

**California Marine Life Protection Act Initiative:
Description of Criteria for Selecting the Central Coast Study Region
Arrayed with Potential Study Regions Spreadsheet and Explanation of Ranking System**

Study Regions

Ten options for a central coast study region are included in this matrix for one or more of the following reasons:

- Suggested by the MLPA Science Advisory Team
- Used by the previous MLPA working group process
- Suggested by the public
- Represents a DFG management area for the nearshore fishery

Criteria for Selection

At its January 10-11, 2005 meeting in Long Beach, the MLPA Blue Ribbon Task Force adopted a number of criteria to be used in selecting a central coast study region (previously referred to as a project area). The adopted criteria are described below. Three additional criteria were added subsequent to the Blue Ribbon Task Force action and are indicated by an asterisk (*).

Biophysical boundaries. Species of plants and animals are not distributed continuously along the California coast. Rather, they have distinct north/south boundaries. Many species form natural communities with borders that may assist in determining the central coast study region. Although the borders themselves may be fuzzy, the central coast clearly has two major zones, divided by the outflow from San Francisco Bay. A weaker, but important break occurs at Point Sur, where current gyres cause abrupt changes in the composition of the community of species.

These natural communities may have generalized borders influenced by physical processes. The previous MLPA Master Plan Team also recognized a biological community break in the Año Nuevo area in San Mateo County; Pt. Año Nuevo was used as one of the boundaries for two of the previous MLPA regional working groups.

This criterion was given a “yes” if the southern and/or northern boundary is a named geographical point. In all but one case, both boundaries of each option satisfied this criterion.

***Area large enough for replicates?** The two smallest potential study regions span more than 70 nautical miles of coastline. A coastline length of this magnitude provides enough space for replicate MPAs; thus all of the options listed satisfy this criterion.

***Relative amount of habitat mapped.** This criterion, rated as either high, moderately-high, moderate, or low, is based on the awareness of the amount of available, high-resolution, fine-scale, habitat mapping data relative to the potential study region. This high-resolution mapping allows determination of bottom type on a finer scale than hard versus soft, and can distinguish relief, complexity, and rugosity, for example, of hard bottom structures.

Human activity boundaries. The diversity and intensity of human activities in coastal waters also are discontinuous. As an example, recreational fishing is more prevalent south of Point Conception than north. The waters around Monterey are among the most popular sites for scuba diving in the United States. Government jurisdictions add another layer of complexity that should also be considered.

- ***Human activity boundaries: recreational fishing***
Recreational fishing has regional differences in directed effort. For example, recreational fishing from the Morro Bay/Port San Luis area is generally restricted to the area from Pt. Arguello north to Pt. Sur. Those general geographic fishing locations are recognized in this criterion.
- ***Human activity boundaries: commercial fishing***
Some commercial fishing is centered around port areas at which vessels are based or that have necessary processing facilities. Smaller fishing vessels generally travel less distance from port. Certain fisheries tied to port areas are recognized in this criterion.
- ***Human activity boundaries: scuba diving***
The waters from Monterey to Pt. Lobos are among the most popular sites for scuba diving in the United States. Of lesser importance are the waters south of Pt. Sur. These areas are recognized in this criterion.
- ***Human activity boundaries: county jurisdictions***
Government jurisdictions add another layer of complexity that should be considered. This criterion lists coastal counties in which the ocean boundary is completely contained within the option.
- ***Human activity boundaries: military/security uses***
A one mile radius exclusion zone for national security purposes exists in the waters adjacent to Diablo Canyon nuclear power plant. Vandenberg Air Force Base also has use restrictions in the adjacent ocean waters.
- ***Human activities boundaries: state/federal jurisdiction***
The Rockfish Conservation Area (RCA) is a fishery management closure for bottom fishing gear in certain depth zones. The depth zones change based on latitudinal boundaries depending on gear type. This criterion lists the number of sections of the RCA by gear type (each with its own regulations) that is contained within the potential study region.

Progress of past MLPA and other public discussion groups. This criterion includes the three previous MLPA regional working groups, the Monterey Bay National Marine Sanctuary's Marine Protected Area Working Group, the Marine Interest Group in Morro Bay, and others. Input from these groups' prior or ongoing discussions should be considered. The geographical areas of each group that are entirely contained within a potential study region are recognized in this criterion.

Potential state, federal and private partners with financial or in-kind services. These potential partners include the National MPA Science Center in Santa Cruz and the Monterey Bay, Gulf of the Farallones,

and Cordell Bank national marine sanctuaries, as well as the California Department of Parks and Recreation and others. Availability of services within specific areas should be considered.

In addition to the above, potential state and federal partners include the National Park Service and the Bureau of Land Management through the California Coastal National Monument. Those partners with a geographic area of interest or property that is managed entirely within a potential study region are recognized in this criterion.

Scientific knowledge of, and research being conducted in, the region. Public and private entities, such as universities, state and federal agencies, and power generating companies (e.g. PG&E's Diablo Canyon) have conducted or are conducting research and monitoring studies in the greater central coast area. Availability of region-specific information, including information on the distribution of habitats identified in the MLPA, should help determine the final study region.

The ranking within this criterion of either high or moderate represents a general assessment of the relative magnitude of research information available within the potential study region.

Availability of first-hand knowledge of the area. Numerous scientists, fishermen, and other informed individuals collectively provide a wealth of knowledge within the greater central coast area. The level and availability of this type of information should be considered.

Each potential study region has individuals with a high degree of experience and knowledge of the local marine communities; thus, each potential region was rated "high" in this criterion.

****Number of MPAs.*** Each of the potential study regions contains from three to ten existing MPAs entirely in the marine environment.

Availability of scientific data about existing MPAs and how they meet or do not meet both resource protection needs and the requirements of the MLPA. Within the greater central coast area there are 21 MPAs in ocean waters as well as numerous estuarine MPAs. The amount and type of information available for these existing areas should be taken into account.

In addition, how the MPAs meet, or do not meet, both resource protection needs and the requirements of the MLPA should be taken into account. The ranking within this criterion as either high, moderate, or low represents a general assessment of the relative magnitude of information available from research and monitoring within and adjacent to the MPAs within the potential study region.

Existing fishery regulations in the region and how they meet or do not meet both resource protection needs and the requirements of the MLPA. The greater central coast area spans several fishery management zones established by DFG, as well as nine DFG districts (three within the San Francisco Bay estuarine complex). Each of these zones and districts has a unique set of fishery regulations. These existing regulations create differences in the need for additional protection in certain areas.

Number of complete DFG fishing districts and management areas (related to existing fishery regulations). The management areas cited in this exercise relate to rockfish/lingcod and salmon resources.

Range or area over which resources are utilized by user groups. Within the greater central coast area, certain fisheries are more localized and port-based, while others draw users from a wide range of the state as well as from out-of-state. The selected study region should reflect a consideration of these and other resource users. This criterion is similar to the “human activities – boundaries” criterion.

Range or area over which a resource user may be expected to have a working knowledge of the resources. Similar to the range over which resources are utilized by user groups, the geographic range of a user’s working knowledge will vary with the resource or resources in question. This also applies to researchers, fishery managers, and other scientists within the region. The selected study region should not be so large as to preclude the ability of individual representatives to provide input on its entire geographic extent.

This criterion was rated as either “reasonable” or “too large” based on a general assessment of the extent of the region utilized by recreational and commercial users as well as a previous assessment of local knowledge from the former MLPA working group meetings.

Distance members of a regional stakeholder group would need to travel in order to participate in group meetings. The greater central coast area spans roughly 385 nautical miles from north to south. Choosing too large an area for the central coast study region could impose logistical problems for those required to, or interested in, participating in the process.

This criterion was rated from high to low based on the length of coastline (nautical miles) within the potential study region as follows:

- High = greater than 200 miles
- Moderate to high = 151-200 miles
- Moderate = 100-150 miles
- Low = less than 100 miles

Availability of DFG personnel. Within the greater central coast, DFG has limited staff working in four Marine Region offices (Bodega Bay, Belmont, Monterey and Morro Bay). The same considerations relative to travel that apply to the regional working group would also apply to DFG staff.

This criterion was rated high for potential study regions that include the area between San Francisco and Pt. Sur, based on the location of DFG’s Central Coast Regional Coordinator in Monterey and the travel distance required to attend meetings (up to 120 miles), and low for other options (greater than 120 miles).

Acronyms

A number of acronyms are used in the attached spreadsheet to keep the document size to a minimum. These are:

BB	Bodega Bay
BLM	(U.S.) Bureau of Land Management
DPR	(California) Department of Parks and Recreation
GFNMS	Gulf of the Farallones National Marine Sanctuary
MB	Morro Bay
MBNMS	Monterey Bay National Marine Sanctuary
MT	Monterey
N	northern
NMPASC	National Marine Protected Areas Science Center
NPS	National Park Service
S	southern
SAC	sanctuary advisory council
SC	Santa Cruz
SF	San Francisco

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*MLPA Blue Ribbon Task Force
February 15-17, 2005 Public Workshops*

Criteria										
Potential central coast study regions (north to south)	Reason for inclusion	N.M. of coast	Biophysical boundaries?	Area large enough for replicates?	Relative amount of habitat mapped	Human activity boundaries - recreational fishing	Human activity boundaries - commercial fishing	Human activity boundaries - scuba diving	Human activity boundaries - county jurisdictions	Human activity boundaries - military or security uses
<i>Pt. Arena to Pt. Año Nuevo</i>	Previous working group region and suggested by public	156	yes	yes	low	N extent for BB; S extent for SF	BB, SF Dungeness crab	not important	Sonoma, Marin, San Francisco, San Mateo	none
<i>Bodega Head to Cambria</i>	Suggested by public	241	yes - north only	yes	moderate	no	SF, MT Dungeness crab; SF, MT squid; MT, Sur spot prawn	contains important Monterey to Pt. Lobos area	Marin, San Francisco, San Mateo, Santa Cruz, Monterey	none
<i>Pt. Reyes to Pt. Sur</i>	Suggested by Science Advisory Team	157	yes	yes	moderate	S extent for BB; N extent for SF; S extent for MT; N extent for MB	SF, MT Dungeness crab; SF, MT squid; MT spot prawn	contains important Monterey to Pt. Lobos area	San Francisco, San Mateo, Santa Cruz	none
<i>Golden Gate to Pt. Lobos</i>	Suggested by public	106	yes	yes	mod-high	S extent for MT diving		contains important Monterey to Pt. Lobos area	San Francisco, San Mateo, Santa Cruz	none
<i>Golden Gate to Pt. Sur</i>	Suggested by Science Advisory Team	119	yes	yes	mod-high	S extent for MT; N extent for MB	MT squid; MT spot prawn	contains important Monterey to Pt. Lobos area	San Francisco, San Mateo, Santa Cruz	none
<i>Pigeon Pt to Lopez Pt</i>	DFG management area	106	yes	yes	mod	no	rockfish, lingcod; MT squid; MT spot prawn	contains important Monterey to Pt. Lobos area	Santa Cruz	none
<i>Pt. Año Nuevo to Pt. Sur</i>	Previous working group region and suggested by public	76	yes	yes	high	S extent for SF; N extent for SC; S extent for MT; N extent for MB	MT squid; MT spot prawn	contains important Monterey to Pt. Lobos area	Santa Cruz	none
<i>Pt. Año Nuevo to Pt. Conception</i>	DFG management area	229	yes	yes	mod	S extent for SF; N extent for SC; S extent for MB	MT squid; MT, Sur, MB spot prawn; nearshore fishery	contains important Monterey to Pt. Lobos area	Santa Cruz, Monterey, San Luis Obispo	Diablo Canyon, Vandenberg
<i>Pt. Sur to Pt. Conception</i>	Previous working group region and suggested by public	153	yes	yes	low	S extent for MT; N and S extents for MB	Sur, MB spot prawn; MB nearshore fishery	some diving in this area	San Luis Obispo	Diablo Canyon, Vandenberg
<i>Lopez Pt. to Pt. Conception</i>	DFG management area	129	yes	yes	low	S extent for MB	rockfish, lingcod	some diving in this area		Diablo Canyon, Vandenberg

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Potential central coast study regions (north to south)	Criteria												
	Human activity boundaries - state/fed jurisdiction - # of Rockfish Conservation Area sections	Previous and other discussion groups?	Potential partners	Science knowledge & research	Available local knowledge	No. of existing MPAs	Relative amount of data from MPAs	No. of complete DFG districts	No. of complete DFG mgmt areas - rockfish and lingcod	No. of complete DFG mgmt areas - salmon	Area size relative to range of knowledge of users	Potential distance required to travel to meetings	Availability of DFG staff
Pt. Arena to Pt. Año Nuevo	trawl: two, non-trawl: one	MLPA	GFNMS, MBNMS, NMPASC, NPS, BLM, DPR	moderate	high	10	moderate	1	0	2	reasonable, based on working group	moderate-high	low
Bodega Head to Cambria	trawl: two, non-trawl: one	GFNMS SAC, MBNMS SAC, MBNMS MPA working group	GFNMS, MBNMS, NMPASC, NPS, BLM, DPR	high	high	10	high	2	0	2	too large	high	high
Pt. Reyes to Pt. Sur	trawl: one, non-trawl: one	GFNMS SAC	GFNMS, MBNMS, NMPASC, NPS, BLM, DPR	high	high	7	high	2	0	2	too large	moderate-high	high
Golden Gate to Pt. Lobos	trawl: one, non-trawl: one	no	GFNMS, MBNMS, NMPASC, NPS, BLM, DPR	high	high	4	high	2	0	2	reasonable	moderate	high
Golden Gate to Pt. Sur	trawl: one, non-trawl: one	no	GFNMS, MBNMS, NMPASC, NPS, BLM, DPR	high	high	4	high	2	0	2	reasonable	moderate	high
Pigeon Pt to Lopez Pt	trawl: one, non-trawl: one	no	MBNMS, NMPASC, BLM, DPR	high	high	5	high	2	1	1	may be too large due to geographical diversity	moderate	high
Pt. Año Nuevo to Pt. Sur	trawl: one, non-trawl: one	MLPA	MBNMS, NMPASC, BLM, DPR	high	high	3	high	2	0	1	reasonable, based on working group	low	high
Pt. Año Nuevo to Pt. Conception	trawl: one, non-trawl: one	Marine Interest Group	MBNMS, NMPASC, BLM, DPR	high	high	10	high	2	1	1	too large	high	high
Pt. Sur to Pt. Conception	trawl: one, non-trawl: one	MLPA, Marine Interest Group	MBNMS, NMPASC, BLM, DPR	moderate	high	7	moderate	0	0	1	reasonable, based on working group	moderate-high	low
Lopez Pt. to Pt. Conception	trawl: one, non-trawl: one	Marine Interest Group	MBNMS, NMPASC, BLM, DPR	moderate	high	5	low	0	1	1	reasonable	moderate	low