The California Department of Fish and Game (Department) has evaluated the suite of existing marine protected areas (MPAs) in the MLPA North Coast Study Region (NCSR) for feasibility. The Department's concerns regarding feasibility of existing MPA boundaries and regulations are provided in this document (see Table 1).

Part of the charge to the MLPA North Coast Regional Stakeholder Group (NCRSG) is to redesign the existing suite of MPAs in the NCSR to increase its effectiveness at protecting the state's marine life, habitats and ecosystems. The effectiveness of MPAs can be highly influenced by their design. The use of easily determined boundaries and simple regulations when designing MPAs can increase enforceability and ease public understanding. The criteria used for this evaluation are presented, in depth, in the document, *Feasibility Criteria and Evaluation Components for Marine Protected Area Proposals* (CDFG, March 23, 2010).

Summary of Findings

None of the existing marine protected areas in the NCSR meet all of the Department's feasibility criteria. A variety of design elements that decrease MPA feasibility are found in the suite of existing MPAs in the study region. These include the use of depth contours and distance offshore as boundary delineations, and the use of complex regulations. In addition, most of the existing MPAs that will be considered in this process are either intertidal or nearshore in nature and do not extend protection into the adjacent subtidal waters, as recommended in the scientific guidelines for MPA design in the Master Plan¹ and as outlined in the document summarizing the Department's feasibility guidelines. Should any of these MPAs be retained in alternative proposals, careful consideration should be given to the redesign of these MPAs to conform to the Department's feasibility criteria as well as to the scientific guidelines.

Additional Information

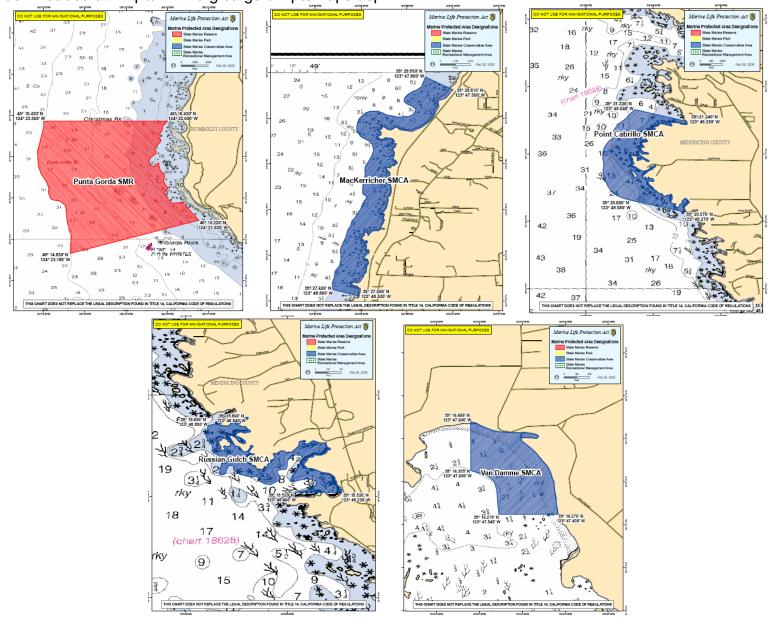
In addition to the evaluation provided, further information regarding the existing suite of MPAs in the NCSR can also be found in the appendices of this document. Information includes: maps depicting the location and design of the existing MPAs (Appendix I), a summary of the allowed take and other regulations for each existing MPA (Appendix II), and regulatory excerpts from Section 632 of Title 14, from the California Code of Regulations for the existing MPAs in the NCSR(Appendix III).

¹ CDFG. California Marine Life Protection Act Master Plan for Marine Protected Areas. January 2008

Table 1. Feasibility concerns (boundaries and take regulations) for the existing MPAs in the North Coast Study Region (NCSR).

MPA Name	MPA Boundary Concerns	Take Regulations
Punta Gorda SMR	 Boundaries do not follow a due north-south, east-west orientation. Boundaries are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks. Offshore and inshore boundaries are defined by depth contours. Southern boundary utilizes a diagonal line that does not comply with feasibility guidelines. Boundaries do not extend to the shore. 	 Take regulations are simple, as no take of living marine resources is allowed in a SMR. Regulations include a long list of restricted activities (eg: boating, swimming, chemicals, litter, aircraft, pets, etc.).
MacKerricher SMCA	 Boundaries do not follow a due north-south, east-west orientation. Offshore boundary is defined by a depth contour. Boundaries are not located at readily determined lines of latitude and longitude. Intertidal MPA. 	 Provides little protection ecologically and results in complex regulations due to the extensive allowed take. A long list of excepted species to the general regulation makes it difficult to understand and enforce the regulation.
Point Cabrillo SMCA	 Boundaries defined by mean lower low water. Offshore boundary is defined by distance offshore. Boundaries do not follow a due north-south, east-west orientation. Boundaries are not located at readily determined lines of latitude and longitude. Intertidal MPA. 	Regulations are simple. However, the proposed regulation provides little protection ecologically due to the extensive allowed take
Russian Gulch SMCA	 Boundaries do not follow a due north-south, east-west orientation. Offshore boundary is defined by a depth contour. Boundaries are not located at readily determined lines of latitude and longitude. Intertidal MPA. 	 Provides little protection ecologically and results in complex regulations due to the extensive allowed take. A long list of excepted species to the general regulation makes it difficult to understand and enforce the regulation.
Van Damme SMCA	 Offshore boundary is defined by a depth contour. Intertidal MPA. 	 Provides little protection ecologically and results in complex regulations due to the extensive allowed take A long list of excepted species to the general regulation makes it difficult to understand and enforce the regulation.

Appendix I. Maps of Existing State MPAs in the North Coast Study Region. Maps can also be downloaded at: http://www.dfg.ca.gov/mlpa/maps.asp.



Appendix II. Regulation summary for existing state MPAs in the North Coast Study Region (NCSR). Further details on each MPA, including specific boundary locations, can be found in the regulatory text provided starting on page 5.

MPA Name	Allowed Take: Recreational	Allowed Take: Commercial	Other Restrictions
Punta Gorda SMR	Take of all living marine resources is prohibited.	Take of all living marine resources is prohibited.	Other restrictions exist regarding: swimming, boating, firearms, public entry, pesticides, herbicides and other regulated chemicals, litter, aircraft, pets, potential memorandums of understanding, and scientific research.
MacKerricher SMCA	Finfish, 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.	Finfish, crabs, ghost shrimp, jackknife clams, sea urchins, squid, 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.	None
Point Cabrillo SMCA	None	Finfish and marine aquatic plants.	None
Russian Gulch SMCA	Finfish, 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.	Finfish, 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.	None
Van Damme SMCA	Finfish, 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.	Finfish, 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.	None

Appendix III. Regulatory text excerpted from Section 632, Title 14, California Code of Regulations. Only regulations for MPAs in the North Coast Study Region [subsections 632(b)(1) through 632(b)(5)] are included.

Regulations

4 CCR § 632 Cal. Admin. Code tit. 14, § 632

BARCLAYS OFFICIAL CALIFORNIA CODE OF REGULATIONS
TITLE 14. NATURAL RESOURCES
DIVISION 1. FISH AND GAME COMMISSION-DEPARTMENT OF FISH AND GAME
SUBDIVISION 2. GAME AND FURBEARERS
CHAPTER 11. ECOLOGICAL RESERVES

This database is current through 12/18/09 Register 2009, No. 51 § 632. Marine Protected Areas (MPAs), Marine Managed Areas (MMAs), and Special Closures.

The areas specified in this section have been declared by the commission to be marine protected areas, marine managed areas, or special closures. Public use of marine protected areas, marine managed areas, or special closures shall be compatible with the primary purposes of such areas. MPAs, MMAs, and special closures are subject to the following general rules and regulations in addition to existing Fish and Game Code statutes and regulations of the commission, except as otherwise provided for in subsection 632(b), areas and special regulations for use. Nothing in this section expressly or implicitly precludes, restricts or requires modification of current or future uses of the waters identified as marine protected areas, special closures, or the lands or waters adjacent to these designated areas by the Department of Defense, its allies or agents.

- (a) General Rules and Regulations:
- (1) Protection of Resources.
- (A) State Marine Reserves: In a state marine reserve, it is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource, except under a scientific collecting permit issued pursuant to Section 650 or specific authorization from the commission for research, restoration, or monitoring purposes.
- (B) State Marine Parks: In a state marine park, it is unlawful to injure, damage, take, or possess any living or nonliving marine resource for commercial purposes. Any human use that would compromise protection of the species of interest, natural community or habitat, or geological, cultural, or recreational features, may be restricted by the commission as specified in subsection 632(b), areas and special regulations for use. The commission may issue scientific collecting permits pursuant to Section 650 or specifically authorize research, monitoring, and educational activities and certain recreational harvest in a manner consistent with protecting resource values.
- (C) State Marine Conservation Areas: In a state marine conservation area, it is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for commercial or recreational purposes, or a combination of commercial and recreational purposes except as specified in subsection 632(b), areas and special regulations for use. The commission may issue scientific

collecting permits pursuant to Section 650 or specifically authorize research, education, and recreational activities, and certain commercial and recreational harvest of marine resources, provided that these uses do not compromise protection of the species of interest, natural community, habitat, or geological features.

- (D) State Marine Recreational Management Areas: In a state marine recreational management area, it is unlawful to perform any activity that would compromise the recreational values for which the area may be designated. Recreational opportunities may be protected, enhanced, or restricted, while preserving basic resource values of the area. No other use is restricted unless specified in subsection 632(b), areas and special regulations for use.
- (2) Finfish. Finfish, for the purpose of this section, are defined 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.
- (3) Pelagic Finfish. Pelagic finfish, for the purpose of this section, are a subset of finfish defined as: northern anchovy (Engraulis mordax), barracudas (Sphyraena spp.), billfishes* (family Istiophoridae), dolphinfish (Coryphaena hippurus), Pacific herring (Clupea pallasi), 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.
- (4) Access. Access into marine protected areas or marine managed areas for non-consumptive uses including but not limited to swimming, surfing, diving, boating, hiking and walking is allowed unless otherwise specified in subsection 632(b), areas and special regulations for use.
- (5) Introduction of Species. Unless authorized by the commission or as a result of authorized fishing activities, the release of any fish or wildlife species, including domestic or domesticated species, or the introduction of any plant species, is prohibited. The department may reintroduce endemic species to marine protected areas or marine managed areas for management purposes.
- (6) Feeding of Fish and Wildlife. The feeding of fish and wildlife is prohibited except permitted scientific collection pursuant to Section 650 or as a result of authorized fishing within state marine conservation areas, state marine parks, and state marine recreational management areas.
- (7) Anchoring. Vessels shall be allowed to anchor in any marine protected area or marine managed area with catch onboard unless otherwise specified in subsection 632(b), areas and special regulations for use. Fishing gear shall not be deployed in the water while anchored in a state marine reserve. Fishing gear, except legal fishing gear used to take species identified as allowed for take in subsection 632(b), shall not be deployed in the water while anchored in a state marine recreational management area, state marine park or state marine conservation area. Anchoring regulations shall be consistent with federal law and allowances made for anchoring required by emergency or severe weather.
- (8) Transit or Drifting. Vessels shall be allowed to transit through marine protected areas and marine managed areas with catch onboard. Fishing gear shall not be deployed in the water while

transiting through a state marine reserve. Fishing gear, except legal fishing gear used to take species identified as allowed for take in subsection 632(b), shall not be deployed in the water while transiting through a state marine recreational management area, state marine park or state marine conservation area.

- (b) Areas and Special Regulations for Use. Pursuant to the commission's authority in Fish and Game Code Section 2860 to regulate commercial and recreational fishing and any other taking of marine species in MPAs, Fish and Game Code Sections 10500(f), 10500(g), 10502.5, 10502.6, 10502.7, 10502.8, 10655, 10655.5, 10656, 10657, 10657.5, 10658, 10660, 10661, 10664, 10666, 10667, 10711, 10801, 10900, 10901, 10902, 10903, 10904, 10905, 10906, 10907, 10908, 10909, 10910, 10911, 10912, 10913, and 10932 are made inoperative as they apply to Subsection 632(b). All geographic coordinates listed use the North American Datum 1983 (NAD83) reference datum:
- (1) Punta Gorda State Marine Reserve.
- (A) This area is bounded by the three-fathom inshore depth contour, the 30- fathom depth contour and the following points:

```
40° 16.43' N. lat. 124° 22.00' W. long.;
40° 16.43' N. lat. 124° 23.50' W. long.;
40° 14.83' N. lat. 124° 23.18' W. long.; and
40° 15.23' N. lat. 124° 21.62' W. long.
```

- (B) Take of all living marine resources is prohibited.
- (C) Swimming. No person shall swim, wade, dive, or use any diving equipment within the Punta Gorda State Marine Reserve except as authorized pursuant to scientific research approved by the department.
- (D) Boating. Except as allowed pursuant to Federal law, no person shall launch or operate a boat or other floating device within the Punta Gorda State Marine Reserve except to pass through the area during the normal course of vessel transit along the coast, to avoid inclement weather, or pursuant to scientific research approved by the department.
- (E) Firearms. No person shall possess, fire, or discharge any firearm, bow and arrow, air or gas gun, spear gun, or any other weapon of any kind within, or into the Punta Gorda State Marine Reserve except as authorized pursuant to scientific research approved by the department.
- (F) Public Entry. Public entry into the Punta Gorda State Marine Reserve may be restricted at the discretion of the department to protect wildlife, aquatic life, or habitat. No person, except state and local law enforcement officers, fire suppression agencies and employees of the department in the performance of their official duties or persons possessing written permission from the department, or institution or agency entering into a memorandum of understanding (MOU) with the department, may enter an area which is closed to public entry.
- (G) Pesticides, Herbicides, and Other Regulated Chemicals. The use of pesticides, herbicides, and other regulated chemicals is prohibited in the Punta Gorda State Marine Reserve except as authorized pursuant to scientific research approved by the department. Where such chemicals are intended to be used as a part of any research program, any necessary authorization and/or permits

required to dispense such chemicals into state waters or tide and submerged lands shall be obtained prior to final approval of the research by the department.

- (H) Litter. No person shall deposit, drop, or scatter any debris on the Punta Gorda State Marine Reserve. Any refuse resulting from a person's use of an area must be removed from that area by such person.
- (I) Aircraft. No person shall operate any aircraft or hovercraft within the Punta Gorda State Marine Reserve, except as authorized pursuant to scientific research approved by the department.
- (J) Pets. Pets, including but not limited to, dogs and cats, are prohibited from entering the Punta Gorda State Marine Reserve unless authorized by the department.
- (K) Memorandum of Understanding (MOU). The department may enter into MOU's with colleges, universities, and other bonafide research organizations to conduct marine-related research within the Punta Gorda State Marine Reserve.
- (L) Scientific research conducted within the Punta Gorda State Marine Reserve shall not interfere with access by land to coastal trails along the shoreline adjacent to the reserve.
- (2) MacKerricher State Marine Conservation Area.
- (A) This area is bounded by the mean high tide line, the 3-fathom depth contour and the following points:

```
39° 29.81' N. lat. 123° 47.50' W. long.;
39° 29.95' N. lat. 123° 47.80' W. long.;
39° 27.62' N. lat. 123° 48.80' W. long.; and
39° 27.55' N. lat. 123° 48.52' W. long.
```

- (B) Take of all living marine resources is prohibited except:
- 1. Only the following species may be taken recreationally: finfish, 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.
- 2. Only the following species may be taken commercially: finfish, crabs, ghost shrimp, jackknife clams, sea urchins, squid, 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.
- (3) Point Cabrillo State Marine Conservation Area.
- (A) This area is bounded by the mean high tide line, a distance of 1000 feet seaward of mean lower low water, and the following points:

```
39° 21.24' N. lat. 123° 49.25' W. long.;
39° 21.33' N. lat. 123° 49.64' W. long.;
39° 20.66' N. lat. 123° 49.68' W. long.; and
```

39° 20.57' N. lat. 123° 49.27' W. long.

- (B) Take of all living marine resources is prohibited except the commercial take of finfish and marine aquatic plants.
- (4) Russian Gulch State Marine Conservation Area.
- (A) This area is bounded by the mean high tide line, the 3-fathom depth contour and the following points:

```
39° 19.86' N. lat. 123° 48.84' W. long.;
39° 19.85' N. lat. 123° 48.89' W. long.;
39° 19.52' N. lat. 123° 48.46' W. long.; and
39° 19.52' N. lat. 123° 48.23' W. long.
```

- (B) Take of all living marine resources is prohibited except:
- 1. Only the following species may be taken recreationally: finfish, 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.
- 2. Only the following species may be taken commercially: finfish, crabs, ghost shrimp, jackknife clams, sea urchins, algae except giant kelp and bull kelp and worms 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.
- (5) Van Damme State Marine Conservation Area.
- (A) This area is bounded by the mean high tide line, the 3-fathom depth contour and the following points:

```
39° 16.45' N. lat. 123° 47.60' W. long.;
39° 16.355' N. lat. 123° 47.60' W. long.;
39° 16.27' N. lat. 123° 47.545' W. long.; and
39° 16.27' N. lat. 123° 47.43' W. long.
```

- (B) Take of all living marine resources is prohibited except:
- 1. Only the following species may be taken recreationally: finfish, 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.
- 2. Only the following species may be taken commercially: finfish, crabs, ghost shrimp, jackknife clams, sea urchins, algae except giant kelp and bull kelp and worms 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.