & Arena Rock SMCA	<p>Only the following species may be taken recreationally: finfish^b, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels.</p> <p>Only the following species may be taken commercially: finfish^b, crabs, ghost shrimp, jackknife clams, sea urchins, algae except giant kelp and bull kelp and worms except that no worms may be taken in any mussel bed, nor may any person pick up, remove, detach from the substrate any other organisms, or break up, move or destroy any rocks or other substrate or surfaces to which organisms are attached.</p>
Del Mar Landing SMP ^c	Take of all living marine resources is prohibited, except the recreational take of finfish ^b by hook-and-line or spear.
Salt Point SMCA	<p>Only the following species may be taken recreationally: finfish^b, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobsters, ghost shrimp, sea urchins, mussels and marine worms.</p> <p>Only the following species may be taken commercially: finfish^b, crabs, ghost shrimp, jackknife clams, sea urchins, algae (except giant kelp and bull kelp), and worms.</p> <p>No person may pick-up, remove, or detach from substrate any organisms, nor break-up, move, or destroy any rocks or other substrate/surfaces to which organisms are attached.</p>
Gerstle Cove SMCA	Take of all living marine resources is prohibited except the commercial take of finfish ^b and algae except giant kelp and bull kelp.
Fort Ross SMCA	<p>Only the following species may be taken recreationally: finfish^b, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels.</p> <p>The commercial take of all species other than giant kelp (<i>Macrocystis pyrifera</i>) and bull kelp (<i>Nereocystis spp.</i>) is allowed.</p>
Sonoma Coast SMCA	<p>Only the following species may be taken recreationally: finfish^b, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels.</p> <p>The commercial take of all species other than giant kelp (<i>Macrocystis pyrifera</i>) and bull kelp (<i>Nereocystis spp.</i>) is allowed.</p>
Bodega SMR	Take of all living marine resources is prohibited.
Tomales Bay SMP ^c	Take of all living marine resources is prohibited except the recreational hook-and-line take of species other than marine aquatic plants.
Point Reyes Headlands SMCA	Take of all living marine resources is prohibited except the commercial take of finfish ^b and algae other than giant kelp (<i>Macrocystis pyrifera</i>) and bull kelp (<i>Nereocystis spp.</i>).

MPA Name ^a	Take Allowed
Estero de Limantour SMCA	Take of all living marine resources is prohibited except the commercial take of finfish ^b and algae other than giant kelp (<i>Macrocystis pyrifera</i>) and bull kelp (<i>Nereocystis spp.</i>).
Duxbury Reef SMCA	Only the following species may be taken recreationally: Red abalone, Dungeness crab, rock crabs, rockfish (family <i>Scorpaenidae</i>), lingcod, cabezon, surfperch (family <i>Embiotocidae</i>), halibut, flounder, sole, turbot, salmon, kelp greenling, striped bass, steelhead, monkeyface-eel, wolf-eel, smelt, and silversides.
James C. Fitzgerald SMCA	Take of all living marine resources is prohibited except the recreational take by hook-and-line or spear of: rockfish (family <i>Scorpaenidae</i>), lingcod, surfperch (family <i>Embiotocidae</i>), monkeyface eel, rock eel, white croaker, halibut, cabezon, kelp greenling, and smelt (families <i>Osmeridae</i> and <i>Atherinidae</i>).
Farallon Islands SMCA	Take other than the recreational take of marine aquatic plants is allowed except in specific areas and timeframes.

^a Listed north to south.

^b Finfish are defined in subsection 632(a)(2) as: any species of bony fish or cartilaginous fish (sharks, skates and rays). Finfish do not include amphibians, invertebrates, plants or algae. The definition of finfish provided in Section 159 does not apply to this Section.

^c The Marine Life Protection Act recommends reclassification, deletion, or modification to boundaries or allowed take, for one or more existing state marine parks. If adopted by the Commission, concurrence would be sought with the State Park and Recreation Commission in a later regulatory process.

Table 2-29. Habitat Representation in Existing MPAs

Habitat	Area and Percentage of Habitat in Each Type of MPA ^a			
	SMR	SMP ^b	SMCA	Total
Intertidal				
Sandy or gravel beaches	0.23 (0%)	0.32 (0%)	10.40 (9%)	10.95 (9%)
Rocky intertidal and cliff	1.51 (1%)	0.45 (0%)	24.57 (15%)	26.53 (16%)
Coastal marsh	0.00 (0%)	0.44 (28)	0.03 (2%)	0.46 (30%)
Tidal flats	0.00 (0%)	0.15 (1%)	1.17 (6%)	1.32 (7%)
Seagrass beds (0–30 meters): Surfgrass	1.24 (2%)	0.00 (0%)	13.91 (20%)	15.15 (22%)
Seagrass beds (0–30 meters): Eelgrass	0.00 (0%)	0.00 (0%)	0.77 (13%)	0.77 (13%)
Estuary	0.00 (0%)	0.64 (3%)	0.73 (4%)	1.36 (7%)
Soft bottom				
0–30 meters	0.00 (0%)	0.00 (0%)	4.15 (4%)	4.15 (4%)
30–100 meters	0.00 (0%)	0.00 (0%)	8.05 (2%)	8.05 (2%)
100–200 meters	NA	NA	NA	NA
>200 meters	NA	NA	NA	NA
Hard bottom				
0–30 meters	0.00 (0%)	0.00 (0%)	9.60 (12%)	9.60 (12%)
30–100 meters	0.00 (0%)	0.00 (0%)	6.98 (13%)	6.98 (13%)
100–200 meters	NA	NA	NA	NA
>200 meters	NA	NA	NA	NA
Hard Substrate < 50 m deep				
Hard Substrate	0.11 (0%)	0.01 (0%)	4.37 (7%)	4.48 (7%)
Soft Substrate	0.00 (0%)	0.33 (0%)	6.09 (2%)	6.42 (2%)
Kelp forest				
Average kelp (1989, 1999, 2002, 2003, 2004, 2005)	0.00 (0%)	0.01 (0%)	3.10 (9%)	3.11 (9%)

* Habitats measured as an area (square miles) except for those with a * notation. Habitats with a * notation are expressed in linear units (miles).

^a These are proposed MPA designations, not levels of protection assigned by the SAT. The “NA” notation is due to the fact that these habitats are not found or are only found in small areas in this study region.

^b The Marine Life Protection Act recommends reclassification, deletion, or modification to boundaries or allowed take, for one or more existing state marine parks. If adopted by the Commission, concurrence would be sought with the State Park and Recreation Commission in a later regulatory process.

Table 2-30. Comparison of MPA Regulations for the Proposed Project and Alternatives

Existing MPAs		Proposed Project		Alternative 1		Alternative 2		Alternative 3	
MPA Name	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses
Manchester & Arena Rock SMCA	Allows recreational and commercial take of finfish and some invertebrates. Allows commercial take of some algae.								
		Point Arena SMR (Very High)	Take of all living marine resources is prohibited.	Point Arena SMR (Very High)	Take of all living marine resources is prohibited.	Point Arena SMR (Very High)	Take of all living marine resources is prohibited.	Point Arena SMR (Very High)	Take of all living marine resources is prohibited.
		Point Arena SMCA (High)	All take of all living marine resources is prohibited, except recreational take of salmon by trolling and the commercial take of salmon by troll fishing gear.	Point Arena SMCA (High)	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling and commercial take of salmon with troll fishing gear.	Point Arena SMCA (High)	Take of all living marine resources is prohibited EXCEPT: the recreational take of pelagic finfish ^b by hook-and-line (salmon by trolling only) and commercial take of pelagic finfish ^b by hook-and-line (salmon by troll fishing gear only), and coastal pelagic species ⁴ except market squid, by pelagic seine.	Point Arena SMCA (High)	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling only, and the commercial take of salmon with troll fishing gear only.
		Sea Lion Cove SMCA (Moderate Low)	The recreational and commercial take of all marine invertebrates and marine aquatic plants is prohibited. Take of all other species is allowed.					Sea Lion Cove SMCA (Moderate Low)	Commercial and recreational take of invertebrates and marine aquatic plants is prohibited. Take of all other species is allowed.
		Saunders Reef SMCA (Moderate Low)	Take of all living marine resources is prohibited except the therecreational take of salmon by trolling and the commercial take of urchin.	Saunders Reef SMCA (Moderate Low)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, abalone, and finfish by hook-and-line or by spear from shore only. 2. The commercial take of salmon with troll fishing gear, and urchin.			Saunders Reef SMCA (Moderate Low)	Take of all living marine resources is prohibited, except the commercial and recreational take of salmon by trolling and the commercial take of urchin.

* These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Existing MPAs		Proposed Project		Alternative 1		Alternative 2		Alternative 3	
MPA Name	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses
Del Mar Landing SMP	Take of all living marine resources is prohibited, except the recreational take of finfish by hook-and-line or spear.	Del Mar Landing SMR (Very High)	Take of all living marine resources is prohibited.	Del Mar Landing SMCA* (Moderate Low)	Take of all living marine resources is prohibited, EXCEPT: the recreational take of finfish ^c by hook-and-line or spear.			Del Mar Landing SMR (Very High)	Take of all living marine resources is prohibited.
						Black Point SMCA (High)	Take of all living marine resources is prohibited EXCEPT: the recreational take of pelagic finfish ^c by hook-and-line (salmon by trolling only) and commercial take of pelagic finfish by hook-and-line (salmon by troll fishing gear only), and coastal pelagic species except market squid, by pelagic seine		
						Black Point SMR (Very High)	Take of all living marine resources is prohibited.		
				Rocky PT to Horseshoe Pt SMR (Very High)	Take of all living marine resources is prohibited.				
		Stewarts Point SMR (Very High)	Take of all living marine resources is prohibited.					Stewarts Point SMR (Very High)	Take of all living marine resources is prohibited.

* These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Existing MPAs		Proposed Project		Alternative 1		Alternative 2		Alternative 3	
MPA Name	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses
Salt Point SMCA	Only the following species may be taken recreationally: finfish, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobsters, ghost shrimp, sea urchins, mussels and marine worms. Only the following species may be taken commercially: finfish, crabs, ghost shrimp, jackknife clams, sea urchins, algae (except giant kelp and bull kelp), and worms. No person may pick-up, remove, or detach from substrate any organisms, nor break-up, move, or destroy any rocks or other substrate/surfaces to which organisms are attached.	Salt Point SMCA* (Moderate Low)	Take of living marine resources is prohibited except the recreational take of abalone and finfish.					Salt Point SMCA* (Moderate)	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish [subsection 632(a)(3)], and abalone
Gerstle Cove SMCA	Take of all living marine resources is prohibited except the commercial take of finfish and algae (except giant kelp and bull kelp).	Gerstle Cove SMR (Very High)	Take of all living marine resources is prohibited.	Gerstle Cove SMR (Very High)	Take of all living marine resources is prohibited.	Gerstle Cove SMR (Very High)	Take of all living marine resources is prohibited.	Gerstle Cove SMR (Very High)	Take of all living marine resources is prohibited.
Fort Ross SMCA	No recreational take of living or non-living resources is allowed except: finfish, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobsters, ghost shrimp, sea urchins, mussels, and marine worms (Note: no worms may be taken from a mussel bed unless taken incidentally). Commercial take of species other than giant kelp and bull kelp is allowed.								

* These areas, recommended by stakeholders to become SMPs, will be designated as SMCA's, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Existing MPAs		Proposed Project		Alternative 1		Alternative 2		Alternative 3	
MPA Name	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses
		Russian River SMRMA (Very High)	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).	Russian River SMR (1) (Very High) or SMRMA (2) (Very High)	(1)Take of all living marine resources is prohibited. or (2) Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).	Russian River Estuary SMRMA (Very High)	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).	Russian River Estuary SMR (Very High) or SMRMA (2) (Very High)	(1) Take of living marine resources is prohibited. or (2) Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
		Russian River SMCA (Moderate)	Take of all living marine resources is prohibited, EXCEPT: 1. The recreational take of Dungeness crab by trap and surf smelt by hand held dip nets or beach nets. 2. The commercial take of Dungeness crab by trap.	Russian River SMCA (Moderate)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of Dungeness crab by trap, and surf smelt by hand-held dip net or beach net from shore only. 2. The commercial take of Dungeness crab by trap.	Russian River SMCA (Low)	Take of all living marine resources is prohibited EXCEPT: the recreational and commercial take of marine invertebrates and finfish [subsection 632(a)(2)] EXCEPT: Chinook salmon.	Russian River SMCA (Moderate)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of Dungeness crab, and surf smelt by hand-held dip net or beach net from shore only. 2. The commercial take of Dungeness crab.
Sonoma Coast SMCA	No recreational take of living or non-living resources is allowed except: finfish, red abalone, chiones, clams, cockles, crabs, ghost shrimp, mussels, native oysters, rock scallops, sea urchins, and marine worms (Note: no worms may be taken from a mussel bed unless taken incidentally). Commercial take of species other than giant kelp and bull kelp is allowed.								
Bodega SMR	All commercial and recreational take prohibited.	Bodega Head SMR (Very High)	Take of all living resources is prohibited.	Bodega Head SMR (Very High)	Take of all living marine resources is prohibited.	Bodega Head SMR (Very High)	Take of all living marine resources is prohibited.	Bodega SMR (Very High)	Take of all living marine resource is prohibited.

* These areas, recommended by stakeholders to become SMPs, will be designated as SMCA's, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Existing MPAs		Proposed Project		Alternative 1		Alternative 2		Alternative 3	
MPA Name	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses
		Bodega Head SMCA (Moderate High)	Take of living marine resources is prohibited, EXCEPT: 1. The recreational take of pelagic finfish ^d by trolling, Dungeness crab by trap and market squid by hand held dip net. 2. The commercial take of pelagic finfish ^d with troll fishing gear or seine, Dungeness crab by trap, and market squid by hand-held dip net.	Bodega Head SMCA (Moderate High)	Take of all living marine resources is prohibited, EXCEPT: the recreational and commercial take of pelagic finfish by hook-and-line (recreational salmon take by trolling and commercial salmon take with troll fishing gear only), and Dungeness crab by trap	Bodega Head SMCA (Moderate High)	Take of all living marine resources is prohibited EXCEPT: the recreational take of pelagic finfish ^b by trolling, Dungeness crab by trap, and commercial take of pelagic finfish ^b by troll fishing gear or pelagic seine, Dungeness crab by trap, and market squid by pelagic seine	Bodega SMCA (High)	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling only and the commercial take of salmon with troll fishing gear only.
		Estero Americano SMRMA (Very High)	Take of all living marine resources is prohibited EXCEPT: the recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).	Estero Americano SMR (1) (Very High) or SMRMA (2) (Very High)	(1) All take of living marine resources is prohibited. or (2) Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).	Estero Americano SMRMA (Very High)	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).	Estero de Americano SMR (1) (Very High) or SMRMA (2) (Very High)	(1) Take of all living marine resources is prohibited. or (2) Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
		Estero de San Antonio SMRMA (Very High)	Take of all living marine resources is prohibited EXCEPT: the recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).	Estero de San Antonio SMR (1) (Very High) or SMRMA (2) (Very High)	(1) Take of all living marine resources is prohibited. or (2) Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).	Estero de San Antonio SMRMA (Very High)	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).	Estero de San Antonio SMR (1) (Very High) or SMRMA (2) (Very High)	Take of all living marine resources is prohibited. or (2) Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).

* These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Existing MPAs		Proposed Project		Alternative 1		Alternative 2		Alternative 3	
MPA Name	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses
Tomales Bay SMP	Take of all living marine resources is prohibited, except the recreational hook-and-line take of species other than marine aquatic plants. Only lightweight, hand-carried boats may be launched or operated within the Park.							Tomales Bay SMR (1) (Very High) or SMRMA (2) (Very High)	(1) Take of all living marine resources is prohibited. Or (2) Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
		Point Reyes SMR (Very High)	Take of all living marine resources is prohibited.	Point Reyes SMR (Very High)	Take of all living marine resources is prohibited.	Point Reyes Headlands SMR (Very High)	Take of all living marine resources is prohibited.	Point Reyes SMR (Very High)	Take of all living marine resources is prohibited.
Point Reyes Headlands SMCA	Take of all living marine resources is prohibited except the commercial take of finfish and algae other than giant kelp and bull kelp.	Point Reyes SMCA (Moderate High)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, and Dungeness crab by trap. 2. The commercial take of salmon with trolling gear, and Dungeness crab by trap..	Point Reyes SMCA (Moderate High)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, and Dungeness crab by trap. 2. The commercial take of salmon with troll fishing gear, and Dungeness crab by trap.	Point Reyes Headlands SMCA (Moderate High)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of pelagic finfish by hook-and-line (salmon by trolling only), and Dungeness crab by trap. 2. The commercial take of pelagic finfish by hook-and-line (salmon with troll fishing gear only), coastal pelagic species by pelagic seine, and Dungeness crab by trap.	Point Reyes SMCA (Moderate High)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, and Dungeness crab by trap. 2. The commercial take of salmon with troll fishing gear, and Dungeness crab by trap.
Estero de Limantour SMCA	Take of all living marine resources is prohibited except the commercial take of finfish and algae other than giant kelp and bull kelp.	Estero de Limantour SMR (Very High)	Take of all living marine resources is prohibited.	Drakes & Limantour Estero SMR (Very High)	Take of all living marine resources is prohibited.	Estero de Limantour SMR (Very High)	Take of all living marine resources is prohibited.	Drakes Estero SMR (Very High)	Take of all living marine resources is prohibited.

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Existing MPAs		Proposed Project		Alternative 1		Alternative 2		Alternative 3	
MPA Name	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses
		Drakes Estero SMCA (Low)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of clams. 2. The commercial aquaculture of shellfish pursuant to a valid State Water Bottom Lease and permit.	Drakes Estero SMCA (Low)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of clams. 2. The commercial aquaculture of shellfish pursuant to a valid State Water Bottom Lease and permit.	Drakes Estero SMCA (Low)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of clams. 2. The commercial aquaculture of shellfish pursuant to a valid State Water Bottom Lease and permit.	Drakes Estero SMCA (Low)	Take of all living marine resources is prohibited, EXCEPT: The commercial aquaculture of shellfish pursuant to a valid State Water Bottom Lease and permit.
				Double Point SMCA (Moderate)	Take of all living marine resources is prohibited EXCEPT: the recreational and commercial take of salmon (recreational salmon take by trolling and commercial salmon take with troll fishing gear), Dungeness crab by trap, halibut by hook-and-line, and coastal pelagic species except market squid.			Double Point SMCA (Moderate High)	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling and the commercial take of salmon with troll fishing gear.
Duxbury Reef SMCA	Only the following species may be taken recreationally: red abalone, Dungeness crab, rock crabs, rockfish (family Scorpaenidae), lingcod, cabezon, surfperch (family Embiotocidae), halibut, flounder, sole, turbot, salmon, kelp greening, striped bass, steelhead, monkeyface-eel, wolf-eel, smelt, and silversides. Commercial take of species other than giant kelp and bull kelp is allowed.	Duxbury SMCA (Moderate)	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish from shore only, and the recreational take of abalone.	Duxbury Reef SMCA (Moderate)	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish by hook-and-line from shore only.	Duxbury SMCA (Moderate)	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish from shore only, and the recreational take of abalone.	Duxbury SMCA (Moderate)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, Dungeness crab by trap, halibut, and finfish ^b by hook-and-line from shore only. 2. The commercial take of salmon with troll fishing gear, Dungeness crab by trap, and halibut.

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Existing MPAs		Proposed Project		Alternative 1		Alternative 2		Alternative 3	
MPA Name	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses
								Agate Beach Intertidal SMCA (Moderate)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, Dungeness crab by trap, halibut, and finfish by hook-and-line from shore only. 2. The commercial take of salmon with troll fishing gear, Dungeness crab by trap, and halibut.
								Devil's Slide SMCA (Moderate High)	Take of all living marine resources is prohibited, EXCEPT: 1. The recreational take of salmon by trolling, Dungeness crab by trap, market squid, and coastal pelagic species by hook-and-line 2. The commercial take of salmon with troll fishing gear, Dungeness crab by trap, market squid, and coastal pelagic species ^c by hook-and-line or pelagic seine.
				Montara SMCA (Moderate)	Take of all living marine resources is prohibited EXCEPT 1. The recreational take of salmon by trolling, Dungeness crab by trap, and coastal pelagic species by hook-and-line. 2. The commercial take of salmon with troll fishing gear, Dungeness crab by trap, and coastal pelagic species by hook-and-line.				

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Existing MPAs		Proposed Project		Alternative 1		Alternative 2		Alternative 3	
MPA Name	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses
		Montara/Fitzgerald SMR (Very High)	Take of all living marine resources is prohibited.			Montara SMR (Very High)	Take of all living marine resources is prohibited.		
		Pillar Point SMCA (Moderate High)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of pelagic finfish ^d by trolling, Dungeness crab by trap and squid by hand-held dip net. 2. The commercial take of pelagic finfish ^d with troll fishing gear or seine, Dungeness crab by trap and market squid by net.			Pillar Point SMCA (Moderate High)	Take of all living marine resources is prohibited EXCEPT 1. The recreational take of pelagic finfish by trolling, and Dungeness crab by trap, 2. The commercial take of pelagic finfish with troll fishing gear or pelagic seine, Dungeness crab by trap and market squid by pelagic seine.		
James C. Fitzgerald SMCA	Take of all living marine resources is prohibited except the recreational take by hook-and-line or spear of: rockfish (family Scorpaenidae), lingcod, surfperch (family Embiotocidae), monkeyface eel, rock eel, white croaker, halibut, cabezon, kelp greenling, and smelt (families Osmeridae and Atherinidae).			Fitzgerald SMR (Very High)	Take of all living marine resources is prohibited.			Fitzgerald SMR (Very High)	Take of all living marine resources is prohibited.
								San Gregorio SMR (Very High)	Take of all living marine resources is prohibited.
Farallon Islands SMCA	No take of groundfish from 0-10 fathoms. Vessel operation/anchoring closure in a portion of the SMCA seasonally.								
		North Farallon Islands SMR (Very High)	Take of all living marine resources is prohibited.	North Farallon Islands SMR (Very High)	Take of all living marine resources is prohibited.	North Farallon Islands SMR (Very High)	Take of all living marine resources is prohibited.	North Farallon Islands SMR (Very High)	Take of all living marine resources is prohibited.
		Southeast Farallon Islands SMR (Very High)	Take of all living marine resources is prohibited.	Southeast Farallon Islands SMR (Very High)	Take of all living marine resources is prohibited.	Southeast Farallon Islands SMR (Very High)	Take of all living marine resources is prohibited.	Southeast Farallon Islands SMR (Very High)	Take of all living marine resources is prohibited.

* These areas, recommended by stakeholders to become SMPs, will be designated as SMCAs, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

Existing MPAs		Proposed Project		Alternative 1		Alternative 2		Alternative 3	
MPA Name	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses	MPA Name (Level of Protection)	Allowed/ Disallowed Uses
		Southeast Farallon Islands SMCA (High)	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling and the commercial take of salmon with troll fishing gear.	Southeast Farallon Islands SMCA (High)	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling and commercial take of salmon with troll fishing gear.	Southeast Farallon Islands SMCA (High)	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of pelagic finfish ^b by hook-and-line (salmon by trolling only) and coastal pelagic species ^c except market squid. 2. The commercial take of pelagic finfish ^b by hook-and-line (salmon with troll fishing gear only) and coastal pelagic species ^c except market squid, by pelagic seine.	Southeast Farallon Islands SMCA (High)	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling and the commercial take of salmon with troll fishing gear.

* These areas, recommended by stakeholders to become SMPs, will be designated as SMCA, and could subsequently be designated also as SMPs at the discretion of the State Park and Recreation Commission.

2.5.5. Comparison of Proposed Project and Alternatives in Meeting MLPA Goals

The SAT for the north central coast study region has evaluated the Proposed Project and alternatives in terms of the extent to which each meets the SAT guidelines and project goals (as described in section 2.2). The SAT team has concluded that the Proposed Project and alternatives would all increase conservation benefits and create better ecological MPA network components relative to existing MPAs. As such, all of the packages presented would meet the SAT guidelines and project goals. The Proposed Project and alternatives would increase the area included within MPAs, with notably larger areas within SMRs.

Alternative 3 covers the most area in MPAs at or above the “very high” and “high” LOP. Alternative 2 covers the least area, and Alternative 1 and Proposed Project cover an intermediate amount of area. At or above the “moderate-high” LOP, Alternative 3 covers the most area, Alternative 1 covers the least area, and Alternative 2 and Proposed Project cover an intermediate amount of area. All of the alternatives cover at least 16.5% of the north central coast study region in MPAs that are at or above the “moderate-high” LOP.

A comparison of allowed and disallowed uses associated with the Proposed Project and alternatives is presented in Table 2-30. Comparison maps (by subregion) of the Proposed Project and Alternatives 1, 2, and 3 can be found in Appendix D.

2.6. Management, Enforcement, and Monitoring of MPAs

2.6.1. Management

Following adoption of final regulations based on the Proposed Project or an alternative, a regional management plan will be prepared. The plan will include information on day-to-day management, research, education, enforcement, monitoring, and budgeting, and will explain what elements of the network should be monitored, evaluated, and revised in response to new information and experience. The plan will not contain specific details for methodology, protocol, or activities, but will provide a foundation for developing more specific action plans, as necessary, and for adapting management measures to new information.

The management plan will include a schedule for review and possible revision at least every five years, and a mechanism for revisions in the interim in response to significant events, such as unexpected monitoring results, budget shifts, or changes in the status of the populations of focal species, habitats, or character or effectiveness of management outside individual MPAs.

Although the CDFG and in some circumstances the California Department of Parks and Recreation (DPR) exercise primary authority for the management of California’s MPAs, these agencies can draw on the capacity of other agencies and organizations in carrying out critical management activities. MPAs located adjacent to

facilities such as onshore protected areas (e.g. the federally-managed Golden Gate National Seashore), marine labs, or similar institutions may be effectively co-managed by the local management entities such as the National Park Service. The management plan will describe the potential management partners, including various federal, state, and local agencies, fishery participants, academia, marine conservation and other nonprofit groups, and other stakeholders.

2.6.2. Enforcement

The CDFG's enforcement staff is charged with enforcing state marine resource management laws and regulations over an area encompassing approximately 1,100 miles of coastline and out to sea. CDFG staff also provides enforcement of federal laws and regulations within federal and state waters. Enforcement duties include ensuring compliance with all commercial and sport fishing statutes and regulations (including FGC, Title 14 CCR, and regulations specifically associated with MPAs), responding to and investigating marine water pollution incidents, assisting with homeland security operations, and promoting and ensuring general public safety.

A federal cooperative enforcement agreement with NOAA deputizes the CDFG to enforce the Magnuson-Stevens Act, ESA, Marine Mammal Protection Act (MMPA), National Marine Sanctuaries Act (NMSA), and Lacey Act. CDFG enforcement patrols regularly extend into federal waters between 3 and 12 nm from shore as well as the EEZ beyond 12 nm. A significant portion of commercial and recreational fishing effort, and subsequently enforcement effort, occurs outside state waters in the EEZ.

The CDFG maintains seven large patrol boats in the 54- to 65-ft class stationed at major ports throughout the state. These patrol boats are staffed by a cadre of 22 officers and five support personnel. The CDFG also has eight patrol boats in the 24- to 30-ft range, and 15 patrol skiffs stationed at ports and harbors throughout the state. Overall, the CDFG has approximately 245 wardens in the field responsible for a combination of both inland and marine patrol. A portion of these wardens have a "marine emphasis," focusing primarily on ocean enforcement but also enforcing inland regulations. The CDFG has single- and twin-engine fixed-wing aircraft that work in conjunction with both marine- and land-based wardens to help identify and investigate violations.

The CDFG's Special Operations Unit (SOU) consists of enforcement officers who are tasked with conducting statewide covert investigations primarily dealing with the commercialization of fish and wildlife. SOU investigations allow a team of well-trained CDFG wardens to take time and effort usually not available to field wardens to thoroughly investigate large poaching operations that are severely impacting California's fish and wildlife resources. The SOU reports directly to the marine assistant chief out of Sacramento headquarters. The unit has no patrol responsibility anywhere in the state. The unit is directed to specific investigations using information gathered from a variety of sources throughout the state.

The investigations conducted by SOU are varied and include commercialization of recreationally caught or illegally taken bear, deer, turkey, abalone, lobster, sturgeon, salmon, steelhead, and a variety of other marine and inland fish, as well as many other wildlife species. Covert investigations are very time-consuming and expensive to conduct. The investigations can last from a few days to several years. The SOU supervisor works closely with a local district attorney during all investigations, which helps to facilitate aggressive prosecution of most SOU cases. SOU may be used to assist with major MPA violations.

The CDFG's law enforcement branch also works closely with a number of other agencies, including the DPR, NOAA Fisheries, National Marine Sanctuary Program, National Park Service, and U.S. Coast Guard on matters of mutual enforcement interest. Although these programs often provide financial or logistical support, they do not provide significant staff resources statewide, especially for offshore patrols or patrols of areas not adjacent to their own facilities. As part of seeking new cooperative agreements, the CDFG will make efforts to acquire more direct assistance from appropriate agencies.

In addition to the existing resources, an enforcement plan that identifies additional enforcement resources and strategies will be prepared for the Proposed Project. For detailed information regarding the contents of an enforcement plan, please refer to the MLPA Master Plan for Marine Protected Areas (CDFG 2008b).

2.6.3. Monitoring and Adaptive Management

The MLPA requires adaptive management and the MLPA Master Plan includes recommendations for monitoring and evaluation for the purpose of adaptive management. The MLPA also requires that all MPAs have measurable goals and objectives.

A monitoring program for the Proposed Project will be prepared and implemented as part of the regional management planning and implementation process described above. The monitoring program will:

- identify regional goals and objectives and objectives for individual MPAs;
- select indicators to evaluate biophysical, socioeconomic, and governance patterns and processes;
- plan the evaluation, including an assessment of existing data and resource needs for measuring selected indicators, determination of audiences to receive evaluation results, a review of relevant monitoring and evaluation programs at existing MPAs, identification of evaluation participants, and development of a timeline and work plan for the evaluation;

- review and revise the monitoring and evaluation program using structured peer and public review processes;
- implement the evaluation work plan - including selection of methods and approach to data collection, data management and analysis, and peer review and independent evaluation - to ensure robustness and credibility of results; and
- communicate results to target audiences and implement adaptive management as needed.

Although the results from ongoing monitoring and evaluation will be reviewed periodically, a comprehensive analysis of monitoring results will be conducted every three to five years. The longer timeframe for review takes into account the fact that biological change is slow to occur and trends are more likely to become apparent on this time scale. In addition to evaluating monitoring methods and results, the review will evaluate whether the monitoring results are consistent with the objectives of each individual MPA, the goals and objectives of the region, and the goals and objectives of the MLPA. If the results are not consistent, the review will develop recommendations for adjusting management of the MPA network.