

## **TITLE 14. Fish and Game Commission Notice of Proposed Changes in Regulations**

**NOTICE IS HEREBY GIVEN** that the Fish and Game Commission (Commission), pursuant to the authority vested by sections 200, 202, 203.1, 205(c), 219, 220, 1590, 1591, 2860, 2861, and 6750, Fish and Game Code; and sections 36725(a) and 36725(e), Public Resources Code and to implement, interpret or make specific sections 200, 202, 203.1, 205(c), 219, 220, 1580, 1583, 2861, 5521, 6653, 8420(e), and 8500, Fish and Game Code; and sections 36700(e), 36710(e), 36725(a) and 36725(e), Public Resources Code, proposes to amend Section 632, Title 14, California Code of Regulations, relating to Marine Protected Areas.

### **Informative Digest/Policy Statement Overview**

The Marine Life Management Act (MLMA, Stats. 1998, ch. 1052) created a broad programmatic framework for managing fisheries through a variety of conservation measures, including Marine Protected Areas (MPAs). The Marine Life Protection Act (MLPA, Stats. 1999, ch. 1015) established a programmatic framework for designating such MPAs in the form of a statewide network. AB 2800 (Stats. 2000, ch. 385) enacted the Marine Managed Areas Improvement Act (MMAIA), among other things, to standardize the designation of Marine Managed Areas (MMAs), which include MPAs. The overriding goal of these acts is to ensure the conservation, sustainable use, and restoration of California's marine resources. Unlike previous laws, which focused on individual species, the acts focus on maintaining the health of marine ecosystems and biodiversity in order to sustain resources.

The proposed regulation change is intended to meet the goals described in the Marine Life Protection Act (MLPA, Stats. 1999, ch. 1015) within a portion of California's State waters. The area covered in this proposal is the north central coast region, defined as State waters between Alder Creek, near Point Arena (Mendocino County) and Pigeon Point (San Mateo County). The MLPA goals address an overall concept of ecosystem-based management and the intent to improve upon California's existing array of marine protected areas (MPAs). The MLPA specifically requires that the Department of Fish and Game (Department) prepare a master plan and that the Fish and Game Commission (Commission) adopt regulations based on the plan to achieve the MLPA goals. These goals are:

- To protect the natural diversity and abundance of marine life, and the structure, function, and integrity of marine ecosystems.
- To help sustain, conserve, and protect marine life populations, including those of economic value, and rebuild those that are depleted.
- 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.
- To protect marine natural heritage, including protection of representative and unique marine life habitats in California waters for their intrinsic value.
- To ensure that California's MPAs have clearly defined objectives, effective management measures, and adequate enforcement, and are based on sound scientific guidelines.
- To ensure that the State's MPAs are designed and managed, to the extent possible, as a network.

#### The Network Concept:

Important in developing the proposed regulation was the consideration for the north central coast MPAs to form a component of a statewide network. By definition in the MLPA, a network is applied to a biogeographical region. The revised draft Master Plan for MPAs adopted by the Commission recognizes two biogeographical regions in California, with a boundary at Point Conception. The biological network concept calls for connectivity between MPAs through adult movements and larval transport of the species most likely to benefit from establishing MPAs. This includes marine plants, sedentary fishes and invertebrates, and species which are not highly mobile or migratory. This approach is consistent with the guidance provided in the MLPA [Fish and Game Code subsection 2853(b)(6)]. Networks may also be connected through consistency in the method of establishment, goals, objectives, and management and enforcement measures.

The proposed regulation establishes a network component of MPAs designed to include all representative north central coast habitats and major oceanic conditions. Unique and critical habitats were considered separately to guarantee both representation and protection.

From an ecological perspective, the proposed regulation creates a network component of MPAs consistent with the goals of the MLPA. From an economic and social perspective, the proposed regulation attempts to minimize potential negative socio-economic impacts and optimize potential positive socio-economic impacts for all users, to the extent possible.

#### Implementation of the Marine Life Protection Act in the North Central Coast Region:

Existing regulations (the no-project alternative) provide for 13 MPAs covering an area of approximately 26.8 square miles, representing approximately 3.5 percent of state waters within the north central coast region. Of this, less than one percent of the area is within no-take state marine reserves covering approximately 0.3 square miles or approximately 0.1 percent of state waters within the north central coast region.

The proposed regulations (the Commission preferred alternative, i.e., the Integrated Preferred Alternative), along with alternatives 2 and 3, include one or more areas recommended by stakeholders as new state marine parks. However, because the Commission does not have statutory authority to establish state marine parks, the proposed regulation designates these areas as state marine conservation areas. These areas can later be designated as marine parks at the discretion of the Parks and Recreation Commission. The proposed regulations also remove or retain, re-designate and redesign certain MPAs previously classified as state marine parks to an appropriate MPA designation consistent with the MMAIA. These retained areas can later be designated as marine parks at the discretion of the Parks and Recreation Commission.

The Commission's preferred alternative includes a state marine recreational management area (SMRMA) in Russian River, Estero Americano, and Estero de San Antonio, to allow for continued waterfowl hunting where it traditionally occurred, while providing SMR-like protection subtidally. SMRMAs were recommended by the Department, to the NCCRSG and BRTF in its feasibility guidance and evaluations of MPA proposals, as the appropriate designation for proposed SMRs in estuarine areas where waterfowl hunting is currently allowed. This recommendation was to allow for continued waterfowl hunting while providing SMR-like protection subtidally. The BRTF, in its development of the Integrated Preferred Alternative (IPA), applied the Department's designation recommendation and used a SMRMA designation for Estero Americano and Estero de San Antonio, two estuaries where waterfowl hunting was known to occur. The BRTF did not use this designation for the proposed Russian River SMR

due to Department understanding that development had precluded waterfowl hunting along the estuary. Subsequent to BRTF submission of the IPA to the Commission, the Department became aware that waterfowl hunting did occur in a portion of the proposed Russian River SMR. Therefore, for the proposed regulation contained herein, and consistent with BRTF intention to follow Department guidance, the designation was changed to a SMRMA for Russian River.

One of the three alternatives (alternative 2) to the proposed regulation includes proposed SMRMAs in three locations where waterfowl hunting traditionally occurs. This includes Russian River estuary, Estero Americano, and Estero de San Antonio. The remaining two alternatives to the proposed regulation propose SMRs where waterfowl hunting traditionally occurs. This includes Russian River estuary, Estero Americano and Estero de San Antonio in alternatives 1 and 3, and Tomales Bay in alternative 3. In Department feasibility guidance and evaluations of MPA proposals provided to the NCCRSO in crafting these alternatives, the Department recommended proposed SMRs in estuarine areas where waterfowl hunting is currently allowed to be re-designated as SMRMAs to account for waterfowl hunting while providing SMR-like protection subtidally. These recommendations were applied by NCCRSO members to alternative 2. However, NCCRSO members that crafted alternatives 1 and 3 chose to focus only on MPA designations and to defer to the Commission for consideration of other MMA designations that account for existing activities outside MLPA. To facilitate the Commission's consideration of this deferred decision, an option is provided in alternatives 1 and 3 to assign a SMRMA designation in these locations.

Special closures were used in areas of significant importance to seabirds and marine mammals as part of the marine ecosystem. This special closure category works in conjunction with the MPA designation process and was used to provide further protections that would not otherwise be afforded by MPA designation within the same geographical location. This includes minimizing disturbance of seabirds and marine mammals at nesting, roosting, and haul-out sites, through special restrictions on boating and access in areas generally smaller than MPAs, either within an MPA or outside. Four to six special closures are proposed in the Commission's preferred proposal and alternatives (Attachment 11).

#### PROPOSED REGULATION:

Integrated Preferred Alternative (IPA) - The proposed regulation, also known as the Integrated Preferred Alternative (IPA) includes a total of 21 MPAs, three marine managed areas (SMRMAs) for the north central coast region (Table 1, Figure 1, and Attachment 2) and seven special closures (four along mainland; cluster of three at Farallon Islands; Attachment 11). Ten existing MPAs are included and/or have been expanded. Although the proposed regulation contains 21 new MPAs, 15 are directly adjacent to, or include portions of, existing MPAs and can be considered expansions of the area. In these 15 cases, the incorporation and/or additional expansion are within a marine protected area with some allowed take. Thus, the proposed regulation includes 9 MPAs that are in geographical areas previously not designated as MPAs. One proposed SMR provides sub-options for alternate names: Option 1) "Montara" refers to the adjacent geography, and Option 2) "Fitzgerald" is the locally-popular historic name of the existing intertidal MPA proposed for expansion in the IPA. There is no other difference between the sub-options.

Table 1. Proposed regulation (Integrated Preferred Alternative) for marine protected areas, marine managed areas and special closures in the north central coast, including proposed allowed take and Science Advisory Team (SAT) assigned level of protection. Areas arranged geographically from north to south.

<b>MPA Name</b>	<b>Proposed Allowed Take</b>	<b>SAT level of protection<sup>1</sup></b>
*Point Arena State Marine Reserve	Take of all living marine resources is prohibited	Very High
*Point Arena State Marine Conservation Area	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	High
*Sea Lion Cove State Marine Conservation Area	The recreational and commercial take of all marine invertebrates and marine aquatic plants is prohibited. Take of all other species is allowed	Mod-low
Saunders Reef State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling 2. The commercial take of salmon with troll fishing gear, and urchin	Mod-low
Del Mar Landing State Marine Reserve	Take of all living marine resources is prohibited	Very High
*Stewarts Point State Marine Reserve	Take of all living marine resources is prohibited	Very High
Salt Point State Marine Conservation Area <sup>2</sup>	Take of all living marine resources is prohibited EXCEPT: the recreational take of abalone and finfish <sup>4</sup>	Moderate-low
Gerstle Cove State Marine Reserve	Take of all living marine resources is prohibited	Very High
*Russian River State Marine Recreational Management Area	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)	Very High
*Russian River State Marine Conservation Area	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. 2. The commercial take of Dungeness crab by trap	Moderate
Bodega Head State Marine Reserve	Take of all living marine resources is prohibited	Very High

<b>MPA Name</b>	<b>Proposed Allowed Take</b>	<b>SAT level of protection<sup>1</sup></b>
Bodega Head State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT:  1. The recreational take of pelagic finfish <sup>3</sup> by trolling, Dungeness crab by trap and market squid by hand-held dip net 2. The commercial take of pelagic finfish <sup>3</sup> with troll fishing gear or round haul net, Dungeness crab by trap, and market squid by round haul net	Mod-high
*Estero Americano State Marine Recreational Management Area	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)	Very High
*Estero de San Antonio State Marine Recreational Management Area	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)	Very High
Point Reyes State Marine Reserve	Take of all living marine resources is prohibited	Very High
Point Reyes State Marine Conservation Area	Take of all living marine resources is prohibited, EXCEPT: 1. The recreational take of salmon by trolling, and Dungeness crab by trap 2. The commercial take of salmon with trolling gear, and Dungeness crab by trap	Mod-high
*Estero de Limantour State Marine Reserve	Take of all living marine resources is prohibited	Very High
Drakes Estero State Marine Conservation Area	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 stocking permit	Low
Duxbury Reef State Marine Conservation Area <sup>2</sup>	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish <sup>4</sup> from shore only, and the recreational take of abalone	Moderate
^ Option 1: Montara State Marine Reserve	Take of all living marine resources is prohibited	Very High
^ Option 2: Fitzgerald State Marine Reserve	Take of all living marine resources is prohibited	Very High

<b>MPA Name</b>	<b>Proposed Allowed Take</b>	<b>SAT level of protection<sup>1</sup></b>
Pillar Point State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of pelagic finfish <sup>3</sup> by trolling, Dungeness crab by trap and market squid by hand-held dip net 2. The commercial take of pelagic finfish <sup>3</sup> with troll fishing gear or round haul net, Dungeness crab by trap and market squid by round haul net	Mod-high
North Farallon Islands State Marine Reserve	Take of all living marine resources is prohibited	Very High
Southeast Farallon Island State Marine Reserve	Take of all living marine resources is prohibited	Very High
Southeast Farallon Island State Marine Conservation Area	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	High
<b>Special Closures</b>		
Point Reyes Headlands Special Closure	1000 ft closure; year round	
Point Resistance Rock Special Closure	300 ft closure; year round	
Double Point/ Stormy Stack Rock Special Closure	300 ft closure; year round	
North Farallon Islands Special Closure	1000 ft closure at North Farallon Island and 300 ft closure at the southern islets including the Isle of St. James; year round.	
Southeast Farallon Island Special Closure	Boating restrictions and fishing activity modifications to reduce noise within 1 mile of all islands: 5 mph speed limit within 1000 feet of all islands; year round 300 ft closure at Southeast Farallon Island, except Fisherman's Bay and East Landing; year round except for a seasonal closure on the southeast side of Saddle (Seal) Rock, from Dec 1 to Sep 14. Boating restrictions within 1 mile of all islands; 5 mph speed limit within 1000 feet of Southeast Farallon Island, fishing activity modifications to reduce noise; year round	
Egg (Devil's Slide) Rock to Devil's Slide Special Closure	300 ft closure around island rocks and no transit in area between Egg (Devil's Slide) Rock and mainland; year round	

\* New MPAs that are not direct expansion of an existing area.

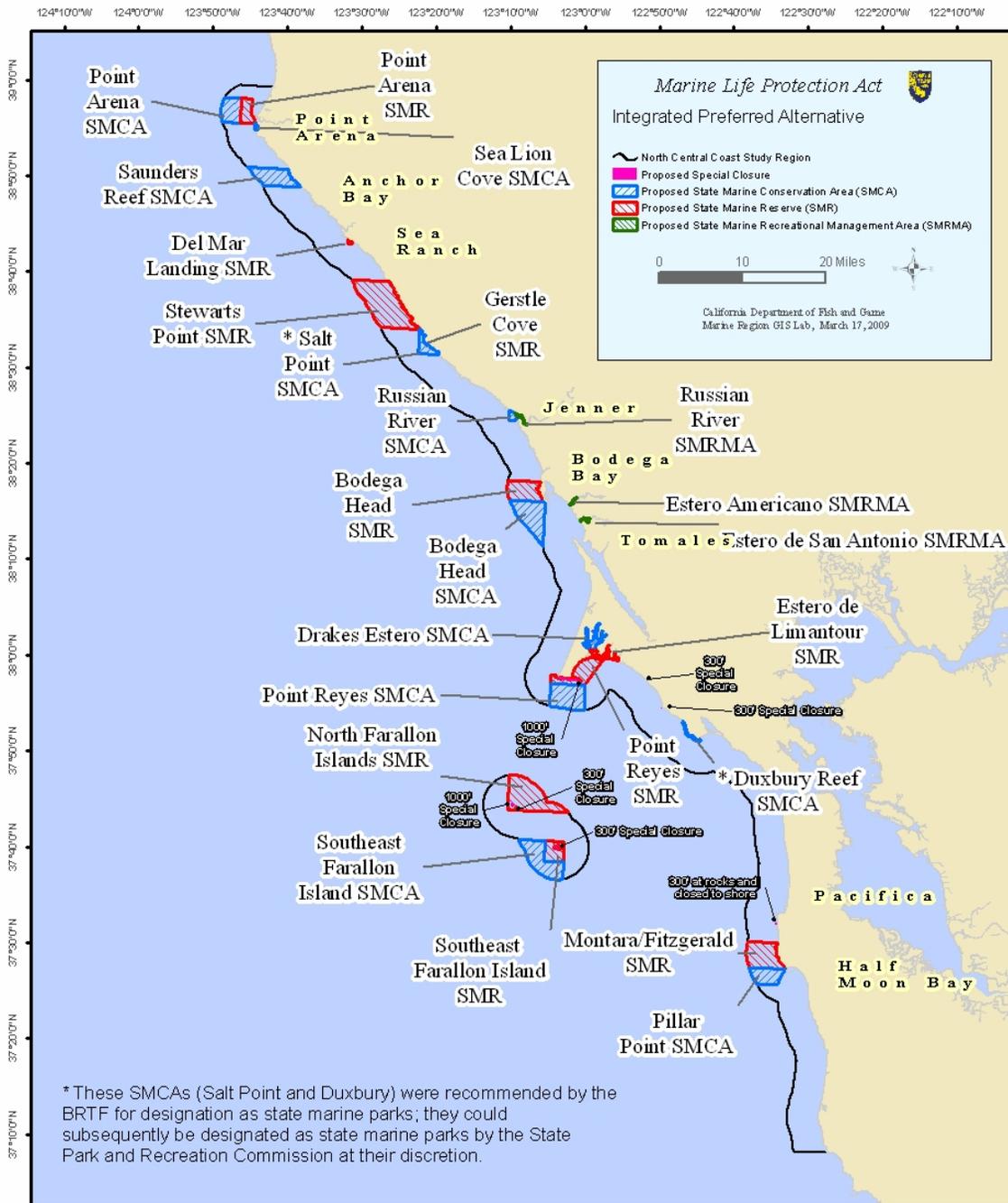
^ Sub-option exists for retaining the historic name of Fitzgerald, or the geographic reference of Montara.

<sup>1</sup> In order to analyze the differences between no-take reserves and limited take conservation areas and recommended parks, the SAT developed a ranking for level of protection described in the Master Plan based on impact 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 (Attachment 10).

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

<sup>3</sup> Pelagic Finfish are defined in subsection 632(a)(3) 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.

<sup>4</sup> 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.



**North Central Coast Study Region**

**California Fish and Game Commission Preferred Alternative**

This marine protected area (MPA) proposal was selected on June 11, 2008 by the California Fish and Game Commission (CFG) as its preferred alternative. This proposal integrates elements from three proposals developed by the North Central Coast Regional Stakeholder Group (NCCSRG) (proposals 1-3, 2-XA, and 4). These NCCSRG proposals were selected in their entirety as CFG alternatives 1, 2, and 3. Further information on each MPA proposal can be found in the associated text document with the same MPA proposal name.



Figure 1. Marine protected areas in the proposed regulation (Integrated Preferred Alternative)

The 21 MPAs and three marine managed areas in the proposed regulation cover an area of approximately 153.3 square miles, representing approximately 20.1 percent of state waters within the north central coast region (Figure 2, Attachment 3). Of this, more than half the area is within no-take state marine reserves covering approximately 85.8 square miles or approximately 11.2 percent of state waters within the north central coast region (Figure 2). The remaining areas are primarily state marine conservation areas. Two of these SMCAs (Salt Point and Duxbury) were recommended for designation as state marine parks with restrictions consistent with this designation, and could subsequently be designated as state marine parks at the discretion of the State Park and Recreation Commission. Many of the SMCAs allow the take of either all pelagic finfish (defined above) or salmon and were considered by the SAT to offer high ecosystem protection (Figure 3). In some state marine conservation areas, take of other species such as squid, abalone and urchin, are also allowed. With a few exceptions, the state marine conservation areas protect benthic fishes and invertebrates most likely to from area protection.

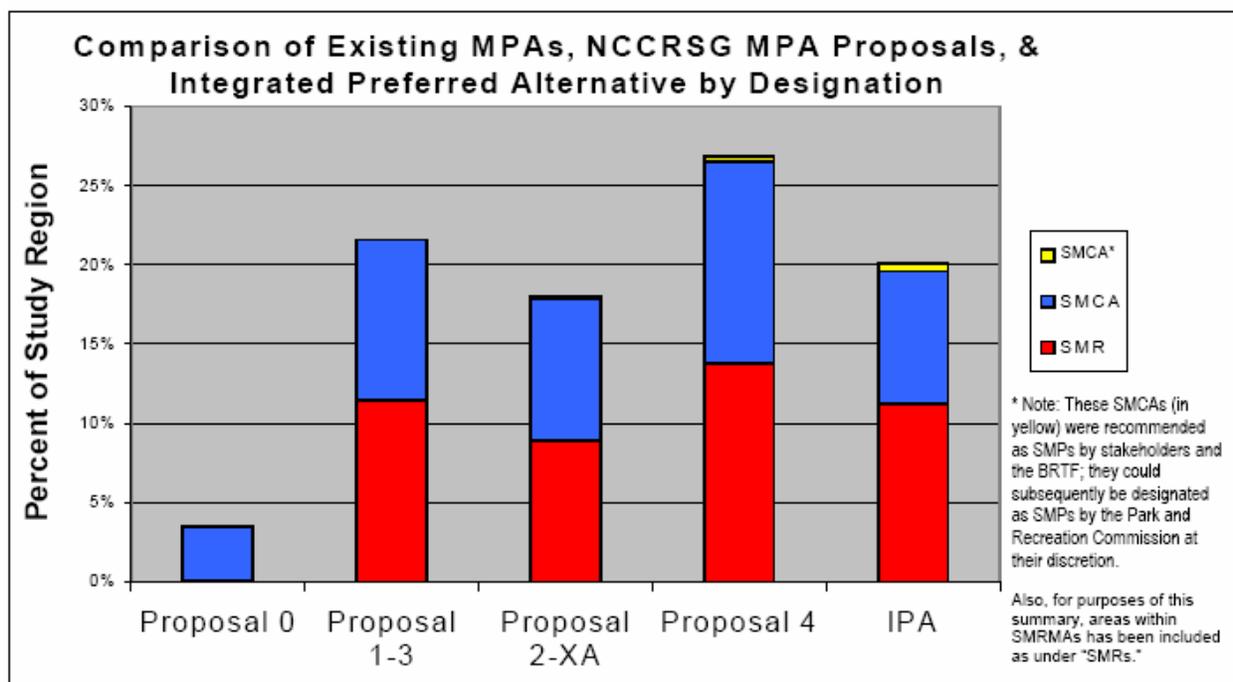


Figure 2. Percent of the north central coast study region included in the proposed regulation (Integrated Preferred Alternative) as compared to existing MPAs in the No-Project Alternative (Proposal 0) and alternative proposals [alternative 1 (Proposals 1-3), alternative 2 (Proposal 2-XA), alternative 3 (Proposal 4) and the IPA]. SMP = state marine park, SMCA = state marine conservation area, and SMR = state marine reserve. Note that two state recreational management areas (Estero Americano and Estero de San Antonio) are included in the calculations as SMRs based on their relative level of protection. Note that SMCAs represented in yellow were recommended as SMPs by stakeholders and the BRTF. While they would be adopted as SMCAs, they could be subsequently designated also as SMPs by the Park and Recreation Commission at their discretion.

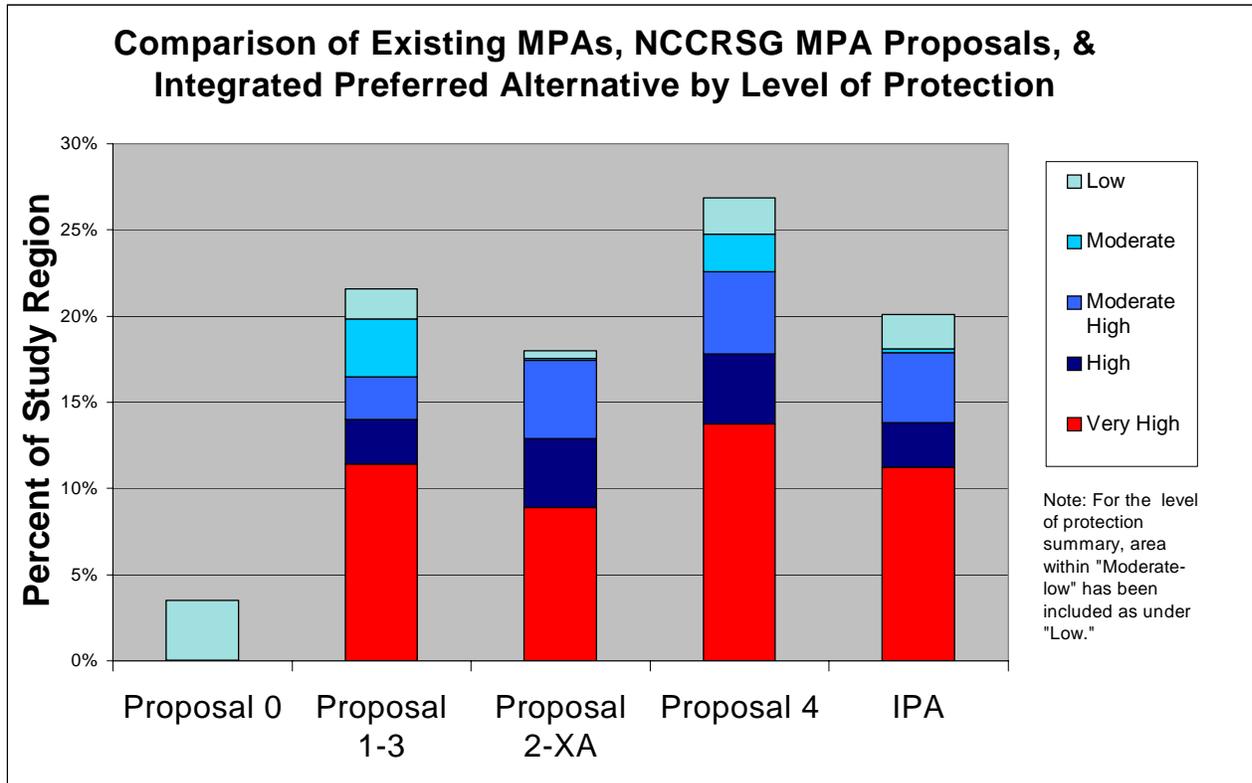


Figure 3. Percent of the north central coast study region included in the proposed regulation (Integrated Preferred Alternative) as compared to existing MPAs in the No-Project Alternative (Proposal 0) and alternative proposals [alternative 1 (Proposals 1-3), alternative 2 (Proposal 2-XA), alternative 3 (Proposal 4) and the IPA]. Level of protection (LOP) is noted as defined by the SAT in the Master Plan as modified by the SAT for refined evaluations of north central coast proposals. LOP rankings used for the north central coast will be appended to the Master Plan upon adoption of regulations. Note that two state marine recreational management areas (Estero Americano and Estero de San Antonio) are included in the calculations as SMRs based on their relative level of protection.

**ALTERNATIVES:**

Alternative 1 – This is the North Central Coast Regional Stakeholder Group (NCCRSR) “Proposal 1-3”, developed within RSG workgroups by constituents representing a variety of consumptive, non-consumptive, and environmental interests. It consists of 23 MPAs, with the sub-option three MPAs become marine management areas (SMRMAs) covering an area of approximately 164.6 square miles, representing approximately 21.6 percent of state waters within the north central coast region (Table 3 and attachments 3, 4, and 5) and seven special closures. Of this, over one half of the area is within no-take state marine reserves covering approximately 87.2 square miles or approximately 11.4 percent of state waters within the north central coast region (Figure 2).

Table 3. Alternative 1 proposal for marine protected areas, marine managed areas and special closures in the north central coast, including proposed allowed take and SAT assigned level of protection. Areas arranged geographically from north to south.

<b>MPA Name</b>	<b>Proposed Allowed Take</b>	<b>SAT level of protection<sup>1</sup></b>
Point Arena State Marine Reserve	Take of all living marine resources is prohibited	Very High
Point Arena State Marine Conservation Area	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	High
Saunders Reef State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, abalone, and finfish <sup>2</sup> by hook and line or by spear from shore only 2. The commercial take of salmon with troll fishing gear, and urchin	Mod-low
Del Mar Landing State Marine Conservation Area <sup>5</sup>	Take of all living marine resources is prohibited, EXCEPT: the recreational take of finfish <sup>2</sup> by hook and line or spear	Mod-low
Rocky Pt to Horseshoe Pt State Marine Reserve	Take of all living marine resources is prohibited	Very High
Gerstle Cove State Marine Reserve	Take of all living marine resources is prohibited	Very High
^Russian River Option 1: State Marine Reserve	Take of all living marine resources is prohibited	Very High
^Russian River Option 2: State Marine Recreational Management Area	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)	Very High
Russian River State Marine Conservation Area	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 2. The commercial take of Dungeness crab by trap	Moderate
Bodega Head State Marine Reserve	Take of all living marine resources is prohibited	Very High
Bodega Head State Marine Conservation Area	Take of all living marine resources is prohibited, EXCEPT: the recreational take of pelagic finfish <sup>3</sup> by hook and line except for recreational salmon take by trolling, and Dungeness crab by trap; and the commercial take of pelagic finfish <sup>3</sup> by troll fishing gear and Dungeness crab by trap.	Mod-high
^Estero Americano Option 1: State Marine Reserve	Take of all living marine resources is prohibited	Very High

<b>MPA Name</b>	<b>Proposed Allowed Take</b>	<b>SAT level of protection<sup>1</sup></b>
^Estero Americano Option 2: State Marine Recreational Management Area	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)	Very High
^Estero de San Antonio Option 1: State Marine Reserve	Take of all living marine resources is prohibited	Very High
^Estero de San Antonio Option 2: State Marine Recreational Management Area	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)	Very High
Point Reyes State Marine Reserve	Take of all living marine resources is prohibited	Very High
Point Reyes State Marine Conservation Area	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	Mod-high
Drakes Estero/Estero de Limantour State Marine Reserve	Take of all living marine resources is prohibited	Very High
Drakes Estero State Marine Conservation Area	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 stocking permit	Low
Double Point State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: the recreational and commercial take of salmon, Dungeness crab by trap, halibut by hook and line, and coastal pelagic species <sup>4</sup> except market squid by hook and line	Moderate
Duxbury Reef State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish <sup>2</sup> by hook and line from shore only	Moderate
Fitzgerald State Marine Reserve	Take of all living marine resources is prohibited	Very High
Montara State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, Dungeness crab by trap, coastal pelagic species and halibut by hook and line 2. The commercial take of salmon with troll fishing gear, Dungeness crab by trap, and coastal pelagic species and halibut by hook and line	Moderate
North Farallon Islands State Marine Reserve	Take of all living marine resources is prohibited	Very High

<b>MPA Name</b>	<b>Proposed Allowed Take</b>	<b>SAT level of protection<sup>1</sup></b>
Southeast Farallon Island State Marine Reserve	Take of all living marine resources is prohibited	Very High
Southeast Farallon Island State Marine Conservation Area	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	High
<b>Special Closures</b>		
Point Reyes Headlands Special Closure	1000 ft closure; year round	
Point Resistance Rock Special Closure	500 ft closure; year round	
Double Point/ Stormy Stack Rock Special Closure	300 ft closure; year round	
North Farallon Islands Special Closure	1000 ft closure at North Farallon Island and 300 ft closure at the southern islets including the Isle of St. James; year round.	
	Boating restrictions and fishing activity modifications to reduce noise within 1 mile of all islands: 5 mph speed limit within 1000 feet of all islands; year round	
Southeast Farallon Island Special Closure	300 ft closure at Southeast Farallon Island, except Fisherman's Bay and East Landing; year round except for a seasonal closure on the southeast side of Saddle (Seal) Rock, from Dec 1 to Sep 14.	
	Boating restrictions within one mile of all islands; five mph speed limit within 1000 feet of Southeast Farallon Island, fishing activity modifications to reduce noise; year round	
Egg (Devil's Slide) Rock Special Closure	1000 ft closure from any shoreline of the three rocks; year round	
Bean Hollow Special Closure	300 ft closure; seasonal (Feb-Aug)	

<sup>^</sup> Options exist for designation as a state marine reserve, or as a state marine recreational management area to allow recreational hunting of waterfowl to continue (sections 502, 550, 551, and 552).

<sup>1</sup> In order to analyze the differences between no-take reserves and limited take conservation areas and recommended parks, the SAT developed a ranking for level of protection described in the Master Plan based on impact 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 (Attachment 10).

<sup>2</sup> Pelagic Finfish are defined in subsection 632(a)(3) 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.

<sup>3</sup> 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.

<sup>4</sup> 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).

<sup>5</sup> These areas, recommended by stakeholders as state marine parks, will be designated as state marine conservation areas, and could subsequently be designated as state marine parks at the discretion of the State Park and Recreation Commission.

Alternative 2 – This is the “NCCRSR Proposal 2-XA”, developed both in RSG workgroups and groups external to the RSG process, by constituents representing commercial and recreational fishing interests along the north central coast. It consists of 18 MPAs and three marine managed areas (SMRMAs) covering an area of approximately 137.2 square miles, representing approximately 18.0 percent of state waters within the north central coast region (Table 4 and attachments 3, 4, and 6), and five special closures. Of this, approximately half of the area is within no-take state marine reserves covering approximately 68.1 square miles or approximately 8.9 percent of state waters within the north central coast region (Figure 2).

Table 4. Alternative 2 proposal for marine protected areas, marine managed areas and special closures in the north central coast, including proposed allowed take and SAT assigned level of protection. Areas arranged geographically from north to south.

<b>MPA Name</b>	<b>Proposed Allowed Take</b>	<b>SAT level of protection<sup>1</sup></b>
Pt Arena State Marine Reserve	Take of all living marine resources is prohibited	Very High
Pt Arena State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: the recreational take of pelagic finfish <sup>3</sup> by hook and line (salmon by trolling only) and commercial take of pelagic finfish <sup>3</sup> by hook and line (salmon by troll fishing gear only), and coastal pelagic species <sup>4</sup> except market squid, by round haul net	High
Black Point State Marine Reserve	Take of all living marine resources is prohibited	Very High
Black Point State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: the recreational take of pelagic finfish <sup>3</sup> by hook and line (salmon by trolling only) and commercial take of pelagic finfish <sup>3</sup> by hook and line (salmon by troll fishing gear only), and coastal pelagic species <sup>4</sup> except market squid, by round haul net	High
Gerstle Cove State Marine Reserve	Take of all living marine resources is prohibited	Very High
Russian River Estuary State Marine Recreational Management Area	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)	Very High

MPA Name	Proposed Allowed Take	SAT level of protection <sup>1</sup>
Russian River State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of marine invertebrates and finfish <sup>5</sup> except for Chinook salmon 2. The commercial take of marine invertebrates except for abalone, and finfish <sup>5</sup> except for Chinook salmon	Low
Bodega Head State Marine Reserve	Take of all living marine resources is prohibited	Very High
Bodega Head State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of pelagic finfish <sup>3</sup> by trolling, Dungeness crab by trap, and market squid by hand-held dip net 2. The commercial take of pelagic finfish <sup>3</sup> by troll fishing gear or round haul net, Dungeness crab by trap, and market squid by round haul net	Mod-high
Estero Americano State Marine Recreational Management Area	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)	Very High
Estero de San Antonio State Marine Recreational Management Area	All take of living marine resources is prohibited except recreational hunting of waterfowl is allowed unless otherwise restricted by hunting regulations (sections 502, 550, 551, and 552)	Very High
Point Reyes Headlands State Marine Reserve	Take of all living marine resources is prohibited	Very High
Point Reyes Headlands State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of pelagic finfish <sup>3</sup> by hook and line (salmon by trolling only), and Dungeness crab by trap 2. The commercial take of pelagic finfish <sup>3</sup> by hook and line (salmon with troll fishing gear only), coastal pelagic species <sup>4</sup> by round haul net, and Dungeness crab by trap	Mod-high
Estero de Limantour State Marine Reserve	Take of all living marine resources is prohibited	Very High
Drakes Estero State Marine Conservation Area	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 stocking permit	Low
Duxbury State Marine Conservation Area <sup>2</sup>	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish <sup>5</sup> from shore only, and the recreational take of abalone	Moderate
Montara State Marine Reserve	Take of all living marine resources is prohibited	Very High

MPA Name	Proposed Allowed Take	SAT level of protection <sup>1</sup>
Pillar Point State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of pelagic finfish <sup>3</sup> by trolling, Dungeness crab by trap, and market squid by hand-held dip net 2. The commercial take of pelagic finfish <sup>3</sup> with troll fishing gear or round haul net, Dungeness crab by trap and market squid by round haul net	Mod-high
North Farallon Islands State Marine Reserve	Take of all living marine resources is prohibited	Very High
Southeast Farallon Island State Marine Reserve	Take of all living marine resources is prohibited	Very High
Southeast Farallon Island State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of pelagic finfish <sup>3</sup> by hook and line (except for salmon by trolling only) and coastal pelagic species <sup>4</sup> except for market squid by hook and line 2. The commercial take of pelagic finfish <sup>3</sup> by hook and line (except for salmon with troll fishing gear only) and coastal pelagic species <sup>4</sup> except market squid, by round haul net	High
<b>Special Closures</b>		
Point Resistance Rock Special Closure	300 ft closure; year round	
Double Point/ Stormy Stack Rock Special Closure	300 ft closure; year round	
North Farallon Islands Special Closure	300 ft closure at North Farallon Island, and southern islets including the Isle of St. James; year round.  Boating restrictions and fishing activity modifications to reduce noise within 1 mile of all islands: 5 mph speed limit within 1000 feet of all islands; year round 300 ft closure at Southeast Farallon Island, except between Fisherman's Bay and East Landing; year-round.	
Southeast Farallon Island Special Closure	Boating restrictions within one mile of all islands; five mph speed limit within 1000 feet of Southeast Farallon Island, fishing activity modifications to reduce noise; year round	
Egg (Devil's Slide) Rock Special Closure	300 ft closure from any shoreline of the three rocks; year round	

<sup>1</sup> In order to analyze the differences between no-take reserves and limited take conservation areas and recommended parks, the SAT developed a ranking for level of protection described in the Master Plan

based on impact 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 (Attachment 10).

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

<sup>3</sup> Pelagic Finfish are defined in subsection 632(a)(3) 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.

<sup>4</sup> 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*).

<sup>5</sup> 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** – This is the NCCRSG “Proposal 4,” developed within RSG workgroups by constituents primarily representing non-consumptive and environmental interests along the north central coast. It consists of 28 MPAs with the sub-option that three MPAs become marine managed areas (SMRMAs) covering an area of approximately 204.9 square miles, representing approximately 26.9 percent of state waters within the north central coast region (Table 5 and attachments 3, 4, and 7) and seven special closures. Of this, more than half of the area is within no-take state marine reserves covering approximately 105.0 square miles or approximately 13.8 percent of state waters within the north central coast region (Figure 2).

Table 5. Alternative 3 proposal for marine protected areas, marine managed areas, and special closures in the north central coast, including proposed allowed take and Science Advisory Team (SAT) assigned level of protection. Areas arranged geographically from north to south.

<b>MPA Name</b>	<b>Proposed Allowed Take</b>	<b>SAT level of protection<sup>1</sup></b>
Point Arena State Marine Reserve	Take of all living marine resources is prohibited	Very High
Point Arena State Marine Conservation Area	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	High
Sea Lion Cove State Marine Conservation Area	Commercial and recreational take of marine invertebrates and marine aquatic plants is prohibited. Take of all other species is allowed Take of all living marine resources is prohibited	Mod-low
Saunders Reef State Marine Conservation Area	EXCEPT: 1. The recreational take of salmon by trolling 2. The commercial take of salmon with troll fishing gear, and urchin	Mod-low
Del Mar Landing State Marine Reserve	Take of all living marine resources is prohibited	Very High
Stewarts Point State Marine Reserve	Take of all living marine resources is prohibited	Very High

<b>MPA Name</b>	<b>Proposed Allowed Take</b>	<b>SAT level of protection<sup>1</sup></b>
Salt Point State Marine Conservation Area <sup>2</sup>	Take of all living marine resources is prohibited EXCEPT: the recreational take of finfish <sup>3</sup> and abalone	Moderate-low
Gerstle Cove State Marine Reserve	Take of all living marine resources is prohibited	Very High
^Russian River Estuary Option 1: State Marine Reserve	Take of all living marine resources is prohibited	Very High
^Russian River Estuary Option 2: State Marine Recreational Management Area	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)	Very High
Russian River State Marine Conservation Area	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	Very High
Bodega Head State Marine Reserve	Take of all living marine resources is prohibited	Very High
Bodega Head State Marine Conservation Area	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	High
^Estero Americano Option 1: State Marine Reserve	Take of all living marine resources is prohibited	Very High
^Estero Americano Option 2: State Marine Recreational Management Area	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)	Very High
^Estero de San Antonio Option 1: State Marine Reserve	Take of all living marine resources is prohibited	Very High
^Estero de San Antonio Option 2: State Marine Recreational Management Area	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)	Very High
^Tomales Bay State Option 1: Marine Reserve	Take of all living marine resources is prohibited	Very High
^Tomales Bay State Option 2: Marine Recreational Management Area	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)	Very High
Point Reyes State Marine Reserve	Take of all living marine resources is prohibited	Very High

<b>MPA Name</b>	<b>Proposed Allowed Take</b>	<b>SAT level of protection<sup>1</sup></b>
Point Reyes State Marine Conservation Area	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	Mod-High
Drakes Estero State Marine Reserve	Take of all living marine resources is prohibited	Very High
Drakes Estero State Marine Conservation Area	Take of all living marine resources is prohibited, EXCEPT: The commercial aquaculture of shellfish pursuant to a valid State Water Bottom Lease and stocking permit	Low
Double Point State Marine Conservation Area	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	Mod-High
Duxbury State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, Dungeness crab by trap, 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	Moderate
Agate Beach Intertidal State Marine Conservation Area	Take of all living marine resources is prohibited EXCEPT: 1. The recreational take of salmon by trolling, Dungeness crab by trap, 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	Moderate
Devil's Slide State Marine Conservation Area	Take of all living marine resources is prohibited, EXCEPT: 1. The recreational take of salmon by trolling, Dungeness crab by trap, and coastal pelagic species by hook and line 2. The commercial take of salmon with troll fishing gear, Dungeness crab by trap, and coastal pelagic species by round haul net	Mod-High
Fitzgerald State Marine Reserve	Take of all living marine resources is prohibited	Very High
San Gregorio State Marine Reserve	Take of all living marine resources is prohibited	Very High
North Farallon Islands State Marine Reserve	Take of all living marine resources is prohibited	Very High
Southeast Farallon Island State Marine Reserve	Take of all living marine resources is prohibited	Very High

MPA Name	Proposed Allowed Take	SAT level of protection <sup>1</sup>
Southeast Farallon Island State Marine Conservation Area	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	High
<b>Special Closures</b>		
Arched Rock Special Closure	300 ft closure; year round	
Gull Rock Special Closure	300 ft closure; year round	
Point Reyes Headlands Special Closure	1000 ft closure; year round	
Double Point/ Stormy Stack Rock Special Closure	300 ft closure; year round	
North Farallon Islands Special Closure	1000 ft closure around North Farallon Island and 300 ft closure around the southern islets including the Isle of St. James; year round.  Boating restrictions and fishing activity modifications to reduce noise within 1 mile of all islands: 5 mph speed limit within 1000 feet of all islands; year round 300 ft closure at Southeast Farallon Island, except Fisherman's Bay and East Landing; year round except for a seasonal closure on the southeast side of Saddle (Seal) Rock, from Dec 1 to Sep 14.	
Southeast Farallon Island Special Closure	Boating restrictions within one mile of all islands; five mph speed limit within 1000 feet of Southeast Farallon Island, fishing activity modifications to reduce noise; year round	
Egg (Devil's Slide) Rock Special Closure	1000 ft closure from any shoreline of the three rocks; year round	

<sup>^</sup> Sub-option exists for designation as a state marine reserve, or a state marine recreational management area to allow recreational hunting of waterfowl to continue (sections 502, 550, 551, and 552).

<sup>1</sup> In order to analyze the differences between no-take reserves and limited take conservation areas and recommended parks, the SAT developed a ranking for level of protection described in the Master Plan based on impact 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 (Attachment 10).

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

<sup>3</sup> 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.

<sup>4</sup> 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*).

**NOTICE IS GIVEN** that any person interested may present statements, orally or in writing, relevant to this action at a hearing to be held in the Resources Building Auditorium, 1416 Ninth Street, Sacramento, California, on Thursday, May 14, 2009, at 8:30 a.m., or as soon thereafter as the matter may be heard.

**NOTICE IS ALSO GIVEN** that any person interested may present statements, orally or in writing, relevant to this action at a hearing to be held in the Yolo Fliers Club Ballroom, 17980 County Road 94B, Woodland, California, on Wednesday, August 5, 2009, at 8:30 a.m., or as soon thereafter as the matter may be heard. It is requested, but not required, that written comments be submitted on or before July 31, 2009 at the address given below, or by fax at (916) 653-5040, or by e-mail to [FGC@fgc.ca.gov](mailto:FGC@fgc.ca.gov). **Written comments mailed, faxed or e-mailed to the Commission office, must be received before 5:00 p.m. on August 3, 2009.** All comments must be received no later than August 5, 2009, at the hearing in Woodland, CA. If you would like copies of any modifications to this proposal, please include your name and mailing address.

The regulations as proposed in strikeout-underline format, as well as an initial statement of reasons, including environmental considerations and all information upon which the proposal is based (rulemaking file), are on file and available for public review from the agency representative, John Carlson, Jr., Executive Director, Fish and Game Commission, 1416 Ninth Street, Box 944209, Sacramento, California 94244-2090, phone (916) 653-4899. Please direct requests for the above mentioned documents and inquiries concerning the regulatory process to John Carlson, Jr., or Sherrie Fonbuena at the preceding address or phone number. **Ms. Marija Vojkovich, Regional Manager, Department of Fish and Game, phone (805) 568-1246, has been designated to respond to questions on the substance of the proposed regulations.** Copies of the Initial Statement of Reasons, including the regulatory language, may be obtained from the address above. Notice of the proposed action shall be posted on the Fish and Game Commission website at <http://www.fgc.ca.gov>.

#### Availability of Modified Text

If the regulations adopted by the Commission differ from but are sufficiently related to the action proposed, they will be available to the public for at least 15 days prior to the date of adoption. Any person interested may obtain a copy of said regulations prior to the date of adoption by contacting the agency representative named herein.

If the regulatory proposal is adopted, the final statement of reasons may be obtained from the address above when it has been received from the agency program staff.

#### Impact of Regulatory Action

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following initial determinations relative to the required statutory categories have been made:

- (a) Significant Statewide Adverse Economic Impact Directly Affecting Business, Including the Ability of California Businesses to Compete with Businesses in Other States:

The proposed regulation will not have a significant statewide adverse economic impact directly affecting business including the ability of California businesses to compete with businesses in other states. Each alternative may have negative short-term impacts on

commercial and recreational fishing businesses. The impacts presented here do not represent a complete socioeconomic impact analysis, but rather what is generally referred to as a Step 1 analysis or “maximum potential loss.” This analysis simply sums up the activity that currently takes place within a given alternative and translates these activities into corresponding economic values. Maximum potential loss does not take into account other management strategies/regulations and human behavioral changes, such as moving to other areas or changing fishing gear, that may mitigate, offset, or make matters better or worse. In addition, maximum potential loss does not consider possible future benefits.

The estimates of maximum potential impact shown here rely on the survey work and subsequent geographic information system (GIS) data analysis conducted by Ecotrust and reported in various documents to the SAT, RSG, and BRTF. Ecotrust interviewed fishermen to determine both location of fishing activities and the relative importance of each location. Ecotrust’s importance indices were combined with cost share information from secondary sources to measure the maximum potential impacts of prospective closures on expected net economic values from commercial fishing. The methodology used to determine maximum potential impacts for Alternatives 1, 2 and 3 as well as for the Proposed Regulation (IPA) are described in Attachment 8. The estimates of the maximum potential annual losses for the four alternatives considered here (in real 2006 dollars) are approximately: \$465,153 (Alternative 1); \$396,583 (Alternative 2); \$696,094 (Alternative 3) and \$525,865 (Proposed Regulation) (Table 6). These are relative to average annual real 2000-2006 baseline gross revenues of approximately \$15,889,359 and net economic values of about \$8,336,602. They represent maximum potential percentage reductions in net pre-MPA economic values of: 5.6 percent (Alternative 1); 4.8 percent (Alternative 2); 8.3 percent (Alternative 3) and 6.3 percent (Proposed Regulation) (Table 7).

It should be noted, however, that due to the methodology and need to maintain confidentiality of individual fishermen’s financial data, the average impacts across fisheries may not be representative of the true maximum potential impact to an individual and may underestimate the maximum potential impact to individuals.

That said, Ecotrust, as part of their assessment, was asked to provide summary information on any disproportionate impacts on individuals and/or particular fisheries. This was based on lessons learned in the central coast study region, where significant disproportionate impacts were only discovered in the implementation phase, leaving limited options to lessen these impacts.

Of note in the North Central Coast Study region proposed regulations are potential disproportionate impacts to fishing areas of stated importance for one fishery and three individual fishermen.

In Bodega Bay, the proposed regulation may experience a disproportionate impact on that fishery’s closest and most valuable fishing grounds. Proposal IPA has a projected annual net economic impact there of \$64,000, or a 43 percent reduction in profits. By contrast, the overall estimated net economic impact for the entire study region was only 6.3 percent. However, it should be noted that sea urchin landings in Bodega Bay have dropped dramatically due to market conditions, though they appear to be improving. Average landings over the last 5 years (2004-2008) have dropped to just 2.7 percent of the average landings from the 5 preceding years. Projected impacts from the Ecotrust

evaluation assume a fully recovered market and landings at past levels.

Regarding potential individual impacts, Ecotrust evaluation results also show that there are three commercial fishermen who may be substantially and disproportionately impacted.

One fisherman may be disproportionately impacted by all four proposals being considered. One hundred percent of the fisherman’s income comes from fishing and the estimated annual impact is:

- Proposal IPA: between 20–40% loss of ex-vessel revenue and > \$20K loss
- Alternative 1: between 20–40% loss of ex-vessel revenue and \$15K–\$20K loss
- Alternative 2: between 20–40% loss of ex-vessel revenue and \$15K–\$20K loss
- Alternative 3: between 40–60% loss of ex-vessel revenue and > \$20K loss

Additionally, two other individuals are estimated to be potentially disproportionately impacted by two proposals each.

Individual 1 (100% of income from fishing):

- Proposal 4: between 20–40% loss of ex-vessel revenue and > \$20K loss
- Proposal IPA: between 20–40% loss of ex-vessel revenue and > \$20K loss

Individual 2 (75% of income from fishing):

- Proposal 4: between 20–40% loss of ex-vessel revenue and \$15–20K loss
- Proposal IPA: between 20–40% loss of ex-vessel revenue and \$15–20K loss

For the commercial deeper nearshore and nearshore rockfish fisheries, Ecotrust also evaluated the additional impacts that potentially occur when considering the existing fishery management area closures and/or fishery exclusion zones, specifically the 2007 and 2008 Non-Trawl Rockfish Conservation Area (RCA) persistent closure (30 fm – 150 fm) and the closure between the shoreline and 10 fm around the Farallon Islands (Southeast Farallon Island, Middle Farallon Island, North Farallon Island, and Noon Day Rock). Ecotrust also considered the proposed 2009 Non-Trawl RCA persistent closure (20 fm – 150 fm).

Of particular note is the estimated impact on Bolinas deeper nearshore rockfish fishing grounds. Based on the 2008 RCA, 72.3 percent of the existing value (fishing grounds) was not available to the Bolinas rockfish fishermen and 81.8 percent is not available in 2009. Due to RCAs, just 20 percent of the original fishery value is available. Of the remaining 18.2 percent of their original deeper nearshore rockfish fishing grounds area, Proposal IPA will have an estimated 24 percent impact.

Table 6. Estimated annual maximum potential net economic value losses<sup>1</sup> relative to base scenario. NCCRS proposal names are reflected in parenthesis

<b>Fishery</b>	<b>Alternative 1 (1-3)<sup>2</sup></b>	<b>Alternative 1 (2-XA)<sup>2</sup></b>	<b>Alternative 1 (4)<sup>2</sup></b>	<b>Proposed Regulation (IPA)</b>
<b>California</b>	\$4,744	\$5,750	\$13,224	\$5,749

<b>Fishery</b>	<b>Alternative 1 (1-3)<sup>2</sup></b>	<b>Alternative 1 (2-XA)<sup>2</sup></b>	<b>Alternative 1 (4)<sup>2</sup></b>	<b>Proposed Regulation (IPA)</b>
<b>Halibut</b>				
<b>Coastal Pelagics</b>	\$64	\$40	\$63	\$59
<b>Squid</b>	\$865	\$736	\$22,876	\$653
<b>Deep Nearshore Rockfish</b>	\$15,638	\$11,292	\$18,796	\$12,200
<b>Nearshore Rockfish</b>	\$21,510	\$11,285	\$26,703	\$22,514
<b>Urchin</b>	\$68,950	\$62,109	\$136,040	\$118,307
<b>Dungeness Crab</b>	\$218,139	\$193,574	\$331,896	\$232,494
<b>Salmon</b>	\$135,242	\$111,798	\$146,497	\$133,888
<b>Total</b>	<b>\$465,153</b>	<b>\$396,583</b>	<b>\$696,094</b>	<b>\$525,865</b>

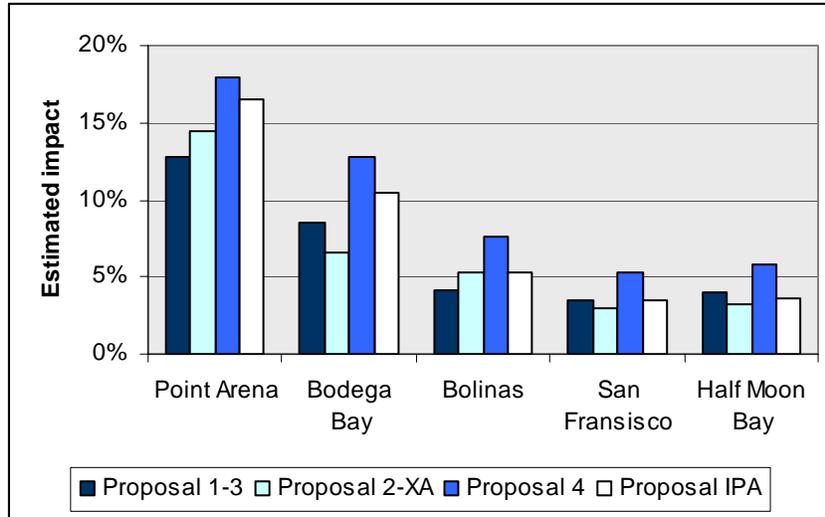
<sup>1</sup> Losses are calculated in 2006 dollars.

<sup>2</sup> NCCRSR proposal names are reflected in parentheses.

Table 7. Estimated annual maximum potential net value losses in percentage terms.

<b>Fishery</b>	<b>Alternative 1 (1-3)<sup>2</sup></b>	<b>Alternative 2 (2-XA)<sup>2</sup></b>	<b>Alternative 3 (4)<sup>2</sup></b>	<b>Proposed Regulation (IPA)</b>
<b>California Halibut</b>	3.1%	3.8%	8.7%	3.8%
<b>Coastal Pelagics</b>	0.5%	0.3%	0.5%	0.5%
<b>Squid</b>	0.7%	0.6%	18.8%	0.5%
<b>Deep Nearshore Rockfish</b>	29.5%	21.3%	35.5%	23.0%
<b>Nearshore Rockfish</b>	28.7%	15.1%	35.6%	30.1%
<b>Urchin</b>	13.2%	11.9%	26.0%	22.6%
<b>Dungeness Crab</b>	5.0%	4.5%	7.7%	5.4%
<b>Salmon</b>	4.4%	3.6%	4.8%	4.4%
<b>Total</b>	<b>5.6%</b>	<b>4.8%</b>	<b>8.3%</b>	<b>6.3%</b>

It should also be noted, that, on average, the estimated percentage impact is greatest in Point Arena, the northernmost port and decreases as one moves north to south through the study region (see Figure 1).



Ecotrust also analyzed the maximum potential loss to recreational fishing area in terms of percentage of the fishing grounds within the study region, and percentage of stated importance values of the fishing grounds within the study region. Estimates represent areas of stated importance and not level of effort. Similar to the commercial estimates of maximum potential loss, these estimates assume all fishing activity that previously occurred in a closed area is “lost” and not replaced by movement to another location. Little or no data was collected from recreational fishermen north of Bodega Bay. Subregions surveyed include Region 1 (Ocean Beach in San Francisco County), Region 2 (San Francisco Bay access points to Point Reyes), and Region 3 (Point Reyes north to Alter Creek).

Among the three sub-regions surveyed for recreational fishing grounds within the study region, none of the alternatives had greater than a 32.5 percent impact for rockfish, 17.9 percent impact for salmon, 21.5 percent impact for Dungeness crab, or greater than a 22.6 percent impact for California halibut for the fishing modes surveyed (CPFV, private vessels, kayak anglers and pier/shore). None of the estimated impacts to areas of value to recreational fisheries grounds within the study region exceeded 35 percent among all modes and sub-regions surveyed. While not economic losses, if realized, the loss in recreational fishing activity could lead to decreases in revenues to recreational fishing dependent businesses.

In the long term, the potential negative impacts are expected to be balanced by the positive impacts of sustainable fisheries, non-consumptive benefits, and ecosystem function in the reserve areas. In addition, potential benefits may be realized through adult fish spillover to areas adjacent to marine reserves and state marine conservation areas which prohibit bottom fishing for finfish, as well as through transport to distant sites.

- (b) Impact on the Creation or Elimination of Jobs within the State, the Creation of New Businesses or the Elimination of Existing Businesses, or the Expansion of Businesses in California:

Each alternative has potential impacts on the creation and elimination of jobs related to commercial and recreational fishing and non-consumptive activities. Estimates of the numbers of jobs eliminated as a direct result of the proposed action are difficult to

determine. Commercial fishing operations are generally small businesses employing few individuals and, like all small businesses are subject to failure for a variety of causes. Additionally, the long-term intent of the proposed action is to increase sustainability in fishable stocks and subsequently the long-term viability of these same small businesses. Jobs related to the non-consumptive tourism and recreational industries would be expected to increase over time by some unknown factor based on expected improvements in site quality and increased visitation to certain locations.

(c) Cost Impacts on a Representative Private Person or Business:

The Commission is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

(d) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State:

Additional costs to State agencies for enforcement, monitoring, and management of MPAs are difficult to estimate and are dependent on not only the impacts of the proposed regulation, but also other regulations and processes. Funding for the Department of Fish and Game (Department) has already been impacted due to a state budget crisis and prospects for additional impacts are unknown. However, partnerships with state and federal agencies, academic institutions and non-profit organizations are likely to continue to play an important role in assisting with MLPA implementation in coming years.

Current cooperative efforts with the Monterey Bay National Marine Sanctuary and Gulf of the Farallones National Marine Sanctuary have provided funding for some existing State costs, and contributions are expected to increase with the adoption of this regulation. In addition to agency partnerships, during planning and implementation of the first MLPA study region (i.e., central coast study region), substantial funding (in the millions) was contributed by private fund sources including MLPA Initiative partners, and through bond money distributed through the Ocean Protection Council (OPC). These contributions supported costs for baseline science and socioeconomic data collection, signage, and outreach and education, among other things, and allowed for a greater outcome than may have been possible with Department funding alone. While it is difficult to quantify the level of support that will be provided by partnerships in future years, the Department will continue to actively pursue and maximize such assistance.

While the actual costs to the Department to implement the proposed regulations in the north central coast are unknown, experience in implementing MPAs in the northern Channel Islands and the MLPA central coast region can inform prospective near-term expenditures using existing Department funds, and contributions from partners:

- For the Northern Channel Islands, which was the first portion of the MLPA South Coast Study Region to adopt MPAs, the Department spent approximately \$3.6 million on post-design one-time costs, and an additional \$0.9 million per year since 2004 for implementation, management, and enforcement of the central coast MPAs. Partners contributed approximately \$2.2 million in one-time costs, and \$2.7 annually since the design phase was completed.
- In the MLPA central coast study region, the Department spent approximately \$4.5 million on post-design one-time costs, and an additional \$0.4 million per year since 2007 for implementation, management, and enforcement of the central coast MPAs.

Partners have contributed approximately \$2.4 million since the design phase was completed.

The Department costs reference above utilized available funds to the Department at that time. Certainly, changes requiring additional enforcement, monitoring or management will increase the recurring costs to the Department as compared to the current efforts, and total state costs would increase as new study regions are designated and become operational. For the north central coast, the near-term cost to implement the proposed MPAs will include both one-time startup and baseline data collection costs, and recurring annual costs. A baseline data collection program methodology is currently being developed through the MPA Monitoring Enterprise. The costs associated with baseline data collection and future monitoring will be determined through that process and therefore cannot be estimated at this time. In light of uncertainty regarding the cost for monitoring, and the level of future funding from external partners, the estimated new funding requirements by the state for MLPA in the north central coast are unknown at this time.

- (e) Nondiscretionary Costs/Savings to Local Agencies: None.
- (f) Programs Mandated on Local Agencies or School Districts: None.
- (g) Costs Imposed on any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4, Government Code: None.
- (h) Effect on Housing Costs: None.

#### Effect on Small Business

It has been determined that the adoption of these regulations may affect small business. The Commission has drafted the regulations in Plain English pursuant to Government Code sections 11342.580 and 11346.2(a)(1).

#### Consideration of Alternatives

The Commission must determine that no reasonable alternative considered by the Commission, or that has otherwise been identified and brought to the attention of the Commission, would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.

FISH AND GAME COMMISSION

Dated: April 21, 2009

John Carlson, Jr.  
Executive Director