



Draft Environmental Impact Report
California Marine Life Protection Act Initiative
North Central Coast Marine Protected Areas Project

State Clearinghouse #2008062028

Prepared for:
California Department of Fish and Game

Prepared by:



March 2009

DRAFT

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California Marine Life Protection Act Initiative
North Central Coast Marine Protected Areas
Project**

State Clearinghouse #2008062028

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Acronyms

µg/m ³	Micrograms per cubic meter
AB	Assembly Bill
APCD	air pollution control district
ARB	California Air Resources Board
ASBS	areas of special biological significance
BAAQMD	Bay Area Air Quality Management District
BARD	Bay Area Regional Database
BLM	U.S. Department of the Interior, Bureau of Land Management
BRTF	Blue Ribbon Task Force
CAA	Federal Clean Air Act
CAAQS	California ambient air quality standards
Cal-EPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CCA	California Coastal Act
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCNM	California Coastal National Monument
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CH ₄	methane
CHP	California Highway Patrol
CI-CORE	Center for Integrative Coastal Observation, Research and Education
cm/s	centimeters per second
CO	Carbon monoxide
CO ₂	Carbon dioxide
Commission	Fish and Game Commission
COP	California Ocean Plan
CPFV	commercial passenger fishing vessel
CRFS	California Recreational Fisheries Survey

CWA	Federal Clean Water Act
CZMA	Coastal Zone Management Act
DOC	Department of Commerce
DPR	California Department of Parks and Recreation
DPS	distinct population segments
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
ENSO	El Niño-Southern Oscillation
EPA	U.S. Environmental Protection Agency
ESA	Federal Endangered Species Act
ESI	Environmental Sensitivity Index
ESU	evolutionarily significant unit
FGC	California Fish and Game Code
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
fm	fathoms
FMP	Fishery Management Plan
GFNMS	Gulf of the Farallones National Marine Sanctuary
GHG	greenhouse gas
GSP	gross state product
HAPC	habitat areas of particular concern
HF	fish frequency
IOOS	Integrated Ocean Observing System
IPA	Integrated Preferred Alternative
IPCC	Intergovernmental Panel on Climate Change
km ²	square kilometers
LME	Large Marine Ecosystem
LOP	Level of Protection
LOS	level of service
m	meters
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MBNMS	Monterey Bay National Marine Sanctuary
MBTA	Migratory Bird Treaty Act

MCAQMD	Mendocino County Air Quality Management District
mi	miles
mi ²	square miles
MLPA	Marine Life Protection Act
MMAIA	Marine Managed Areas Improvement Act
MMPA	Marine Mammal Protection Act
MMRP	mitigation monitoring and reporting program
MMT	million metric tons
MMT-CO ₂ eq	million metric tons of carbon dioxide equivalent
MOU	memorandum of understanding
MPA	marine protected area
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NCCAB	North Central Coast Air Basin
NCCRSG	North Central Coast Regional Stakeholder Group
NCUAD	North Coast Unified Air District
NCUAQMD	North Coast Unified Air Quality Management District
NEP	National Estuary Program
NERR	National Estuarine Research Reserve
NHPA	National Historic Preservation Act
nm ²	square nautical miles
nmi	nautical miles
NMSP	National Marine Sanctuaries Program
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	National Marine Fisheries Service
NOP	Notice of Preparation
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NSCAPCD	Northern Sonoma Coast Air Pollution Control District
Ocean Plan	California Ocean Plan
OCS	Outer Continental Shelf
OEHHA	California Office of Environmental Health Hazard Assessment

OPR	Governor's Office of Planning and Research
OSPRA	Oil Spill Prevention and Response Act
PFMC	Pacific Fishery Management Council
PISCO	Partnership for Interdisciplinary Studies of Coastal Oceans
PM10	particulate matter of 10 microns or less in diameter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppd	pounds per day
ppm	parts per million
PRC	Public Resources Code
Program	Marine Life Protection Program
Proposed Project	preferred alternative
RCA	Rockfish Conservation Area
RLFF	Resources Legacy Fund Foundation
RNA	Regulated Navigation Area
ROG	reactive organic gases
RSG	regional stakeholder group
Rules	International Navigation Rules
RWQCB	Regional Water Quality Control Board
SAR	Search and Rescue
SAT	science advisory team
SCA	special closure area
SCAQMD	South Coast Air Quality Management District
SFBAAB	San Francisco Bay Area Air Basin
SIG	MLPA Statewide Interests Group
SIP	state implementation plan
SLC	California State Lands Commission
SMCA	state marine conservation areas
SMP	state marine park
SMR	state marine reserves
SMRMA	state marine recreational management areas
SOU	special operations unit
SR	state route
State Tidelands	State Tidelands and Submerged Lands

SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCP	traditional cultural property
tpy	tons per year
TRACEN	Coast Guard Training Center
TSS	traffic separation scheme
UNESCO	United Nations Educational, Scientific and Cultural Organization
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
VTS	Vessel Traffic Services

Executive Summary

This document is an environmental impact report (EIR) analyzing the potential environmental effects of the North Central Coast Marine Protected Areas (MPAs) Project (Proposed Project) as proposed by the California Fish and Game Commission (Commission). It was prepared in compliance with the California Environmental Quality Act (CEQA) (California Public Resources Code Section 2100 et seq.), which requires state and local agencies to consider and disclose the environmental consequences of projects over which they have discretionary authority before taking action on those projects. Consistent with CEQA requirements, the purpose of this document is to:

- identify potential direct and indirect environmental impacts associated with the Proposed Project;
- identify its potential contributions to cumulative regional impacts in the project area;
- evaluate the potential for growth inducement due to the project;
- describe mitigation measures that would avoid any potentially significant project impacts or reduce them to a less-than-significant level; and
- discuss potential project alternatives that would avoid or reduce one or more of the identified significant project impacts.

Project Background and Need

In 1999, the legislature approved and the governor signed the California Marine Life Protection Act (MLPA) (Stats. 1999, Chapter 1015). In general, the MLPA directed the state to design and manage a network of marine protected areas in order to, among other things, protect marine life and habitats, marine ecosystems, and marine natural heritage, as well as improve recreational, educational and study opportunities provided by marine ecosystems. The California Department of Fish and Game (CDFG) must prepare and present to the Commission a master plan that will guide the adoption and implementation of a Marine Life Protection Program (Program) by 2011.

Under a Memorandum of Understanding (MOU) between the California Natural Resources Agency, CDFG, and the Resource Legacy Fund Foundation, the MLPA Initiative was formed to implement the MLPA. The MLPA Initiative has divided the master plan into two principal parts:

1. a section providing guidance in the application of the MLPA to the development of a statewide MPA network (the master plan framework); and
2. a section describing the preferred alternatives for MPA proposals in various regions of the state.

The master plan framework was completed and adopted by the Commission in August of 2005.

The framework envisions a sequential focus on portions of the state in a series of regional processes, which includes the north central coast (Alder Creek near Point Arena to Pigeon Point, and state waters around the Farallon Islands). The Commission has identified a preferred alternative (the Proposed Project) and three other alternatives for MPA proposals for the north central coast region. The MLPA Master Plan is intended to guide the MLPA planning process and to be a living document. The requirement for a full master plan and implementing regulations will be met when the Commission adopts the final portion of the plan and all regions of the coast, including the San Francisco Bay estuarine complex, have been completed.

The MLPA recognizes that a combination of state marine reserves (SMRs), state marine conservation areas (SMCAs) and state marine parks (SMPs) can help protect habitat and ecosystems, conserve biological diversity, enhance recreational and educational opportunities, and provide scientific reference points to assist resource management decisions. Consequently, development of a statewide MPA network through a series of regional processes requires analysis of alternative groupings of proposed MPAs within each region. According to the MLPA, the Commission preferred alternative must include recommended no-take areas (SMRs) that encompass representative habitat types and communities across a range of depths and conditions and avoid activities that upset the natural ecological functions within such reserves. Collectively the regional alternatives must include replicates of similar types of habitats in each broader biogeographical region, to the extent possible.

CEQA Compliance Process

This EIR is a project EIR. The project EIR analyzes the effects of activities specifically related to the Proposed Project, including all phases of the project such as management, enforcement, and monitoring.

Consistent with CEQA requirements, this EIR evaluates the potential impacts of the proposed project in relation to the following:

- aesthetics,
- agriculture,
- air quality,
- consumptive uses,
- cultural resources,
- ecosystems and habitats,

- geology and soils,
- hazards and hazardous materials,
- land use,
- mineral resources,
- noise,
- oceanography,
- population and housing,
- public services and utilities,
- recreation and research,
- species of interest,
- vessel traffic, and
- water quality.

Project Goals

The goals of the Proposed Project are as follows:

- **Goal 1:** To protect the natural diversity and abundance of marine life, and the structure, function, and integrity of marine ecosystems.
- **Goal 2:** To help sustain, conserve, and protect marine life populations, including those of economic value, and rebuild those that are depleted.
- **Goal 3:** To improve recreational, educational, and study opportunities provided by marine ecosystems that are subject to minimal human disturbances, and to manage these uses in a manner consistent with protecting biodiversity.
- **Goal 4:** To protect marine natural heritage, including protection of representative and unique marine life habitats in north central California waters, for their intrinsic value.

- **Goal 5:** To ensure that California's north central coast MPAs have clearly defined objectives, effective management measures, and adequate enforcement, and are based on sound scientific guidelines.
- **Goal 6:** To ensure that the north central coast's MPAs are designed and managed, to the extent possible, as a component of a statewide network.

Overview of Proposed Project and Alternatives

In addition to the Proposed Project, this EIR analyzes the potential impacts of three alternatives:

- Alternative 1 (previously North Central Coast Regional Stakeholders Group [NCCRSG] Package 1-3);
- Alternative 2 (previously Package 2-XA);
- Alternative 3 (previously Package 4); and
- The No-Project Alternative (existing MPAs and special closure).

Like the Proposed Project, Alternatives 1, 2, and 3 would designate a number of MPAs within the north central coast study region; the principal differences between the Proposed Project and these three project alternatives relate to the total area and percent of the north central coast study region that would be designated as MPAs, the locations of the proposed MPAs, their boundary design, and their regulations for allowed and prohibited take. Under the No-Project Alternative, existing regulation of uses and protection of habitats would continue within existing MPAs and one special closure.

Proposed Project

Under the Proposed Project, MPAs would be designated as shown in Table ES-1. The Proposed Project includes eleven SMRs, nine SMCAs, and two SMCAs recommended by the stakeholders to become SMPs. Additionally, there are two state marine recreational management areas (SMRMAs) and six special closure areas (SCAs) included in the Proposed Project.

Table ES-1. Overall Summary of Proposed Project and Alternatives

Type of MPA	Number Proposed				Area (Square Miles)				Percent of Study Region			
	Prop Proj	Alt. 1	Alt. 2	Alt. 3	Prop Proj	Alt. 1	Alt. 2	Alt. 3	Prop Proj	Alt. 1	Alt. 2	Alt. 3
State Marine Reserve	13	12	12	15	85.8	87.2	68.1	105.0	11.2	11.4	8.9	13.8
State Marine Conservation Area*	2	1	1	1	3.8	0.1	0.7	2.9	0.5	<0.1	0.1	0.4
State Marine Conservation Area	9	10	8	12	63.8	77.3	68.4	97.1	8.4	10.1	9.0	12.7
All MPAs Combined	24	23	21	28	153.3	164.6	137.2	204.9	20.1	21.6	18.0	26.9

Notes:

These are proposed MPA designations, NOT levels of protection assigned by the Master Plan Science Advisory Team (SAT).

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

SMCA = state marine conservation area, SMP = state marine park, SMR = state marine reserve and SMRMA = state marine recreational management area.

The State Marine Reserve category groups together SMRs and SMRMAs.

The north central coast study region has been divided into six regions. From north to south, these include:

- Alder Creek/Point Arena to Horseshoe Point (subregion 1);
- Horseshoe Point to Bodega Head (subregion 2);
- Bodega Head to Double Point (subregion 3);
- Double Point to Point San Pedro (subregion 4);
- Point San Pedro to Pigeon Point (subregion 5); and
- Farallon Islands (subregion 6).

Further details on the size, along-shore span, depth range, and habitats of these areas are described in Chapter 2, *Project Description*.

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

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

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

^a Listed north to south. Special Closures are not included in this table. See Table 2-7 for a description of Special Closures associated with the Proposed Project.

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

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

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

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

Alternative 1

Alternative 1 was developed by the NCCRSR as Proposal 1-3. Under Alternative 1, MPAs would be designated as shown in Figure 2-2 and in Tables 2-8 and 2-9, with some existing MPAs being altered or eliminated. Proposed allowed take in MPAs would be as described in Table 2-10. Alternative 1 would designate slightly more of the north central coast study region as MPAs than the Proposed Project. Further details on the size, along-shore span, depth range, and habitats of these areas are described in Chapter 2, *Project Description*.

Table ES-3. Allowed Take for Individual MPAs in Alternative 1

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

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

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

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

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

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

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

Alternative 2

Alternative 2 was developed by the NCCRS as Proposal 2-XA. Under Alternative 2, MPAs would be designated as shown in Figure 2-3 and in Tables 2-14 and 2-15, with some existing MPAs being altered or eliminated. Proposed allowed take in MPAs would be as described in Table 2-16. Levels of protection would be as

summarized in Table 2-17. The representation of different habitats types would be as described in Table 2-18. Special Closures would be as described in Table 2-19.

Of the various alternatives, Alternative 2 would designate the smallest number and area of MPAs. Alternative 2 would prohibit take within 12 State Marine Reserves. Allowed take within State Marine Conservation Areas are shown in Table ES-4. Further details on the size, along-shore span, depth range, and habitats of these areas are described in Chapter 2, *Project Description*.

Table ES-4. Allowed Take for Individual MPAs in Alternative 2

MPA Name ^a	Proposed Take Allowed
Point Arena SMR	Take of all living marine resources is prohibited.
Point Arena SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of pelagic finfish ^b by hook-and-line (salmon by trolling only) and commercial take of pelagic finfish ^b by hook-and-line (salmon by troll fishing gear only), and coastal pelagic species ⁴ except market squid, by pelagic seine.
Black Point SMR	Take of all living marine resources is prohibited.
Black Point SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of pelagic finfish ^c by hook-and-line (salmon by trolling only) and commercial take of pelagic finfish ^b by hook-and-line (salmon by troll fishing gear only), and coastal pelagic species ^c except market squid, by pelagic seine.
Gerstle Cove SMR	Take of all living marine resources is prohibited.
Russian River Estuary SMRMA	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Russian River SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational and commercial take of marine invertebrates and finfish [subsection 632(a)(2)] EXCEPT: Chinook salmon.
Bodega Head SMR	Take of all living marine resources is prohibited.
Bodega Head SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of pelagic finfish ^b by trolling, Dungeness crab by trap, and commercial take of pelagic finfish ^b by troll fishing gear or pelagic seine, Dungeness crab by trap, and market squid by pelagic seine
Estero Americano SMR	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Estero de San Antonio SMRMA	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).

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

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

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

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

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

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

Alternative 3

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

Table ES-5. Allowed Take for Individual MPAs in Alternative 3

MPA Name ^a	Proposed Take Allowed
Point Arena SMR	Take of all living marine resources is prohibited.
Point Arena SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling only, and the commercial take of salmon with troll fishing gear only.
Sea Lion Cove SMCA	Commercial and recreational take of invertebrates and marine aquatic plants is prohibited. Take of all other species is allowed.
Saunders Reef SMCA	Take of all living marine resources is prohibited, except the commercial and recreational take of salmon by trolling and the commercial take of urchin.
Del Mar Landing SMR	Take of all living marine resources is prohibited.
Stewarts Point SMR	Take of all living marine resources is prohibited.
Salt Point SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish [subsection 632(a)(3)], and abalone.
Gerstle Cove SMR	Take of all living marine resources is prohibited.
Russian River Estuary SMR (Option 1)	Take of all living marine resources is prohibited.
Russian River Estuary SMRMA (Option 2)	Take of all living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552).
Russian River SMCA	Take of all living marine resources is prohibited EXCEPT: <ol style="list-style-type: none"> 1. The recreational take of Dungeness crab, and surf smelt by hand-held dip net or beach net from shore only. 2. The commercial take of Dungeness crab.
Bodega SMR	Take of all living marine resources is prohibited.
Bodega SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling only and the commercial take of salmon with troll fishing gear only.
Estero Americano SMR (Option 1)	Take of all living marine resources is prohibited.

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

MPA Name ^a	Proposed Take Allowed
Devil's Slide SMCA	Take of all living marine resources is prohibited, EXCEPT: 1. The recreational take of salmon by trolling, Dungeness crab by trap, market squid, and coastal pelagic species by hook-and-line 2. The commercial take of salmon with troll fishing gear, Dungeness crab by trap, market squid, and coastal pelagic species ^c by hook-and-line or pelagic seine.
Fitzgerald SMR	Take of all living marine resources is prohibited. Remove salmon (by trolling only).
San Gregorio SMR	Take of all living marine resources is prohibited.
North Farallon Islands SMR	Take of all living marine resources is prohibited.
Southeast Farallon Islands SMR	Take of all living marine resources is prohibited.
Southeast Farallon Islands SMCA	Take of all living marine resources is prohibited EXCEPT: the recreational take of salmon by trolling and the commercial take of salmon with troll fishing gear.

Notes:

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

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

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

No-Project Alternative

There are currently 13 MPAs in the north central coast study region. Existing MPAs represent the No Project Alternative under CEQA. Existing MPAs are designated as shown in Figure 1-2 and in Table 2-26 and Table 2-27. Allowed take in existing MPAs is described in Table 2-28. Habitat representation within existing MPAs is shown on Table 2-29. Further details on the size, along-shore span, depth range, and habitats of these areas are described in Chapter 2, *Project Description*.

Table ES-6. Allowed Take for Individual MPAs and Special Closures in No-Project Alternative

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

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

^a Listed north to south.

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

Comparison of Proposed Project and Alternatives

The Proposed Project and 3 Alternatives, excluding the No-Project Alternative, would all increase conservation benefits and create improved ecological MPA network components relative to existing MPAs. With respect to the amount of area receiving any level of protection, Alternative 3 would provide the greatest total area of all MPAs. Alternative 2 would provide the least protection. The No Project Alternative currently provides the least protection compared to the Proposed Project and Alternatives 1, 2, and 3. Alternatives 1, 2, and 3 would consist of the same project characteristics as the Proposed Project; the differences would be limited to number, size, shape, and location of the MPAs and the restrictions on fishing proposed within various MPAs.

All of the alternatives generally meet the science guidelines of the master plan for MPAs and include similar percentages of habitat. However, the Proposed Project was identified by selecting and slightly modifying the MPAs from each of the three alternatives to better meet the scientific guidelines and goals of the MLPA. Because the Proposed Project is the most likely to achieve the full range of MLPA goals and objectives, it has therefore been identified as the Commission preferred alternative.

The Master Plan Science Advisory Team (SAT) for the north central coast study region has evaluated the Proposed Project and alternatives in terms of the extent to which each meets the SAT guidelines and project goals (as described in section 2.2).

The SAT team has concluded that the Proposed Project and alternatives would all increase conservation benefits and create better ecological MPA network components relative to existing MPAs. As such, all of the packages presented would meet the SAT guidelines and project goals.

The SAT assigned levels of protection (LOP) based on allowed uses or activities within MPAs. Alternative 3 covers the most area in MPAs at or above the “very high” and “high” LOP. Alternative 2 covers the least area, and Alternative 1 and Proposed Project cover an intermediate amount of area. At or above the “moderate-high” LOP, Alternative 3 covers the most area, Alternative 1 covers the least area, and Alternative 2 and Proposed Project cover an intermediate amount of area. All of the alternatives cover at least 16.5% of the north central coast study region in MPAs that are at or above the “moderate-high” LOP.

Areas of Known Controversy/Issues

Based on input during the public scoping period, several issue areas of public concern have been identified regarding the Proposed Project. Some of the issues raised might be considered controversial. The existence or perception of public controversy in and of itself does not require the preparation of an EIR; however, the CEQA guidelines do require that the EIR identify areas of known controversy. The issues of apparent greatest concern raised in comment to date are highlighted below.

- Displacement effects on fisheries outside proposed MPAs;
- Loss of commercial and recreational fishing opportunities;
- Socioeconomic effects on fishing industries, seafood business economy and communities;
- Representation of non-consumptive use interests;
- Adequacy of enforcement resources and funding;
- Adequacy of biological baseline data;
- Ability of MPAs to build or maintain fish stocks;
- Need for quantitative classification guidelines and species benefit assessment;
- Phasing of MPA network components;
- Effects on ports, marina, and harbors; and

- Vessel safety.

Summary of Environmental Impacts and Mitigation Measures

Table ES-7. Summary of Environmental Impacts under Proposed Project and Alternatives

Environmental Issue Area	Proposed Project	Alternative 1	Alternative 2	Alternative 3	No Project
Aesthetics	NI	NI	NI	NI	NI
Agriculture	NI	NI	NI	NI	NI
Air Quality	LTS	LTS	LTS	LTS	NI
Biological Resources	LTS to B	LTS to B	LTS to B	LTS to B	PSU
Cultural Resources	NI	NI	NI	NI	NI
Geology and Soils	NI	NI	NI	NI	NI
Hazards and Hazardous Materials	NI	NI	NI	NI	NI
Land Use	NI	NI	NI	NI	NI
Mineral Resources	NI	NI	NI	NI	NI
Noise	NI	NI	NI	NI	NI
Oceanography	NI	NI	NI	NI	NI
Population and Housing	LTS	LTS	LTS	LTS	NI
Public Services and Utilities	LTS	LTS	LTS	LTS	NI
Recreation	LTS	LTS	LTS	LTS	NI
Research and Education	NI/B	NI/B	NI/B	NI/B	NI
Vessel Traffic	LTS	LTS	LTS	LTS	NI
Water Quality	LTS to B	LTS to B	LTS to B	LTS to B	NI

Notes: NI = no impact; B = beneficial; LTS = less than significant; PSU = potentially significant unavoidable

Significant and Unavoidable Impacts

No significant unavoidable impacts have been identified for the Proposed Project or Alternatives 1, 2, and 3.

Mitigation

Mitigation is not required for less than significant impacts.

Public Involvement

Overview

One of the purposes of CEQA is to establish opportunities for the public to review and comment on projects that may affect the environment. CEQA provides opportunities for public participation through:

- Publication of the Notice of Preparation (NOP);
- Project scoping¹;
- Public review of the Draft EIR; and
- Attendance at public hearings.

The scoping process was formally initiated for this EIR on June 9, 2008, with the submittal of the NOP to the State Clearinghouse in compliance with CEQA. A notice of the meeting was sent to resource agencies and members of the public via US mail and e-mail and was posted on the DFG web site to encourage participation. The first public scoping meeting was held on June 17, 2008 from 6:30 to 8:30 p.m. at the Best Western Lighthouse Hotel in Pacifica, California. The second scoping meeting was held on June 18, 2008 from 6:30 to 8:30 p.m. at the U.S. Army Corp of Engineers (USACE) Bay Model Visitor Center in Sausalito, California. The third scoping meeting was held on June 19, 2008 at the Gualala Arts Center in Gualala, California. Participants were afforded the opportunity to provide both verbal and written comments during the scoping meeting, and to submit comments in writing through the close of the scoping comment period on July 8, 2008.

Public Review of Draft EIR and Certification of Final EIR

This draft EIR is being circulated to local, state, and federal agencies and to interested organizations and individuals who may wish to review and comment on the report. Its publication marks the beginning of a 45-day public review period. Submittal of written comments via email (Microsoft Word format) would be greatly appreciated. Written comments or questions concerning this draft EIR should be directed to:

¹ *Scoping* refers to the public outreach process used under CEQA to determine the focus and content of an EIR. It contributes to the selection of a range of project alternatives to be considered, and can also help to establish methods of analysis, identify the environmental effects that will be considered in detail, and develop mitigation measures to avoid or compensate for significant impacts. The scoping process for an EIR is initiated by publication of the NOP required by CEQA, which provides formal notice to the public and to interested agencies and organizations that an EIR is in preparation.

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All documents mentioned herein or related to the Proposed Project can be reviewed any CDFG business day between 8 a.m. and 4 p.m. at the CDFG office identified above, as well as other CDFG Marine Region offices and various public libraries (call the number above for a full list of locations).

Substantive issues raised in written comments on this draft EIR will be addressed in the Final EIR. After review of the Proposed Project and the Final EIR, CDFG staff will recommend to the Commission whether to approve or deny the Proposed Project. The Commission will then review the Proposed Project, the Final EIR, staff recommendations, and public testimony and decide whether to certify the Final EIR and whether to authorize the Proposed Project.