

## Memorandum

**Date:** April 18, 2008

**To:** MLPA Blue Ribbon Task Force

**From:** John Ugoretz  
Department of Fish and Game



**Subject:** Department of Fish and Game Comments on Final Stakeholder Marine Protected Area Proposals for Blue Ribbon Task Consideration

The Department of Fish and Game (Department) has reviewed the final set of stakeholder proposals (March, 2008) for Marine Protected Areas (MPAs) provided to the Marine Life Protection Act (MLPA) Blue Ribbon Task Force. Given that the Department will not select its own preferred alternative or recommend any particular stakeholder alternative, this review is a key part of the Department's role in the MLPA implementation process to help ensure proposals meet Department guidelines. Department review of these three proposals has focused on feasibility aspects of individual MPAs and on their prospects to achieve the overall MLPA goals. In general, the Department notes that the three proposals have converged significantly in terms of MPA locations and, in many cases, MPA design. The proposals differ, however, with regard to proposed regulations for certain MPAs and the inclusion or exclusion of individual MPAs in a few locations.

The Department notes that several proposed MPAs are unlikely to further the goals of the MLPA for a variety of reasons. Department concerns fall into several broad categories expressed in earlier guidance to the MLPA North Central Coast Regional Stakeholder Group and Blue Ribbon Task Force. These concerns include:

- Inadequate improvements to existing MPAs;
- Lack of boundary or regulation clarity or difficulties with enforcement;
- Incomplete development of reasonable and measurable goals and objectives; and
- MPAs unnecessary to fulfil the MLPA mandate and with inadequate protection

The most significant Department concerns and recommendations for changes to address those concerns are described below and are detailed in the attached reviews. In a few cases, the Department found multiple concerns with proposed MPAs which are not correctable and recommends these MPAs be removed from proposals. The Department reviewed proposed special closures separately and provides information here and in the attached reviews on the feasibility of implementing such closures. The Department also identifies some specific MPAs with appropriate design that should be strongly considered for inclusion in a final proposal to the Fish and Game Commission.

### **Inadequate Improvements to Existing MPAs**

Most existing MPAs have either been proposed for removal or improved by proposed increases in level of protection, changes to boundary descriptions, or simplification of regulations. In two locations (Del Mar Landing and the intertidal portion of Duxbury Reef), however, proposals include existing MPAs without improving their overall level of protection or addressing boundary concerns. The Department recommends removing MPAs in these two locations.

### **Lack of Boundary or Regulation Clarity and Difficulties with Enforcement**

Several MPAs are proposed which may be difficult for the public to understand and/or pose enforcement concerns. The most significant of these include:

- Proposal 2XA includes a state marine conservation area (SMCA) offshore the mouth of the Russian River. This area's stated intent is to protect spawning salmon stocks, yet other forms of hook and line take are allowed which could lead to unintended salmon bycatch. The Department recommends using other management measures to protect salmon in this area or altering the proposed regulations.
- Proposal 1-3 includes a SMCA at Bodega with an angled boundary that continues to the state water line. While this type of diagonal line creates an easily recognizable boundary for areas inshore of the buoy, it creates boundaries that are difficult to determine in waters between the buoy and the state waters boundary. The Department recommends using boundaries consistent with our feasibility guidelines.
- Proposals 1-3, 2XA, and 4 include intertidal MPAs at Duxbury reef. Intertidal MPAs are difficult to understand and enforce. The Department recommends removing these areas or, as noted in feasibility and scientific guidelines, extending them into deeper water.
- Proposal 4 includes three adjacent SMCAs in the Duxbury Reef region. This adds to public confusion regarding allowed take in each area. The Department recommends removing at least one of these areas (the intertidal portion as noted above) and either removing the other two or combining them into a single area with the same regulations.

### **Incomplete Development of Reasonable and Measurable Goals and Objectives**

In many cases the stated goals and objectives in Stakeholder narratives of MPA proposals are inconsistent with the proposed allowed uses for the areas or with the designation proposed. The majority of these inconsistencies are easily addressed by minor changes to the proposed objectives and are detailed in the attached review of goals and objectives. In some cases, the proposed allowed take for an MPA includes one or more species that would conflict with proposed objectives. In these cases (again detailed in the attached) the Department recommends either changing the proposed take allowance or removing the unachievable objective.

In a few cases, the MPAs allow virtually all existing take to continue and are both inconsistent with their stated objectives and the MLPA. Conversely, in one case, an MPA is proposed which provides significant protection but is not necessary to meet scientific guidelines and may lead to unnecessary socioeconomic impacts. The Department recommends removing the MPAs listed here:

- Proposal 1-3: Saunder's Reef SMCA, Del Mar Landing State Marine Park (SMP), Double Point SMCA, Montara SMCA
- Proposal 2XA: Duxbury SMP
- Proposal 4: Del Mar Landing State Marine Reserve (SMR), Duxbury SMCA, Agate Beach Intertidal SMCA, San Gregorio SMR

### **MPAs unnecessary to fulfil the MLPA mandate and with inadequate protection**

A specific finding in the MLPA was that the existing array of MPAs lacked clearly defined purposes, was not established according to sound scientific guidelines, and fell short of its potential to protect and conserve living marine life and habitat. As noted above, several MPAs allow most existing take to continue and do not provide any real improvement to the existing array of MPAs. These include MPAs listed above that are recommended for removal and others that may be able to achieve individual objectives, but are not necessary to fulfil the wider goals of the MLPA or scientific design guidance. The Department recommends removing the following MPAs because they fall short of scientific and Blue Ribbon Task Force guidance for level of protection and are not necessary to meet scientific guidance on size, spacing, and habitat representation:

- Proposals 1-3 and 4 include SMCAs in the Saunder's Reef area that receive a moderate-low level of protection and provide little, if any, real protection.
- Proposal 1-3 includes a SMP at Del Mar Landing that allows all recreational finfish take, receiving a moderate-low level of protection.
- Proposal 4 includes a SMP at Salt Point which allows all recreational take of abalone and finfish and receiving a moderate-low level of protection.
- Proposal 1-3 includes a SMCA at Double Point that receives a moderate level of protection and allows most existing take.
- Proposal 2XA includes a SMP at Duxbury reef that allows all recreational take, providing no additional protection to the area.
- Proposal 4 includes two SMCAs at Duxbury that receive a moderate level of protection and allow most existing take (along with a third that, while receiving a higher level of protection, adds to confusion in the area as noted above).
- Proposal 1-3 includes a SMCA at Montara that receives a moderate level of protection and allows most existing take. Other proposals in this region are more likely to achieve the goals of the MLPA.

### **Special Closures**

Most of the special closures included in the proposals meet Department guidelines. Two areas, however, do raise concerns:

- Proposal 1-3 includes a special closure at Pebble Beach/Bean Hollow. This area has easy, frequently used public access from shore and will lead to enforcement difficulties

and unintentional infractions. The Department recommends removing this proposed closure.

- Proposal 1-3 and 2XA include a special closure at Point Resistance in an area frequented by foot via off-trail access. This access may reduce feasibility due to enforcement concerns. Proposal 1-3 uses a 500' boundary for this area which is also inconsistent with Department guidelines. The Department recommends removing this proposed closure or requesting information from proponents on how to make it more feasible.

### **Appropriate Design in Orientation of MPA Clusters**

The Department would also like to draw attention to MPA designs which are favored in our review of both feasibility and likelihood of achieving MLPA goals and objectives. Adjacent MPAs of different designation (e.g., reserves adjacent to conservation areas) arranged in an alongshore (generally North/South) orientation are more consistent with Department feasibility criteria and MLPA guidelines than inshore/offshore combinations. All proposals include such combinations, though other feasibility concerns may tend to negate the benefits of these MPAs in some cases.

Three MPA clusters exhibit the preferred arrangement:

- Proposal 2XA includes an MPA cluster with the preferred design at Bodega;
- Proposal 2XA includes an MPA cluster with the preferred design at Fitzgerald;
- and
- Proposal 4 includes an MPA cluster with the preferred design at Fitzgerald

As always, the Department appreciates this opportunity to provide input to the Blue Ribbon Task Force. We hope this input will assist the Task Force in its deliberations and in determining a preferred alternative to recommend to the Fish and Game Commission. If you have additional questions regarding the Department's input, please contact Mr. John Ugoretz, Habitat Conservation Program Manager in the Department's Marine Region at (805) 893-5822 or by E-mail at [jugoretz@dfg.ca.gov](mailto:jugoretz@dfg.ca.gov).

### **Attachments**

cc: Secretary Mike Chrisman, California Resources Agency  
President Richard Rogers, California Fish and Game Commission  
Executive Director John Carlson, California Fish and Game Commission

**California Department of Fish and Game**  
**Feasibility Analysis Summary for Final Stakeholder**  
**Marine Protected Area Proposals**  
**April 17, 2008**

The Department of Fish and Game completed an evaluation of proposals developed by the North Central Coast Regional Stakeholder Group (NCCRSO). This evaluation provides detailed feedback on the feasibility for the suite of final marine protected area (MPA) proposals submitted to the Blue Ribbon Task Force.

This evaluation builds on the feasibility guidelines outlined in the document titled, "*Statement of feasibility criteria for use in analyzing siting alternatives during the second phase of the Marine Life Protection Act Initiative*" (CDFG Memo; June 11, 2007). A second memo, "*Department of Fish and Game update of feasibility criteria for use in analyzing siting alternatives during the second phase of the Marine Life Protection Act*" (CDFG Memo; February 11, 2008), was also created to clarify feasibility issues that have arisen during the North Central Coast study region process, and was also used to evaluate the current draft MPA proposals.

The Department notes that members of the NCCRSO explicitly responded to many of the feasibility issues frequently observed in the first two rounds of proposals were greatly improved in the final proposals. For example, most of the draft proposed MPAs currently have clearly stated goals and objectives and clear and simple regulations. Also, in contrast to the previous round, most proposed MPAs used the recommended boundaries of whole number minutes of latitude and longitude or easily recognizable landmarks. However, feasibility concerns do remain in the final proposals. The most frequent design elements that would decrease MPA feasibility include:

- Unclear or difficult to enforce boundaries in some areas
- Allowed take regulations which are too complex or confusing
- MPA designations that are inappropriate for existing and continuing uses of the area

Following is a table that summarizes feasibility concerns with the final proposals (Table 1). This table includes only those MPAs and proposals where significant feasibility concerns exist. It is important to note that several individual MPAs within all three proposals met feasibility guidelines and are not included in the table. A more detailed analysis of concerns and, in some cases, recommendations for methods to alleviate or eliminate the stated concerns follows the table.

Table 1. Summary of Feasibility concerns by area and proposal. For more detailed explanations, see text below.

General Area	Proposal and MPA with Feasibility Concern	Type of Feasibility Concern			
		Boundaries	Allowed Take	MPA Type	MPA Name
Saunder's Reef	(1-3) Saunder's Reef SMCA	-	X	-	-
Del Mar Landing	(1-3) Del Mar Landing SMP	X	X	-	-
Black Point/Stewart's Point/Rocky Point to Horseshoe Point	(2-XA) Black Point SMCA & SMR	X	-	-	-
Salt Point	(4) Salt Point SMP	-	X	-	-
Russian River	(2-XA) Russian River SMRMA	-	-	X	-
	(2-XA) Russian River SMCA	-	X	-	-
Bodega Head	(1-3) Bodega Head SMCA	X	-	-	-
	(4) Bodega Head SMR	X	-	-	-
Estero de Americano & Estero de San Antonio	(1-3 & 4) Estero de Americano SMR	-	-	X	-
	(1-3 & 4) Estero de San Antonio SMR	-	-	X	-
Drakes Estero/Estero de Limantour	(1-3 & 4) Drakes Estero SMR	-	-	-	X
Double Point/Duxbury Reef/Agate Beach	(1-3) Double Point SMCA	-	X	-	-
	(1-3) Duxbury Reef SMCA	X	X	-	-
	(2-XA) Duxbury SMP	X	X	-	-
	(4) Duxbury SMCA	-	X	-	-
	(4) Agate Beach Intertidal SMCA	X	X	-	-
Fitzgerald/Montara	(1-3) Montara SMCA	-	X	-	-
<b>SPECIAL CLOSURES</b>	(1-3) Bean Hollow	X (access)			
	(1-3) Point Resistance	X (access & distance)			
	(2XA) Point Resistance	X (access)			

## DETAILED FEASIBILITY CONCERNS

For each geographic location below, proposals with MPAs are indicated and MPAs where feasibility concerns were noted are highlighted in bold and with an asterisk (\*).

### Point Arena:

All proposals meet the feasibility guidelines in this area.

### Saunder's Reef:

1-3: **SCMA** \*

2XA: No MPA Proposed

4: SMCA

Concerns:

Proposal 1-3 includes an MPA at Saunder's Reef that *allows most of the existing take*, which could be confusing and difficult to enforce.

Options to remedy:

- Proposal 1-3:
  - 1) Eliminate Saunder's Reef SMCA from the proposal
  - 2) Reduce the number of species allowed for take
    - Proposed take currently includes:
      - Commercial and recreational salmon trolling
      - Commercial urchin
      - Recreational abalone
      - Shore-based finfishing by hook and line, and spear

**Del Mar Landing:**

1-3: **SMP\***

2XA: No MPA Proposed

4: SMR

Concerns: The size and allowed take for Del Mar Landing SMP (1-3) are not in line with the goals of the MLPA. This proposed MPA *provides little protection ecologically and does not meet the standards for heritage purposes* due to the allowed take. This proposed MPA also does not meet the boundary guidelines recommended by the Department. The offshore boundaries are not oriented in a due north-south orientation and are not at readily determined coordinates. The boundaries proposed for his MPA would be difficult to enforce and prosecute.

Options to remedy:

- Proposal 1-3:
  - 1) Eliminate Del Mar Landing SMP from the proposal
  - 2) Reduce the number of species allowed for take and change the offshore boundaries to a due north-south orientation

**Black Point:**

2XA: **SMR\* and SMCA\***

Concerns: The proposed SMCA and SMR at Black Point for proposal 2-XA *do not meet the boundary guidelines* set by the Department. The western boundary of the SMR creates a diagonal line which is not anchored on a whole minute of latitude or longitude.

Options to remedy:

- Proposal 2-XA:
  - 1) Remove the diagonal line, establishing a single MPA
  - 2) Move the northern line to 38° 43' N and place the northern anchor of the diagonal line to 38° 43'N, 123 30°N (This arrangement still does not completely meet the feasibility guidelines. However, the southern boundary is situated to avoid a boat launch).

- 3) Move the northern line to 38° 43' N, place the northern anchor of the diagonal line to 38° 43'N, 123 30°N, and move the southern boundary to either 38° 39'N or 38° 40'N.

**Stewart's Point/Rocky Point to Horseshoe Point :**

Proposal 1-3 and 4 include SMRs in this vicinity. The Department recommends using a single, readily located geographic reference in the MPA name for proposal 1-3. With this change, the feasibility guidelines would be met.

**Salt Point and Gerstle Cove:**

- 1-3: SMR
- 2XA: SMR
- 4: SMR, SMP

Gerstle Cove is included as an SMR for all of the proposals. All proposals meet the feasibility guidelines for Gerstle Cove

Concerns: Proposal 4 is the only proposal to include an MPA at Salt Point. The allowed take for Salt Point SMP is not in line with the goals of the MLPA or scientific guidelines. This proposed MPA *provides little protection ecologically* due to the allowed take.

Options to remedy:

- Proposal 4:
  - 1) Eliminate Salt Point SMP from the proposal
  - 2) Reduce the number of species allowed to meet scientific guidelines

**Russian River:**

- 1-3: SMR and SMCA
- 2XA: **SMRMA\* and SMCA\***
- 4: SMR and SMCA

Note: All proposals appear to use the same boundaries for this cluster. Specific latitude/longitude boundary coordinates need to be confirmed for the area.

Concerns:

Estuarine Area

Proposal 2-XA includes an SMRMA in the estuarine portion of the Russian River. This was done to allow duck hunting in the area. However, it appears that duck hunting has not occurred in the area in many years (reportedly due to the nearby houses, Highway 101, and a nearby state park). An *SMR designation* would be appropriate for the area in light of the new information.

Ocean Area

Proposal 2-XA allows all take with the exception of Chinook salmon in the SMCA portion of the MPA cluster. By allowing all take with the exception of one species, this MPA acts as a *fishery management measure* rather than as ecosystem or habitat protection. Similar no salmon take zones exist seasonally in other river mouth areas of northern California (Klamath, Eel and Smith River). The regulations for these salmon management areas are

found in Section 27.75, Title 14. Proposals that create salmon fishery management regulations should be proposed to the Fish and Game Commission as a part of the regular salmon regulatory process.

Options to remedy:

- Proposal 2-XA:  
Estuarine Area
  - 1) Change designation from SMRMA to SMROcean Area
  - 1) Eliminate the proposed SMCA and use other management measures to achieve salmon protection goals
  - 2) Change take allowances to conform with the goals of the MLPA

**Bodega Head:**

1-3: SMR and **SMCA\***

2XA: SMR and SMCA

4: **SMR\*** and SMCA

Concerns:

Proposal 1-3

Bodega Head SMCA includes a south-eastern boundary that uses an existing buoy as a boundary and continues the *diagonal line* out to state waters. While this type of diagonal line creates an easily recognizable boundary for fishing in areas inside of the buoy, it creates boundaries that are difficult to determine in waters between the buoy and the state waters boundary.

Proposal 4

The MPA cluster at Bodega Head is oriented inshore/offshore. This *orientation*, in combination with the use of a buoy as a boundary marker in the south-eastern portion of the SMR, creates *complicated boundaries* that may decrease public understanding and reduce enforceability of the area.

Options to remedy:

- Proposal 1-3
  - 1) Boundaries should be adjusted to meet enforcement concerns.
- Proposal 4
  - 1) Boundaries should be adjusted to meet enforcement concerns.

**Estero de Americano and Estero de San Antonio:**

1-3: **SMR\* and SMR\***

2XA: SMRMA and SMRMA

4: **SMR\* and SMR\***

Note: Department enforcement personnel examined both Esteros and noted GPS locations at *easily recognizable landmarks*. To meet feasibility guidelines, all proposals should change the eastern boundaries to approximate the bridge crossings located at Valley Ford Road. The eastern boundary of Estero de Americano should be at N 38° 18.593, W 122° 56.152; and at N 38° 16.647, W 122° 56.895 for Estero de San Antonio. The Department recommends the

use of these coordinates as eastern boundaries for the Esteros *to increase public understanding and enforceability.*

Concerns:

Proposals 1-3 and 4 include SMRs in areas where *waterfowl hunting currently occurs*. The Department does not support the exclusion of waterfowl hunting in marine protected areas. Moreover, the Department also believes that discussion of waterfowl hunting should occur in a venue outside the MLPA process. Specifically, proposals for waterfowl hunting should be brought to the Department and Commission as part of normal hunting regulations processes. In areas where duck or other waterfowl hunting occurs presently, we recommend using the State Marine Recreational Management Area (**SMRMA**) designation and specifically allowing the hunting to continue.

Options to remedy:

- Proposal 1-3 and 4
  - 1) Designations should be changed from SMR to SMRMA and waterfowl hunting should specifically be allowed to continue under normal hunting regulations.

**Tomales Bay:**

A SMR in the south end of Tomales Bay is included for proposal 4 which meets the Department's feasibility guidelines.

**Point Reyes:**

All proposals meet the feasibility guidelines in this area.

**Drakes Estero/Estero de Limantour:**

1-3: **SMR\*** and SMCA  
2XA: SMR and SMCA  
4: **SMR\*** and SMCA

Concern: Proposals 1-3 and 4 propose the name of the SMR in the area as Drakes Estero SMR. The name of the MPA should be changed as the dominant portion of the SMR is contained in *Estero de Limantour*.

Options to remedy:

- Proposal 1-3 and 4
  - 1) Change Drakes Estero SMR to Estero de Limantour SMR

**Double Point/Duxbury Reef/Agate Beach:**

1-3: **SMCA\*** and **SMCA\***  
2XA: **SMP\***  
4: **SMCA\***, **SMCA\***, and **SMCA\***

Concerns:

For all three proposals, the MPAs *allow much of the existing take* (with the exception of Double Point SMCA for proposal 4).

All three proposals include intertidal MPAs that *do not extend into deeper waters*, are defined by *distance offshore*, and do not meet the Department's guidelines. The size and allowed take in these proposed MPAs are not consistent with the goals of the MLPA, *provide little protection ecologically* and *do not meet the standards for heritage purposes* due to the allowed take.

Proposal 4 includes three separate SMCAs all adjacent to one another. This will lead to *public confusion* and *difficulties in enforcement*. The Department recommends eliminating MPAs which provide little additional protection and simplifying the array.

Options to remedy:

- Take Restrictions
  - 1) Eliminate all proposed MPAs in the Double Point/Duxbury Reef/Agate Beach area
  - 2) Reduce the number of species allowed for take in the proposed MPAs in the area
- Intertidal MPAs
  - 1) Eliminate these intertidal MPAs; or
  - 2) Define the boundaries as lines of latitude and longitude, and move the boundaries offshore into deeper waters.
- Proposal 4
  - 1) Eliminate all proposed MPAs in the Double Point/Duxbury Reef/Agate Beach area
  - 2) Eliminate MPAs which allow most existing take and simplify the array

**Fitzgerald/Montara:**

1-3: SMR and **SMCA\***  
2XA: SMR and SMCA  
4: SMR and SMCA

Concerns: While, all three proposals include SMCAs which allow take of multiple pelagic finfish species, squid and crab, proposal 1-3 also allows take of halibut, a bottom dwelling finfish, in an area with rocky habitat.

Options to remedy:

- Proposal 1-3
  - 1) Prohibit the take of halibut in this SMCA

**San Gregorio:**

Proposal 4 includes an SMR in the area and meets the feasibility guidelines.

**Farallons:**

All proposals meet the feasibility guidelines in this area.

## **SPECIAL CLOSURES**

Most of the special closures included in the proposals meet feasibility guidelines. Two areas, however, do raise concerns:

Proposal 1-3:

Bean Hollow, should be eliminated due to easy frequently used public access which will cause enforcement concerns. This closure of public access may raise concerns with the California Coastal Commission.

Proposal 1-3 & 2XA:

Point Resistance is frequented by foot via off-trail access. This access may reduce feasibility due to enforcement concerns and may raise concerns from the California Coastal Commission. Proposal 1-3 uses a 500' boundary for this area which is also inconsistent with guidelines of 300' or 1000'.

**Department of Fish and Game evaluation of the goals and objectives of MPA proposals  
in the North Central Coast Region  
*April 17, 2008***

The Marine Life Protection Act (MLPA) directs that marine protected areas (MPA) have clearly identified objectives, as these are critical factors influencing design, regulations, and monitoring. The overall network of state marine reserves (SMR), state marine conservation areas (SMCA), and state marine parks (SMP) must work toward achieving the goals of the MLPA. Individual MPAs should support the attainment of individually identified objectives that, when taken together, help fulfill the network's objectives. For example, an MPA that strives to protect biodiversity may be best located in an area with a variety of habitat types and may prohibit all take, while another that seeks to enhance recreational opportunity may be best cited near coastal access points and may allow limited fishing. Monitoring programs are also critically influenced by MPA objectives, as these programs must be designed to evaluate whether or not an MPA is meeting its individual intent.

The North Central Coast Regional Stakeholder Group (NCCRSG) crafted regional goals and objectives for MPAs in the North Central Coast (attached) and considered them in designing individual MPAs. The purpose of this document is to evaluate the appropriateness and compatibility of proposed MPAs with their stated objectives, and with the intent of the MLPA. Table 1 below summarizes proposed MPAs with problematic goals and objectives. Following the table, narrative explanation of each issue is provided for each MPA.

The majority (approximately 75%) of proposed MPAs with problematic objectives had only minor issues that may be easily resolved by deleting the specific objective. The most common minor issues were; application of objectives to individual MPAs that are more appropriately applied at the region-wide or network scale, and; application of objectives to an inappropriate MPA designation.

In some cases, a single type of allowed take conflicted with at least one objective or conflicted with the stakeholders' narrative rationale for establishing the MPA. This made it questionable whether the intended objectives could be achieved. It is suggested that these problems may be resolved by either disallowing the allowed take in question, or by modifying the objectives (Table 1, yellow fill).

A small number of proposed MPAs allow virtually every allowed take that exists currently (Table 1, grey fill), and thus do not to meet the intent of the MLPA to improve the existing array of MPAs and design them based on sound scientific guidelines. As noted in a Department of Fish and Game memo to the NCCRSG on March 13, 2008<sup>1</sup>, the Department opposes proposed MPAs of this nature. Suggested remedies are to either significantly reduce the array of allowed take, or to eliminate the proposed MPA.

It is also important to note that in some cases, proposed MPAs may help achieve objectives that were not identified in the Stakeholders' narratives. These objectives may be added to MPAs selected to move forward, but the Department has not done so in this document.

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<sup>1</sup> Ugoretz, J. DFG Memo. Department guidance for final MPA proposal development. March 13, 2008.

**Table 1.** Summary of proposed MPAs with problematic goals and objectives. Rows with **yellow fill** denote proposed MPAs for which a single allowed take conflicts with one or more objectives, or conflicts with the narrative rationale for establishing the MPA. Rows with **grey fill** denote proposed MPAs which permit virtually every allowed take that exists without the MPA and thus do not meet the intent of the MLPA to improve the existing array of MPAs and design them based on sound scientific guidelines. Goals and objectives in this document are referred to by their individual Goal and Objective numbers (e.g. Goal 1, Objective 3 = G1-O3).

Area	(Proposal) MPA	Type of Goals and Objectives Concern				Options to Remedy
		Conflicts with specified allowed take	Not appropriate for type of MPA	Not applicable at scale of individual MPA	Other Concern	
Point Arena	(1-3) Point Arena SMR		G2-O4	G4-O2, G6		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(1-3) Point Arena SMCA		G1-O1, G1-O5	G4-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(2-XA) Point Arena SMR	G1-O4		G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(2-XA) Point Arena SMCA	G1-O4	G1-O1, G1-O5	G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objective, or</li> <li>Delete G1-O1, G1-O5, G4-O2, G5-O2, G6-O1, G6-O2, and disallow take of pelagic finfish</li> </ul>
	(4) Point Arena SMR, Sea Lion Cove SMCA			G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(4) Point Arena SMCA		G1-O1, G1-O5	G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
Saunders Reef	(1-3) Saunder's Reef SMCA	G1-O2, G1-O3		G4-O2, G5-O2	G5-O3	<ul style="list-style-type: none"> <li>Eliminate MPA, or</li> <li>Delete G4-O2, G5-O2, G5-O3 and reduce allowed take</li> </ul>
	(4) Saunders Reef SMCA			G4-O2, G5-O2		<ul style="list-style-type: none"> <li>Eliminate MPA, or</li> <li>Delete all problematic goals/objectives</li> </ul>
Del Mar Landing	(1-3) Del Mar Landing SMP				G3-O2	<ul style="list-style-type: none"> <li>Eliminate MPA, or</li> <li>Reduce allowed take.</li> </ul>
	(4) Del Mar Landing SMR			G5-O2		<ul style="list-style-type: none"> <li>Eliminate MPA, or</li> <li>Delete all problematic goals/objectives</li> </ul>
Rocky Point to Horseshoe Point / Black Point / Stewart's Point	(1-3) Rocky Point to Horseshoe Point SMR			G4-O2, G6		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(2-XA) Black Point SMCA	G1-O4	G1-O1, G1-O5	G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives, or</li> <li>Delete G1-O1, G1-O5, G4-O2, G5-O2, G6-O1, G6-O2 and disallow take of pelagic finfish</li> </ul>
	(2-XA) Black Point SMR	G1-O4		G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>

Goals and Objectives Evaluation  
Final Stakeholder Proposals  
North Central Coast Region

Area	(Proposal) MPA	Type of Goals and Objectives Concern				Options to Remedy
		Conflicts with specified allowed take	Not appropriate for type of MPA	Not applicable at scale of individual MPA	Other Concern	
	(4) Stewart's Point SMR			G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
Salt Point & Gerstle Cove	(1-3) Gerstle Cove SMR			G4-O2, G5-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(4) Salt Point SMP			G5-O2	G5-O3	<ul style="list-style-type: none"> <li>Eliminate MPA, or</li> <li>Delete all problematic goals/objectives</li> </ul>
	(4) Gerstle Cove SMR			G4-O2, G5-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(1-3) Russian River SMCA		G1-O5	G4-O2, G5-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
Russian River	(1-3) Russian River SMR			G4-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(2-XA) Russian River SMCA	G2-O1				<ul style="list-style-type: none"> <li>Address through other regulatory measure or prohibit hook and line take where bycatch is a concern</li> </ul>
	(4) Russian River SMCA			G5-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(4) Russian River SMR			G5-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
Bodega Head	(1-3) Bodega Head SMR		G2-O4	G4-O2, G6		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(1-3) Bodega Head SMCA	G1-O4	G1-O1, G1-O5	G4-O2, G6		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives, or</li> <li>Delete G1-O1, G1-O5, G, G4-O2, G6, and disallow take of Dungeness crab.</li> </ul>
	(2-XA) Bodega Head SMR			G4-O2, G5-O2, G6-O1, G6-O2	G1-O4	<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(2-XA) Bodega Head SMCA	G1-O4	G1-O1, G1-O5	G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives, or</li> <li>Delete G1-O1, G1-O5, G4-O2, G5-O2, G6-O1, G6-O2 and disallow take of pelagic finfish</li> </ul>
	(4) Bodega SMR			G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(4) Bodega SMCA		G1-O1, G1-O5	G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
Estero Americano & Estero de San Antonio	(1-3) Estero Americano SMR		G2-O4	G4-O2, G5-O2, G6-O1, G6-O2	G5-O1	<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(1-3) Estero de San Antonio SMR		G2-O4	G4-O2, G5-O2, G6	G5-O1	<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(4) Estero de San Antonio SMR			G4-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
Tomales Bay	(4) Tomales Bay SMR			G4-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
Point Reyes	(1-3) Point Reyes SMR		G2-O4	G4-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>

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Area	(Proposal) MPA	Type of Goals and Objectives Concern				Options to Remedy
		Conflicts with specified allowed take	Not appropriate for type of MPA	Not applicable at scale of individual MPA	Other Concern	
	(1-3) Point Reyes SMCA	G1-O4	G1-O1	G4-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives, or</li> <li>Delete G1-O1, G4-O2, G6-O1, G6-O2, and disallow take of Dungeness crab</li> </ul>
	(2XA) Point Reyes Headlands SMR			G4-O2, G5-O2 G6-O1, G6-O2	G1-O4	<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(2XA) Point Reyes Headlands SMCA	G1-O4	G1-O1, G1-O5	G4-O2, G5-O2 G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> <li>Disallow take of pelagic finfish</li> </ul>
	(4) Point Reyes SMR			G4-O2, G5-O2 G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(4) Point Reyes SMCA	G1-O4	G1-O1, G1-O5	G4-O2, G5-O2 G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives, or</li> <li>Delete G1-O1, G1-O5, G4-O2, G5-O2, G6-O1, G6-O2, and disallow take of Dungeness crab.</li> </ul>
Drakes Estero / Estero de Limantour	(1-3) Drakes and Limantour Estero SMR			G4-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(1-3) Drakes Estero SMCA		G1-O1, G1-O5, G1-O4	G4-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(2-XA) Drakes Estero SMCA		G1-O1			<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(4) Drakes Estero SMCA		G1-O1, G1-O4			<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
Double Point / Duxbury	(1-3) Double Point SMCA	G2-O2, G3-O3				<ul style="list-style-type: none"> <li>Eliminate MPA, or</li> <li>Reduce allowed take</li> </ul>
	(1-3) Duxbury Reef SMCA			G4-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(2-XA) Duxbury SMP	G1-O1, G1-O3				<ul style="list-style-type: none"> <li>Eliminate MPA, or</li> <li>Reduce allowed take</li> </ul>
	(4) Double Point SMCA			G4-O2, G5-O2 G6		<ul style="list-style-type: none"> <li>Eliminate MPA, or</li> <li>Delete all problematic goals/objectives and reduce allowed take</li> </ul>
	(4) Duxbury SMCA	G2-O2, G2-O4		G4-O2, G5-O2		<ul style="list-style-type: none"> <li>Eliminate MPA, or</li> <li>Delete G4-O2, G5-O2 and reduce allowed take</li> </ul>
	(4) Agate Beach Intertidal SMCA		G1-O1	G4-O2, G5-O2		<ul style="list-style-type: none"> <li>Eliminate MPA, or</li> <li>Delete G1-O1, G4-O2, G5-O2 and reduce allowed take</li> </ul>
Fitzgerald / Montara / Devil's Slide / Pillar Point	(1-3) Montara SMCA	G1-O3, G1-O4	G1-O1, G1-O5	G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Eliminate MPA replacing it with a different proposal, or</li> <li>Delete G4-O2, G5-O2, G6-O1, G6-O2 and reduce allowed take.</li> </ul>
	(1-3) Fitzgerald SMR		G2-O4	G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(2-XA) Montara SMR			G4-O2, G5-O2, G6-O1, G6-O2	G1-O4	<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>

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		Conflicts with specified allowed take	Not appropriate for type of MPA	Not applicable at scale of individual MPA	Other Concern	
	(2-XA) Pillar Point SMCA	G1-O4	G1-O1, G1-O5	G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives, or</li> <li>Delete G4-O2, G5-O2, G6-O1, G6-O2, and disallow take of pelagic finfish</li> </ul>
	(4) Devil's Slide SMCA			G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(4) Fitzgerald SMR			G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
San Gregorio	(4) San Gregorio SMR			G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
Farallon Islands	(1-3) North Farallon Islands SMR		G2-O4	G4-O2, G5-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(1-3) SE Farallon Islands SMR		G2-O4	G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(1-3) SE Farallon Islands SMCA		G1-O1, G1-O5	G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(2-XA) North Farallon SMR			G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(2-XA) SE Farallon SMR			G4-O2, G5-O2, G6-O1, G6-O2	G1-O4	<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(2-XA) SE Farallon SMCA	G1-O4	G1-O1, G1-O5	G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives, or</li> <li>Delete G1-O1, G1-O5, G4-O2, G5-O2, G6-O1, G6-O2, and disallow take of pelagic finfish.</li> </ul>
	(4) North Farallon SMR			G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(4) SE Farallon SMR			G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>
	(4) SE Farallon SMCA		G1-O1, G1-O5	G4-O2, G5-O2, G6-O1, G6-O2		<ul style="list-style-type: none"> <li>Delete all problematic goals/objectives</li> </ul>

## POINT ARENA

### **Proposal 1-3:**

(Point Arena SMR)

- G2-O4 (protect species and habitats while allowing harvest through use of a SMCA or SMP) may apply to an SMCA or SMP, but is not appropriate for an SMR.
- Goal 6 and its objectives, and G4-O2 are appropriately applied at the network scale, and should not apply to individual MPAs.

(Point Arena SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take.
- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.
- G4-O2 is appropriately applied at the network scale, and should not apply to individual MPAs.

### **Proposal 2XA**

(Point Arena SMR)

- Narrative rationale for selection of G1-O4 (to protect pelagic finfish that serve as prey for other fish, birds and mammals) is not likely to be achieved. As noted in the Master plan, pelagic species have a high tendency to move and are unlikely to benefit from MPAs. They are also not included in the list of species likely to benefit (Master Plan, Appendix G).
- The following goals/objectives apply at the network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

(Point Arena SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take.
- Narrative rationale for selecting G1-O4 (to protect pelagic finfish that serve as prey for other fish, birds and mammals) is not supported by allowed take of pelagic finfish in this MPA.
- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.
- The following goals/objectives apply at the network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

### **Proposal 4**

(Point Arena SMR and Sea Lion Cove SMCA)

- The following goals/objectives apply at the network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2

(Point Arena SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take or aquaculture.
- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.
- The following goals/objectives apply at the network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2

## SAUNDERS REEF

### **Proposal 1-3**

(Saunders Reef SMCA)

- Wide array of allowed take in this MPA makes it unlikely that G1-O2 and G1-O3 can be met, and is inconsistent with the intent of the MLPA to improve the existing array of MPAs and design them based on sound scientific guidelines.
- G4-O2 and G5-O2 apply at the network scale and are not appropriately applied to individual MPAs.
- MPA does not address SAT size and spacing guidelines due to its moderate-low level of protection, and does not meet G5-O3 (effectively use scientific guidelines in California MLPA Master Plan for Marine Protected Areas)

### **Proposal 4**

(Saunders Reef SMCA)

- MPA does not address SAT size and spacing guidelines due to its moderate-low level of protection
- G4-O2 and G5-O2 apply at the network scale and are not appropriately applied to individual MPAs.

## DEL MAR LANDING

### **Proposal 1-3**

(Del Mar Landing SMP)

- Narrative rationale for selecting G3-O2 (keeping SMP as a heritage site) is not supported by the wide array of allowed take (recreational finfish) in this very small, nearshore SMP. MPA provides little protection, and is inconsistent with the intent of the MLPA to improve the existing array of MPAs and design them based on sound scientific guidelines.

### **Proposal 4**

(Del Mar Landing SMR)

- Narrative rationale suggests maintaining an existing MPA “valued by the community”, however changes this existing MPA to no longer allow take.
- G5-O2 applies at the network scale and is not appropriately applied to individual MPAs.

## BLACK POINT / STEWART'S POINT / ROCKY POINT TO HORSESHOE POINT

### **Proposal 1-3**

(Rocky Point to Horseshoe Point SMR)

- Goal 6 and its objectives, and G4-O2 are appropriately applied at the scale of the entire regional network, and do not apply on an individual MPA basis.

### **Proposal 2XA**

(Black Point SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take.
- Narrative rationale for selection of G1-O4 (to protect pelagic finfish that serve as prey for other fish, birds and mammals) is not supported by allowed take of pelagic finfish in this MPA.
- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.
- The following goals/objectives apply at the network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

(Black Point SMR)

- Narrative rationale for selection of G1-O4 (protect pelagic finfish that serve as prey for other fish, birds and mammals) is not likely to be achieved. As noted in the Master Plan, pelagic species have a high tendency to move and are unlikely to benefit from MPAs. They are also not included in the list of species likely to benefit (Master Plan, Appendix G).
- The following goals/objectives apply at the network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

### **Proposal 4**

(Stewart's Point SMR)

- The following goals/objectives apply at the network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

## SALT POINT & GERSTLE COVE

### **Proposal 1-3**

(Gerstle Cove SMR)

- The following goals/objectives apply at the network scale, are not appropriately applied to individual MPAs: G4-O2, G5-O2

### **Proposal 4**

(Salt Point SMP)

- MPA does not meet SAT size and spacing evaluation guidelines (G5-O3) due to its small size, and moderate level of protection.
- G5-O2 applies at the network scale, and is not appropriately applied to an individual MPA.

(Gerstle Cove SMR)

- The following goals/objectives apply at the network scale, are not appropriately applied to individual MPAs: G4-O2, G5-O2

## **RUSSIAN RIVER**

### **Proposal 1-3**

(Russian River SMR)

- G4-O2 applies at the entire network scale, are not appropriately applied to individual MPAs.

(Russian River SMCA)

- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.
- G5-O2 and G4-O2 apply at the entire network scale, are not appropriately applied to individual MPAs.

### **Proposal 2-XA**

(Russian River SMCA)

- Since the proposed SMCA allows commercial and recreational take of all species other than Chinook salmon, the narrative goals to protect Chinook salmon may be better addressed through existing regulation (Section 27.75, Title 14), external to the MLPA process. Section 27.75 closes salmon fishing in areas around the mouths of other Northern California rivers. Conflicts with G1-O3.

### **Proposal 4**

(Russian River Estuary SMR and Russian River SMCA)

- G5-O2 applies at the entire network scale, and is not appropriately applied to individual MPAs.

## **BODEGA HEAD**

### **Proposal 1-3**

(Bodega Head SMR)

- G2-O4 (protect species and habitats while allowing harvest through use of a SMCA or SMP) may apply to an SMCA or SMP, but is not appropriate for an SMR.
- Goal 6 and its objectives, and G4-O2 are appropriately applied at the network scale, and are not appropriately applied to individual MPAs

(Bodega Head SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take.
- G1-O4 (protect natural trophic structure and food webs) is unlikely to be met due to allowed fishing of a species likely to benefit if protected by an MPA (Dungeness crab).

- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.
- G4-O2, and goal 6 and its objectives are appropriately applied at the network scale, and are not appropriately applied to individual MPAs.

### **Proposal 2-XA**

(Bodega Head SMR)

- Narrative rationale for selection of G1-O4 (to protect pelagic finfish that serve as prey for other fish, birds and mammals) is not likely to be achieved. As noted in the Master plan, pelagic species have a high tendency to move and are unlikely to benefit from MPAs. They are also not included in the list of species likely to benefit (Master Plan, Appendix G).
- The following objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

(Bodega Head SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take.
- Narrative rationale for selection of G1-O4 (to protect pelagic finfish that serve as prey for other fish, birds and mammals) is not supported by allowed take of pelagic finfish in this MPA.
- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.
- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

### **Proposal 4**

(Bodega SMR)

- The following objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

(Bodega SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take or aquaculture.
- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.
- The following objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

## ESTERO AMERICANO & ESTERO DE SAN ANTONIO

### Proposal 1-3

(Estero Americano SMR)

- G2-O4 (protect species and habitats while allowing harvest through use of a SMCA or SMP) may apply to an SMCA or SMP, but is not appropriate for an SMR.
- G5-O1 is not appropriately applied to this SMR. Due to the limited number and type of users in this area, neither positive nor negative socioeconomic impacts are likely, whether or not an SMR is established here.
- The following objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

(Estero de San Antonio SMR)

- G2-O4 (protect species and habitats while allowing harvest through use of a SMCA or SMP) may apply to an SMCA or SMP, but is not appropriate for an SMR.
- G5-O1 is not appropriately applied to this SMR. Due to the limited number and type of users in this area, neither positive nor negative socioeconomic impacts are likely, whether or not an SMR is established here.
- The following objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

### Proposal 4

(Estero de San Antonio SMR)

- G4-O2 applies at the network scale, and is not appropriately applied to an individual MPA.

## TOMALES BAY SMR (PROPOSAL 4 ONLY)

### Proposal 4

- G4-O2 applies at the network scale, and is not appropriately applied to an individual MPA.

## POINT REYES

### Proposal 1-3

(Point Reyes SMR)

- G2-O4 (protect species and habitats while allowing harvest through use of a SMCA or SMP) may apply to an SMCA or SMP, but is not appropriate for an SMR.
- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G6-O1, G6-O2

(Point Reyes SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take.

- G1-O4 (protect natural trophic structure and food webs) is unlikely to be met due to allowed fishing of a species likely to benefit if protected by an MPA (Dungeness crab).
- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G6-O1, G6-O2

### **Proposal 2XA**

(Pt. Reyes Headlands SMR)

- Narrative rationale for selecting G1-O4 (to protect pelagic finfish that serve as prey for other fish, birds and mammals) may not be achievable unless MPA cluster is large enough to encompass the range of movement of forage species (Master Plan, Appendix G).
- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

(Pt. Reyes Headlands SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take.
- Narrative rationale for selecting G1-O4 (protect pelagic finfish that serve as prey for other fish, birds and mammals) is not supported by allowed take of pelagic finfish in this MPA.
- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.
- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

### **Proposal 4**

(Point Reyes SMR)

- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

(Point Reyes SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take or aquaculture.
- G1-O4 (protect natural trophic structure and food webs) is unlikely to be met due to allowed fishing of a species likely to benefit if protected by an MPA (Dungeness crab).
- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.
- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

## **DRAKES ESTERO / LIMANTOUR ESTERO**

### **Proposal 1-3**

(Drakes and Limantour Estero SMR)

- The following objective applies at the entire network scale, and is not appropriately applied to individual MPAs: G4-O2

(Drakes Estero SMCA)

- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take or aquaculture.
- G1-O4 (protect natural trophic structure and food webs) is unlikely to be met due to existence of mariculture activities within this MPA.
- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take or aquaculture.
- The following objective applies at the entire network scale, and is not appropriately applied to individual MPAs: G4-O2

### **Proposal 2XA**

(Drakes Estero SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take or aquaculture.

### **Proposal 4**

(Drakes Estero SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take or mariculture.
- G1-O4 (protect natural trophic structure and food webs) is unlikely to be met due to existence of mariculture activities within this MPA.

## **DOUBLE POINT / DUXBURY**

### **Proposal 1-3**

(Double Point SMCA)

- Narrative rational for choosing G2-O2 (protecting demersal species and habitats) is not supported by allowance of activities which impact benthic species and communities (mooching, halibut fishing, croaker fishing). MPA is inconsistent with the intent of the MLPA to improve the existing array of MPAs and design them based on sound scientific guidelines.
- Wide array of take allowed in this MPA and lack of comparative adjacent areas under comparatively restrictive take regulations, make MPA unlikely to meet G3-O3 (facilitate scientific studies, serve as replicate or control area).

(Duxbury Reef SMCA)

- The following objective applies at the entire network scale, and is not appropriately applied to individual MPAs: G4-O2

### **Proposal 2XA**

#### **(Duxbury SMP)**

- Small size and wide array of take allowed in this intertidal SMP (all finfish and abalone) provides minimal protection. It is unlikely that G1-O1 (protect diversity and abundance consistent with natural fluctuations) and G1-O3 (protect natural age and size structure) can be met, and is inconsistent with the intent of the MLPA to improve the existing array of MPAs and design them based on sound scientific guidelines.

### **Proposal 4**

#### **(Double Point SMCA)**

- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

#### **(Duxbury SMCA)**

- Narrative goal of protecting shale reef and sand communities is not supported by allowance of activities that impact demersal species (halibut fishing, crab fishing, recreational shore fishing) that are otherwise most likely to benefit from the MPA if such activities were not allowed. Wide array of allowed take makes it unlikely that G2-O2 and G2-O4 will be achieved.
- The following objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2 and G5-O2

#### **(Agate Beach Intertidal SMCA)**

- Small size and wide array of take allowed in this intertidal SMCA (all finfish and Dungeness crab) provides minimal protection. Goal G1-O1 (protect diversity and abundance consistent with natural fluctuations) will not be met, and MPA is inconsistent with the intent of the MLPA to improve the existing array of MPAs and design them based on sound scientific guidelines.
- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2 and G5-O2

## **FITZGERALD / MONTARA / DEVIL'S SLIDE / PILLAR POINT**

### **Proposal 1-3**

#### **(Montara SMCA)**

- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take or mariculture.
- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take or mariculture.
- Narrative objective of protecting rocky reef and sand areas is not supported by allowance of activities which impact benthic species and communities (halibut fishing, crab fishing). Wide array of take allowed in this MPA make it unlikely that MPA will achieve G1-O3 (protect natural size and age structure) and G1-O4 (protect natural trophic structure and food webs). MPA is inconsistent with the intent of the MLPA to improve the existing array of MPAs and design them based on sound scientific guidelines.

- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2.

(Fitzgerald SMR)

- G2-O4 (protect species and habitats while allowing harvest through use of a SMCA or SMP) may apply to an SMCA or SMP, but is not appropriate for an SMR.
- The following objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2.

**Proposal 2-XA**

(Montara SMR)

- Narrative rationale for selection of G1-O4 (to protect pelagic finfish that serve as prey for other fish, birds and mammals) is not likely to be achieved. As noted in the Master plan, pelagic species have a high tendency to move and are unlikely to benefit from MPAs. They are also not included in the list of species likely to benefit (Master Plan, Appendix G).
- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2.

(Pillar Point SMCA)

- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2.
- Goal G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take.
- Narrative rationale for selecting G1-O4 (protect pelagic finfish that serve as prey for other fish, birds and mammals) is not supported by allowed take of pelagic finfish in this MPA.
- Objective G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.

**Proposal 4**

(Devil's Slide SMCA and Fitzgerald SMR)

- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2.

**SAN GREGORIO (PROPOSAL 4 ONLY)**

**Proposal 4**

(San Gregorio SMR)

- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G5-O2, G6-O1, and G6-O2.

## FARALLON ISLANDS

### **Proposal 1-3**

(North Farallon Islands SMR)

- G2-O4 (protect species and habitats while allowing harvest through use of a SMCA or SMP) may apply to an SMCA or SMP, but is not appropriate for an SMR.
- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2 and G5-O2

(Southeast Farallon Islands SMR)

- G2-O4 (protect species and habitats while allowing harvest through use of a SMCA or SMP) may apply to an SMCA or SMP, but is not appropriate for an SMR.
- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2.

(Southeast Farallon Islands SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take.
- G1-O5 (protect ecosystems from human induced disturbance) is not appropriate for MPAs that allow take.
- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2.

### **Proposal 2XA**

(North Farallon SMR)

- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

(Southeast Farallon SMR).

- Narrative rationale for selection of G1-O4 (to protect pelagic finfish that serve as prey for other fish, birds and mammals) is not likely to be achieved. As noted in the Master plan, pelagic species have a high tendency to move and are unlikely to benefit from MPAs. They are also not included in the list of species likely to benefit (Master Plan, Appendix G).
- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2.

(Southeast Farallon SMCA)

- G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take or aquaculture.
- Narrative rationale for selecting G1-O4 (protect pelagic finfish that serve as prey for other fish, birds and mammals) is not supported by allowed take of pelagic finfish in this MPA.
- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.

- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2.

**Proposal 4**

(North Farallon SMR)

- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, G6-O2

(Southeast Farallon SMR)

- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2.

(Southeast Farallon SMCA)

- The following goals/objectives apply at the entire network scale, and are not appropriately applied to individual MPAs: G4-O2, G5-O2, G6-O1, and G6-O2.
- Goal G1-O1 (protect diversity and abundance consistent with natural fluctuations) is not compatible with MPAs that allow take or aquaculture.
- G1-O5 (protect ecosystems from human induced disturbance) is not compatible with MPAs that allow take.

## Attachment

### **California MLPA North Central Coast Project North Central Coast Regional Goals and Objectives**

*Adopted by the North Central Coast Regional Stakeholder Group on October 16, 2007*

*Adopted by the Blue Ribbon Task Force on November 19, 2007*

## Introduction

The members of the North Central Coast Regional Stakeholder Group (NCCRSG) agree that regional goals, objectives, and design and implementation considerations are all very important in the development of an effective system of marine protected areas (MPAs) that have stakeholder support. Regional goals are statements of what the regional MPAs are ultimately trying to achieve (Pomeroy et al. 2004)<sup>2</sup>. The regional goals are largely taken directly from the Marine Life Protection Act (MLPA) itself. Regional objectives are more specific measurable statements of what MPAs may accomplish to attain a related goal (Pomeroy et al. 2004). The NCCRSG recognizes that MPAs are one among a suite of tools to manage marine resources.

Design considerations are additional factors that may help fulfill provisions of the MLPA related to facilitating enforcement, encouraging public involvement, and incorporating socio-economic considerations, while meeting the act's goals and guidelines. Design considerations will be applied as the location, category (reserve, park or conservation area), size and other characteristics of potential MPAs are being developed. Design considerations are cross cutting (they apply to all MPAs) and are not necessarily measurable. MPA alternatives developed by the NCCRSG should include analysis of how the proposal addresses both regional goals and objectives and design guidelines.<sup>3</sup>

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<sup>2</sup> Pomeroy R.S., J.E. Parks, and L.M. Watson. 2004. How is your MPA doing? A Guidebook of Natural and Social Indicators for Evaluating Marine Protected Area Management Effectiveness. IUCN, Gland, Switzerland and Cambridge, UK. xvi + 216 p. (Accessed 17 January 2004).  
<http://effectivempa.noaa.gov/guidebook/guidebook.html>.

<sup>3</sup> John Kirlin Memo, August 22, 2005.

## Regional Objectives

### **Goal 1. To protect the natural diversity and abundance<sup>4</sup> of marine life, and the structure, function, and integrity of marine ecosystems.**

1. Protect species diversity and abundance consistent with natural fluctuations by including and maintaining areas of high native species diversity and representative habitats.
2. Include areas with diverse habitat types in close proximity to each other.  
[Propose moving to a design guideline as this is about efficiency of design not adaptive management]
3. Protect natural size and age structure and genetic diversity of populations in representative habitats.
4. Protect natural trophic structure and food webs in representative habitats.
5. Protect ecosystem structure, function, integrity and ecological processes to facilitate recovery of natural communities from disturbances both natural and human induced.

### **Goal 2. To help sustain, conserve, and protect marine life populations, including those of economic value, and rebuild those that are depleted.**

1. Help protect or rebuild populations of rare, threatened, endangered, depressed, depleted, or overfished species, where identified, and the habitats and ecosystem functions upon which they rely.<sup>5</sup>
2. Sustain or increase reproduction by species most likely to benefit from MPAs through retention of large, mature individuals<sup>6</sup>.
3. Sustain or increase reproduction by species most likely to benefit from MPAs through protection of breeding, foraging, rearing or nursery areas.
4. Protect selected species and the habitats on which they depend while allowing the commercial and/or recreational harvest of migratory, highly mobile, or other species where appropriate through the use of state marine conservation areas and state marine parks.

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<sup>4</sup> *Natural diversity* is the species richness of a community or area when protected from, or not subjected to, human-induced change (drawn from Allaby 1998 and Kelleher 1992). *Natural abundance* is the total number of individuals in a population protected from, or not subjected to, human-induced change (adapted from Department 2004 and Kelleher 1992).

<sup>5</sup> The terms “rare,” “threatened,” “endangered,” “depressed,” “depleted,” and “overfished” referenced here are designations in state and federal legislation, regulations, and fishery management plans (FMPs)—e.g., California Fish and Game Code, Marine Mammal Protection Act, Magnuson Stevens Fishery Conservation and Management Act (MSA), California Nearshore FMP, Federal Groundfish FMP). Rare, *endangered*, and *threatened* are designations under the California Endangered Species Act. *Depleted* is a designation under the federal Marine Mammal Protection Act. *Depressed* means the condition of a marine fishery that exhibits declining fish population abundance levels below those consistent with maximum sustainable yield (California Fish and Game Code, Section 90.7). *Overfished* means a population that does not produce maximum sustainable yield on a continuing basis (MSA) and in the California Nearshore FMP and federal Groundfish FMP also means a population that falls below the threshold of 30% or 25%, successively, of the estimated unfished biomass

<sup>6</sup> An increase in lifetime egg production will be an important quantitative measure of an improvement of reproduction.

**Goal 3. To improve recreational, educational, and study opportunities provided by marine ecosystems that are subject to minimal human disturbances, and to manage these uses in a manner consistent with protecting biodiversity.**

1. Ensure some MPAs are close to population centers, coastal access points, and/or research and education institutions and include areas of educational, recreational, and cultural use.
2. Sustain or enhance cultural, recreational, and educational experiences by improving catch rates, high scenic value, lower congestion, or increased size or abundance of species.
3. To enhance the likelihood of scientifically valid studies, replicate appropriate MPA designations, habitats or control areas (including areas open to fishing) to the extent possible.
4. Develop collaborative scientific monitoring and research projects evaluating MPAs that link with fisheries management information needs, classroom science curricula, volunteer dive programs, and fishermen, and identify participants.

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

1. Include within MPAs the following habitat types: estuaries, the intertidal zone at the Farallon Islands, and subtidal waters (including the water column and benthic habitats) around the Farallon Islands
2. Include and replicate to the extent possible [practicable], representatives of all marine habitats identified in the MLPA or the *California MLPA Master Plan for Marine Protected Areas* across a range of depths.

**Goal 5. To ensure that north central California's MPAs have clearly defined objectives, effective management measures, and adequate enforcement, and are based on sound scientific guidelines.**

1. Minimize negative socio-economic impacts and optimize positive socio-economic impacts for all users, to the extent possible, and if consistent with the Marine Life Protection Act and its goals and guidelines.
2. For all MPAs in the region involve interested parties to help; develop objectives, a long-term monitoring plan that includes standardized biological and socioeconomic monitoring protocols, and a strategy for MPA evaluation, and ensure that each MPA objective is linked to one or more regional objectives.
3. To the extent possible, effectively use scientific guidelines in the *California MLPA Master Plan for Marine Protected Areas*.

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

1. Develop a process to inform adaptive management that includes stakeholder involvement for regional review and evaluation of management effectiveness to determine if regional MPAs are an effective component of a statewide network.
2. Develop a mechanism to coordinate with future MLPA regional stakeholder groups in other regions to ensure that the statewide MPA network meets the goals of the MLPA.

## Regional Design and Implementation Considerations

### ***Design Considerations***

The NCCRSRSG recognizes several issues that should be considered in the design and evaluation of marine protected areas. Like the “Considerations in the Design of MPAs” that appears in the *California MLPA Master Plan for Marine Protected Areas*, these considerations may apply to all MPAs and MPA proposals regardless of the specific goals and objectives for that MPA. The design considerations below will be incorporated with the goals and objectives and provided to the MLPA Master Plan Science Advisory Team, MLPA Blue Ribbon Task Force, and California Fish and Game Commission. Design considerations with long-term monitoring components will be used in developing monitoring plans and to inform the adaptive management process.

1. In evaluating the siting of MPAs, considerations shall include the needs and interests of all users.
2. Recognize relevant portions of existing state and federal fishery management areas and regulations, to the extent possible, when designing new MPAs or modifying existing ones.
3. To the extent possible, site MPAs to prevent fishing effort shifts that would result in serial depletion.
4. When crafting MPA proposals, include considerations for design found in the Nearshore Fishery Management Plan<sup>7</sup> and the draft Abalone Recovery and Management Plan.<sup>8</sup>
5. In developing MPA proposals, consider how existing state and federal programs address the goals and objectives of the MLPA and the north central coast region as well as how these proposals may coordinate with other programs.
6. To the extent possible, site MPAs adjacent to terrestrial federal, state, county, or city parks, marine laboratories, or other "eyes on the water" to facilitate management, enforcement, and monitoring.

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<sup>7</sup>Design considerations from Nearshore Fishery Management Plan:

1. Restrict take in any MPA [intended to meet the NFMP goals] so that the directed fishing or significant bycatch of the 19 NFMP species is prohibited.
2. Include some areas that have been productive fishing grounds for the 19 NFMP species in the past but are no longer heavily used by the fishery.
3. Include some areas known to enhance distribution or retain larvae of NFMP species
4. Consist of an area large enough to address biological characteristics such as movement patterns and home range. There is an expectation that some portion of NFMP stocks will spend the majority of their life cycle within the boundaries of the MPA.
5. Consist of areas that replicate various habitat types within each region including areas that exhibit representative productivity.

<sup>8</sup>Design considerations from Abalone Recovery and Management Plan:

Proposed MPA sites should satisfy at least four of the following criteria.

1. Include within MPAs suitable rocky habitat containing abundant kelp and/or foliose algae
2. Insure presence of sufficient populations to facilitate reproduction.
3. Include within MPAs suitable nursery areas, in particular crustose coralline rock habitats in shallow waters that include microhabitats of moveable rock, rock crevices, urchin spine canopy, and kelp holdfasts.
4. Include within MPAs the protected lee of major headlands that may act as collection points for water and larvae.
5. Include MPAs large enough to include large numbers of abalone and for research regarding population dynamics.
6. Include MPAs that are accessible to researchers, enforcement personnel, and others with a legitimate interest in resource protection.

7. To the extent possible, site MPAs to facilitate use of volunteers to assist in monitoring and management.
8. To the extent possible, site MPAs to take advantage of existing long-term monitoring studies.
9. To the extent possible, design MPA boundaries that facilitate ease of public recognition and ease of enforcement.
10. Consider existing public coastal access points when designing MPAs.
11. MPA design should consider the benefits and drawbacks of siting MPAs near to or remote from public access.
12. Consider the potential impacts of climate change, community alteration, and distributional shifts in marine species when designing MPAs.
13. To the extent possible, preserve the diversity of recreational, educational, commercial, and cultural uses.

### ***Implementation Considerations***

Implementation considerations arise after the design of MPAs as the California Department of Fish and Game and any other responsible agencies implement decisions of the California Fish and Game Commission and, if appropriate, the California Park and Recreation Commission, with funding from the Legislature or other sources.

1. Improve public outreach related to MPAs through the use of docents, improved signage, and production of an educational brochure for north central coast MPAs.
2. When appropriate, phase the implementation of north central coast MPAs to ensure their effective management, monitoring, and enforcement.
3. Ensure adequate funding for monitoring, management, and enforcement is available for implementing new MPAs.
4. Develop regional management and enforcement measures, including cooperative enforcement agreements, adaptive management, and jurisdictional maps, which can be effectively used, adopted statewide, and periodically reviewed.
5. Incorporate volunteer monitoring and/or cooperative research, where appropriate.