Chapter 2
PROJECT DESCRIPTION

This chapter describes the Proposed Project, which involves designation of marine protected areas (MPAs) for the north coast of California under the MLPA. This chapter discusses the project location, the goals and objectives of the Proposed Project, and the alternatives.

2.1 Project Location

As described in section 1.1 of Chapter 1, the Proposed Project is located in state waters along the northern California coast, from Alder Creek, near Point Arena, in Mendocino County to the California/Oregon border in Del Norte County (see **Figure 1-1**). There are five existing MPAs in the North Coast Study Region (Study Region); these existing MPAs are located in the southern portion of the Study Region (the locations of these existing MPAs are shown in Figure 1-1). Punta Gorda State Marine Reserve (SMR), established in 1994 in Humboldt County, is the only SMR in the Study Region and the largest existing MPA in the Study Region, at 2.07 square statute miles (mi^2). Four state marine conservation areas (SMCAs) are currently established in the Study Region: MacKerricher SMCA, Russian Gulch SMCA, and Van Damme SMCA, established in 1970, and Point Cabrillo SMCA, established in 1975. Other marine managed areas in the Study Region include part of the federally managed Redwood National Park (which has a boundary that extends 0.25 statute mile [mi] offshore into the Study Region), two types of fishery closures: rockfish conservations areas and essential fish habitat areas, and four underwater parks managed by California Department of Parks and Recreation (State Parks) that overlap with existing SMCAs at MacKerricher, Point Cabrillo, Russian Gulch, and Van Damme.

The northern portion of California includes some of the least developed coastal locations in the state. Exposure to high-energy wind and waves shapes both the environment and human uses in the north coast; along with unique oceanographic patterns, species, and a range of both commercial and recreational fisheries, the wind and waves help to form the distinctive character of the north coast's marine resources and coastal communities. The north coast also serves as an important link to habitats and management measures north of California, in Oregon (MLPAI 2010a).

An important component of the Study Region is the federally recognized tribes, and tribal communities that reside within or uses the coastal areas within the Study Region and who have significant knowledge of coastal environments and maintain important historical connections to the coast. This Study Region has the greatest number of Native American tribes of any of the five MLPA study regions (U.S. Census 2011). Several north coast tribes own land adjacent to the ocean of the Study Region, and many continue to live in their ancestral homelands and practice age-old cultural traditions. Their identities as Indigenous Peoples are intimately linked to the ocean, beaches, rivers, estuaries, bays, lagoons and their

associated plants and animals, rocks, landforms, and climatic and seasonal patterns (MLPAI 2010a).

The Study Region is part of the California Current Large Marine Ecosystem (LME), one of only four temperate upwelling systems in the world. The California Current LME is considered globally important for biodiversity because of its high productivity and the large numbers of species it supports. The California Current LME extends from Vancouver Island to Baja California and is stimulated by upwelling, which richly supplies surface waters with nutrients. These nutrients support blooms of phytoplankton, which in turn form the foundation for a food web that includes thousands of species of invertebrates, fish, marine mammals, and seabirds (MLPAI 2010a).

The Study Region includes various environments, ranging from rocky coasts and sandy beaches to soft- and hard-bottom deep habitat. There are opportunities for consumptive recreational activities, including shore- and/or vessel-based fishing, kayak angling, clamming, and abalone picking and diving (which is currently only allowed in California north of San Francisco Bay). There are also opportunities for a range of nonconsumptive activities, such as diving, surfing, kayaking, beach-going, swimming, and shore- and boat-based wildlife viewing. The population, broad range of interests, sensitive marine environment, and oceanographic characteristics of the Study Region combine to create a complex setting (MLPAI 2010a). See also Appendix F for additional information provided on the unique complexities of the Study Region, including high energy wind and waves, minus tides, annual paralytic shellfish quarantines, and access constraints.

The Del Norte County coast at the north end of the Study Region is characterized by a relatively narrow shelf and a rocky coastline. The Smith River, the largest river system in California that flows freely along its entire course, meets the ocean 5 mi south of the Oregon border. Castle Rock (also referred to as Castle Island) is located 0.5 mi offshore from Crescent City, spans approximately 14 acres, and rises 335 feet above sea level. Castle Rock is an important refuge for marine mammals and nesting birds. It is the second-largest nesting seabird colony south of Alaska (after the Farallon Islands), and it has the largest population of Common Murres in California (Jacques 2007). The Klamath River, another major river system in Del Norte County, enters the ocean 14 mi south of Crescent City (MLPAI 2010a).

Humboldt Bay, located in Humboldt County, is the second-largest estuary in California and the only deep-water port between San Francisco, California, and Coos Bay, Oregon. Humboldt Bay is approximately 14 mi long and 4.5 mi wide at its widest point and is characterized by eelgrass beds, tidal flats, salt marshes, and extensive mud flats interlaced with drainage channels. Approximately 40% of the known eelgrass in the state occurs in Humboldt Bay. The largest commercial operation in the bay is growing and harvesting oysters. More than 60% of the oysters sold in California are grown in Humboldt Bay. At least 110 species of fish have been reported from Humboldt Bay, including many commercially important species that spawn within the bay. At least six fish species listed as threatened or endangered inhabit Humboldt Bay and its tributaries, including coho salmon, Chinook salmon, steelhead, longfin smelt, and the tidewater goby. Humboldt Bay is an important nursery ground for aquatic species and provides important habitat for marine mammals. The estuary also is an important unit in the Pacific Flyway and supports numerous migrating waterfowl and shorebird species (MLPAI 2010a).

Cape Mendocino is located in southern Humboldt County and has been described as a transition zone between distinctive wind regimes north and south of Cape Mendocino. To the south, the dominant upwelling season occurs earlier and lasts longer. To the north, the upwelling season occurs later and is shorter, but the storm season lasts longer and exhibits the strongest wind forcing on the California coast. Cape Mendocino is the westernmost point on the coast of California, and it is one of the most seismically active regions in the contiguous United States. Offshore from Cape Mendocino is the Mendocino Triple Junction, a geologic feature occurring where three tectonic plates come together (Pacific Plate, North American Plate, and Gorda Plate). The San Andreas Fault runs south from the junction, separating the Pacific Plate from the North American Plate (MLPAI 2010a).

The Mendocino County coast is characterized by a narrow shelf and rocky cliffs. The Eel River, the third-largest watershed in California, has the highest recorded average sediment yield per drainage area of any river of its size or larger in the contiguous United States. The continental shelf near the Eel River is flat and featureless owing to sediments deposited by the Eel River to the south and the Mad River to the north. The Eel River is one of California's most important waterways for listed coho salmon, Chinook salmon, coastal cutthroat trout, and steelhead. The estuary also supports a variety of commercially important species, such as Dungeness crab, surf smelt (mostly juveniles), northern anchovy, Pacific herring, and several flatfish species (MLPAI 2010a).

Although the Study Region boundary ends at the political border between the states of California and Oregon, neighboring MPAs in southern Oregon could potentially provide habitat for species frequenting the waters of both states and could supply recruits to MPAs established in the Study Region. There are four existing MPAs in Oregon state waters, from the state border to the Cape Arago area. In addition to the existing MPAs, Oregon is currently undergoing an MPA development process to implement a new set of marine reserves (MLPAI 2010a).

2.2 Project Goals and Regional Objectives

The MPA design process includes setting goals and regional objectives that are consistent with the MLPA, then identifying the intent for a particular site and identifying objectives and site-specific rationales for individual MPAs. Once set, goals and regional objectives influence crucial decisions regarding MPA size, location and boundaries, management measures, and they inform monitoring and evaluation programs. Regional objectives should reflect the MLPA goals and be reasonably measurable and achievable (MLPAI 2010b).

The Study Region goals are taken verbatim from the MLPA itself. Regional objectives are more specific statements of what MPAs may accomplish to attain a related goal. Note that the order in which these goals appear does not imply any ranking of importance or priority (MLPAI 2010b).

> **Goal 1**: To protect the natural diversity and abundance[1] of marine life, and the structure, function, and integrity of marine ecosystems.

[1] Natural diversity is the species richness of a community or area when protected from, or not subjected to, human-induced change. Natural abundance is the total number of individuals in a population protected from, or not subjected to, human-induced change (MLPAI 2010a).

- Regional Objective 1.1: Protect and maintain species diversity and abundance consistent with natural fluctuations, including areas of high native species diversity and representative habitats.
- Regional Objective 1.2: Protect 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: Promote 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.

- Regional Objective 2.1: Help protect or rebuild populations of rare, threatened, endangered, depressed, depleted, or overfished species and the habitats and ecosystem functions upon which they rely.[2]
- Regional Objective 2.2: Sustain or increase reproduction by species likely to benefit from MPAs and promote retention of large, mature individuals.
- Regional Objective 2.3: Sustain or increase reproduction by species likely to benefit from MPAs through protection of breeding, foraging, rearing or nursery areas or other areas where species congregate.
- 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 disturbance, and to manage these uses in a manner consistent with protecting biodiversity.

- Regional Objective 3.1: Sustain or enhance cultural, recreational, and educational experiences and uses. [3]

[2] The terms "rare," threatened," "endangered," "depressed," "depleted," and "overfished" referenced here are designations in state and federal legislation, regulations, and fishery management plans (FMPs) (e.g., California Fish and Game Code, Marine Mammal Protection Act, Magnuson-Stevens Fishery Conservation and Management Act, California Nearshore FMP, Federal Groundfish FMP. Rare, endangered, and threatened are designations under the California Endangered Species Act. Depleted is a designation under the federal Marine Mammal Protection Act. Depressed means the condition of a marine fishery that exhibits declining fish population abundance levels below those consistent with maximum sustainable yield (California Fish and Game Code, Section 90.7). Overfished means a population that does not produce maximum sustainable yield on a continuing basis (Magnuson-Stevens Fishery Conservation and Management Act), and in the California Nearshore FMP and federal Groundfish FMP the term also means a population that falls below the threshold of 30% or 25%, successively, of the estimated unfished biomass (MLPAI 2010a).

- Regional Objective 3.2: Provide opportunities for scientifically valid studies, including studies on MPA effectiveness and other research benefiting from areas with minimal or restricted human disturbance.
- Regional Objective 3.3: Provide opportunities for collaborative scientific monitoring and research projects that evaluate MPAs while promoting adaptive management and links with fisheries management, seabird and mammals information needs, classroom science curricula, cooperative fisheries research and volunteer efforts, and identify participants.

Goal 4: To protect marine natural heritage, including protection of representative and unique marine life habitats in California waters for their intrinsic value.

- Regional Objective 4.1: Include within MPAs key and unique habitats identified by the MLPA Master Plan Science Advisory Team for the North Coast Study Region.
- Regional Objective 4.2: Include and replicate to the extent 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 MPAs have clearly defined objectives, effective management measures, and adequate enforcement, and are based on sound scientific guidelines.

- Regional Objective 5.1: Provide opportunities for interested parties to help develop objectives and ensure that each MPA is linked to one or more regional objectives.
- Regional Objective 5.2: To the extent possible, effectively use scientific guidelines in the California MLPA Master Plan for Marine Protected Areas.
- Regional Objective 5.3: Ensure public understanding of, compliance with, and stakeholder support for MPA boundaries and regulations.
- Regional Objective 5.4: Include simple, clear, and focused site-specific objectives/rationales for each MPA and ensure that site-specific rationales for each MPA reflect one or more goals and regional objectives.

Goal 6: To ensure that the state's MPAs are designed and managed, to the extent possible, as a component of a statewide network.

- Regional Objective 6.1: Ensure ecological connectivity within and between regional components of the statewide network.
- Regional Objective 6.2: Provide for protection and connectivity of habitat for those species that utilize different habitats over their lifetime.

[3] Some examples of how to achieve this objective may include increasing size or abundance of species, maintaining high scenic and aesthetic values for nonextractive uses, lowering congestion, improving catch rates, and protecting submerged cultural sites, just to name a few (MLPAI 2010a).

2.3 Proposed Project

The Proposed Project, evaluated in this DEIR, consists of a set of proposed MPAs located along the northern California coast. The Proposed Project MPAs comprise the northernmost component of the statewide network of MPAs, being created pursuant to the MLPA. The North Coast Study Region process was the fourth regional MPA design process to be conducted under the MLPA Initiative. A comprehensive stakeholder and public process was conducted between July 2009 and February 2011, with established regional planning groups as explained in Chapter 1. The MPA development process consisted of iterative rounds of proposal development, evaluation, and refinement, with the initial round of proposed MPA arrays submitted by self-organized community groups for consideration and further development in two subsequent rounds of proposal development within the North Coast Regional Stakeholder Group (NCRSG). NCRSG first reviewed and considered (a) community proposals, (b) the five existing MPAs in the Study Region, (c) public comments, and (d) existing and NCRSG-proposed MPA array evaluations provided by the MLPA Master Plan Science Advisory Team (SAT), the Department, State Parks, MLPA Initiative staff, and the Blue Ribbon Task Force (BRTF). On this basis, the NCRSG produced a single proposal. The proposal includes new MPAs, special closures (detailed later in this section), and recommendations to retain, remove, or revise the existing MPAs. The NCRSG submitted its MPA proposal to the BRTF for consideration in its development of proposals to recommend to the Commission. Further documentation of the development process can be found on the MLPA website for the Study Region: http://www.dfg.ca.gov/mlpa/northcoast.asp.

The BRTF ultimately presented the Commission with two MPA proposals and recommendations for consideration in determining a preferred alternative. This included the NCRSG proposal, referred to as the Revised North Coast Regional Stakeholder Group MPA Proposal (RNCP), and a BRTF-modified version of the same proposal, referred to as the Enhanced Compliance Alternative (ECA).

At its June 29, 2011 meeting, the Commission selected a preferred alternative for the north coast MPAs. The Commission considered three options for incorporating traditional tribal gathering or take[4] practices in proposed MPAs for the Study Region within its preferred alternative. Three options were identified as follows:

- Tribal Gathering Option 1—In addition to commercial and recreational take regulations proposed, allow tribal noncommercial gathering to continue in specific SMCAs (not SMRs) and SMRMA, by specific tribal users, where a factual record can be established that shows ancestral take or tribal gathering practices by a federally recognized tribe in that specific MPA, and by allowing only those

[4] Some tribes and tribal communities have raised concern about the term 'tribal take' used in the proposed regulations. Based on information received by tribal members, to completely encompass the full range of traditional cultural extractive activities of California Indian Tribes in this area, it is necessary to understand that, to members of the north coast tribes and tribal communities, the term "tribal take" includes gathering, harvesting and fishing for cultural and religious purposes as well as for subsistence. Pursuant to tribal culture, all three terms must be used because each conveys specific and unique kinds of activities that cannot be adequately encompassed by a single term. Under state statute, the term "take" is clear and, combined with the allowed uses defined in the MPA specific regulations, unambiguous. In Fish and Game Code Section 86, "Take" means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill. The California Code of Regulations Title 14 Section 1.80 defines "Take" as hunt, pursue, catch, capture or kill fish, amphibians, reptiles, mollusks, crustaceans or invertebrates or attempting to do so.

tribes to take specified species with specified gear types. This was a new approach not applied in the RNCP or ECA proposals.

- Tribal Gathering Option 2—In addition to commercial and recreational take regulations proposed, allow noncommercial tribal gathering to continue throughout all areas within open coast MPAs (except SMRs) by adding additional recreational take allowances for specified species and gear types recommended by tribes at all levels of protection (LOPs)[5]. This was the approach applied to the RNCP developed by NCRSG.
- Tribal Gathering Option 3—In addition to commercial and recreational take regulations proposed, allow tribal noncommercial gathering in only the nearshore component of open coast MPAs (except SMRs) by dividing open coast SMCAs into two MPAs, with a nearshore MPA component and offshore MPA component. In the nearshore MPA component, add additional recreational take allowances for specified species and gear types recommended by tribes at all LOPs; in the offshore MPA component, add additional recreational take allowances for only those specified species and gear types recommended by tribes with a high or moderate-high LOP to increase offshore protection. Recreational take allowances at all LOPs would also be added to estuarine SMCAs or SMRMAs, if specific species and gear types were recommended by tribes. This was the approach applied to the ECA developed by BRTF.

At the June 29, 2011 meeting, the Commission selected Tribal Gathering Option 1 as its preferred method for incorporating tribal take practices into the Proposed Regulations. It also selected Tribal Gathering Option 3 as the method applied to the regulatory alternative (Alternative 2 of the Proposed Project) for incorporating tribal take practices into the Proposed Regulations. The Commission asked the federally recognized tribes to submit a factual record of historic and current non-commercial uses in specific geographies, other than SMRs, to the Commission within 60 days.

The Commission received six factual records representing twenty-four federally recognized north coast tribes and tribal communities prior to the 60-day deadline. The factual records identified eleven MPAs for take by tribes with overlapping requests in some MPAs by specific tribes.

On October 19, 2011, the Commission confirmed and clarified specific details for integrating traditional tribal take into its preferred alternative. The Proposed Regulations were updated to allow take by those federally recognized tribes that submitted factual records to the Commission for take in specific MPAs, as reflected in **Table 2-1**. Proposed general requirements for tribal take are also shown in Table 2-1 under "General Provisions."

Table 2-1 also provides descriptions and proposed take regulations and LOPs assigned by SAT (see Chapter 1, section 1.1.3) for all proposed individual MPAs, MMAs, and special closures identified for the Study Region. The Commission also identified sub-options for

[5] To analyze the differences between no-take reserves and limited take conservation areas and recommended parks, the SAT developed a ranking for levels of protection described in the *California Marine Life Protection Act: Master Plan for Marine Protected Areas* (MLPA Master Plan) (CDFG 2008), based on biological impacts of allowed uses on ecological and ecosystem structure. LOPs are modified for each study region for evaluation purposes, and are appended to the MLPA Master Plan upon adoption of MPA proposals (see Chapter 1, section 1.1.2).

several of the MPAs regarding boundaries and take regulations. Where identified, the first sub-option listed for these MPAs is the Commission's preferred sub-option. However, all options will be considered in the CEQA analysis. The Commission's preferred alternative, for MPAs, tribal take regulations, and MPA sub-options, form the Proposed Project evaluated in this EIR.

The Proposed Project includes a total of 19 MPAs (including six SMRs and 13 SMCAs), as well as one state marine recreational management area (SMRMA) for a total of 20 MPAs and MMAs. Additionally, there are seven special closures included in the Proposed Project. The locations and extent of the proposed MPAs, MMAs, and special closures in the Study Region are depicted in **Figures 2-1** and **2-2a through 2-2c**. In total, these proposed geographic areas cover approximately 134 mi^2 of state waters or about 13% of the Study Region (**Table 2-2**). The ecological protection levels offered by the MPAs (SAT-assigned LOPs) are provided in **Table 2-3**. The SMRs provide a very high LOP, while the SMCAs and SMRMA are assigned a low LOP relative to a fully-protected SMR area, owing to the allowed take activities proposed. Note that while these MPAs indicate a "low" LOP, nonetheless they still provide an increase in ecological protection relative to baseline conditions. (As described in Chapter 1, section 1.1.2, the SAT assigns LOPs based on the lowest LOP activity allowed inside the MPA. Refer to Table 1-2 for activities associated with different LOPs.) Four of the proposed MPAs are existing MPAs that were retained and modified; the fifth existing MPA, Punta Gorda SMR, is replaced by new MPAs in the vicinity, and therefore would be removed under the Proposed Project.

Special Closures

There are seven special closures included in the Proposed Project. Special closures are designated by the Commission in the marine environment to provide geographically specific protection of resources from human activities. In some instances, special closures may offer protection, such as to breeding seabird and marine mammal populations, from geographically specific threats, including disturbance, that are not necessarily addressed by MPAs.

The following special closures are included in the Proposed Project (see **Figure 2-1**):

- Southwest Seal Rock Special Closure (year-round)
- Castle Rock Special Closure (year-round)
- False Klamath Rock Special Closure (seasonal closure from March 1–August 3)
- Sugarloaf Island Special Closure (year-round)
- Steamboat Rock Special Closure (seasonal closure from March 1–August 3; note this overlaps a proposed MPA)
- Rockport Rocks Special Closure (seasonal closure from March 1–August 31)
- Vizcaino Rock Special Closure (seasonal closure from March 1–August 31)

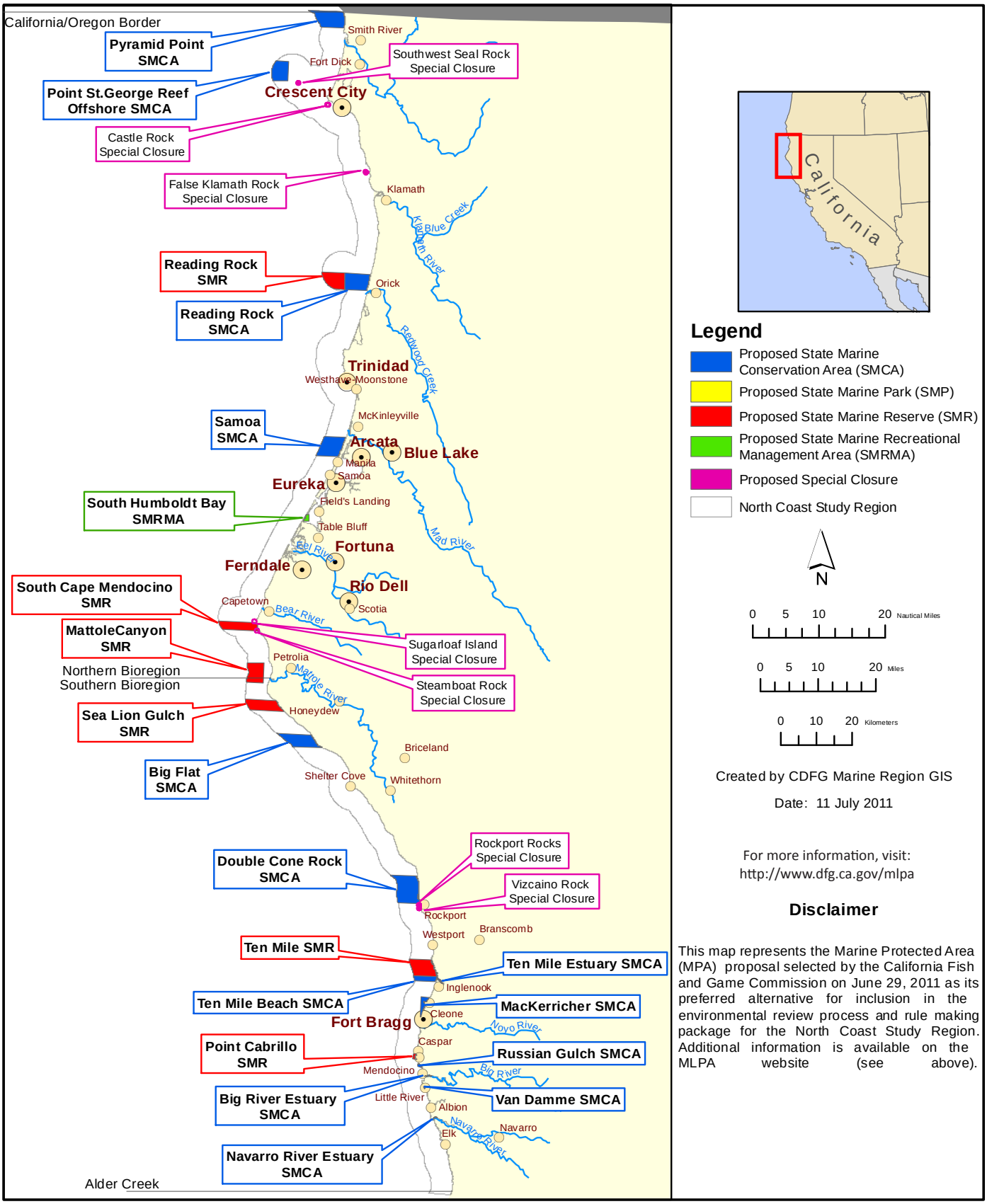

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Figure 2-1
Proposed Project

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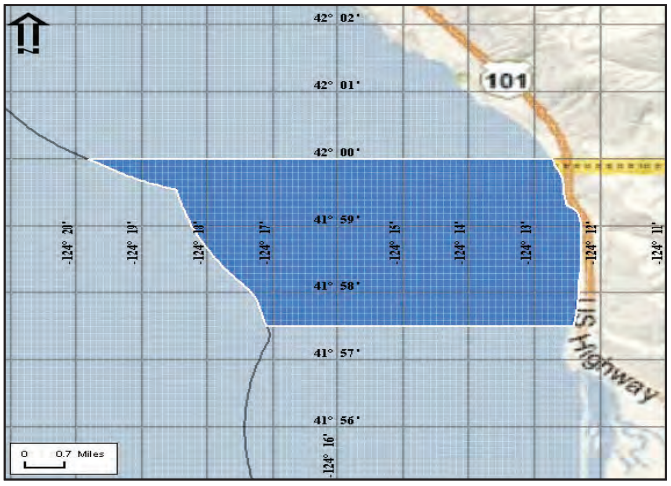
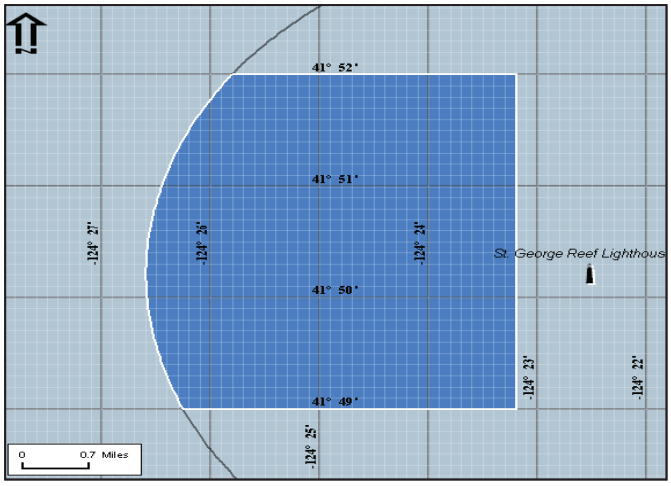
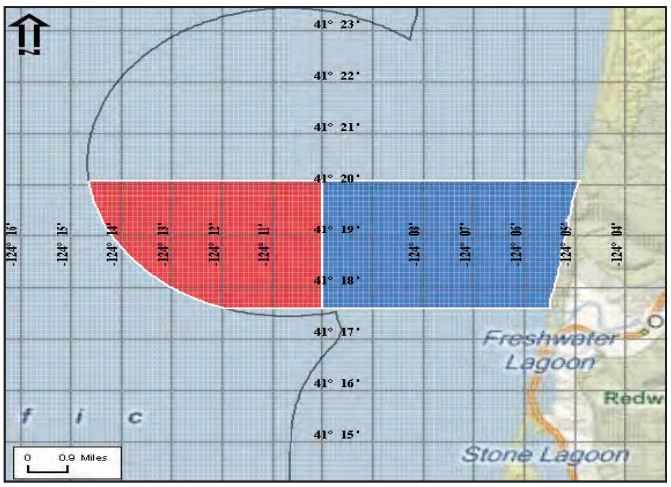


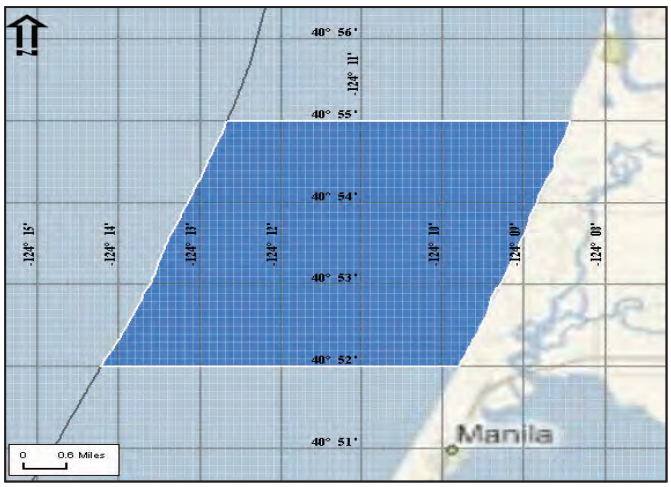
1. Pyramid Point SMCA.



2. Point St. George Reef Offshore SMCA.

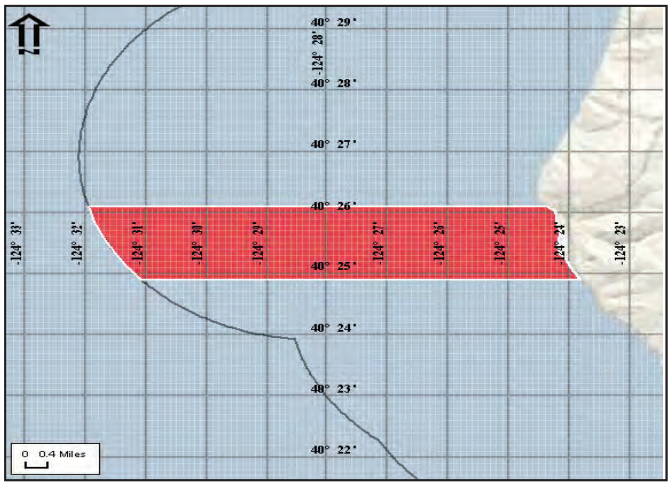


3. Reading Rock SMR and Reading Rock SMCA.



4. Samoa SMCA.

5. South Humboldt Bay SMRMA.



6. South Cape Mendocino SMR.

Proposed State Marine Conservation Area (SMCA)
Proposed State Marine Reserve (SMR)
Proposed State Marine Recreational Management Area (SMRMA)

Source: MLPAI 2010c; MLPAI 2010d

Figure 2-2a
Individual MPAs in the Proposed Project

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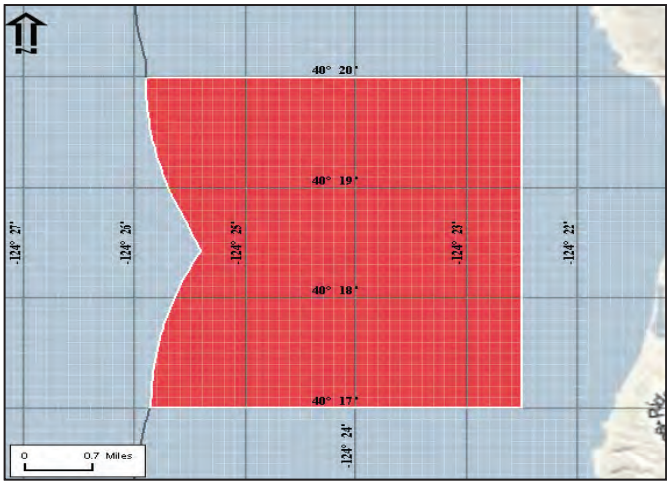
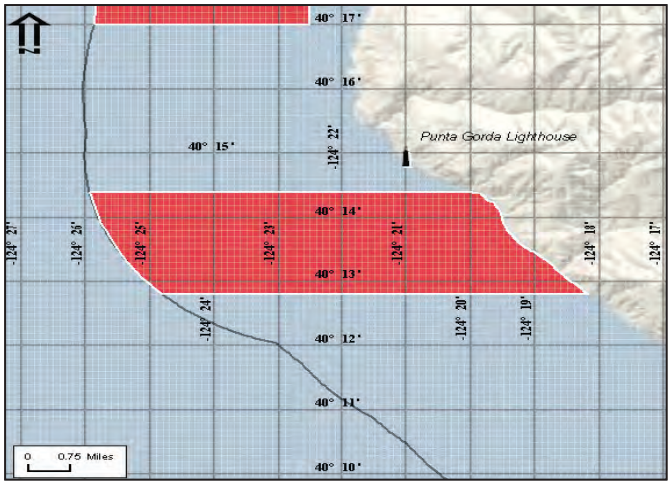
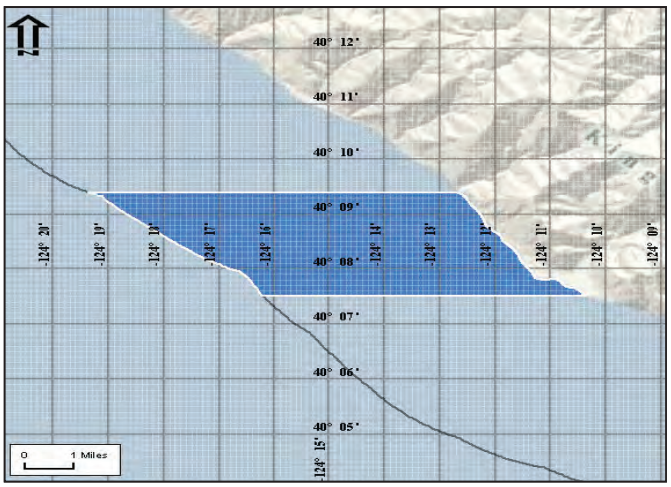


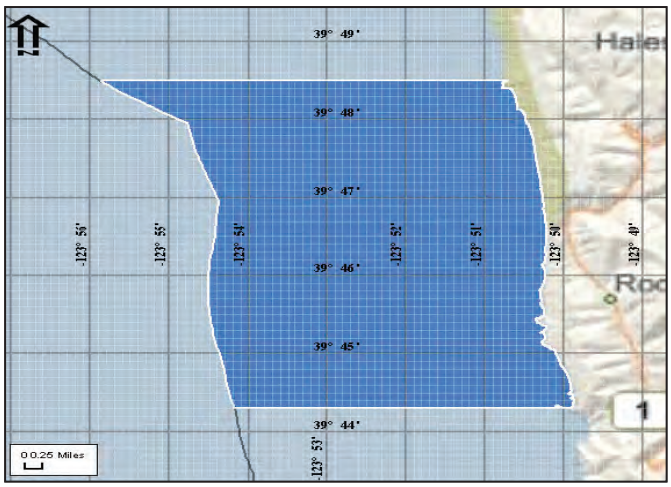
7. Mattole Canyon SMR.



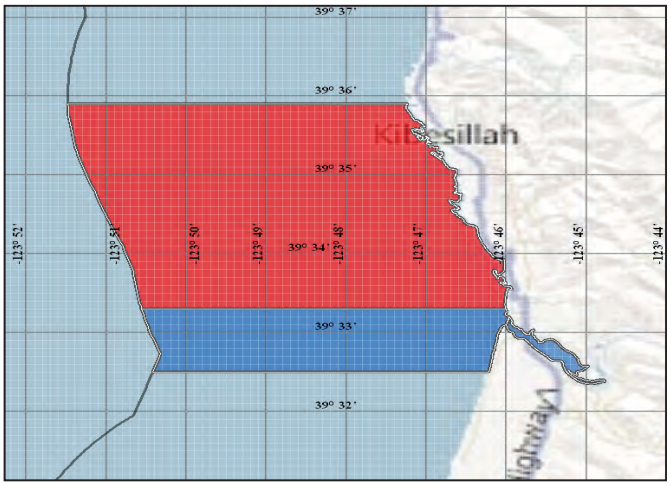
8. Sea Lion Gulch SMR.



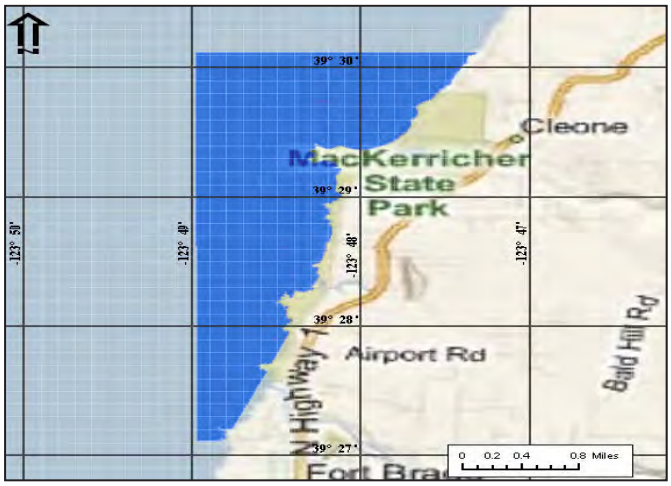
9. Big Flat SMCA.



10. Double Cone Rock SMCA.



11. Ten Mile SMR, Ten Mile Beach SMCA, and Ten Mile Estuary SMCA.



12. MacKerricher SMCA.

Proposed State Marine Conservation Area (SMCA)
Proposed State Marine Reserve (SMR)

Source: MLPAI 2010c MLPAI 20120d

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Figure 2-2b

Individual MPAs in the Proposed Project

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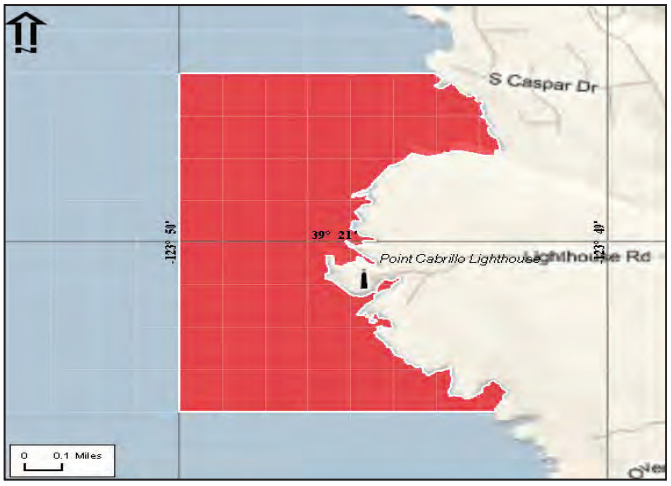
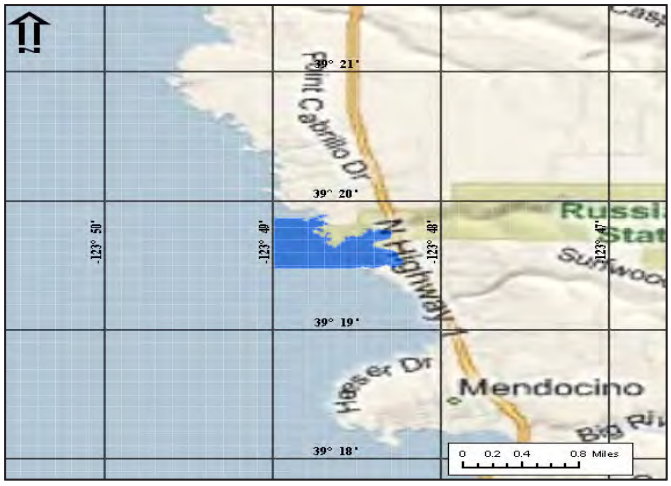
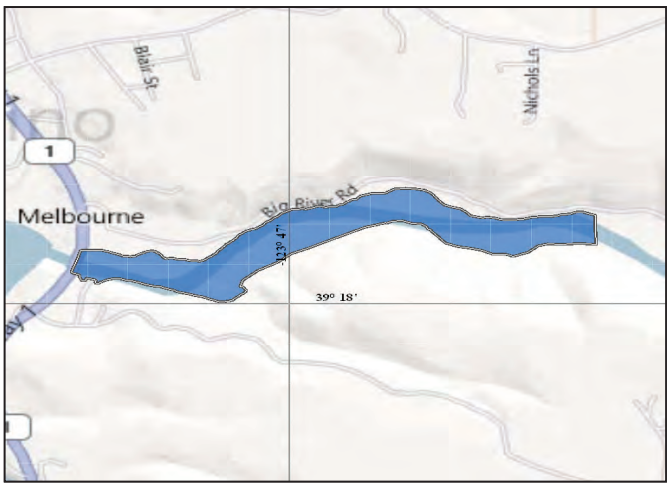


13. Point Cabrillo SMR.

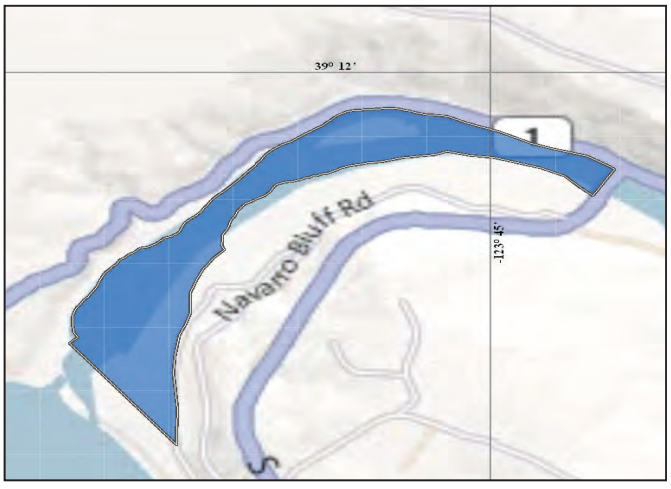


14. Russian Gulch SMCA.



15. Big River Estuary SMCA.

16. Van Damme SMCA.



17. Navarro River Estuary SMCA.

Proposed State Marine Conservation Area (SMCA)
Proposed State Marine Reserve (SMR)

Source: MLPAI 2010c; MLPAI 2010d

Figure 2-2c

Individual MPAs in the Proposed Project

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Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

GENERAL PROVISIONS (SECTION 632)		
General Provision	**Description of General Provision**	**Proposed Regulation**
Tribal take	Specifies requirements applying to all members of federally recognized tribes for tribal take of living marine resources where authorized in subsection 632(b)	For purposes of this regulation, "federally recognized tribe" means any tribe on the *List of Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs,* that is annually published in the Federal Register. Any member of a federally recognized tribe authorized to take living marine resources from area-specific take restrictions in subsection 632(b), when engaging in take within an authorized area shall: (a) possess on his or her person, in his or her immediate possession, or where otherwise specifically required by law to be kept, any valid license, report card, tag, stamp, permit, endorsement or any other entitlement that is required in the Fish and Game Code, or required by other state, federal or local entities, in order to take living marine resources; (b) possess a valid photo identification card issued by a federally recognized tribe that contains expiration date, tribal name, tribal member number, name, signature, date of birth, height, color of eyes, color of hair, weight, sex; and (c) display any of the items listed above upon demand to any peace officer. Members taking living marine resources under this provision are subject to current seasonal, bag, possession, gear and size limits in existing Fish and Game Code statutes and regulations of the Commission, except as otherwise provided for in subsection 632(b), or area or territorial limits. No member, while taking living marine resources pursuant to this section, may be assisted by any person who does not possess a valid tribal identification card and is properly licensed to take living marine resources. Nothing in the regulation is intended to conflict with, or supersede, any state or federal law regarding the take of protected, threatened or endangered species.
Shore fishing	Provides general definition for fishing from shore	Take from shore, or shore fishing, for purposes of this section, means take of living marine resources from shore, including beaches, banks, piers, jetties, breakwaters, docks, and other man-made structures connected to the shore. Unless specifically authorized in subsection 632(b), no vessel, watercraft (motorized or non-motorized), or floating device may be used to assist in the take, transport or possession of species taken while shore fishing, except that a float tube or similar floatation device may be used when taking abalone only.

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
PYRAMID POINT SMCA: INCLUDE BOUNDARY OPTIONS (1-2)				
Option 1: Pyramid Point State Marine Conservation Area	Southern boundary as described in the Proposed Regulation	Take of all living marine resources is prohibited EXCEPT: ■ The recreational take of surf smelt by DIP NET or HAWAIIAN TYPE THROW NET.	The following federally recognized tribes (listed alphabetically) may take living marine resources pursuant to existing regulations: ■ Cher-Ae Heights Indian Community of the Trinidad Rancheria ■ Elk Valley Rancheria ■ Resighini Rancheria ■ Smith River Rancheria ■ Yurok Tribe of the Yurok Reservation	Low
Option 2: Pyramid Point State Marine Conservation Area	Move southern boundary approximately 1/3 mile south to the northernmost tip of Prince Island.	Take as in Option 1.	Same as in Option 1	Low
Point St. George Reef Offshore State Marine Conservation Area	Proposed Regulation	The take of all living marine resources is prohibited EXCEPT: ■ The recreational take of salmon by TROLLING, and Dungeness crab by TRAP. ■ The commercial take of salmon by TROLL FISHING GEAR, and Dungeness crab by TRAP.	The following federally recognized tribes (listed alphabetically) may take living marine resources pursuant to existing regulations: ■ Cher-Ae Heights Indian Community of the Trinidad Rancheria ■ Elk Valley Rancheria ■ Resighini Rancheria ■ Smith River Rancheria ■ Yurok Tribe of the Yurok Reservation	Low
READING ROCK[2] SMR/SMCA CLUSTER: INCLUDES NAME OPTION AT READING ROCK SMR (NOTE: DECISION FOR READING ROCK SMR WILL DETERMINE NAME OPTION FOR READING ROCK SMCA)				

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
Option A: Reading Rock[2] State Marine Conservation Area	Proposed Regulation	Take of all living marine resources is prohibited EXCEPT: ■ The recreational take of salmon by TROLLING, surf smelt by DIP NET and HAWAIIAN TYPE THROW NET, and Dungeness crab by TRAP, HOOP NET and HAND. ■ The commercial take of salmon by TROLL FISHING GEAR, surf smelt by DIP NET, and Dungeness crab by TRAP.	The following federally recognized tribes (listed alphabetically) may take living marine resources pursuant to existing regulations: ■ Cher-Ae Heights Indian Community of the Trinidad Rancheria ■ Resighini Rancheria ■ Yurok Tribe of the Yurok Reservation	Low
Option B: Reading Rock[2] Onshore State Marine Conservation Area	Proposed Regulation	Take as in Option A	Same as in Option A	Low
READING ROCK[2] SMR/SMCA CLUSTER: INCLUDES TAKE / DESIGNATION / NAME AT READING ROCK SMR (NOTE: DECISION FOR READING ROCK SMR WILL DETERMINE NAME OPTION FOR READING ROCK SMCA)				
Option A: Reading Rock[2] State Marine Reserve	Proposed Regulation	Take of all living marine resources is prohibited.	---	Very High
Option B: Reading Rock[2] Offshore State Marine Conservation Area	Change Option 1 Reading Rock SMR to Reading Rock Offshore SMCA allowing tribal take	Take of all living marine resources is prohibited except as authorized for federally recognized tribes.	The following federally recognized tribes (listed alphabetically) may take living marine resources pursuant to existing regulations: ■ Cher-Ae Heights Indian Community of the Trinidad Rancheria ■ Resighini Rancheria ■ Yurok Tribe of the Yurok Reservation	Low

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
Samoa State Marine Conservation Area	Proposed Regulation	Take of all living marine resources is prohibited EXCEPT: ■ The recreational take of salmon by TROLLING, surf smelt by DIPNET and HAWAIIAN TYPE THROW NET, and Dungeness crab by TRAP, HOOP NET and HAND. ■ The commercial take of salmon by TROLL FISHING GEAR, surf smelt by DIP NET, and Dungeness crab by TRAP.	The following federally recognized tribe may take living marine resources pursuant to existing regulations: ■ Wiyot Tribe	Low
SOUTH HUMBOLDT BAY SMRMA: INCLUDEDS BOUNDARY OPTIONS (1-2)				
Option 1: South Humboldt Bay State Marine Recreational Management Area	Proposed Regulation	Take of all living marine resources is prohibited EXCEPT: ■ Waterfowl may be taken in accordance with the general waterfowl regulations (Sections 502, 550, 551, and 552).	The following federally recognized tribe may take living marine resources pursuant to existing regulations: ■ Wiyot Tribe	Low

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
Option 2: South Humboldt Bay State Marine Recreational Management Area	Move northern boundary south to a prominent point of land on the west side of the bay. Extend the northern and southern boundaries east across the entire bay.	Take as in Option 1	The following federally recognized tribe may take living marine resources pursuant to existing regulations: ■ Wiyot Tribe Allows beach nourishment or other sediment management activities and operation and maintenance of artificial structures pursuant to any required permits or as authorized by the Department.[3]	Low
South Cape Mendocino State Marine Reserve	Proposed Regulation	Take of all living marine resources is prohibited.	---	Very High
Mattole Canyon State Marine Reserve	Proposed Regulation	Take of all living marine resources is prohibited.	---	Very High
SEA LION GULCH SMR: INCLUDES BOUNDARY OPTIONS (1-2)				
Option 1: Sea Lion Gulch State Marine Reserve	Proposed Regulation	Take of all living marine resources is prohibited	---	Very High
Option 2: Sea Lion Gulch State Marine Reserve	Move the northern boundary north approximately 1 mile to Punta Gorda Lighthouse (aligns with an offshore buoy) and move the southern boundary north approximately 0.5 mile to Cooskie Creek.	Take as in Option 1.	---	Very High

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
Big Flat State Marine Conservation Area	Proposed Regulation	Take of all living marine resources is prohibited EXCEPT: ■ The recreational take of salmon by TROLLING, and Dungeness crab by TRAP, HOOP NET, and HAND. ■ The commercial take of salmon by TROLL FISHING GEAR, and Dungeness crab by TRAP.	The following federally recognized tribes (listed alphabetically) may take living marine resources pursuant to existing regulations: ■ Bear River Band of the Rohnerville Rancheria ■ Big Valley Band of Pomo Indians of the Big Valley Rancheria ■ Cahto Indian Tribe of the Laytonville Rancheria ■ Coyote Valley Band of Pomo Indians ■ Elem Indian Colony of Pomo Indians of the Sulphur Bank Rancheria ■ Guidiville Rancheria ■ Habematolel Pomo of Upper Lake ■ Hopland Band of Pomo Indians of the Hopland Rancheria ■ Lower Lake Rancheria ■ Manchester Band of Pomo Indians of the Manchester-Point Arena Rancheria ■ Middletown Rancheria of Pomo Indians ■ Pinoleville Pomo Nation ■ Potter Valley Tribe ■ Redwood Valley Rancheria of Pomo Indians ■ Robinson Rancheria of Pomo Indians ■ Round Valley Indian Tribes of the	Low

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
			■ Round Valley Reservation ■ Scotts Valley Band of Pomo Indians ■ Sherwood Valley Rancheria of Pomo Indians	
DOUBLE CONE ROCK SMCA: INCLUDES TAKE OPTIONS (A-B)				
Option A: Double Cone Rock State Marine Conservation Area	Proposed Regulation	Take of all living marine resources is prohibited EXCEPT the following may be taken recreationally from shore only: ■ The recreational take of salmon by TROLLING, Dungeness crab by TRAP, HOOP NET and HAND. ■ The commercial take of salmon by TROLL FISHING GEAR, and Dungeness crab by TRAP.	The following federally recognized tribes (listed alphabetically) may take living marine resources pursuant to existing regulations: ■ Big Valley Band of Pomo Indians of the Big Valley Rancheria ■ Cahto Indian Tribe of the Laytonville Rancheria ■ Coyote Valley Band of Pomo Indians ■ Elem Indian Colony of Pomo Indians of the Sulphur Bank Rancheria ■ Guidiville Rancheria ■ Habematolel Pomo of Upper Lake ■ Hopland Band of Pomo Indians of the Hopland Rancheria ■ Lower Lake Rancheria ■ Manchester Band of Pomo Indians of the Manchester-Point Arena Rancheria ■ Middletown Rancheria of Pomo Indians ■ Pinoleville Pomo Nation ■ Potter Valley Tribe ■ Redwood Valley Rancheria of Pomo	Low

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
			Indians ■ Robinson Rancheria of Pomo Indians ■ Round Valley Indian Tribes of the Round Valley Reservation ■ Scotts Valley Band of Pomo Indians ■ Sherwood Valley Rancheria of Pomo Indians	
Option B: Double Cone Rock State Marine Conservation Area	---	Take of all living marine resources is prohibited EXCEPT: ■ The recreational take of salmon by TROLLING, and Dungeness crab by TRAP, HOOP NET, and HAND, and the following may be taken from shore only: cabezon, and rockfish by HOOK AND LINE; surfperch (family Embiotocidae) by HOOK AND LINE, HAND-HELD DIP NET, and HAWAIIN TYPE THROW NET; surf smelt by HAND HELD DIP NET and HAWAIIAN TYPE THROW NET; and abalone. ■ The commercial take of salmon by TROLL FISHING GEAR, and Dungeness crab by TRAP.	Same as in Option A	Low
Ten Mile State Marine Reserve	Proposed Regulation	Take of all living marine resources is prohibited.	---	Very High
TEN MILE BEACH SMCA: INCLUDES BOUNDARY OPTIONS (1-2)				
Option 1: Ten Mile	Proposed Regulation	Take of all living marine resources is	The following federally recognized tribes	Low

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
Beach State Marine Conservation Area		prohibited EXCEPT: ■ The recreational take of Dungeness crab by TRAP, HOOP NET, and HAND. ■ The commercial take of Dungeness crab by TRAP.	(listed alphabetically) may take living marine resources pursuant to existing regulations: ■ Big Valley Band of Pomo Indians of the Big Valley Rancheria ■ Cahto Indian Tribe of the Laytonville Rancheria ■ Coyote Valley Band of Pomo Indians ■ Elem Indian Colony of Pomo Indians of the Sulphur Bank Rancheria ■ Guidiville Rancheria ■ Habematolel Pomo of Upper Lake ■ Hopland Band of Pomo Indians of the Hopland Rancheria ■ Lower Lake Rancheria ■ Manchester Band of Pomo Indians of the Manchester-Point Arena Rancheria ■ Middletown Rancheria of Pomo Indians ■ Pinoleville Pomo Nation ■ Potter Valley Tribe ■ Redwood Valley Rancheria of Pomo Indians ■ Robinson Rancheria of Pomo Indians ■ Round Valley Indian Tribes of the Round Valley Reservation ■ Scotts Valley Band of Pomo Indians ■ Sherwood Valley Rancheria of Pomo	

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
			Indians	
Option 2: Ten Mile Beach State Marine Conservation Area	Change Option 1 by moving the southern boundary approximately 0.75 mile south to the mouth of Inglenook Creek.	Take as in Option 1	Same as in Option 1	Low
Ten Mile Estuary State Marine Conservation Area	Proposed Regulation	Take of all living marine resources is prohibited EXCEPT: ■ Waterfowl may be taken in accordance with the general waterfowl regulations (Sections 502, 550, 551, and 552).	The following federally recognized tribes (listed alphabetically) may take living marine resources pursuant to existing regulations: ■ Big Valley Band of Pomo Indians of the Big Valley Rancheria ■ Cahto Indian Tribe of the Laytonville Rancheria ■ Coyote Valley Band of Pomo Indians ■ Elem Indian Colony of Pomo Indians of the Sulphur Bank Rancheria ■ Guidiville Rancheria ■ Habematolel Pomo of Upper Lake ■ Hopland Band of Pomo Indians of the Hopland Rancheria ■ Lower Lake Rancheria ■ Manchester Band of Pomo Indians of the Manchester-Point Arena Rancheria ■ Middletown Rancheria of Pomo Indians ■ Pinoleville Pomo Nation	Low

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
			■ Potter Valley Tribe ■ Redwood Valley Rancheria of Pomo Indians ■ Robinson Rancheria of Pomo Indians ■ Round Valley Indian Tribes of the Round Valley Reservation ■ Scotts Valley Band of Pomo Indians ■ Sherwood Valley Rancheria of Pomo Indians Allows maintenance of artificial structures pursuant to any required permits, or as otherwise authorized by the Department.[3]	
MacKerricher State Marine Conservation Area	Proposed Regulation	Commercial take of bull kelp and giant kelp is prohibited. All other take is allowed.	---	Low
Point Cabrillo State Marine Reserve	Proposed Regulation	Take of all living marine resources is prohibited.	---	Very High
Russian Gulch State Marine Conservation Area	Proposed Regulation	Commercial take of bull kelp and giant kelp is prohibited. All other take is allowed.	---	Low
BIG RIVER ESTUARY SMCA: INCLUDES TAKE OPTIONS (A-B)				
Option A: Big River Estuary State Marine Conservation Area	Proposed Regulation	Take of all living marine resources is prohibited EXCEPT: ■ The recreational take of Dungeness crab by HOOP NET or HAND. ■ Waterfowl may be taken in	The following federally recognized tribes (listed alphabetically) may take living marine resources pursuant to existing regulations: ■ Big Valley Band of Pomo Indians of the Big Valley Rancheria ■ Cahto Indian Tribe of the Laytonville	Low

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
		accordance with the general waterfowl regulations (Sections 502, 550, 551, and 552).	Rancheria ■ Coyote Valley Band of Pomo Indians ■ Elem Indian Colony of Pomo Indians of the Sulphur Bank Rancheria ■ Guidiville Rancheria ■ Habematolel Pomo of Upper Lake ■ Hopland Band of Pomo Indians of the Hopland Rancheria ■ Lower Lake Rancheria ■ Manchester Band of Pomo Indians of the Manchester-Point Arena Rancheria ■ Middletown Rancheria of Pomo Indians ■ Pinoleville Pomo Nation ■ Potter Valley Tribe ■ Redwood Valley Rancheria of Pomo Indians ■ Robinson Rancheria of Pomo Indians ■ Round Valley Indian Tribes of the Round Valley Reservation ■ Scotts Valley Band of Pomo Indians ■ Sherwood Valley Rancheria of Pomo Indians Allows maintenance of artificial structures pursuant to any required permits, or as otherwise authorized by the Department.[3]	

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
Option B: Big River Estuary State Marine Conservation Area	Retain regulations proposed in the RNCP and adjust the MPA goals and objectives accordingly.	Take of all living marine resources is prohibited EXCEPT: ■ The recreational take of surfperch by HOOK AND LINE FROM SHORE, and Dungeness crab by HOOP NET and HAND. ■ Waterfowl may be taken in accordance with the general waterfowl regulations (Sections 502, 550, 551, and 552).	Same as in Option A	Low
Van Damme State Marine Conservation Area	Proposed Regulation	Commercial take of bull kelp and giant kelp is prohibited. All other take is allowed.	---	Low
NAVARRO RIVER ESTUARY SMCA: INCLUDES TAKE OPTIONS (A-B)				
Option A: Navarro River State Marine Conservation Area	Proposed Regulation	The take of all living marine resources is prohibited EXCEPT: ■ Waterfowl may be taken in accordance with general waterfowl regulations (Sections 502, 550, 551, and 552).	The following federally recognized tribes (listed alphabetically) may take living marine resources pursuant to existing regulations: ■ Big Valley Band of Pomo Indians of the Big Valley Rancheria ■ Cahto Indian Tribe of the Laytonville Rancheria ■ Coyote Valley Band of Pomo Indians ■ Elem Indian Colony of Pomo Indians of the Sulphur Bank Rancheria ■ Guidiville Rancheria ■ Habematolel Pomo of Upper Lake ■ Hopland Band of Pomo Indians of the Hopland Rancheria	

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
			■ Lower Lake Rancheria ■ Manchester Band of Pomo Indians of the Manchester-Point Arena Rancheria ■ Middletown Rancheria of Pomo Indians ■ Pinoleville Pomo Nation ■ Potter Valley Tribe ■ Redwood Valley Rancheria of Pomo Indians ■ Robinson Rancheria of Pomo Indians ■ Round Valley Indian Tribes of the Round Valley Reservation ■ Scotts Valley Band of Pomo Indians ■ Sherwood Valley Rancheria of Pomo Indians	
Option B: Navarro River State Marine Conservation Area	Adds the recreational take of salmon in the MPA.	Take of all living marine resources is prohibited EXCEPT: ■ The recreational take of salmon by HOOK AND LINE (see Section 7.50 for specific regulations). ■ Waterfowl may be taken in accordance with general waterfowl regulations (Sections 502, 550, 551, and 552).	Same as Option A	Moderate

Table 2-1. Proposed Regulation for Additions to General Provisions of Section 632, and for Marine Protected Areas, Marine Managed Areas, and Special Closures in the North Coast Study Region, including Proposed Regulations and Science Advisory Team- (SAT-) Assigned Level of Protection

MARINE PROTECTED AREAS & MARINE MANAGED AREAS				
MPA Name & Designation	**Description of MPA Options**	**Proposed Allowed Take**	**Other Proposed Regulated Activities**	**SAT Level of Protection[1]**
SPECIAL CLOSURES				
Special Closure Name		**Proposed Regulations**	**Seasonality of Special Closure**	**SAT Level of Protection[1]**
Southwest Seal Rock Special Closure		300-ft closure around Southwest Seal Rock	Year-round	N/A
Castle Rock Special Closure		300-ft closure around Castle Rock	Year-round	N/A
False Klamath Rock Special Closure		300-ft closure around False Klamath Rock	March 1–August 31	N/A
Sugarloaf Island Special Closure		300-ft closure around Sugarloaf Island	Year-round	N/A
Steamboat Rock Special Closure		300-ft closure around Steamboat Rock	March 1–August 31	N/A
Rockport Rocks Special Closure		300-ft closure around Rockport Rocks	March 1–August 31	N/A
Vizcaino Rock Special Closure		300-ft closure around 'seaward' side of Vizcaino Rock	March 1–August 31	

Notes: ft = foot, MPA = marine protected area, N/A = not applicable, SAT = MLPA Master Plan Science Advisory Team, SMCA = state marine conservation area, SMR = state marine reserve

[1] To analyze the differences between no-take reserves and limited take conservation areas and recommended parks, SAT developed a ranking for level of protection described in the *California Marine Life Protection Act: Master Plan for Marine Protected Areas* (Master Plan) based on impacts of allowed uses on ecological and ecosystem structure. Levels of protection are modified for each study region for evaluation purposes, and are appended to the Master Plan upon adoption of MPA proposals (see Chapter 1, section 1.1.2).

[2] The proposed regulations for the North Coast Region identify the rock located at coordinates 41°20'27.72"N, 124°10'42.69"W (NAD83) as Reading Rock. Nautical navigation charts developed by the NOAA also identify the rock as Reading Rock. Alternatively, local communities in the area refer to this rock as Redding Rock. This document, as well as the proposed regulations references the rock and the MPAs near the rock as Reading Rock.

[3] Existing activities and operations permitted by other federal, state, or local entities, such as dredging, maintenance of artificial structures, and sand replenishment and other sediment management activities have been identified as occurring within this proposed MPA, which may result in take of marine resources incidental to the activity. Operations or activities identified at the time of designation are included within the proposed regulation to make explicit that MPA designation is not intended to interfere with these permitted activities.

Source: Data compiled by Horizon Water and Environment in 2011

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Table 2-2. Overall Summary of Proposed MPAs by Type and Size

Type of MPA or MMA[a]	# of MPAs	Area (mi^2)	% of Study Region
State Marine Reserve (SMR)	6	51.17	4.98
State Marine Recreational Management Area (SMRMA)[a]	1	0.79	0.08
State Marine Conservation Area (SMCA)	13	84.94	8.27
All MPAs and MMAs	20	136.91	13.3

Notes: mi^2 = square statute mile(s), MPA = marine protected area, MMA = marine managed area

[a] This proposal includes state marine recreational management areas, which are not MPAs but instead MMAs.

Source: Data compiled by Horizon Water and Environment in 2011

Table 2-3. Levels of Protection Provided by Proposed Project

Level of Protection	# of MPAs	Area (mi^2)	% of Study Region
Very High[a]	6	51.17	5.0
High	0	0.00	0.0
Moderate-High	0	0.00	0.0
Moderate	0	0.00	0.0
Moderate-low	0	0.00	0.0
Low[b]	14	85.73	8.3
Total	**20**	**136.90**	**13.3**

Notes: LOP = level of protection (in note below), mi2 = square statute mile(s), MPA = marine protected area, SMR = state marine area (in note below), SMRMA = state marine recreational management area (in note below)

[a] The "Very High" category includes MPAs with SMR designation, as well as SMRMA designations that do not propose any allowed uses.

[b] The SAT assigns LOPs based on the lowest LOP activity allowed inside the MPA, regardless of how many individual people might harvest those species. LOPs are modified for each study region for evaluation purposes; a discussion of how LOPs are assigned is presented in Chapter 1, section 1.1.2.

Source: MLPAI 2010e

As shown in **Table 2-4**, the size of the MPAs range from less than 1 mi^2 to about 18 mi^2, and their depths vary from zero to approximately 1,600 feet below sea level. A wide range of habitats are represented (**Table 2-5**).

Table 2-4. Size of Individual MPAs in the Proposed Project

MPA Name	Size[a] (mi^2)	Alongshore Span[b] (mi)	Depth Range[c] (ft)
Pyramid Point SMCA*	14.02	2.9	0–124
Point St. George Reef Offshore SMCA	9.52	3.5 [d]	176–399
Reading Rock SMR	9.57	2.9 [d]	147–253
Reading Rock SMCA	11.84	2.9	0–165
Samoa SMCA	13.02	3.6	0–158
South Humboldt Bay SMRMA*	0.79	N/A	Depth data not available
South Cape Mendocino SMR	9.06	1.4	0–277
Mattole Canyon SMR	9.76	3.5 [d]	82–1646
Sea Lion Gulch SMR*	10.37	2.0	0–375
Big Flat SMCA	11.51	2.5	0–1110
Double Cone Rock SMCA	18.47	4.9	0–391
Ten Mile SMR	11.97	3.1	0–343
Ten Mile Beach SMCA*.	3.54	0.9	0–288
Ten Mile Estuary SMCA	0.18	N/A	Depth data not available
MacKerricher SMCA	2.40	3.6	0-114
Point Cabrillo SMR	0.44	0.9	0–40
Russian Gulch SMCA	0.21	0.6	0-11
Big River Estuary SMCA	0.12	N/A	Depth data not available
Van Damme SMCA	0.05	0.4	0-17
Navarro River Estuary SMCA	0.06	N/A	Depth data not available

Notes: ft = feet, mi = statute mile(s), mi2 = square statute mile(s), MPA = marine protected area, SMCA = state marine conservation area, SMR = state marine reserve, SMRMA = state marine recreational management area

* The sizes for these areas represent the California Fish and Game Commission's preferred option (see Table 2-1 for further detail).

[a,c] Size is measured in square statute miles.

[b] The alongshore span for MPAs is measured as a line from the center of the north end of the MPA to the center of the south end, roughly paralleling the coastline. An alongshore span is not calculated for estuarine MPAs.

[c] Comprehensive bathymetric data for all estuaries is not available. Though bathymetric data do exist in portions of some estuaries, depth ranges are not provided for estuarine MPAs to ensure consistency in evaluations.

[d] This MPA does not have a boundary that contacts the shore. However, alongshore span is measured along the westernmost boundary to approximate its north-south span.

Source: Data compiled by Horizon Water and Environment in 2011

Table 2-5. Habitat Representation in Proposed Project

Habitat[a]	SMR		SMRMA		SMP		SMCA		Total MPAs[b]	
	Area	%	Area	%	Area	%	Area	%	Area	%
Intertidal										
Sandy or gravel beach*	2.55	1	0.00	0	0.00	0	17.75	10	20.31	11
Rocky shores*	12.63	8	0.00	0	0.00	0	12.80	8	25.42	16
Hardened shores*	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Coastal marsh*	0.00	0	1.46	2	0.00	0	4.24	5	5.70	6
Coastal marsh	0.00	0	0.04	1	0.00	0	0.07	2	0.11	3
Tidal flats*	0.00	0	0.00	0	0.00	0	0.64	1	0.64	1
Seagrass beds										
Humboldt Eelgrass	0.00	0	0.23	3	0.00	0	0.00	0	0.23	3
Estuarine										
Estuary	0.00	0	0.79	2	0.00	0	0.36	1	1.15	3
Hard bottom										
0–30 meters proxy*,[c]	2.09	4	0.00	0	0.00	0	3.24	7	5.33	11
0–30 meters	0.92	3	0.00	0	0.00	0	2.31	7	3.23	10
30–100 meters	6.91	21	0.00	0	0.00	0	0.52	2	7.44	22
100–200 meters	0.25	36	0.00	0	0.00	0	0.01	1	0.26	37
>200 meters	0.02	28	0.00	0	0.00	0	0.01	14	0.03	42
Soft bottom										
0–30 meters proxy*,[c]	5.43	3	0.00	0	0.00	0	17.91	10	23.34	13
0–30 meters	4.61	2	0.00	0	0.00	0	28.43	9	33.04	11
30–100 meters	30.94	7	0.00	0	0.00	0	37.45	8	68.39	15
100–200 meters	3.33	5	0.00	0	0.00	0	6.89	11	10.22	16
>200 meters	1.61	21	0.00	0	0.00	0	0.59	8	2.20	29
Unknown										
0–30 meters	2.54	2	0.79	1	0.00	0	8.45	7	11.79	9
30–100 meters	0.01	<1	0.00	0	0.00	0	0.28	9	0.29	9
100–200 meters	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
>200 meters	0.02	10	0.00	0	0.00	0	0.00	0	0.02	10
Other										
Offshore rocks*	3.18	6	0.00	0	0.00	0	3.10	6	6.27	11
Canyon	1.51	20	0.00	0	0.00	0	0.67	9	2.18	29
Linear kelp*	3.10	6	0.00	0	0.00	0	4.14	8	7.24	14

Notes: mi = statute mile(s), mi^2 = square statute mile(s), MPA = marine protected area, SMCA = state marine conservation area, SMR = state marine reserve, SMRMA = state marine recreational management area

* See next footnote.

[a] Habitats are measured as an area (mi^2) except for those with a * notation. Habitats with a * notation are expressed in linear units (mi).

[b] As a result of rounding, total percentages may not add up exactly to 100.

[c] A linear measurement of substrate in the 0–30 meter zone, called the 0–30 meter proxy line, was developed to address the limited fine scale data for the nearshore habitat. The proxy line is drawn roughly parallel to shore at 12–15 meter depth and is divided into short segments, and the estimated proportion of hard and soft bottom in the 0–30 meter zone is associated with each segment.

Source: Data compiled by Horizon Water and Environment in 2011

2.4 Proposed Project Alternatives

In compliance with CEQA, alternatives to the Proposed Project must be evaluated. Therefore, this DEIR includes evaluation of the following alternative proposals presented to the Commission for selection of the preferred alternative.

Alternative 1—No Project Alternative (No Change to Existing MPAs)

The No Project Alternative would reflect existing conditions within the Study Region**;** existing MPAs in the Study Region could continue to be enforced. The existing MPAs are in the southern bioregion of the Study Region; none are in the northern bioregion (see Figure 1-1). The existing MPAs previously established in the Study Region encompass less than 1% (or 3 mi^2) of the Study Region's coastal waters (**Table 2-6**). All except one of the MPAs provides a low level of protection (**Table 2-7**).

Punta Gorda SMR is in Humboldt County and MacKerricher SMCA, Point Cabrillo SMCA, Russian Gulch SMCA, and Van Damme SMCA are in Mendocino County. Except for Punta Gorda SMR, they are all less than 1 mi^2 and located in shallow waters (**Table 2-8**). The habitat included in the MPAs is primarily rocky shores and beach (**Table 2-9**). Current regulations include some recreational and/or commercial take of particular species, except in the Punta Gorda SMR, which is a no-take reserve (**Table 2-10**).

Table 2-6. Overall Summary for Alternative 1 (Existing MPAs)

Type of MPA[a]	# of MPAs	Area (mi^2)	% of Study Region
State Marine Reserve (SMR)	1	2.07	0.2
State Marine Recreational Management Area (SMRMA)[a]	0	0.00	0.0
State Marine Park (SMP)	0	0.00	0.0
State Marine Conservation Area (SMCA)	4	1.06	0.1
All MPAs	5	3.13	0.3

Notes: mi^2 = square statute mile(s), MPA = marine protected area

[a] This proposal includes state marine recreational management areas, which are not MPAs but rather marine managed areas.

Source: MLPAI 2010e

Table 2-7. Levels of Protection Provided by Alternative 1 (Existing MPAs)

Level of Protection	# of MPAs	Area (mi2)	% of Study Region
Very High[a]	1	2.07	0.2
High	0	0.00	0.0
Moderate-High	0	0.00	0.0
Moderate	0	0.00	0.0
Moderate-low	0	0.00	0.0
Low	4	1.06	0.1
Total	**5**	**3.13**	**0.3**

Notes: mi^2 = square statute mile(s), MPA = marine protected area, SMR = state marine area, SMRMA = state marine recreational management area

[a] The "Very High" category includes MPAs with SMR designation, as well as SMRMA designations that do not propose any allowed uses.

Source: MLPAI 2010e

Table 2-8. Size of Individual MPAs in Alternative 1 (Existing MPAs)

MPA Name	Size[a] (mi^2)	Cluster Alongshore Span[b] (mi)	Depth Range[c] (ft)
Punta Gorda SMR	2.07	1.6	15–184
MacKerricher SMCA	0.72	3.0	0–38
Point Cabrillo SMCA	0.22	0.9	0–20
Russian Gulch SMCA	0.09	0.7	0–3
Van Damme SMCA	0.02	0.0	0–11

Notes: ft = feet, mi = statute mile(s), mi^2 = square statute mile(s), MPA = marine protected area, SMCA = state marine conservation area, SMR = state marine reserve

[a] Size is measured in square statue miles.

[b] The alongshore span for MPA clusters is measured as a line from the center of the north end of the MPA cluster to the center of the south end, roughly paralleling the coastline. An alongshore span is not calculated for estuarine MPAs.

[c] Comprehensive bathymetric data for all estuaries is not available. Though bathymetric data do exist in portions of some estuaries, depth ranges are not provided for estuarine MPAs to ensure consistency in evaluations.

Source: MLPAI 2010e

Table 2-9. Habitat Representation in Alternative 1 (Existing MPAs)

	SMR		SMRMA		SMP		SMCA		Total MPAs	
Habitat[a]	Area	%	Area	%	Area	%	Area	%	Area	%
Intertidal										
Sandy or gravel beach*	0.00	0	0.00	0	0.00	0	1.92	1	1.92	1
Rocky shores*	0.00	0	0.00	0	0.00	0	7.84	5	7.84	5
Hardened shores*	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Coastal marsh*	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Coastal marsh	0.00	0	0.00	0	0.00	0	0.07	0	0.00	0
Tidal flats*	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Seagrass beds										
Humboldt Eelgrass	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Estuarine										
Estuary	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Hard bottom										
0–30 meters proxy*,[b]	0.81	2	0.00	0	0.00	0	0.00	0	0.81	2
0–30 meters	0.27	1	0.00	0	0.00	0	0.16	1	0.44	1
30–100 meters	0.26	1	0.00	0	0.00	0	0.00	0	0.26	1
100–200 meters	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
>200 meters	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Soft bottom										
0–30 meters proxy*,[b]	0.77	<1	0.00	0	0.00	0	0.00	0	0.77	<1
0–30 meters	0.44	<1	0.00	0	0.00	0	0.07	<1	0.51	<1
30–100 meters	1.00	<1	0.00	0	0.00	0	0.00	0	1.00	<1
100–200 meters	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
>200 meters	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0

Table 2-9. Habitat Representation in Alternative 1 (Existing MPAs)

Habitat[a]	SMR		SMRMA		SMP		SMCA		Total MPAs	
	Area	%	Area	%	Area	%	Area	%	Area	%
Unknown										
0–30 meters	0.10	<1	0.00	0	0.00	0	0.82	<1	0.92	1
30–100 meters	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
100–200 meters	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
>200 meters	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Other										
Offshore rocks*	0.00	0	0.00	0	0.00	0	6.49	4	6.49	4
Canyon	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Linear kelp*	0.00	0	0.00	0	0.00	0	0.23	<1	0.23	<1

Notes: mi = statute mile(s), mi^2 = square statute mile(s), MPA = marine protected area, SMCA = state marine conservation area, SMR = state marine reserve, SMRMA = state marine recreational management area

* See next footnote.

[a] Habitats are measured as an area (mi^2) except for those with a * notation. Habitats with a * notation are expressed in linear units (mi).

[b] A linear measurement of substrate in the 0–30 meter zone, called the 0–30 meter proxy line was developed to address the limited fine scale data for the nearshore habitat. The proxy line is drawn roughly parallel to shore at 12_15-meter depth and is divided into short segments and the estimated proportion of hard and soft bottom in the 0–30 meter zone is associated with each segment.

Source: MLPAI 2010e

Table 2-10. Regulations for Alternative 1 (Existing MPAs)

MPA	SPECIES PROHIBITED For Recreational Take	SPECIES ALLOWED For Recreational Take	SPECIES PROHIBITED For Commercial Take	SPECIES ALLOWED For Commercial Take
Punta Gorda State Marine Reserve	All	None	All	None
MacKerricher State Marine Conservation Area	All marine aquatic plants. Invertebrates EXCEPT red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels, and marine worms[1].	Finfish. Red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels, and marine worms[1].	Giant kelp and bull kelp. All invertebrates EXCEPT crabs, ghost shrimp, jackknife clams, sea urchins, squid, and worms[1].	Algae (except giant kelp and bull kelp). Crabs, ghost shrimp, jackknife clams, sea urchins, squid, and worms[1]. Finfish.
Point Cabrillo State Marine Conservation Area	All	None	All invertebrates.	Marine aquatic plants. Finfish.

Table 2-10. Regulations for Alternative 1 (Existing MPAs)

MPA	SPECIES PROHIBITED For Recreational Take	SPECIES ALLOWED For Recreational Take	SPECIES PROHIBITED For Commercial Take	SPECIES ALLOWED For Commercial Take
Russian Gulch State Marine Conservation Area	All marine aquatic plants. Invertebrates EXCEPT red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels, and marine worms[1].	Finfish. Red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels, and marine worms[1].	Giant kelp and bull kelp. All invertebrates EXCEPT crabs, ghost shrimp, jackknife clams, sea urchins, and worms[1].	Algae (except giant kelp and bull kelp). Crabs, ghost shrimp, jackknife clams, sea urchins, and worms[1]. Finfish.
Van Damme State Marine Conservation Area	All marine aquatic plants. Invertebrates EXCEPT red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels, and marine worms[1].	Finfish. Red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels, and marine worms[1].	Giant kelp and bull kelp. All invertebrates EXCEPT crabs, ghost shrimp, jackknife clams, sea urchins, and worms[1].	Algae (except giant kelp and bull kelp). Crabs, ghost shrimp, jackknife clams, sea urchins, and worms[1]. Finfish.

Notes: MPA = marine protected area

[1] No worms may be taken in any mussel bed; and no person may 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.

Source: CDFG 2011

Alternative 2—BRTF Enhanced Compliance Alternative (ECA)

This alternative uses the same geographies as the MPAs in the Proposed Project, but incorporates tribal uses into the proposed SMCAs while increasing protection levels in some MPA locations. To accomplish this, four SMCAs are divided into two MPAs: (1) a nearshore SMCA (to approximately 1,000 feet seaward) and (2) an offshore SMCA. The North Coast ECA Proposal includes six SMRs, three SMRMAs, one SMCA recommended for future designation as an SMP, and 11 SMCAs (**Table 2-11**). The level of protection (LOP) offered by the MPAs is very high and moderate-high for most of the area included (**Table 2-12**). The size of the individual MPAs are similar to the Proposed Project except for the four that are divided into offshore and nearshore (**Table 2-13**). The habitat representation is shown in **Table 2-14**. Restrictions proposed for Alternative 2 are provided in Chapter 8, Table 8-4, of this DEIR.

Table 2-11. Overall Summary for Alternative 2 (ECA Proposal)

Type of MPA[a]	# of MPAs	Area (mi2)	% of Study Region
State Marine Reserve (SMR)	6	51.17	5.0
State Marine Recreational Management Area (SMRMA)[a]	3	1.03	0.1
State Marine Park (SMP)[b]	1	0.12	<0.1
State Marine Conservation Area (SMCA)	11	81.86	8.0
All MPAs	21	134.18	13.1

Notes: ECA = Enhanced Compliance Alternative, MPA = marine protected area, mi² = square statute mile(s)

[a] This proposal includes state marine recreational management areas, which are not MPAs but rather marine managed areas.

[b] One area was recommended by stakeholders and the Blue Ribbon Task Force as an SMP with restrictions consistent with this designation. Pursuant to California Fish and Game Commission authority (Public Resources Code, Section 36725[a]), it would be adopted as an SMCA, although it could subsequently be designated as an SMP at the discretion of the State Park and Recreation Commission, the designating authority for SMPs.

Source: MLPAI 2010f

Table 2-12. Levels of Protection Provided by Alternative 2 (ECA Proposal)

Level of Protection	# of MPAs	Area (mi^2)	% of Study Region
Very High[a]	8	52.14	5.1
High	0	0.00	0.0
Moderate-High	6	74.09	7.2
Moderate	2	0.18	<0.1
Moderate-low	1	0.93	0.1
Low	4	6.84	0.7
Total	**21**	**134.18**	**13.1**

Notes: ECA = Enhanced Compliance Alternative, mi² = square statute mile(s), MPA = marine protected area, SMR = state marine reserve, SMRMA = state marine recreational management area

[a] The "Very High" category includes MPAs with SMR designation, as well as SMRMA designations that do not propose any allowed uses.

Source: MLPAI 2010f

Table 2-13. Size of Individual MPAs in Alternative 2 (ECA Proposal)

MPA Name	Size[a] (mi^2)	Alongshore Span[b] (mi)	Depth Range[c] (ft)
Pyramid Point Offshore SMCA[d]	13.13	2.9	12–124
Pyramid Point Nearshore SMCA	0.88	2.9	0–12
Point St. George Reef Offshore SMCA[d]	9.52	3.5	176–399
Reading Rock SMR[d]	9.57	2.9	147–253
Reading Rock SMCA	11.84	2.9	0–165
Samoa Offshore SMCA[d]	12.08	3.6	8–158
Samoa Nearshore SMCA	0.93	3.6	0–8
South Humboldt Bay SMRMA	0.79	N/A	Depth data not available
South Cape Mendocino SMR	9.06	1.4	0–277
Mattole Canyon SMR[d]	9.76	3.5	82–1646
Sea Lion Gulch SMR	10.37	2.0	0–375
Big Flat Offshore SMCA[d]	10.73	2.5	26–1110
Big Flat Nearshore SMCA	0.78	2.5	0–31
Vizcaino Offshore SMCA[d]	16.79	4.9	28–391
Vizcaino Nearshore SMCA	1.66	4.9	0–69
Skip Wollenberg/Ten Mile SMR	11.97	3.1	0–343
Skip Wollenberg/Ten Mile Beach SMCA	3.53	0.9	0–288
Skip Wollenberg/Ten Mile Estuary SMRMA	0.18	N/A	Depth data not available
Point Cabrillo SMR	0.44	0.9	0–40
Big River Estuary SMP[e]	0.12	N/A	Depth data not available
Navarro River Estuary SMRMA	0.06	N/A	Depth data not available

Notes: ECA = Enhanced Compliance Alternative, ft = feet, mi = statute mile(s), mi^2 = square statute mile(s), MPA = marine protected area, SMCA = state marine conservation area, SMP = state marine park, SMR = state marine reserve, SMRMA = state marine recreational management area

[a] Size is measured in square statue miles.

[b] The alongshore span for MPAs is measured as a line from the center of the north end of the MPA to the center of the south end, roughly paralleling the coastline. An alongshore span is not calculated for estuarine MPAs.

[c] Comprehensive bathymetric data for all estuaries is not available. Though bathymetric data do exist in portions of some estuaries, depth ranges are not provided for estuarine MPAs to ensure consistency in evaluations.

[d] This MPA does not have a boundary that contacts the shore. However, alongshore span is measured along the westernmost boundary to approximate its north-south span.

[e] This area was recommended by stakeholders and the Blue Ribbon Task Force as an SMP with restrictions consistent with this designation. Pursuant to California Fish and Game Commission authority (Public Resources Code, Section 36725[a]), it would be adopted as an SMCA, although it could subsequently be designated as an SMP at the discretion of the State Park and Recreation Commission, the designating authority for SMPs.

Source: MLPAI 2010f

Table 2-14. Habitat Representation in Alternative 2 (ECA Proposal)

Habitat[a]	SMR		SMRMA		SMP		SMCA		Total MPAs	
	Area	%	Area	%	Area	%	Area	%	Area	%
Intertidal										
Sandy or gravel beach*	2.55	1	0.41	<1	0.25	<1	15.20	8	18.42	10
Rocky shores*	12.62	8	1.21	1	0.77	<1	4.96	3	19.56	12
Hardened shores*	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Coastal marsh*	0.00	0	4.41	5	1.29	1	0.00	0	5.70	6
Coastal marsh	0.00	0	0.09	3	0.02	1	0.00	0	0.11	3
Tidal flats*	0.00	0	0.36	1	0.28	<1	0.00	0	0.64	1
Seagrass beds										
Humboldt Eelgrass	0.00	0	0.23	3	0.00	0	0.00	0	0.23	3
Estuarine										
Estuary	0.00	0	1.03	2	0.12	<1	0.00	0	1.15	3
Hard bottom										
0–30 meters proxy*,[b]	2.09	4	0.00	0	0.00	0	1.88	4	3.97	8
0–30 meters	0.92	3	0.00	0	0.00	0	1.54	5	2.46	8
30–100 meters	6.91	21	0.00	0	0.00	0	0.48	1	7.39	22
100–200 meters	0.25	36	0.00	0	0.00	0	0.01	1	0.26	37
>200 meters	0.02	28	0.00	0	0.00	0	0.01	14	0.03	42
Soft bottom										
0–30 meters proxy*,[b]	5.43	3	0.00	0	0.00	0	16.41	9	21.83	12
0–30 meters	4.61	2	0.00	0	0.00	0	27.54	9	32.15	11
30–100 meters	30.94	7	0.00	0	0.00	0	37.38	8	68.32	15
100–200 meters	3.33	5	0.00	0	0.00	0	6.89	11	10.22	16
>200 meters	1.61	21	0.00	0	0.00	0	0.59	8	2.20	29
Unknown										
0-30 meters	2.54	2	1.03	1	0.12	<1	7.14	6	10.83	8
30-100 meters	0.01	<1	0.00	0	0.00	0	0.28	9	0.29	9
100-200 meters	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
>200 meters	0.02	10	0.00	0	0.00	0	0.00	0	0.02	10
Other										
Offshore rocks*	3.17	6	0.00	0	0.00	0	2.12	4	5.29	10
Canyon	1.51	20	0.00	0	0.00	0	0.67	9	2.18	29
Linear kelp*	3.10	6	0.00	0	0.00	0	1.75	3	4.85	9

Notes: ECA = Enhanced Compliance Alternative, mi = statute mile(s), mi^2 = square statute mile(s), MPA = marine protected area, SMCA = state marine conservation area, SMP = state marine park, SMR = state marine reserve, SMRMA = state marine recreational management area

* See next footnote.

[a] Habitats are measured as an area (mi^2) except for those with a * notation. Habitats with a * notation are expressed in linear units (mi).

[b] A linear measurement of substrate in the 0–30 meter zone, called the 0–30 meter proxy line was developed to address the limited fine scale data for the nearshore habitat. The proxy line is drawn roughly parallel to shore at 12–15 meter depth and is divided into short segments and the estimated proportion of hard and soft bottom in the 0-30 meter zone is associated with each segment.

Source: MLPAI 2010f

2.5 Management, Enforcement, and Monitoring of MPAs

2.5.1 Management

In passing the MLPA, the California State Legislature cited a lack of clearly defined purposes and effective management for MPAs previously established in state waters. As a result, the Legislature found, "the array of MPAs creates the illusion of protection while falling far short of its potential to protect and conserve living marine life and habitat" (California Fish and Game Code [FGC], Section 2851[a]). To remedy this, the Legislature called for an overall program that will "ensure that California's MPAs have clearly defined objectives, effective management measures, and adequate enforcement, and are based upon sound scientific guidelines" and that MPAs have "specific identified objectives, and management and enforcement measures" (FGC, Sections 2853[b][5] and 2853[c][2]). Management, enforcement, and monitoring of MPAs under the Proposed Project would help to achieve these goals.

The Department, and in some circumstances State Parks, exercises primary authority for management of California's MPAs. However, as no single federal, state, or local agency has complete jurisdiction over the coastal and marine environment, these agencies can draw upon the capacity of other government agencies and organizations, through cooperative agreements, to carry out critical management activities. Local management entities, collaborations with nongovernmental organizations (NGOs), including nonprofit conservation and education organizations, yacht clubs, and fishermen's or recreational divers' groups, can enhance implementation of important management activities, such as education, research, and monitoring. Stakeholder involvement is also expected to continue to play a role in the management of MPAs in the region, and to serve a valuable function to ensure a continuing linkage between public and governmental participants as the MLPA is implemented throughout the state. (CDFG 2008)

2.5.2 Enforcement

The MLPA notes that a lack of law enforcement resources is one of the reasons existing MPAs fall short of their potential to protect resources (FGC, Section 2851[a]). This lack of resources is not unique to the MPA context, and is true across all marine management activities in California. Nonetheless, the MLPA envisions a Marine Life Protection Program that includes appropriate enforcement measures for MPAs in the system [FGC, Section 2853[c][2]). The MLPA Master Plan, the principal policy document guiding implementation of the MLPA, provides policy recommendations to accomplish this, including measures for improving the effectiveness of enforcement practices, including compliance. The MLPA Master Plan highlights elements of MPA design itself that have implications for effective enforcement planning, including specific MPA placement and design guidance that can result in improved public comprehension and enforceability. The following design considerations were utilized during the development of the Proposed Project, with the intent of facilitating enforcement of MPAs through initial design (CDFG 2008):

MPA Placement:

- Proximity to cities—enhances the ability to enforce because more assets are readily available and deployment of staff and equipment is easier (though this may pose problems for level of use).
- Distant from heavily used areas—areas near urban development are often heavily visited and require more enforcement effort to ensure compliance.
- Fewer points of public access—require less monitoring and staffing than MPAs with multiple access points (e.g., multiple shoreside access points versus only offshore access).
- Adjacent to the shoreline—allows enforcement staff to use smaller vessels and shoreside patrols, unlike offshore MPAs that have no shoreline connection.
- Adjacent to onshore facilities—existing staff (e.g., state park rangers) can assist in enforcement and monitoring.

MPA design, boundaries and regulations:

- Straight-line offshore boundaries that follow simple lines of latitude and longitude or align with permanent and visible landmarks—these are more easily recognized by users and enforcement is simplified.
- Larger shoreline lengths—provide a buffer against unintentional boundary infractions.
- Clear and simple take regulations—these are easily understood by the public (and thus reduce unintentional infractions) and readily enforceable.
- Simple MPA arrangements that avoid "multiple zoning" with no more than two adjacent MPAs in an area—avoids confusing differences in regulations over small spatial areas (and thus reduce unintentional infractions).

Statewide, the Department has approximately 230 wardens in the field, responsible for a combination of both inland and marine patrol. The Department has 19 law enforcement positions assigned to coastal enforcement within the Study Region. These positions are designated as having a marine emphasis and will be the primary responders to the network of MPAs located in the Study Region, although other wardens in the region contribute to both inland and marine patrol to some degree. The Department's enforcement program also works closely with the enforcement programs of many other agencies (including the U.S. Coast Guard, U.S. Fish and Wildlife Service, NOAA Fisheries and National Marine Sanctuaries, the National Park Service, and State Parks) on matters of mutual enforcement interest.

A more complete discussion of the methods and equipment used for enforcing the MPA regulations is provided in Section 6.2, "Public Services and Law Enforcement," of this DEIR.

2.5.3 Monitoring and Adaptive Management

The MLPA requires adaptive management to ensure that a system of MPAs meets its stated goals (FGC, Section 2853 [c][3]). The MLPA defines adaptive management as "a management policy that seeks to improve management of biological resources, particularly in areas of scientific uncertainty, by viewing program actions as tools for learning. Actions shall be designed so that, even if they fail, they will provide useful information for future actions, and monitoring and evaluation shall be emphasized so that the interaction of different elements within marine systems may be better understood" (FGC, Section 2852 [a]). Adaptive management requires learning from current experiences to improve the process of achieving the goals of the MLPA over time. The law embeds ecosystem-based adaptive management, monitoring, and evaluation into the state policies related to the management of MPAs. Adaptive management, monitoring, and evaluation will be implemented at multiple spatial scales, including individual MPAs, MPA networks in a region, and MPAs statewide when appropriate (CDFG 2008).

The MLPA process consists of a phased approach, and monitoring programs will be developed sequentially as planning is completed for each region. Although the regional monitoring programs are developed separately, integrating these regional programs into a coherent statewide program is envisioned to ensure that the resulting data can be used to inform statewide policies. Additionally, a comprehensive statewide program would be more efficient than unconnected regional programs. Statewide integration requires development of general practices—such as protocols, data standards, and information management systems—which can be applied across multiple MPAs and regions (CDFG 2008).

To promote consistency among monitoring and evaluation programs throughout the statewide network of MPAs, a consistent approach to monitoring is desirable. Although alignment across the network of MPAs is desired, indicators will be tailored and specifically defined to reflect the conditions, resources present, use patterns, and goals and objectives of each MPA or region (CDFG 2008).

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.

It is important to recognize the role that volunteer monitoring activities can play in evaluation. There may be many opportunities to leverage existing monitoring activities in the region and to make very productive use of stakeholders, other members of the public, and educational and research entities, to form partnerships in conducting monitoring and management programs.

In addition, monitoring and evaluation programs can benefit from engaging commercial and recreational fishermen. For example, in Fort Bragg and Eureka, fishermen, research scientists, and federal and state biologists are carrying out field projects of mutual interest, including tag-and-recapture studies that provide critical information on the movement of fish and their growth rates. Such initiatives offer important opportunities for collaboration.

The results from ongoing monitoring and evaluation will be reviewed periodically, with a review of monitoring results and MPA network performance conducted approximately every 5 years. The longer time frame for review takes into account the fact that biological changes are slow to occur. Some trends are more likely to become apparent on this time scale, though others may take longer to emerge. These reviews will be transparent and include peer review, and results made available to the public. Besides evaluating monitoring methods and results, the review will evaluate whether the monitoring results are consistent with the objectives of the 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 adjustments in the management of the MPA network (CDFG 2008).