

Department of Fish and Game
Evaluation of Round 1 Draft MPA Arrays
and Draft External Proposals
Revised 23 April 2009

Table of Contents

I.	Executive Summary	P. 2
II.	Goals and Objectives Evaluation Summary	P. 8
III.	Evaluation of the Prospects to Meet the Goals of the MLPA	P. 10
IV.	Individual Feasibility Evaluations	
	o External Proposal A	P. 13
	o External Proposal B	P. 21
	o External Proposal C	P. 32
	o Draft Array Lapis A	P. 40
	o Draft Array Lapis B	P. 49
	o Draft Array Opal A	P. 61
	o Draft Array Opal B	P. 70
	o Draft Array Topaz A	P. 80
	o Draft Array Topaz B	P. 90

I. Executive Summary:

Department Guidance and Overview of Evaluation Components

This feasibility evaluation was completed by the Department of Fish and Game (Department) for the South Coast Regional Stakeholder Group (SCRSG). The feasibility evaluation provides detailed feedback on how effectively the suite of internal draft MPA arrays and external proposals from Round 1 meet Department feasibility criteria. The feasibility criteria used for this evaluation were outlined in the document titled, *Feasibility Criteria and Evaluation Components for Marine Protected Area Proposals* (CDFG, November 12, 2008). These criteria will be used by the Department to make recommendations to the California Fish and Game Commission (Commission) with respect to MPA proposals. The Department did not expect the initial MPA arrays to fully meet Department feasibility guidelines, due to their preliminary nature. However, the evaluation provided for this iteration will serve to focus the NCCRSG on the elements that need refinement in order to meet the Department's feasibility guidelines in the next round. MPAs that follow the Department feasibility guidelines will help ensure that MPAs are enforceable and easy for the public to understand. Detailed evaluations of individual MPAs and proposals are provided within this document. In addition, Department comments and guidance regarding several key issues that emerged within several proposals are provided below and should be considered during modification of MPA proposals in Round 2. A summary of the feasibility evaluation findings is included in Table 1.

Frequently noted design elements that decrease MPA feasibility include:

- Boundaries that are not at readily determined lines of latitude/ longitude or at easily recognizable landmarks (such as points, headlands and buoys);
- Boundaries that are not orientated in a due north/south, east/west direction or parallel to shore;
- Boundaries that are based on distance offshore or depth contours;
- "Floating corners" in offshore waters that are not located at whole minutes of latitude and longitude.

Other elements that were largely overlooked in the initial arrays, but should be included in subsequent iterations include:

- Simple and clearly stated regulations that include allowed commercial and recreational take with gear types;
- Clearly stated goals and objectives;
- Clearly stated intention to retain, modify, or remove an existing MPA. Rationale should state how retained existing MPAs directly address the goals of the Act or scientific guidance and boundaries and regulations should be simplified. If some elements of an existing MPA are to remain as is, please clearly indicate those components.
- Explicit description of intended boundaries (e.g., "aligns with headland" or "parallels shoreline")

MPAs or Areas Not Included in Evaluation:

- Northern Channel Islands and Santa Barbara Island:
 At its December 11, 2008 meeting, the Commission adopted a motion directing the SCRSG not to consider changes to the boundaries and regulations of the existing MPAs in the northern Channel Islands and Santa Barbara Island. Considering that changes to these MPAs will not be considered by the Commission, the MPAs at the northern Channel Islands and Santa Barbara Island were not individually evaluated
- Department of Defense Pending Military Closures:
 Pending Military Closures proposed by the Department of Defense (DOD) were not included in this evaluation. Only areas with MPA designations were evaluated.

Table 1. Summary of the Round 1 Department of Fish and Game feasibility evaluation of draft MPA arrays and draft external proposals.

Array Name	Total # of MPAs¹	# of New, Modified, or Retained MPAs²	Goals, Objectives and Rationale Included (%)	Regulations Meet Guidelines (%)	Boundaries Meet Guidelines (%)
External A	38	25	52%	68%	56%
External B	50	37	60%	43%	8%
External C	47	34	100% ³	94%	79%
Lapis A	44	31	13%	65%	32%
Lapis B	54	41	63%	61%	41%
Opal A	45	32	28%	66%	28%
Opal B	52	39	28%	74%	31%
Topaz A	48	35	63%	80%	49%
Topaz B	55	42	36%	57%	33%

¹ Includes the 13 Northern Channel Island MPAs (does not include the proposed military closures).

² Number used for calculating percentages.

³ This proposal included all of the goals and regional objectives for almost every MPA proposed.

Diagonal Lines

A variety of the initial draft arrays included MPAs that utilize diagonal lines. Diagonal lines should be used only in limited circumstances when their use will simplify both user needs and enforcement of the area. Many of the diagonal lines utilized in the

initial draft arrays did not meet feasibility guidelines. The guidelines for designing MPAs with diagonal lines are:

- The diagonal lines must follow the angle of the coastline;
- Both ends must be anchored at whole minute lines of latitude *and* longitude; and
- Must be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Boundary Descriptions

A written description of boundaries should be added for each proposed MPA. This includes boundaries with intentional coordinates (e.g., seaward corner placed at whole minute of latitude and longitude), intentional landmarks (e.g., western boundary extends to permanent buoy; southern boundary connects to the shore at Big Rock). While coordinates will be assigned for all boundaries, including these descriptions for each MPA will help facilitate the Department's review of proposals, enhance quality control of proposal maps, and will help ensure stakeholders' intentions are captured in regulatory documents. There is currently no designated place in MarineMap for these descriptions. So, in the mean time, they should be placed under "other considerations for MPA design".

Take Allowances For Individuals or Groups

A variety of the draft MPA arrays included MPAs that propose allowed take for one group over another. For example, some proposed MPAs include cultural take. The Department requests that the type of cultural take be identified by species, species group, and method of take, and notes that the allowed take regulations may need to apply to everyone.

MPA Management Schemes

A variety of the proposed MPAs introduce new management schemes. Examples include giving MPA management oversight to an Advisory Committee, creating Territorial User Privilege Areas, and creating limited entry fisheries within an MPA. Proposals such as these constitute fisheries management, which is not in the purview of consideration under the MLPA. Such concepts may be proposed directly to the Commission outside of the MLPA process.

Aquaculture

A variety of the initial draft arrays included MPAs that encompass existing state aquaculture leases. A new MPA would not automatically prohibit existing aquaculture, as "take" is prohibited only for public trust resources. Since aquaculture harvests a privatized resource, it is not constrained by MPA regulations. Additionally, existing aquaculture leases may not be removed by MPA designation. The Department recommends using an appropriate designation (e.g., SMCA) and specifically allowing existing aquaculture under a State Lands Commission Lease and Commission Permit to occur. Current aquaculture leases are described in the regional profile and can be located using MarineMap and clicking the "Managed Areas" data layer.

Use of SMRMA Designation

Some MPAs were proposed using State Recreational Management Areas (SMRMA) designations for areas other than where waterfowl hunting occurs. Following policy direction from the Commission, SMRMAs should only be used to replace MPA designation where waterfowl hunting occurs, as the Commission regulates hunting separately from the MLPA process.

Use of Landmarks vs Readily Determined Lines of Latitude and Longitude

Department feasibility guidelines state that both recognizable permanent landmarks and readily determined lines of latitude and longitude should be utilized for designing MPAs. However, determining when to use one over the other can be challenging. When considering which to use, the Department recommends that stakeholders first consider the overarching aspects of the area under consideration for MPA placement. Some aspects to consider are: accessibility of the site (# of parking spaces, # and capacity of boat launching facilities), and the relative level of shore-based consumptive activity compared to boat-based activity.

In areas that are heavily utilized for shore-based consumptive activities, stakeholders should consider the use of easily recognizable permanent landmarks as higher priority than using major lines of latitude and longitude. For example, if major lines of latitude and longitude will “split” a beach with heavy consumptive use, they should not be used. In cases such as this, the Department recommends that easily recognizable landmarks be utilized to ease enforcement and public understanding of the regulations. For example, the end of the beach may interface with rocky cliffs; this sand-rock interface may provide an easily understood boundary for shore-based and nearshore boat-based users. For areas that can be characterized primarily by boat-based consumptive activities, either easily recognizable permanent landmarks or readily determined lines of latitude and longitude can be utilized, depending on characteristics of the location under consideration.

Overall, the Department recommends that stakeholders strive to design MPA boundaries that are easily determinable for both boat-based, and land-based consumptive users. In many cases, boundaries placed at easily recognizable landmarks can also be placed at readily determined lines of latitude or longitude by slightly shifting the boundary to the line while still approximating the landmark. Stakeholders should seek solutions that optimize enforceability and ease of understanding for all users.

Integrating Level of Protection into MPA Design

Careful consideration should be taken when integrating SAT-assigned levels of protection (LOP) into MPA designs. Some MPAs in the initial draft MPA arrays proposed regulations that changed within the MPA, by area or depth. For example, one MPA proposed to allow commercial take of pelagic finfish in waters >50m. This MPA contained waters from the intertidal to waters deeper than 50m. To meet feasibility guidelines, take regulations should not change by depth or location within an

MPA. Instead, separate MPAs that adjoin each other should be created that set a boundary line that approximates the desired depth, and each will be assigned a separate LOP.

Also, MPAs that propose specialized gear that differs from the general regulation for a fishery (surface gear, single barbless hooks, artificial lures, etc.) do not meet feasibility guidelines. An LOP is assigned based on the target and general gear type, and a different LOP will not be assigned for proposed specialized gear. The unnecessary enforcement burden of additional time spent verifying gear types and inspection at sea renders these proposals infeasible. Within fisheries, gear types should not be different inside an MPA versus the “open” ocean (See “MPAs and Fisheries Management Regulations” section for further information).

MPAs and Fishery Management Regulations

MPAs that propose seasons, gear, or size limits that conflict with existing fishery regulations outside of MPAs do not meet DFG guidelines for enforceability (CDFG Memo. Department of Fish and Game guidance on bag limits and size limits in MPAs. February 10, 2009). Changes to seasons, gear, or size limits constitute fishery management. Changes to fishery management measures shall be brought to the Commission for consideration outside of the MLPA process and during their regular fisheries rulemaking process.

Catch and Release

A variety of MPAs in the initial draft arrays and external proposals, propose the use of catch and release. Enforcement has concerns with catch and release and will provide an additional memo to the SCRSG with further information on this topic.

Goals, Objectives and Site-Specific Rationales in MPA Design

The Marine Life Protection Act (MLPA) states that “each marine protected area (MPA) shall have identified goals and objectives.” A Department evaluation of these elements was conducted on “Round 1” draft MPA arrays and draft external proposals for the South Coast Study Region. This “Round 1” evaluation focuses on several broad issues that were identified within each of the proposed MPA arrays. Common concerns from Round 1 discussed in the evaluation include:

1. No goals and objectives are identified
2. MPA-specific rationales are not included
3. Codifies existing regulations or existing MPAs without providing justification
4. Inappropriate use of goals and objectives in relation to science guidelines
5. Stated goals and objectives are too broad (i.e., all goals and objectives are used for an MPA)

As SCRSG MPA proposals progress, more detailed evaluations will be completed and provided to the SCRSG. The “Round 2” evaluation will look at individual MPAs within each proposal to determine the appropriateness of stated goals and objectives, and

will include suggested options to remedy. The “Round 3” evaluation will be final Department input on stated goals and objectives and will also provide specific recommendations on reconciling inconsistencies between MPA design, site specific rationale and stated goals and objectives.

Specific Comments

Specific comments on the feasibility of each MPA for each MPA are provided by draft MPA array or draft external proposal in a separate section of this document. Comments regarding specific feasibility issues are provided, and select MPAs include recommendations when those recommendations are additional to the guidance provided above.

II. Goals and Objectives Evaluation Summary

Overview:

The Marine Life Protection Act (MLPA) states that “each marine protected area (MPA) shall have identified goals and objectives.” Clearly stated goals and objectives are critical factors influencing placement, design, and regulations¹, and will also serve to shape appropriate monitoring mechanisms to reflect MPA effectiveness and inform adaptive management. With this in mind, an evaluation of stated goals and objectives will be completed by the Department of Fish and Game (Department) for each round of MPA proposals put forth by the South Coast Regional Stakeholder Group (SCRSG) and groups external to the SCRSG as follows:

- Round 1: For “Round 1” draft MPA arrays and proposals, the goals and objectives evaluation focuses on several broad issues that were identified within each of the SCRSG MPA arrays and draft proposals and are outlined below. This “Round 1” evaluation is not a detailed MPA-by-MPA evaluation, but is rather an initial evaluation that addresses overarching concerns seen across all proposals and is intended to help provide broad-scale guidance for future proposals.
- Round 2: As SCRSG MPA proposals progress, more detailed evaluations will be completed and provided to the SCRSG. The “Round 2” evaluation will look at individual MPAs within each proposal to determine the appropriateness of stated goals and objectives, and will include suggested options to remedy.
- Round 3: The Department will provide the SCRSG input on stated goals and objectives for their final proposal,s and will also provide specific recommendations to the BRTF and ultimately the Fish and Game Commission. This input will include recommendations to reconcile inconsistencies between MPA design, site specific rationale, and stated goals and objectives.

Overarching Concerns and Department Guidance:

The Department observed common issues that need to be addressed, including: goals, objectives, or rationale not included; goals and objectives are identified by too narrow or are inappropriate; goals and objectives are identified but too broad.

1. No goals and objectives identified

Department Guidance: All MPAs must have identified goals and objectives to meet the requirements of the MLPA. Each MPA should have goals identified and relevant objectives within those goals specified. Round 2 will be considered incomplete without completed goals and objectives.

¹ California Department of Fish and Game evaluation of the goals and objectives of MPA proposals in the North Central Coast Region. April 17, 2008.

2. MPA-specific rationale is not included.

Department Guidance: All MPAs need to include site specific rationale with reference to why the stated goals and objectives are appropriate and must also include information on what the MPA is achieving ecologically (i.e., what the MPA protecting). Site-specific rationale must be a concise statement of what the MPA is designed to achieve and why it contributes to each identified goal (i.e. specific ecological and/or conservation rationale for siting MPA at this location). Identification of biological reasoning or protection goals (i.e., what you want to protect) needs to be included in the site specific rationale.

3. Codifies existing regulations or existing MPAs without providing justification

Department Guidance: It is not appropriate to simply state that an existing MPA is retained or expanded without providing site specific rationale of keeping the existing MPA or what the MPA is designed to accomplish ecologically.

4. Inappropriate use of goals and objectives in relation to science guidelines

Department Guidance: Should be consistent with your site-level rationale and design, and is informed by evaluations. For example, Goals 5 and 6 are not appropriate for an MPA that does not meet science guidelines for size and spacing. Goal 3 is appropriate for an MPA that includes unique habitats.

5. Stated goals and objectives are too broad (i.e., all goals and objectives are used for an MPA)

Department Guidance: Narrow the scope of goals and objectives so that they are reflective of MPA design and are measurable over time.

III. Prospects to Meet the Goals of the MLPA

This evaluation provides feedback to the South Coast Regional Stakeholder Group (SCRSG) on internal draft MPA arrays and draft external proposals regarding the prospects of MPAs and MPA proposals to meet the goals of the Marine Life Protection Act (MLPA, or Act). This aspect of Department information, analysis and comments is outlined in the MLPA Initiative Memorandum of Understanding (MOU). This document provides overarching feedback and guidance regarding aspects of proposals that will decrease their prospects of meeting the goals of the Act. The Department did not expect the initial MPA arrays in Round 1 to fully meet the goals of the Act, due to their preliminary nature. However, the evaluation provided for this iteration will serve to focus the SCRSG on the elements that need refinement in order to improve prospects of an MPA array to meet the goals of the Act. Findings for each array and proposal are included in Table 1.

This document comments on the following frequently noted elements that decrease the prospects of MPAs to meet the goals of the Act:

- Inadequate improvement to existing MPAs;
- MPAs with inadequate protection; and
- MPAs that do not meet the Department's feasibility guidelines.

Inadequate improvement to existing MPAs

One of the charges of the South Coast Regional Stakeholder Group (SCRSG) is to examine and redesign the existing suite of MPAs in the SCSR, "to increase its coherence and its effectiveness at protecting the state's marine life, habitat, and ecosystems" (Section 2853(a) of the MLPA). The initial MPA arrays and draft external proposals retain many existing MPAs currently in the south coast study region (SCSR). Of these, many do not meet the Department's feasibility guidelines and do not provide adequate protection (Table 1). For example, many are retained along the SCSR without improving design or protection, and many of the redesigned existing MPAs propose more allowed take than currently permitted (e.g., Laguna Beach area).

Existing MPAs that are retained should be useful in meeting regional objectives and the goals of the MLPA, the SAT guidelines, as well as the requirements of the MLPA. Existing MPAs that are retained for marine heritage purposes should be noted as such and modified to include clear and simple boundaries and take regulations. MPAs for the purpose of marine heritage are certainly in accordance with MLPA goals, but some existing MPAs may not meet this goal, nor do they meet other goals of the Act or specific scientific guidelines. The Department will recommend elimination of any existing MPAs that do not directly address the goals of the Act or scientific guidance. To meet the obligations of the MLPA, attention should be given to existing MPAs that are retained and included in future MPA proposals. Boundaries and regulations should be reviewed, and resource value identified, to ensure they are adequately improved to meet the goals of the MLPA

and meet the Department's feasibility guidelines. A detailed feasibility evaluation of the SCSR existing MPAs was provided to the SCRSG in January, 2009 (CDFG *Feasibility Evaluation of Existing MPAs in the South Coast Study Region*. Revised 22 January 2009).

MPAs with inadequate protection

A primary finding of the MLPA was that "...the array of [existing] MPAs creates the illusion of protection while falling short of its potential to protect and conserve living marine life and habitat." Many of the proposed MPAs included in the initial draft MPA arrays and draft external proposals for the SCSR do not provide adequate protection. Some of these MPAs allow all existing take to continue, some allow all recreational fishing to occur while disallowing most or all commercial fishing, while others allow take that is below the science advisory team's moderate-high level of protection (LOP). These types of take regulations are not likely to provide adequate protection to meet the goals of the Act. Summarized in Table 1, the number of MPAs with LOPs below moderate-high ranges from 12% to 56% in external draft proposals, and from 26% to 62% in internal draft arrays. Careful attention should be given to improve or eliminate these MPAs in future proposals to increase the prospects of individual MPAs, and the network as a whole, to meet the goals of the Act.

MPAs that do not meet the Department's feasibility guidelines

Most of the MPAs included in the initial MPA arrays and draft external proposals consist of MPAs that do not meet the Department's feasibility guidelines (Table 1). This includes all aspects of the guidelines including boundaries, take regulations, inclusion of clear goals, regional objectives and site-specific rationales, and enforceability. Marine protected areas that follow the feasibility guidelines will help to ensure that these areas are readily enforceable and regulations are easily understood by the public, and therefore make proposals more likely to achieve their goals and MLPA goals. Due to the preliminary nature of the internal draft arrays, the Department did not expect all MPAs to meet guidelines for feasibility. However, the Department expects that MPAs will improve regarding feasibility in subsequent rounds.

Next Steps: Department Evaluation in Subsequent Rounds

The Department will provide greater detail regarding the prospects of proposals, and individual MPAs, to meet the goals of the MLPA in subsequent rounds. In round one, this evaluation serves to highlight broad aspects of the initial draft internal arrays, and external proposals, that decrease the prospects of meeting the goals of the MLPA. In future rounds of proposal development, and to the BRTF and ultimately to the Fish and Game Commission, the Department will provide detailed feedback regarding the aspects of proposals that effectively contribute to meeting the goals of the MLPA, and those aspects that decrease prospects of meeting the MLPA goals. This will include feedback regarding the treatment of existing MPAs, ease of understanding and enforcement of proposed MPAs, protection value of proposed MPAs, and whether goals and objectives are reasonable and measurable and include resource protection value.

The Department will also comment on possible modifications to improve MPA proposals such as to eliminate or modify MPAs that provide inadequate ecosystem protection or are unnecessary to fulfill the MLPA mandate. The Department will oppose proposed MPAs that allow virtually all forms of take that currently exist in an area. It is inconsistent with the intent of the MLPA to establish new MPAs or retain existing MPAs which do not have specific goals that are achievable with the regulations proposed for them. The Department recognizes that trade-offs between values may appropriately influence decisions in the placement, design, and allowed uses of MPAs, and encourages the SCRSG to acknowledge the MLPA requirements, scientific value, and Department feasibility guidance in designing MPAs. Department staff are available to provide assistance for refining proposed MPA boundaries and/or regulations to address any of the issues outlined here or in our other analyses.

Table 1. Summary of the Round 1 Department of Fish and Game evaluation of prospects of proposals to meet the goals of the Act.

Array Name	Total # of MPAs¹	# of New, Modified, or Retained MPAs²	MPAs that Don't Meet All Feasibility Guidelines³ (%)	MPAs Below Moderate-High LOP (%)	# of Existing MPAs Retained with Inadequate Improvement
External A	38	25	76%	56%	8
External B	50	37	100%	70%	19
External C	47	34	21%	12%	1
Lapis A	44	31	94%	55%	14
Lapis B	54	41	80%	44%	8
Opal A	45	32	94%	53%	13
Opal B	52	39	95%	36%	9
Topaz A	48	35	74%	26%	7
Topaz B	55	42	93%	62%	10

¹ Includes the 13 Northern Channel Island MPAs (does not include the proposed military closures).

² Number used for calculating percentages.

³ Meets feasibility guidelines including: boundaries, regulations and includes goals, regional objectives and site-specific rationales.

IV. Individual Feasibility Evaluations of Draft MPA Arrays/External Proposals

California Department of Fish and Game
South Coast Study Region
Individual Feasibility Evaluation: Draft External Proposal A

Proposal Name: External A

This proposal met some of the feasibility guidelines outlined in the CDFG feasibility document². However, a variety of feasibility concerns were identified and should be addressed. MPA-specific comments are detailed below, while overarching feedback and additional guidance are outlined in the executive summary regarding how to improve commonly-observed feasibility issues. A table is provided, following the individual MPA evaluation, that summarizes a variety of issues observed for each MPA (Table 1).

Individual MPA Evaluation:

1. MPA Name: Devereux Lagoon SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

2. MPA Name: Campus Point SMR

Boundaries: Boundaries creates wedge shapes in the onshore corners.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

3. MPA Name: Goleta Slough SMCA

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

4. MPA Name: Mugu Lagoon SMCA

Boundaries: Appears to meet guidelines.

Take Regulations: The Department of Fish and Game can not exclusively give a right to take living marine resources to any one group over another.

MPA Design: Appears to meet guidelines.

Other: Waterfowl hunting occurs in this lagoon. In areas where duck or other waterfowl hunting occurs presently, we recommend using the State Marine Recreational Management Area (SMRMA) designation and specifically allowing hunting to continue.

Goals, regional objectives and site-specific rationale all included? Yes.

5. MPA Name: Big Sycamore Canyon SMR

² Feasibility Criteria and Evaluation Components for Marine Protected Area Proposals (CDFG, November 12, 2008).

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

6. MPA Name: Malibu SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

7. MPA Name: Portuguese Bend SMCA

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines. However, recreational take is not specified.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Boundaries may be improved for offshore users by moving the eastern boundary to the whole minute.

8. MPA Name: Point Fermin SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: Take regulations have been greatly simplified from the existing MPA. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

9. MPA Name: Bolsa Chica SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

10. MPA Name: Upper Newport Bay SMP

Boundaries: Is not clear whether boundary elements that do not meet guidelines such as the use of elevation and streets to delineate boundaries used in the existing MPA description has been removed from this proposal.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines. However, see comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

11. MPA Name: Crystal Cove SMCA

Boundaries: As this is a nearshore MPA, this MPA makes good use of easily recognizable landmarks for the onshore north/west corner and the rocky/sand interface in the south/east corner.

However, the use of two offshore diagonal lines, both of which do not meet feasibility guidelines, creates a hanging corner and an offshore boundary that is difficult to determine. The western boundary is an unanchored diagonal line that does not follow the angle of the coastline and is not sufficiently offshore. The south-western boundary is also an unanchored diagonal line that does not follow the angle of the coastline and is not sufficiently offshore.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations have been greatly simplified from the existing MPA. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

12. MPA Name: Laguna SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Due to the orientation of the coastline, this MPA design creates a wedge shape on the south/eastern corner. This design may be difficult to understand and enforce.

Goals, regional objectives and site-specific rationale all included? Yes.

13. MPA Name: Laguna Coast SMCA

Boundaries: MPA utilizes a diagonal line that does not meet feasibility guidelines. The north-western corner is not anchored at whole minutes of latitude and longitude and creates a hanging corner. The offshore boundary is not sufficiently offshore to accommodate nearshore users.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations have been greatly simplified from the existing MPA. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Consider using readily determined lines of latitude and longitude, oriented due N/S E/W, to delineate boundaries.

14. MPA Name: Dana Point SMCA

Boundaries: Appears to meet guidelines. This MPA utilizes an easily recognizable landmark for the northern boundary, a buoy to delineate the offshore boundary, and an easily recognizable landmark for the south-eastern boundary.

Take Regulations: Take regulations have been greatly simplified from the existing MPA. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline

which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

15. MPA Name: Doheny Beach SMCA

Boundaries: Boundaries appear to meet guidelines with minor modification. Boundaries appear to be determinable by line of sight from an easily recognizable landmark. However, the southern boundary should utilize a boundary that is oriented directly due E/W (it is currently slightly angled).

Take Regulations: Take regulations have been greatly simplified from the existing MPA. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

16. MPA Name: Batiquitos Lagoon SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

17. MPA Name: San Elijo Lagoon SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

18. MPA Name: Del Mar SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: If northern boundary is intended to approximate the San Dieguito River mouth, could use 32°58.500' or 32°58.600'.

19. MPA Name: San Dieguito Lagoon SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Western boundary does not extend to the mouth of the lagoon. The current boundaries create a gap between two MPAs (San Dieguito Lagoon SMR and Del Mar SMR) leaving a small section of the lagoon under different regulations.

Goals, regional objectives and site-specific rationale all included? No.

20. MPA Name: San Diego-Scripps SMCA

Boundaries: Boundaries do not follow a due N/S E/W orientation, creates two hanging corners, are defined by irregularly shaped lines and distance offshore, and boundaries are not located at readily determined lines of latitude and longitude.

Take Regulations: Appears to meet guidelines. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

21. MPA Name: La Jolla SMR

Boundaries: A series of buoys mark the current MPA boundaries. However, boundaries do not meet guidelines (see additional enforcement concerns for this MPA).

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries.

Additional Enforcement Concerns: Enforcement would prefer any MPA in this area be redesigned to conform to feasibility guidelines regarding boundaries and not utilize the current set of buoys to delineate the boundaries, due to enforceability concerns regarding the movement of these buoys.

Goals, regional objectives and site-specific rationale all included? No.

22. MPA Name: Mia J. Tegner SMCA

Boundaries: Boundaries do not meet guidelines because boundaries are defined by distance offshore, do not follow a due N/S orientation, and create hanging corners.

Take Regulations: Appears to meet guidelines.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

23. MPA Name: Catalina Marine Science Center SMR

Boundaries: Boundaries are defined by irregularly shaped lines, do not follow a due N/S E/W orientation, create multiple hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

24. MPA Name: Lover's Cove SMCA

Boundaries: Boundaries are defined by irregularly shaped lines, distance offshore, do not follow a due N/S E/W orientation, create hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks.

Take Regulations: Appears to meet guidelines.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

25. MPA Name: Farnsworth Bank SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

Table 1. California Department of Fish and Game Feasibility Evaluation summary table of External A.

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
1	Devereux Lagoon SMR	X						Y	Y
2	Campus Point SMR	X						Y	Y
3	Goleta Slough SMCA	X						N	Y
4	Mugu Lagoon SMCA	X						Y	N
5	Big Sycamore Canyon SMR	X						Y	Y
6	Malibu SMR	X						Y	Y
7	Portuguese Bend SMCA	X						Y	N
8	Point Fermin SMCA		X		X		X	N	N
9	Bolsa Chica SMP	X						N	Y
10	Upper Newport Bay SMP	X						N	Y
11	Crystal Cove SMCA				X	X		Y	N
12	Laguna SMR						X	Y	Y
13	Laguna Coast SMCA				X	X		Y	N
14	Dana Point SMCA						X	Y	N
15	Doheny Beach SMCA						X	Y	N
16	Batiquitos Lagoon SMP	X						Y	Y
17	San Elijo Lagoon SMP	X						N	Y
18	Del Mar SMR	X						Y	Y
19	San Dieguito Lagoon SMR	X						N	Y
20	San Diego-Scripps SMCA		X		X		X	N	N
21	La Jolla SMR						X	N	Y
22	Mia J. Tegner SMCA		X		X		X	N	Y
23	Catalina Marine Science Center SMR				X		X	N	Y

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
24	Lover's Cove SMCA		X		X		X	N	Y
25	Farnsworth Bank SMR	X						N	Y

¹ Other includes, but is not limited to: boundaries that are not oriented due N/S E/W, are not placed at easily recognizable landmarks or at readily determined lines of latitude and longitude, are intertidal MPAs, or contain irregularly shaped lines.

**California Department of Fish and Game
South Coast Study Region
Feasibility Evaluation: Draft External Proposal B**

Proposal Name: External B

This proposal met some of the feasibility guidelines outlined in the CDFG feasibility document³. However, a variety of feasibility concerns were identified and should be addressed. MPA-specific comments are detailed below, while overarching feedback and additional guidance are outlined in the executive summary regarding how to improve commonly-observed feasibility issues. A table is provided, following the individual MPA evaluation, that summarizes a variety of issues observed for each MPA (Table 1).

Individual MPA Evaluation:

1. MPA Name: Refugio SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, and create hanging corners.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

2. MPA Name: Coal Oil Point SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, and create hanging corners.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

3. MPA Name: Coal Oil Point SMR

Boundaries: Boundaries do not meet feasibility guidelines as boundaries are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, and create hanging corners. North-western boundary is an irregular line and creates a wedge shape that decreases feasibility.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

4. MPA Name: Goleta Slough SMP

³ Feasibility Criteria and Evaluation Components for Marine Protected Area Proposals (CDFG, November 12, 2008).

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

5. MPA Name: Mugu Canyon SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, create hanging corners, and utilizes an unanchored diagonal line.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: Does not meet feasibility guidelines for multiple zoning with three contiguous MPAs proposed in the area, Point Mugu SMCA, Mugu Canyon SMCA, and Big Sycamore Canyon SMR.

Goals, regional objectives and site-specific rationale all included? Yes.

6. MPA Name: Point Mugu SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, create hanging corners, and utilizes an unanchored diagonal line.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type. Also, the take of coastal pelagic finfish by seine is not a recreational fishery.

MPA Design: Does not meet feasibility guidelines for multiple zoning with three contiguous MPAs proposed in the area, Point Mugu SMCA, Mugu Canyon SMCA, and Big Sycamore Canyon SMR.

Goals, regional objectives and site-specific rationale all included? Yes.

7. MPA Name: Big Sycamore Canyon SMR

Boundaries: Boundaries do not meet feasibility guidelines as boundaries are not located at readily determined lines of latitude and longitude, or at easily recognizable landmarks.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Does not meet feasibility guidelines for multiple zoning with three contiguous MPAs proposed in the area, Point Mugu SMCA, Mugu Canyon SMCA, and Big Sycamore Canyon SMR.

Goals, regional objectives and site-specific rationale all included? No.

8. MPA Name: Portuguese Bend SMCA

Boundaries: Eastern boundary does is not located at a readily determined line of longitude, or at an easily recognizable landmark. Northern boundary creates hanging corners.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

9. MPA Name: Portuguese Bend SMR

Boundaries: Eastern boundary does is not located at a readily determined line of longitude, or at an easily recognizable landmark. Southern boundary creates hanging corners.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

10. MPA Name: Point Fermin SMP

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

11. MPA Name: Bolsa Chica SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

12. MPA Name: Upper Newport Bay SMP

Boundaries: Is not clear whether boundary elements that do not meet guidelines such as the use of elevation and streets to delineate boundaries used in the existing MPA description has been removed from this proposal.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines. However, see comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

13. MPA Name: Robert E Badham SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Does not meet guidelines for multiple zoning with three MPAs in this area. Also, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

14. MPA Name: Crystal Cove SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, create hanging corners, and are defined by depth.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Does not meet guidelines for multiple zoning with three MPAs in this area. Boundaries overlap with Irvine Coast SMCA. And, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

15. MPA Name: Irvine Coast SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Does not meet guidelines for multiple zoning with three MPAs in this area. Boundaries overlap with Crystal Cove SMCA. And, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

16. MPA Name: Laguna SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, create hanging corners, and utilizes an unanchored diagonal line.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

17. MPA Name: Laguna SMR

Boundaries: Boundaries do not meet feasibility guidelines as boundaries are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, create hanging corners, and utilizes an unanchored diagonal line.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also

be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

18. MPA Name: Niguel SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

19. MPA Name: Dana Point SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

20. MPA Name: Doheny SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Boundaries overlap with Doheny Beach SMCA. And, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

21. MPA Name: Doheny Beach SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines

of latitude and longitude or at easily recognizable landmarks, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Boundaries overlap with Doheny SMCA. And, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

22. MPA Name: Agua Hedionda Lagoon SMR

Boundaries: Boundaries are confusing and difficult to determine. Boundaries do not follow a due N/S E/W orientation, are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

23. MPA Name: Batiquitos Lagoon SMP

Boundaries: Boundaries do not meet feasibility guidelines as eastern boundary does not follow a due N/S E/W orientation, and is not located at a readily determined line of latitude and longitude.

Take Regulations: Appears to meet guidelines.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

24. MPA Name: Encinitas SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, create hanging corners, and are defined by distance offshore.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

25. MPA Name: Cardiff-San Elijo SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

26. MPA Name: San Elijo Lagoon SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

27. MPA Name: Del Mar SMCA

Boundaries: Boundaries create hanging corners. Appears that northern boundary is intended to be at half a minute of latitude and the southern boundary is intended to be at a whole minute. Shapes should be cleaned up in MarineMap to align the boundaries with these boundaries.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

28. MPA Name: Del Mar SMR

Boundaries: Boundaries create hanging corners. Appears that northern boundary is intended to be at half a minute of latitude and the southern boundary is intended to be at a whole minute. Shapes should be cleaned up in MarineMap to align the boundaries with these boundaries.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Creates a gap between San Dieguito Lagoon SMP and Del Mar SMR.

Goals, regional objectives and site-specific rationale all included? Yes.

29. MPA Name: San Dieguito Lagoon SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Creates a gap between San Dieguito Lagoon SMP and Del Mar SMR.

Goals, regional objectives and site-specific rationale all included? No.

30. MPA Name: San Diego-Scripps SMCA

Boundaries: Boundaries do not follow a due N/S E/W orientation, creates two hanging corners, are defined by irregularly shaped lines and distance offshore, and boundaries are not located at readily determined lines of latitude and longitude.

Take Regulations: Appears to meet guidelines.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

31. MPA Name: La Jolla SMCA

Boundaries: A series of buoys mark the current MPA boundaries. However, boundaries do not meet guidelines (see additional enforcement concerns for this MPA).

Take Regulations: Regulations do not meet guidelines as take regulations should not change by depth or location within an MPA.

MPA Design: See comments regarding boundaries.

Additional Enforcement Concerns: Enforcement would prefer any MPA in this area be redesigned to conform to feasibility guidelines regarding boundaries and not utilize the current set of buoys to delineate the boundaries, due to enforceability concerns regarding the movement of these buoys.

Goals, regional objectives and site-specific rationale all included? No.

32. MPA Name: Mia J Tegner SMCA

Boundaries: Boundaries do not meet guidelines because boundaries are defined by distance offshore, do not follow a due N/S orientation, and create hanging corners.

Take Regulations: Appears to meet guidelines.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

33. MPA Name: Catalina Marine Science Center SMR

Boundaries: Boundaries are defined by irregularly shaped lines, do not follow a due N/S E/W orientation, create multiple hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Does not meet feasibility guidelines for multiple zoning with five contiguous MPAs or Marine Manage Areas proposed in the area, Catalina Marine Science Center SMR, Lover's Cove SMCA, Charles F Holder Catalina SMRMA, Ben Weston SMRMA, and Farnsworth Bank SMCA. And, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

34. MPA Name: Lover's Cove SMCA

Boundaries: Boundaries are defined by irregularly shaped lines, distance offshore, do not follow a due N/S E/W orientation, create hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks.

Take Regulations: Appears to meet guidelines.

MPA Design: Does not meet feasibility guidelines for multiple zoning with five contiguous MPAs or Marine Manage Areas proposed in the area, Catalina Marine Science Center SMR, Lover's Cove SMCA, Charles F Holder Catalina SMRMA, Ben Weston SMRMA, and Farnsworth Bank SMCA.

Goals, regional objectives and site-specific rationale all included? No.

35. MPA Name: Charles F Holder Catalina SMRMA

Other: Following policy direction from the California Fish and Game Commission, State Recreational Management Areas (SMRMAs) should only be used to replace MPA designation where waterfowl hunting occurs.

Boundaries: See comments regarding MPA design for this MPA.

Take Regulations: MPAs that propose seasons, gear, or size limits that conflict with existing fishery regulations outside of MPAs do not meet DFG guidelines for enforceability (CDFG Memo. Department of Fish and Game guidance on bag limits and size limits in MPAs. February 10, 2009). If changes to fishery regulations are desired, they should be brought to the Fish and Game Commission separately for consideration in the regular rulemaking process.

MPA Design: Does not meet feasibility guidelines for multiple zoning with five contiguous MPAs or Marine Manage Areas proposed in the area, Catalina Marine Science Center SMR, Lover's Cove SMCA, Charles F Holder Catalina SMRMA, Ben Weston SMRMA, and Farnsworth Bank SMCA.

Additional Enforcement Concerns: See comments regarding take regulations for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

36. MPA Name: Ben Weston SMRMA (SMCA)

Boundaries: Boundaries are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks. Boundaries create hanging corners.

Take Regulations: MPAs that propose seasons, gear, or size limits that conflict with existing fishery regulations outside of MPAs do not meet DFG guidelines for enforceability (CDFG

Memo. Department of Fish and Game guidance on bag limits and size limits in MPAs. February 10, 2009). If changes to fishery regulations are desired, they should be brought to the Fish and Game Commission separately for consideration in the regular rulemaking process.

Also, proposed MPAs with catch and release fishing included do not meet DFG guidelines for enforceability. Enforcement will provide additional information regarding proposals for catch and release fishing to the RSG.

MPA Design: Does not meet feasibility guidelines for multiple zoning with five contiguous MPAs or Marine Manage Areas proposed in the area, Catalina Marine Science Center SMR, Lover's Cove SMCA, Charles F Holder Catalina SMRMA, Ben Weston SMRMA, and Farnsworth Bank SMCA.

Additional Enforcement Concerns: See comments regarding take regulations for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

Other: Need to clearly state the intended MPA type. Following policy direction from the California Fish and Game Commission, State Recreational Management Areas (SMRMAs) should only be used to replace MPA designation where waterfowl hunting occurs.

37. MPA Name: Farnsworth Bank SMCA

Boundaries: Southern and eastern boundaries are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks. Boundaries create hanging corners.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: Does not meet feasibility guidelines for multiple zoning with five contiguous MPAs or Marine Manage Areas proposed in the area, Catalina Marine Science Center SMR, Lover's Cove SMCA, Charles F Holder Catalina SMRMA, Ben Weston SMRMA, and Farnsworth Bank SMCA.

Goals, regional objectives and site-specific rationale all included? Yes.

Table 1. California Department of Fish and Game Feasibility Evaluation summary table of External B.

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
1	Refugio SMCA				X		X	Y	N
2	Coal Oil Point SMCA				X		X	Y	N
3	Coal Oil Point SMR				X		X	Y	Y
4	Goleta Slough SMP	X						N	Y
5	Mugu Canyon SMCA			X	X	X	X	Y	N
6	Point Mugu SMCA			X	X	X	X	Y	N
7	Big Sycamore Canyon SMR			X			X	Y	Y
8	Portuguese Bend SMCA				X		X	Y	N
9	Portuguese Bend SMR				X		X	Y	Y
10	Point Fermin SMP		X		X		X	N	N
11	Bolsa Chica SMP	X						N	Y
12	Upper Newport Bay SMP						X	N	Y
13	Robert E Badham SMCA		X	X	X		X	Y	N
14	Crystal Cove SMCA		X	X	X		X	Y	N
15	Irvine Coast SMCA		X	X	X		X	Y	N
16	Laguna SMCA				X	X	X	Y	N
17	Laguna SMR				X	X	X	Y	Y
18	Niguel SMCA		X		X		X	Y	N
19	Dana Point SMCA		X		X		X	Y	N

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
20	Doheny SMCA		X		X		X	Y	N
21	Doheny Beach SMCA		X		X		X	Y	N
22	Agua Hedionda Lagoon SMR						X	Y	Y
23	Batiquitos Lagoon SMP						X	Y	Y
24	Encinitas SMCA		X		X		X	Y	N
25	Cardiff-San Elijo SMCA		X		X			Y	N
26	San Elijo Lagoon SMP	X						N	Y
27	Del Mar SMCA				X			Y	N
28	Del Mar SMR				X		X	Y	Y
29	San Dieguito Lagoon SMP						X	N	Y
30	San Diego-Scripps SMCA				X		X	N	Y
31	La Jolla SMCA						X	N	N
32	Mia J Tegner SMCA		X		X		X	N	Y
33	Catalina Marine Science Center SMR				X		X	N	Y
34	Lover's Cove SMCA				X		X	N	Y
35	Charles F Holder Catalina SMRMA						X	N	N
36	Ben Weston SMRMA				X		X	N	N
37	Farnsworth Bank SMCA				X		X	N	N

¹ Other includes, but is not limited to: boundaries that are not oriented due N/S E/W, are not placed at easily recognizable landmarks or at readily determined lines of latitude and longitude, are intertidal MPAs, or contain irregularly shaped lines.

**California Department of Fish and Game
South Coast Study Region
Feasibility Evaluation: Draft External Proposal C**

Proposal Name: External C

This proposal met some of the feasibility guidelines outlined in the CDFG feasibility document⁴. However, a variety of feasibility concerns were identified and should be addressed. MPA-specific comments are detailed below, while overarching feedback and additional guidance are outlined in the executive summary regarding how to improve commonly-observed feasibility issues. A table is provided, following the individual MPA evaluation, that summarizes a variety of issues observed for each MPA (Table 1).

Individual MPA Evaluation:

1. MPA Name: Point Conception SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Could approximate Point Conception using 120° 28.300.

2. MPA Name: Tajiguas SMR

Boundaries: Boundaries do not meet feasibility guidelines create hanging corners and utilize an unanchored diagonal line.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

3. MPA Name: Refugio SMP

Boundaries: Eastern boundary creates a hanging corner.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type. It is unclear what “shore based hand harvest of fishes” means (referring to the hand take of grunion?).

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

4. MPA Name: Goleta SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

⁴ Feasibility Criteria and Evaluation Components for Marine Protected Area Proposals (CDFG, November 12, 2008).

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Other: A state aquaculture lease exists in this proposed MPA. A new MPA would not automatically prohibit existing aquaculture, as "take" is prohibited only for public trust resources. Since aquaculture harvests a privatized resource, it is not constrained by MPA regulations. Additionally, existing aquaculture leases may not be removed by MPA designation. The Department recommends using an appropriate designation (e.g., SMCA) and specifically allowing existing aquaculture under a State Lands Commission Lease and Commission Permit to occur.

5. MPA Name: Devereux Lagoon SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

6. MPA Name: Goleta Slough SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

7. MPA Name: Carpinteria SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

8. MPA Name: Carpinteria Salt Marsh SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: If western boundary is intended to be on the half minute, shape should be cleaned up in MarineMap.

9. MPA Name: Pt. Mugu SMCA

Boundaries: Eastern boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark.

Take Regulations: Appears to meet guidelines.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

10. MPA Name: Mugu Lagoon SMR

Boundaries: Appears to meet guidelines.

Take Regulations: See comments regarding waterfowl hunting for this MPA.

MPA Design: Appears to meet guidelines.

Other: Waterfowl hunting occurs in this lagoon. In areas where duck or other waterfowl hunting occurs presently, we recommend using the State Marine Recreational Management Area designation and specifically allowing hunting to continue.

Goals, regional objectives and site-specific rationale all included? Yes.

11. MPA Name: Lechuza SMP

Boundaries: Western boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type. It is unclear what "shore based hand harvest of fishes" means (referring to the hand take of grunion?).

MPA Design: Location of eastern boundary creates a wedge shape in the south eastern corner of the MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

12. MPA Name: Malibu SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Could approximate Point Dume using 118° 28.300, 118° 28.400 or 118° 28.500.

13. MPA Name: Palos Verdes SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

14. MPA Name: Bolsa Chica SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

15. MPA Name: Newport Bay SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

16. MPA Name: Orange County SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

17. MPA Name: Agua Hedionda SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

18. MPA Name: Batiquitos Lagoon SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

19. MPA Name: Cardiff SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

20. MPA Name: San Elijo Lagoon SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

21. MPA Name: La Jolla SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

22. MPA Name: Point Loma SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

23. MPA Name: San Diego Bay SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Placement of northern boundary creates an awkward split in regulations between the bridge and the remaining non-MPA area south west of the bridge.

Goals, regional objectives and site-specific rationale all included? Yes.

24. MPA Name: Imperial Beach SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

25. MPA Name: Tijuana Estuary SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

26. MPA Name: Land's End SMR

Boundaries: Southern boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

27. MPA Name: Catalina North SMR

Boundaries: Eastern boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

28. MPA Name: Long Point SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

29. MPA Name: Farnsworth Bank SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

30. MPA Name: West San Nicolas SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

31. MPA Name: Begg Rock SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

32. MPA Name: North End SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

33. MPA Name: China Point SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

34. MPA Name: Pyramid Head SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Table 1. California Department of Fish and Game Feasibility Evaluation summary table of External C.

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
1	Point Conception SMR	X						Y	Y
2	Tajiguas SMR				X	X		Y	Y
3	Refugio SMP				X			Y	N
4	Goleta SMR	X						Y	Y
5	Devereux Lagoon SMR	X						Y	Y
6	Goleta Slough SMR	X						Y	Y
7	Carpinteria SMR	X						Y	Y
8	Carpinteria Salt Marsh SMR	X						Y	Y
9	Pt. Mugu SMCA						X	Y	Y
10	Mugu Lagoon SMR	X						Y	Y
11	Lechuza SMP						X	Y	N
12	Malibu SMR	X						Y	Y
13	Palos Verdes SMR	X						Y	Y
14	Bolsa Chica SMR	X						Y	Y
15	Newport Bay SMR	X						Y	Y
16	Orange County SMR	X						Y	Y
17	Agua Hedionda SMR	X						Y	Y
18	Batiquitos Lagoon SMR	X						Y	Y
19	Cardiff SMR	X						Y	Y
20	San Elijo Lagoon SMR	X						Y	Y
21	La Jolla SMR	X						Y	Y

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
22	Point Loma SMR	X						Y	Y
23	San Diego Bay SMP						X	Y	Y
24	Imperial Beach SMR	X						Y	Y
25	Tijuana Estuary SMR	X						Y	Y
26	Land's End SMR						X	Y	Y
27	Catalina North SMR						X	Y	Y
28	Long Point SMR	X						Y	Y
29	Farnsworth Bank SMR	X						Y	Y
30	West San Nicolas SMR	X						Y	Y
31	Begg Rock SMR	X						Y	Y
32	North End SMR	X						Y	Y
33	China Point SMR	X						Y	Y
34	Pyramid Head SMR	X						Y	Y

¹ Other includes, but is not limited to: boundaries that are not oriented due N/S E/W, are not placed at easily recognizable landmarks or at readily determined lines of latitude and longitude, are intertidal MPAs, or contain irregularly shaped lines.

**California Department of Fish and Game
South Coast Study Region
Feasibility Evaluation: Draft MPA Array Lapis A**

Proposal Name: Lapis A

This proposal met some of the feasibility guidelines outlined in the CDFG feasibility document⁵. However, a variety of feasibility concerns were identified and should be addressed. MPA-specific comments are detailed below, while overarching feedback and additional guidance are outlined in the executive summary regarding how to improve commonly-observed feasibility issues. A table is provided, following the individual MPA evaluation, that summarizes a variety of issues observed for each MPA (Table 1).

Individual MPA Evaluation:

1. MPA Name: UCSB SMR

Boundaries: Eastern boundary is not at a readily determined line of longitude. Boundaries also creates wedge shapes in the onshore corners.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

2. MPA Name: Goleta Slough SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

3. MPA Name: Carpinteria Salt Marsh SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

4. MPA Name: Big Sycamore Canyon SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

Recommendations to Improve MPA: Can improve eastern boundary by approximating Point Mugu using 119° 03.700'.

5. MPA Name: Malibu East SMR

Boundaries: Appears to meet guidelines.

⁵ Feasibility Criteria and Evaluation Components for Marine Protected Area Proposals (CDFG, November 12, 2008).

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

6. MPA Name: Portuguese Bend SMCA

Boundaries: Appears to meet guidelines.

Take Regulations: Regulations do not meet guidelines as take regulations should not change by depth or location within an MPA.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

Recommendations to Improve MPA: Can improve western boundary by approximating Long Point using 118° 33.900'

7. MPA Name: Point Fermin SMP

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: Take regulations have been greatly simplified from the existing MPA. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

8. MPA Name: Bolsa Chica SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

9. MPA Name: Upper Newport Bay SMP

Boundaries: The use of streets and elevation in boundary regulations does not meet feasibility guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

10. MPA Name: Irvine Coast SMCA

Boundaries: Boundaries do not meet feasibility guidelines due to the use of distance offshore.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Also, the MPAs proposed in this area do not meet feasibility guidelines for multiple zoning by proposing MPAs with different regulations over a relatively small area and creating unnecessarily

complex arrangements. Proposed MPAs that create multiple zoning issues include: Irvine Coast SMCA, Laguna SMR and Niguel SMCA.

Goals, regional objectives and site-specific rationale all included? No.

11. MPA Name: Laguna SMR

Boundaries: Boundaries appear to meet guidelines as described in text.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Eastern boundary creates a gap with Niguel SMCA. Also, the MPAs proposed in this area do not meet feasibility guidelines for multiple zoning by proposing MPAs with different regulations over a relatively small area and creating unnecessarily complex arrangements.

Proposed MPAs that create multiple zoning issues include: Irvine Coast SMCA, Laguna SMR and Niguel SMCA.

Goals, regional objectives and site-specific rationale all included? No.

Recommendations to Improve MPA: Western boundary could be improved by moving boundary to 1/10th a minute, either 117° 48.300' or 117° 48.000'

12. MPA Name: Niguel SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected. Eastern boundary creates a gap with Laguna SMR.

Also, the MPAs proposed in this area do not meet feasibility guidelines for multiple zoning by proposing MPAs with different regulations over a relatively small area and creating unnecessarily complex arrangements. Proposed MPAs that create multiple zoning issues include: Irvine Coast SMCA, Laguna SMR and Niguel SMCA.

Goals, regional objectives and site-specific rationale all included? No.

13. MPA Name: Doheny SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore. Boundaries overlap with Doheny Beach SMCA.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

14. MPA Name: Doheny Beach SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines

of latitude and longitude, create hanging corners, and are defined by distance offshore. Boundaries overlap with Doheny SMCA.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

15. MPA Name: Agua Hedionda Lagoon SMCA

Boundaries: A series of buoys mark the proposed MPA boundaries. However, boundaries do not meet guidelines (see additional enforcement concerns for this MPA).

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: See comments regarding boundaries.

Additional Enforcement Concerns: Enforcement would prefer any MPA in this area be redesigned using easily recognizable landmarks, and not the buoys currently proposed, to ease enforceability of the area.

Goals, regional objectives and site-specific rationale all included? Yes.

16. MPA Name: Agua Hedionda Lagoon SMR

Boundaries: A series of buoys mark the proposed MPA boundaries. However, boundaries do not meet guidelines (see additional enforcement concerns for this MPA).

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries.

Additional Enforcement Concerns: Enforcement would prefer any MPA in this area be redesigned using easily recognizable landmarks, and not the buoys currently proposed, to ease enforceability of the area.

Goals, regional objectives and site-specific rationale all included? No.

17. MPA Name: Batiquitos Lagoon SMP

Boundaries: Boundaries do not meet feasibility guidelines as eastern boundary does not follow a due N/S E/W orientation, and is not located at a readily determined line of latitude and longitude.

Take Regulations: Appears to meet guidelines.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

18. MPA Name: Encinitas SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: Appears to meet guidelines.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

19. MPA Name: Cardiff-San Elijo SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

20. MPA Name: San Elijo Lagoon SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

21. MPA Name: Del Mar SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Could use 32°58.500' or 32°58.600' to approximate the San Dieguito River mouth to improve feasibility of design.

22. MPA Name: San Dieguito Lagoon SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Western boundary does not extend to the mouth of the lagoon. The current boundaries create a gap between two MPAs (San Dieguito Lagoon SMR and Del Mar SMR) leaving a small section of the lagoon under different regulations.

Goals, regional objectives and site-specific rationale all included? No.

23. MPA Name: San Diego-Scripps SMCA

Boundaries: Boundaries do not follow a due N/S E/W orientation, creates two hanging corners, are defined by irregularly shaped lines and distance offshore, and boundaries are not located at readily determined lines of latitude and longitude.

Take Regulations: Appears to meet guidelines.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

24. MPA Name: La Jolla SMCA

Boundaries: A series of buoys mark the current MPA boundaries. However, boundaries do not meet guidelines (see additional enforcement concerns for this MPA).

Take Regulations: The take regulations do not meet guidelines as the allowed take differs for various parts of the MPA.

MPA Design: See comments regarding boundaries.

Additional Enforcement Concerns: Enforcement would prefer any MPA in this area be redesigned to conform to feasibility guidelines regarding boundaries and not utilize the current set of buoys to delineate the boundaries, due to enforceability concerns regarding the movement of these buoys.

Goals, regional objectives and site-specific rationale all included? No.

25. MPA Name: Famosa Slough SMR

Boundaries: Boundary with Mission Bay does not meet feasibility guidelines as it is not located at an easily recognizable landmark or follow a due N/S E/W orientation.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

26. MPA Name: Mia J Tegner SMCA

Boundaries: Boundaries do not meet guidelines because boundaries are defined by distance offshore, do not follow a due N/S orientation, and create hanging corners.

Take Regulations: Appears to meet guidelines.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

27. MPA Name: South San Diego Bay SMCA

Boundaries: Boundaries appear to meet guidelines as described in text.

Take Regulations: MPAs that propose seasons, gear, or size limits that conflict with existing fishery regulations outside of MPAs do not meet DFG guidelines for enforceability (CDFG Memo. Department of Fish and Game guidance on bag limits and size limits in MPAs. February 10, 2009). If changes to fishery regulations are desired, they should be brought to the Fish and Game Commission separately for consideration in the regular rulemaking process.

Also, proposed MPAs with catch and release fishing included do not meet DFG guidelines for enforceability. Enforcement will provide additional information regarding proposals for catch and release fishing to the RSG.

MPA Design: Appears to meet guidelines as described in text.

Additional Enforcement Concerns: See comments regarding take regulations for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

28. MPA Name: Catalina Marine Science Center SMR

Boundaries: Boundaries are defined by irregularly shaped lines, do not follow a due N/S E/W orientation, create multiple hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline

which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

29. MPA Name: Farnsworth Bank SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

30. MPA Name: Avalon Dive Park SMR

Boundaries: Boundaries are defined by irregularly shaped lines, do not follow a due N/S E/W orientation, create multiple hanging corners and wedge shapes, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

31. MPA Name: Lover's Cove SMR

Boundaries: Boundaries are defined by irregularly shaped lines, distance offshore, do not follow a due N/S E/W orientation, create hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

Table 1. California Department of Fish and Game Feasibility Evaluation summary table of Lapis A.

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
1	UCSB SMR						X	Y	Y
2	Goleta Slough SMP	X						N	Y
3	Carpinteria Salt Marsh SMR	X						Y	Y
4	Big Sycamore Canyon SMR	X						N	Y
5	Malibu East SMR	X						N	Y
6	Portuguese Bend SMCA	X						N	N
7	Point Fermin SMP		X		X		X	N	N
8	Bolsa Chica SMP	X						N	Y
9	Upper Newport Bay SMP						X	N	Y
10	Irvine Coast SMCA		X				X	N	N
11	Laguna SMR						X	N	Y
12	Niguel SMCA		X		X		X	N	N
13	Doheny SMCA		X		X		X	N	N
14	Doheny Beach SMCA		X		X		X	N	N
15	Agua Hedionda Lagoon SMCA						X	Y	N
16	Agua Hedionda Lagoon SMR						X	N	Y
17	Batiquitos Lagoon SMP						X	N	Y
18	Encinitas SMCA		X		X		X	N	Y
19	Cardiff-San Elijo SMCA		X		X		X	N	N
20	San Elijo Lagoon SMP	X						N	Y

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
21	Del Mar SMR	X						Y	Y
22	San Dieguito Lagoon SMR						X	N	Y
23	San Diego-Scripps SMCA		X		X		X	N	Y
24	La Jolla SMCA	X						N	N
25	Famosa Slough SMR						X	N	Y
26	Mia J Tegner SMCA		X		X		X	N	N
27	South San Diego Bay SMCA	X						N	N
28	Catalina Marine Science Center SMR				X		X	N	Y
29	Farnsworth Bank SMR	X						N	Y
30	Avalon Dive Park SMR		X		X		X	N	Y
31	Lover's Cove SMR		X		X		X	N	Y

¹ Other includes, but is not limited to: boundaries that are not oriented due N/S E/W, are not placed at easily recognizable landmarks or at readily determined lines of latitude and longitude, are intertidal MPAs, or contain irregularly shaped lines.

**California Department of Fish and Game
South Coast Study Region
Feasibility Evaluation: Draft MPA Array Lapis B**

Proposal Name: Lapis B

This proposal met some of the feasibility guidelines outlined in the CDFG feasibility document⁶. However, a variety of feasibility concerns were identified and should be addressed. MPA-specific comments are detailed below, while overarching feedback and additional guidance are outlined in the executive summary regarding how to improve commonly-observed feasibility issues. A table is provided, following the individual MPA evaluation, that summarizes a variety of issues observed for each MPA (Table 1).

Individual MPA Evaluation:

1. MPA Name: Point Conception SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

Recommendations to Improve MPA: Can improve western boundary by approximating Point Conception using 120° 28.300'. Need to clean up eastern boundary in MarineMap.

2. MPA Name: Refugio SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, and create hanging corners.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

3. MPA Name: Naples Coal Oil Point SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Other: A state aquaculture lease exists in this proposed MPA. A new MPA would not automatically prohibit existing aquaculture, as "take" is prohibited only for public trust resources. Since aquaculture harvests a privatized resource, it is not constrained by MPA regulations. Additionally, existing aquaculture leases may not be removed by MPA designation. The Department recommends using an appropriate designation (e.g., SMCA) and specifically allowing existing aquaculture under a State Lands Commission Lease and Commission Permit to occur.

⁶ Feasibility Criteria and Evaluation Components for Marine Protected Area Proposals (CDFG, November 12, 2008).

4. MPA Name: UCSB SMCA

Boundaries: Eastern boundary creates a wedge shape in the north-western corner.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

5. MPA Name: Goleta Slough SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

6. MPA Name: Carpenteria SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

7. MPA Name: Carpinteria Salt Marsh SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

8. MPA Name: Mugu SMCA

Boundaries: Appears to meet guidelines.

Take Regulations: Need to specify the specific gears proposed for "surface take".

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

9. MPA Name: Mugu Lagoon SMR

Boundaries: Appears to meet guidelines.

Take Regulations: See comments regarding waterfowl hunting in this MPA.

MPA Design: Appears to meet guidelines.

Other: Waterfowl hunting occurs in this lagoon. In areas where duck or other waterfowl hunting occurs presently, we recommend using the State Marine Recreational Management Area designation and specifically allowing hunting to continue.

Goals, regional objectives and site-specific rationale all included? Yes.

10. MPA Name: Big Sycamore Canyon SMR

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by depth.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

11. MPA Name: Point Dume SMR

Boundaries: Eastern boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, create hanging corners, and create irregularly shaped lines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

12. MPA Name: Malibu SMCA

Boundaries: Western boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, create hanging corners, and create irregularly shaped lines. Eastern boundary not at readily determined lines of latitude and longitude, or at easily recognizable landmark.

Take Regulations: Need to simplify proposed regulations. Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type. A long list of excepted species to the general regulation makes it difficult to enforce the regulation. Regulations do not meet guidelines as take regulations should not change by depth or location within an MPA.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

13. MPA Name: Malibu Creek Estuary SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

14. MPA Name: Palos Verdes SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

15. MPA Name: Palos Verdes SMCA

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type for each allowed take for each group.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

16. MPA Name: Point Fermin SMP

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: Take regulations have been greatly simplified from the existing MPA. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

17. MPA Name: Bolsa Chica SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

18. MPA Name: Newport Beach SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, utilizes an unanchored diagonal line, create hanging corners, and are defined by distance offshore.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type for each allowed take for each group. Also, Intertidal and subtidal should be defined.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Also, the MPAs proposed in this area do not meet feasibility guidelines for multiple zoning by proposing MPAs with different regulations over a relatively small area and creating unnecessarily complex arrangements. Proposed MPAs that create multiple zoning issues include: Newport Beach SMCA, Crystal Cove SMP, Laguna Dana Point SMR, and Dana Point SMCA.

Goals, regional objectives and site-specific rationale all included? Yes.

19. MPA Name: Upper Newport Bay SMR

Boundaries: The use of streets and elevation in boundary regulations does not meet feasibility guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

20. MPA Name: Crystal Cove SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Proposed MPAs with catch and release fishing included do not meet DFG guidelines for enforceability. Enforcement will provide additional information regarding proposals for catch and release fishing to the RSG.

MPA Design: The MPAs proposed in this area do not meet feasibility guidelines for multiple zoning by proposing MPAs with different regulations over a relatively small area and creating unnecessarily complex arrangements. Proposed MPAs that create multiple zoning issues include: Newport Beach SMCA, Crystal Cove SMP, Laguna Dana Point SMR, and Dana Point SMCA.

Goals, regional objectives and site-specific rationale all included? Yes.

21. MPA Name: Laguna Dana Point SMR

Boundaries: Appears to meet guidelines. However, see recommendations regarding MPA design for this MPA.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: The MPAs proposed in this area do not meet feasibility guidelines for multiple zoning by proposing MPAs with different regulations over a relatively small area and creating unnecessarily complex arrangements. Proposed MPAs that create multiple zoning issues include: Newport Beach SMCA, Crystal Cove SMP, Laguna Dana Point SMR, and Dana Point SMCA.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Can improve southern boundary by approximating Dana Point using 33° 27.600'.

22. MPA Name: Dana Point SMCA

Boundaries: Landmark utilized to orient the eastern boundary may be difficult to discern from a distance offshore. May want to consider the use of an readily determined line of longitude to approximate desired location.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type for each allowed take for each group. Also, MPA take regulations should apply to the entire MPA, and not vary by depth.

MPA Design: The MPAs proposed in this area do not meet feasibility guidelines for multiple zoning by proposing MPAs with different regulations over a relatively small area and creating unnecessarily complex arrangements. Proposed MPAs that create multiple zoning issues include: Newport Beach SMCA, Crystal Cove SMP, Laguna Dana Point SMR, and Dana Point SMCA.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Can improve northern boundary by approximating Dana Point using 33° 27.600'. Also, see boundaries section for this MPA.

23. MPA Name: Doheny SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore. Boundaries overlap with Doheny Beach SMCA.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

24. MPA Name: Doheny Beach SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore. Boundaries overlap with Doheny SMCA.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

25. MPA Name: San Clemente San Onofre SMP

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: Appears to meet guidelines.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Other: Name should be simplified.

Goals, regional objectives and site-specific rationale all included? Yes.

26. MPA Name: Agua Hedionda Lagoon SMCA

Boundaries: A series of buoys mark the proposed MPA boundaries. However, boundaries do not meet guidelines (see additional enforcement concerns for this MPA).

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: See comments regarding boundaries.

Additional Enforcement Concerns: Enforcement would prefer any MPA in this area be redesigned using easily recognizable landmarks, and not the buoys currently proposed, to ease enforceability of the area.

Goals, regional objectives and site-specific rationale all included? Yes.

27. MPA Name: Agua Hedionda Lagoon SMR

Boundaries: A series of buoys mark the proposed MPA boundaries. However, boundaries do not meet guidelines (see additional enforcement concerns for this MPA).

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries.

Additional Enforcement Concerns: Enforcement would prefer any MPA in this area be redesigned using easily recognizable landmarks, and not the buoys currently proposed, to ease enforceability of the area.

Goals, regional objectives and site-specific rationale all included? No.

28. MPA Name: Ponto Batequitos Estuary SMP

Boundaries: Appears to meet guidelines. However, see comments regarding MPA design for this MPA.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type for each allowed take for each group. Also, please address conflicting take allowances here. "All take is prohibited of invertebrates" conflicts with the allowance of "recreational hand take of lobster". And, commercial size limits should not be applied to a recreational fishery.

MPAs that propose seasons, gear, or size limits that conflict with existing fishery regulations outside of MPAs do not meet DFG guidelines for enforceability (CDFG Memo. Department of Fish and Game guidance on bag limits, size limits, and catch and release fishing in MPAs. August 21, 2007). If changes to fishery regulations are desired, they should be brought to the Fish and Game Commission separately for consideration in the regular rulemaking process.

MPA Design: The MPAs proposed in this area do not meet feasibility guidelines for multiple zoning by proposing MPAs with different regulations over a relatively small area and creating unnecessarily complex arrangements. Proposed MPAs that create multiple zoning issues include: Ponto Batequitos Estuary SMP, Swamis San Elijo SMR and San Dieguito SMCA.

Other: May want to consider changing the name of this MPA. Having "estuary" in the name of an offshore MPA may create confusion.

Goals, regional objectives and site-specific rationale all included? Yes.

29. MPA Name: Batequitos Lagoon SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Allowed take should be specified by gear type.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

30. MPA Name: Swamis San Elijo SMR

Boundaries: Boundaries appear to meet guidelines as described in text. However, see comments regarding MPA design for this MPA.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: The MPAs proposed in this area do not meet feasibility guidelines for multiple zoning by proposing MPAs with different regulations over a relatively small area and creating unnecessarily complex arrangements. Proposed MPAs that create multiple zoning issues include: Ponto Batequitos Estuary SMP, Swamis San Elijo SMR and San Dieguito SMCA.

Goals, regional objectives and site-specific rationale all included? Yes.

31. MPA Name: San Elijo Lagoon SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines. However, allowed take should be specified by gear type.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

32. MPA Name: San Dieguito SMCA

Boundaries: Boundaries appear to meet guidelines as described in text. However, see comments regarding MPA design for this MPA.

Take Regulations: Appears to meet guidelines.

MPA Design: The MPAs proposed in this area do not meet feasibility guidelines for multiple zoning by proposing MPAs with different regulations over a relatively small area and creating unnecessarily complex arrangements. Proposed MPAs that create multiple zoning issues include: Ponto Batequitos Estuary SMP, Swamis San Elijo SMR and San Dieguito SMCA.

Goals, regional objectives and site-specific rationale all included? Yes.

33. MPA Name: San Dieguito River Park SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Other: May want to consider changing the name of this MPA. Having “park” in the name of a state marine reserve may create confusion.

34. MPA Name: La Jolla SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

35. MPA Name: South San Diego Bay SMR

Boundaries: Boundaries appear to meet guidelines as described in text.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

36. MPA Name: Tijuana SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

37. MPA Name: Blue Cavern SMR

Boundaries: As drawn in MarineMap, boundaries do not meet feasibility guidelines as eastern boundary is not located at a readily determined line of longitude, or at an easily recognizable landmark (could not use written description in template for eastern boundary as it does not follow shape drawn in MarineMap).

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

38. MPA Name: Farnsworth Bank SMR

Boundaries: Northern boundary appears to meet guidelines. However, southern boundary is not located at a readily determined line of latitude, or at an easily recognizable landmark.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

39. MPA Name: Avalon Dive Park SMR

Boundaries: Boundaries are defined by irregularly shaped lines, do not follow a due N/S E/W orientation, create multiple hanging corners and wedge shapes, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

40. MPA Name: Lover's Cove SMR

Boundaries: Boundaries are defined by irregularly shaped lines, distance offshore, do not follow a due N/S E/W orientation, create hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

41. MPA Name: Begg Rock SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Table 1. California Department of Fish and Game Feasibility Evaluation summary table of Lapis B.

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Simple & Clear Regulations
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
1	Point Conception SMR	X						N	Y
2	Refugio SMCA				X		X	N	N
3	Naples Coal Oil Point SMR	X						Y	N
4	UCSB SMCA						X	Y	N
5	Goleta Slough SMR	X						N	Y
6	Carpenteria SMR	X						Y	Y
7	Carpinteria Salt Marsh SMR	X						Y	Y
8	Mugu SMCA	X						Y	N
9	Mugu Lagoon SMR	X						Y	Y
10	Big Sycamore Canyon SMR		X		X		X	N	Y
11	Point Dume SMR				X		X	Y	Y
12	Malibu SMCA				X		X	Y	N
13	Malibu Creek Estuary SMR	X						Y	Y
14	Palos Verdes SMR	X						Y	Y
15	Palos Verdes SMCA	X						Y	N
16	Point Fermin SMP		X		X		X	N	N
17	Bolsa Chica SMP	X						N	Y
18	Newport Beach SMCA		X	X	X	X	X	Y	N
19	Upper Newport Bay SMR						X	N	Y
20	Crystal Cove SMP			X				Y	N

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Simple & Clear Regulations
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
21	Laguna Dana Point SMR			X				Y	Y
22	Dana Point SMCA			X			X	Y	N
23	Doheny SMCA		X		X		X	N	N
24	Doheny Beach SMCA		X		X		X	N	N
25	San Clemente San Onofre SMP		X		X		X	Y	Y
26	Agua Hedionda Lagoon SMCA						X	Y	N
27	Agua Hedionda Lagoon SMR						X	N	Y
28	Ponto Batequitos Estuary SMP			X				Y	N
29	Batequitos Lagoon SMP	X						Y	N
30	Swamis San Elijo SMR			X				Y	Y
31	San Elijo Lagoon SMP	X						Y	N
32	San Dieguito SMCA			X				Y	Y
33	San Dieguito River Park SMR	X						Y	Y
34	La Jolla SMR	X						Y	Y
35	South San Diego Bay SMR	X						N	Y
36	Tijuana SMR	X						Y	Y
37	Blue Cavern SMR						X	N	Y
38	Farnsworth Bank SMR						X	N	Y
39	Avalon Dive Park SMR				X		X	N	Y
40	Lover's Cove SMR		X		X		X	N	Y

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Simple & Clear Regulations
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
41	Begg Rock SMR	X						Y	Y

¹ Other includes, but is not limited to: boundaries that are not oriented due N/S E/W, are not placed at easily recognizable landmarks or at readily determined lines of latitude and longitude, are intertidal MPAs, or contain irregularly shaped lines.

**California Department of Fish and Game
South Coast Study Region
Feasibility Evaluation: Draft MPA Array Opal A**

Proposal Name: Opal A

This proposal met some of the feasibility guidelines outlined in the CDFG feasibility document⁷. However, a variety of feasibility concerns were identified and should be addressed. MPA-specific comments are detailed below, while overarching feedback and additional guidance are outlined in the executive summary regarding how to improve commonly-observed feasibility issues. A table is provided, following the individual MPA evaluation, that summarizes a variety of issues observed for each MPA (Table 1).

Individual MPA Evaluation:

1. MPA Name: UCSB SMR

Boundaries: Western boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark. Eastern boundary should be moved to better align with Goleta Point.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

2. MPA Name: Goleta Slough SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

3. MPA Name: Point Mugu Sycamore SMCA

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

4. MPA Name: Big Sycamore SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

5. MPA Name: Point Mugu Estuary SMR

Boundaries: Western boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

⁷ Feasibility Criteria and Evaluation Components for Marine Protected Area Proposals (CDFG, November 12, 2008).

MPA Design: See comments regarding boundaries for this MPA.

Other: Waterfowl hunting occurs in this lagoon. In areas where duck or other waterfowl hunting occurs presently, we recommend using the State Marine Recreational Management Area designation and specifically allowing hunting to continue.

Goals, regional objectives and site-specific rationale all included? No.

6. MPA Name: Malibu SMR

Boundaries: Eastern boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

7. MPA Name: Santa Monica Bay SMCA

Boundaries: Boundaries do not meet feasibility guidelines for MPAs. North-western boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark. Southern boundary does not follow a due N/S E/W orientation, is not located at readily determined lines of latitude and longitude or an easily recognizable landmark, creates hanging corners, and utilizes an unanchored diagonal line.

Take Regulations: Does not provide sufficient protection to meet the goals of the MLPA.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

8. MPA Name: Portugese Bend SMCA

Boundaries: Boundaries are not located at a readily determined lines of latitude and longitude or at easily recognizable landmarks.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type for each allowed take for each group.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

9. MPA Name: Point Fermin SMP

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

10. MPA Name: Bolsa Chica SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

11. MPA Name: Upper Newport Bay SMP

Boundaries: Is not clear whether boundary elements that do not meet guidelines such as the use of elevation and streets to delineate boundaries used in the existing MPA description has been removed from this proposal.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines. However, see comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

12. MPA Name: Crystal Cove SMCA

Boundaries: As this is a nearshore MPA, this MPA makes good use of easily recognizable landmarks for the onshore north/west corner and the rocky/sand interface in the south/east corner. However, the use of two offshore diagonal lines, both of which do not meet feasibility guidelines, creates a hanging corner and an offshore boundary that is difficult to determine. The western boundary is an unanchored diagonal line that does not follow the angle of the coastline and is not sufficiently offshore. The south-western boundary is also an unanchored diagonal line that does not follow the angle of the coastline and is not sufficiently offshore.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations have been greatly simplified from the existing MPA. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Consider using readily determined lines of latitude and longitude, oriented due N/S E/W, to delineate boundaries.

13. MPA Name: Laguna to Newport Beach SMR

Boundaries: Boundaries suggested in text do not match the shape provided in MarineMap. As written in text, boundaries appear to meet guidelines. However, the boundaries provided in marine map do not meet guidelines. The eastern boundary is not located at a readily determined line of longitude or at an easily recognizable landmark.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Due to the orientation of the coastline, this MPA design creates a wedge shape on the south/eastern corner. This design may be difficult to understand and enforce.

Goals, regional objectives and site-specific rationale all included? No.

Recommendations to Improve MPA: Western boundary of the shape provided in MarineMap appears to be located at a landmark. If this landmark is utilized, consider approximating it using 117° 48.000'.

14. MPA Name: Laguna Coast SMCA

Boundaries: MPA utilizes a diagonal line that does not meet feasibility guidelines. The north-western corner is not anchored at whole minutes of latitude and longitude and creates a hanging corner. The offshore boundary is not sufficiently offshore to accommodate nearshore users.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also

be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations have been greatly simplified from the existing MPA. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

15. MPA Name: Dana Point SMCA

Boundaries: Appears to meet guidelines. This MPA utilizes an easily recognizable landmark for the northern boundary, a buoy to delineate the offshore boundary, and an easily recognizable landmark for the south-eastern boundary.

Take Regulations: Take regulations have been greatly simplified from the existing MPA. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

16. MPA Name: Doheny Beach SMCA

Boundaries: Boundaries appear to meet guidelines with minor modification. Boundaries appear to be determinable by line of sight from an easily recognizable landmark. However, the southern boundary should utilize a boundary that is oriented directly due E/W (it is currently slightly angled).

Take Regulations: Take regulations have been greatly simplified from the existing MPA. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

17. MPA Name: Agua Hedionda Lagoon SMR

Boundaries: Boundaries are confusing and difficult to determine. Boundaries do not follow a due N/S E/W orientation, are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

18. MPA Name: Batiquitos Lagoon SMP

Boundaries: Boundaries do not meet feasibility guidelines as eastern boundary does not follow a due N/S E/W orientation, and is not located at a readily determined line of latitude and longitude.

Take Regulations: Appears to meet guidelines.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

19. MPA Name: Encinitas SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: Appears to meet guidelines.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

20. MPA Name: Cardiff-San Elijo SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

21. MPA Name: San Elijo Lagoon SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

22. MPA Name: Del Mar SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Could use 32°58.500' or 32°58.600' to approximate the San Dieguito River mouth to improve feasibility of design.

23. MPA Name: San Digueito SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

24. MPA Name: Penasquitos SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

25. MPA Name: San Diego-Scripps SMCA

Boundaries: Boundaries do not follow a due N/S E/W orientation, creates two hanging corners, are defined by irregularly shaped lines and distance offshore, and boundaries are not located at readily determined lines of latitude and longitude.

Take Regulations: Take regulations appear simple. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

26. MPA Name: La Jolla SMR

Boundaries: A series of buoys mark the current MPA boundaries. However, boundaries do not meet guidelines (see additional enforcement concerns for this MPA).

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding enforceability for this MPA.

Additional Enforcement Concerns: Enforcement would prefer any MPA in this area be redesigned to conform to feasibility guidelines regarding boundaries and not utilize the current set of buoys to delineate the boundaries, due to enforceability concerns regarding the movement of these buoys.

Goals, regional objectives and site-specific rationale all included? No.

27. MPA Name: Mia J. Tegner SMR

Boundaries: Boundaries do not meet guidelines because boundaries are defined by distance offshore, do not follow a due N/S orientation, and create hanging corners.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

28. MPA Name: Santa Catalina Island SMCA

Boundaries: Boundaries are not oriented in a due N/S orientation. Southern boundary is not located at readily determined line of latitude or longitude, or at an easily recognizable landmark.

Take Regulations: Does not provide sufficient protection to meet the goals of the MLPA.

MPA Design: Does not meet feasibility guidelines for multiple zoning with Catalina Marine Science Center SMR located inside of Santa Catalina Island SMCA.

Goals, regional objectives and site-specific rationale all included? Yes.

29. MPA Name: Catalina Marine Science Center SMR

Boundaries: Boundaries are defined by irregularly shaped lines, do not follow a due N/S E/W orientation, create multiple hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Does not meet feasibility guidelines for multiple zoning with Catalina Marine Science Center SMR located inside of Santa Catalina Island SMCA.

Also, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

30. MPA Name: Farnsworth Bank SMCA

Boundaries: Appears to meet guidelines.

Take Regulations: Is not clear whether elements that do not meet guidelines used in the existing MPA description, such as the use of depth contours within the MPA, has been removed from this proposed MPA.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

31. MPA Name: Casino Point SMR

Boundaries: Text states MPA was designed based on existing buoys. Boundaries could be modified to better reflect the existing buoys.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

32. MPA Name: Lovers' Cove SMCA

Boundaries: Boundaries are simplified from the existing MPA. However, boundaries do not meet feasibility guidelines as they are not oriented in a due N/S E/W orientation, are not located at readily determined lines of latitude and longitude, or at easily recognizable landmarks, create hanging corners, and gaps between the shoreline and the proposed MPA.

Take Regulations: Appears to meet guidelines.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

Table 1. California Department of Fish and Game Feasibility Evaluation of Opal A.

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
1	UCSB SMR						X	Y	Y
2	Goleta Slough SMP	X						N	Y
3	Point Mugu Sycamore SMCA	X						N	Y
4	Big Sycamore SMR	X						Y	Y
5	Point Mugu Estuary SMR						X	N	Y
6	Malibu SMR						X	N	Y
7	Santa Monica Bay SMCA				X		X	N	N
8	Portugese Bend SMCA						X	N	N
9	Point Fermin SMP		X		X		X	N	N
10	Bolsa Chica SMP	X						N	Y
11	Upper Newport Bay SMP						X	N	Y
12	Crystal Cove SMCA					X	X	Y	N
13	Laguna to Newport Beach SMR						X	N	Y
14	Laguna Coast SMCA				X	X	X	Y	N
15	Dana Point SMCA						X	Y	N
16	Doheny Beach SMCA						X	Y	N
17	Agua Hedionda Lagoon SMR						X	N	Y
18	Batiquitos Lagoon SMP						X	N	Y
19	Encinitas SMCA		X		X		X	N	Y
20	Cardiff-San Elijo SMCA		X		X		X	N	N

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
21	San Elijo Lagoon SMP	X						N	Y
22	Del Mar SMR	X						Y	Y
23	San Digueito SMR	X						N	Y
24	Penasquitos SMR	X						N	Y
25	San Diego-Scripps SMCA		X		X		X	N	N
26	La Jolla SMR						X	N	Y
27	Mia J. Tegner SMR		X		X		X	N	Y
28	Santa Catalina Island SMCA						X	Y	N
29	Catalina Marine Science Center SMR				X		X	N	Y
30	Farnsworth Bank SMCA	X					X	N	N
31	Casino Point SMR						X	N	Y
32	Lovers' Cove SMCA				X		X	Y	Y

¹ Other includes, but is not limited to: boundaries that are not oriented due N/S E/W, are not placed at easily recognizable landmarks or at readily determined lines of latitude and longitude, are intertidal MPAs, or contain irregularly shaped lines.

**California Department of Fish and Game
South Coast Study Region
Feasibility Evaluation: Draft MPA Array Opal B**

Proposal Name: Opal B

This proposal met some of the feasibility guidelines outlined in the CDFG feasibility document⁸. However, a variety of feasibility concerns were identified and should be addressed. MPA-specific comments are detailed below, while overarching feedback and additional guidance are outlined in the executive summary regarding how to improve commonly-observed feasibility issues. A table is provided, following the individual MPA evaluation, that summarizes a variety of issues observed for each MPA (Table 1).

Individual MPA Evaluation:

1. MPA Name: Cojo Anchorage SMR

Boundaries: Eastern boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

Recommendations to Improve MPA: Consider approximating western boundary at Government Point using 120° 27.200'.

2. MPA Name: Refugio SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, and create hanging corners.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

3. MPA Name: Devereux- Naples SMCA

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

Other: A state aquaculture lease exists in this proposed MPA. A new MPA would not automatically prohibit existing aquaculture, as "take" is prohibited only for public trust resources. Since aquaculture harvests a privatized resource, it is not constrained by MPA regulations. Additionally, existing aquaculture leases may not be removed by MPA

⁸ Feasibility Criteria and Evaluation Components for Marine Protected Area Proposals (CDFG, November 12, 2008).

designation. The Department recommends using an appropriate designation (e.g., SMCA) and specifically allowing existing aquaculture under a State Lands Commission Lease and Commission Permit to occur.

4. MPA Name: Campus Point SMR

Boundaries: Eastern boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark. Eastern boundary also creates a wedge shape in the N/E corner.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

5. MPA Name: Goleta Slough SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

6. MPA Name: Carpinteria Reef SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

7. MPA Name: Lachuza SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

8. MPA Name: Little Dume SMCA

Boundaries: Eastern boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

9. MPA Name: Lunada Bay SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Other: Including the word "Bay" in the name of an offshore MPA might create confusion.

10. MPA Name: Bolsa Chica Mouth SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

11. MPA Name: Bolsa Chica SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

12. MPA Name: Upper Newport Bay SMP

Boundaries: Is not clear whether boundary elements that do not meet guidelines such as the use of elevation and streets to delineate boundaries used in the existing MPA description has been removed from this proposal.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines. However, see comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

13. MPA Name: Laguna Coast SMCA

Boundaries: Boundaries appear to meet guidelines as described in text. Boundaries in MarineMap need to be cleaned up to land directly on whole minutes.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: Does not meet guidelines. Creates a “doughnut design” with Heisler Park SMR inside Laguna Coast SMCA.

Goals, regional objectives and site-specific rationale all included? Yes.

14. MPA Name: Heisler Park SMR

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, and create hanging corners.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Does not meet guidelines. Creates a “doughnut design” with Heisler Park SMR inside Laguna Coast SMCA.

Goals, regional objectives and site-specific rationale all included? No.

15. MPA Name: Dana Point SMR

Boundaries: Landmark utilized to orient the eastern boundary may be difficult to discern from a distance offshore. May want to consider the use of an readily determined line of longitude to approximate desired location.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See boundaries section for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

16. MPA Name: Doheny SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

17. MPA Name: Agua Hedionda Lagoon SMR

Boundaries: Boundaries are confusing and difficult to determine. Boundaries do not follow a due N/S E/W orientation, are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

18. MPA Name: North County Lagoons SMR

Boundaries: Boundaries are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude. Southern boundary does not follow a due E/W orientation.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

Other: May want to consider changing the name of this MPA. Having "lagoon" in the name of an offshore MPA may create confusion.

19. MPA Name: Batiquitos Lagoon SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

20. MPA Name: San Elijo Lagoon SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

21. MPA Name: San Dieguito Lagoon SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

22. MPA Name: La Jolla Coast SMR

Boundaries: Southern boundary does not follow a due E/W orientation and is not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

23. MPA Name: Point Loma Kelp Forest SMR

Boundaries: Boundaries are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude. Northern boundary does not follow a due E/W orientation

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

24. MPA Name: Cabrillo SMR

Boundaries: Boundaries have been improved from existing MPA. However, boundaries create hanging corners and are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

25. MPA Name: San Diego Back Bay SMCA

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Other: Does not provide sufficient protection to meet the goals of the MLPA.

Goals, regional objectives and site-specific rationale all included? No.

26. MPA Name: Tijuana River Estuary Mouth SMR

Boundaries: Northern boundary does not follow a due E/W orientation and is not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

27. MPA Name: Santa Catalina Island SMP

Boundaries: Southern boundary does not follow a due E/W orientation and is not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Does not provide sufficient protection to meet the goals of the MLPA.

MPA Design: Does not meet feasibility guidelines for multiple zoning with eight contiguous MPAs proposed around Catalina Island. Also, doughnut designs are created with Lions Head to Arrow SMCA, Ship Rock SMCA, and Catalina Science Center SMR inside Santa Catalina Island SMP.

Goals, regional objectives and site-specific rationale all included? Yes.

28. MPA Name: Eagle Rock SMR

Boundaries: Boundaries do not follow a due E/W orientation (boundaries are slightly angled) and are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Does not meet feasibility guidelines for multiple zoning with eight contiguous MPAs proposed around Catalina Island.

Goals, regional objectives and site-specific rationale all included? Yes.

29. MPA Name: Lions Head to Arrow SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, and create hanging corners.

Take Regulations: Appears to meet guidelines.

MPA Design: Does not meet feasibility guidelines for multiple zoning with eight contiguous MPAs proposed around Catalina Island. Doughnut designs are also created with Lions Head to Arrow SMCA, Ship Rock SMCA, and Catalina Science Center SMR inside Santa Catalina Island SMP. Also, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

30. MPA Name: Ship Rock SMCA

Boundaries: Boundaries create hanging corners and are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Appears to meet guidelines.

MPA Design: Does not meet feasibility guidelines for multiple zoning with eight contiguous MPAs proposed around Catalina Island. Doughnut designs are also created with Lions Head to Arrow SMCA, Ship Rock SMCA, and Catalina Science Center SMR inside Santa Catalina Island SMP.

Also, MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

31. MPA Name: Catalina Science Center SMR

Boundaries: Boundaries are defined by irregularly shaped lines, do not follow a due N/S E/W orientation, create multiple hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Does not meet feasibility guidelines for multiple zoning with eight contiguous MPAs proposed around Catalina Island. Doughnut designs are also created with Lions Head to Arrow SMCA, Ship Rock SMCA, and Catalina Science Center SMR inside Santa Catalina Island SMP.

Also, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

32. MPA Name: Back Catalina SMCA

Boundaries: Southern boundary is not located at a readily determined line of longitude, or at an easily recognizable landmark.

Take Regulations: Does not provide sufficient protection to meet the goals of the MLPA.

MPA Design: Does not meet feasibility guidelines for multiple zoning with eight contiguous MPAs proposed around Catalina Island.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Consider approximating landmark at northern boundary 33° 26.400'.

33. MPA Name: Catalina Harbor SMCA

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: Does not meet feasibility guidelines for multiple zoning with eight contiguous MPAs proposed around Catalina Island.

Goals, regional objectives and site-specific rationale all included? No.

Recommendations to Improve MPA: Could improve boundaries by placing western boundary at tip of Lobster Point.

34. MPA Name: Church Rock SMR

Boundaries: Eastern boundary is not located at a readily determined line of longitude, or at an easily recognizable landmark. Western boundary does not follow a due E/W orientation and is not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Does not meet feasibility guidelines for multiple zoning with eight contiguous MPAs proposed around Catalina Island.

Goals, regional objectives and site-specific rationale all included? Yes.

35. MPA Name: Begg Rock SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

36. MPA Name: San Nicholas SMR

Boundaries: Southern boundary is not located at a readily determined line of longitude, or at an easily recognizable landmark.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

37. MPA Name: SWAT 1 SMR

Boundaries: As an MPA, these boundaries do not meet feasibility guidelines. Boundaries are not located at a readily determined line of longitude, or at an easily recognizable landmark, and do not follow a due N/S E/W orientation.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

38. MPA Name: Wilson SMR

Boundaries: As an MPA, these boundaries do not meet feasibility guidelines. Boundaries are not located at a readily determined line of longitude, or at an easily recognizable landmark, and do not follow a due N/S E/W orientation.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

39. MPA Name: China Point SMR

Boundaries: As an MPA, these boundaries do not meet feasibility guidelines. Boundaries are not located at a readily determined line of longitude, or at an easily recognizable landmark, and do not follow a due N/S E/W orientation.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

Table 1. California Department of Fish and Game Feasibility Evaluation summary table of Opal B.

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
1	Cojo Anchorage SMR						X	N	Y
2	Refugio SMCA				X		X	N	N
3	Devereux- Naples SMCA	X						N	N
4	Campus Point SMR						X	N	Y
5	Goleta Slough SMR	X						N	Y
6	Carpinteria Reef SMR	X						N	Y
7	Lachuza SMR	X						N	Y
8	Little Dume SMCA						X	N	N
9	Lunada Bay SMR	X						Y	Y
10	Bolsa Chica Mouth SMR	X						Y	Y
11	Bolsa Chica SMP	X						N	Y
12	Upper Newport Bay SMP						X	N	Y
13	Laguna Coast SMCA			X			X	Y	N
14	Heisler Park SMR			X	X		X	N	Y
15	Dana Point SMR						X	Y	Y
16	Doheny SMCA		X		X		X	N	N
17	Agua Hedionda Lagoon SMR						X	N	Y
18	North County Lagoons SMR						X	N	Y
19	Batiquitos Lagoon SMP	X						N	N
20	San Elijo Lagoon SMR	X						N	Y

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
21	San Dieguito Lagoon SMP	X						N	Y
22	La Jolla Coast SMR						X	N	Y
23	Point Loma Kelp Forest SMR						X	N	Y
24	Cabrillo SMR				X		X	Y	Y
25	San Diego Back Bay SMCA	X						N	N
26	TijuanaRiverEstuaryMouth SMR						X	Y	Y
27	Santa Catalina Island SMP			X			X	Y	N
28	Eagle Rock SMR			X			X	Y	Y
29	Lions Head to Arrow SMCA			X	X		X	N	Y
30	Ship Rock SMCA			X	X		X	N	Y
31	Catalina Science Center SMR			X	X		X	N	Y
32	Back Catalina SMCA			X			X	Y	N
33	Catalina Harbor SMCA			X				N	N
34	Church Rock SMR						X	Y	Y
35	Begg Rock SMR	X						N	Y
36	San Nicholas SMR						X	N	Y
37	SWAT 1 SMR						X	N	Y
38	Wilson SMR						X	Y	Y
39	China Point SMR						X	N	Y

¹ Other includes, but is not limited to: boundaries that are not oriented due N/S E/W, are not placed at easily recognizable landmarks or at readily determined lines of latitude and longitude, are intertidal MPAs, or contain irregularly shaped lines.

**California Department of Fish and Game
South Coast Study Region
Feasibility Evaluation: Draft MPA Array Topaz A**

Proposal Name: Topaz A

This proposal met some of the feasibility guidelines outlined in the CDFG feasibility document⁹. However, a variety of feasibility concerns were identified and should be addressed. MPA-specific comments are detailed below, while overarching feedback and additional guidance are outlined in the executive summary regarding how to improve commonly-observed feasibility issues. A table is provided, following the individual MPA evaluation, that summarizes a variety of issues observed for each MPA (Table 1).

Individual MPA Evaluation:

1. MPA Name: Point Conception SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Consider approximating western boundary at Point Conception using 120° 28.300'.

2. MPA Name: Refugio SMP

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, and create hanging corners.

Take Regulations: Does not provide sufficient protection to meet the goals of the MLPA.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

3. MPA Name: Naples SMP

Other: A state aquaculture lease exists in this proposed MPA. A new MPA would not automatically prohibit existing aquaculture, as "take" is prohibited only for public trust resources. Since aquaculture harvests a privatized resource, it is not constrained by MPA regulations. Additionally, existing aquaculture leases may not be removed by MPA designation. The Department recommends using an appropriate designation (e.g., SMCA) and specifically allowing existing aquaculture under a State Lands Commission Lease and Commission Permit to occur.

Boundaries: Appears to meet guidelines.

Take Regulations: Does not provide sufficient protection to meet the goals of the MLPA.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

⁹ Feasibility Criteria and Evaluation Components for Marine Protected Area Proposals (CDFG, November 12, 2008).

4. MPA Name: Isla Vista SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes

5. MPA Name: Deveraux SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Should be more specific than “plant”, suggest using “all marine aquatic plants and algae”.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

6. MPA Name: Goleta SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Should be more specific than “plant”, suggest using “all marine aquatic plants and algae”.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

7. MPA Name: Carp Reef SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

8. MPA Name: Carp Marsh SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

9. MPA Name: Muwu SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Should be more specific than “plant”, suggest using “all marine aquatic plants and algae”.

MPA Design: Appears to meet guidelines.

Other: Waterfowl hunting occurs in this lagoon. In areas where duck or other waterfowl hunting occurs presently, we recommend using the State Marine Recreational Management Area designation and specifically allowing hunting to continue.

Goals, regional objectives and site-specific rationale all included? No.

10. MPA Name: Point Dume SMR

Boundaries: Boundaries does not follow a due E/W orientation and are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude. Eastern Boundary creates a wedge shape.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

11. MPA Name: Palos Verdes SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Could improve feasibility by excluding some of the south-eastern portion of the MPA. Could use 33° 44.000 and 118° 24.000 as a corner.

12. MPA Name: Bolsa Chica SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

13. MPA Name: Upper Newport Bay SMP

Boundaries: Is not clear whether boundary elements that do not meet guidelines such as the use of elevation and streets to delineate boundaries used in the existing MPA description has been removed from this proposal.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines. However, see comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

14. MPA Name: Laguna Coast SMR

Boundaries: Boundaries are defined by irregularly shaped lines, do not follow a due N/S E/W orientation, create multiple hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks. Utilizes an unanchored diagonal line.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

15. MPA Name: Agua Hedionda Lagoon SMR

Boundaries: Boundaries are confusing and difficult to determine. Boundaries do not follow a due N/S E/W orientation, are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

16. MPA Name: Encinitas SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Southern boundary needs to be cleaned up in MarineMap to fall on whole minutes.

17. MPA Name: La Jolla Shores SMR

Boundaries: Boundaries do not meet guidelines. Boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, and create multiple hanging corners. Also utilizes an unanchored diagonal line.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

18. MPA Name: Pacific Beach SMR

Boundaries: Northern boundary does not follow a due E/W orientation, and is not located at readily determined lines of latitude and longitude or at easily recognizable landmarks.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

19. MPA Name: Point Loma SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

20. MPA Name: Cabrillo SMR

Boundaries: Boundaries have been improved from existing MPA. However, boundaries create hanging corners and are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

21. MPA Name: South San Diego Bay SMR

Boundaries: Eastern boundary is not located at an easily recognizable landmark, or a readily determined lines of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

22. MPA Name: Imperial Beach SMCA

Boundaries: Northern boundary does not follow a due E/W orientation, and is not located at readily determined lines of latitude and longitude or at easily recognizable landmarks.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

23. MPA Name: Tijuana River Estuary SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

24. MPA Name: West End SMR

Boundaries: South-eastern boundary creates a hanging corner.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

25. MPA Name: Northeast Catalina SMCA

Boundaries: Boundaries are defined by irregularly shaped lines, do not follow a due N/S E/W orientation, create hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks. Utilizes an unanchored diagonal line.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations not stated.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Also, creates an unnecessarily complex design next to another complex MPA, Blue Cavern SMR.

Goals, regional objectives and site-specific rationale all included? Yes.

26. MPA Name: Blue Cavern SMR

Boundaries: Boundaries are defined by irregularly shaped lines, do not follow a due N/S E/W orientation, create hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks. Utilizes an unanchored diagonal line.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA. Also, creates an unnecessarily complex design next to another complex MPA, Northeast Catalina SMCA.

Goals, regional objectives and site-specific rationale all included? Yes.

27. MPA Name: Long Point SMR

Boundaries: Appears to meet guidelines. However, shape needs to be cleaned up in MarineMap to make sure it is anchored at all three corners at whole minutes of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Creates a complex MPA that appears to technically meet the guidelines. Consider simplifying the boundaries of this MPA to increase public understanding and enforceability.

28. MPA Name: Long Point SMCA

Boundaries: Boundaries are defined by irregularly shaped lines, do not follow a due N/S E/W orientation, create hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks. Utilizes two unanchored diagonal lines.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: As this MPA appears to be entirely in depths greater than 50m, take regulations to meet guidelines. However, allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

29. MPA Name: Avalon SMR

Boundaries: Northern boundary should be placed at an easily recognizable landmark onshore , or at readily determined lines of latitude and longitude to increase feasibility.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

30. MPA Name: Southwest Catalina SMR

Boundaries: Offshore diagonal line does not follow the angle of the coast.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Creates an unnecessarily complex design with multiple offshore corners and a diagonal line.

Goals, regional objectives and site-specific rationale all included? Yes.

31. MPA Name: Begg Rock SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

32. MPA Name: San Nicolas Island SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

33. MPA Name: Castle Rock SMR

Boundaries: Utilizes and unanchored diagonal line.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

34. MPA Name: West San Clemente Island SMR

Boundaries: It is unclear if the northern boundary is anchored at whole minutes, or is at a landmark.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

Shape needs to be cleaned up in MarineMap to make sure it is anchored at whole minutes of latitude and longitude. Also, consider simplifying the northern boundary to increase feasibility.

35. MPA Name: Pyramid Head SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Shape needs to be cleaned up in MarineMap to make sure it is anchored at whole minutes of latitude and longitude.

Table 1. California Department of Fish and Game Feasibility Evaluation summary table of Topaz A.

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
1	Point Conception SMR	X						Y	Y
2	Refugio SMP				X		X	Y	N
3	Naples SMP	X						Y	N
4	Isla Vista SMR	X						Y	Y
5	Deveraux SMP	X						N	N
6	Goleta SMP	X						N	N
7	Carp Reef SMR	X						N	Y
8	Carp Marsh SMR	X						N	Y
9	Muwu SMP	X						N	N
10	Point Dume SMR						X	N	Y
11	Palos Verdes SMR	X						Y	Y
12	Bolsa Chica SMP	X						N	Y
13	Upper Newport Bay SMP						X	N	Y
14	Laguna Coast SMR				X	X	X	Y	Y
15	Agua Hedionda Lagoon SMR						X	N	Y
16	Encinitas SMR	X						Y	Y
17	La Jolla Shores SMR				X	X	X	Y	Y
18	Pacific Beach SMR						X	Y	Y
19	Point Loma SMR	X						Y	Y
20	Cabrillo SMR				X		X	Y	Y
21	South San Diego Bay SMR						X	N	Y

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
22	Imperial Beach SMCA						X	N	Y
23	Tijuana River Estuary SMR	X						N	N
24	West End SMR				X			Y	Y
25	Northeast Catalina SMCA				X	X	X	Y	Y
26	Blue Cavern SMR				X	X		Y	Y
27	Long Point SMR	X						Y	Y
28	Long Point SMCA				X	X	X	N	N
29	Avalon SMR						X	Y	Y
30	Southwest Catalina SMR						X	Y	Y
31	Begg Rock SMR	X						Y	Y
32	San Nicolas Island SMR	X						Y	Y
33	Castle Rock SMR					X		Y	Y
34	West San Clemente Island SMR						X	Y	Y
35	Pyramid Head SMR	X						Y	Y

¹ Other includes, but is not limited to: boundaries that are not oriented due N/S E/W, are not placed at easily recognizable landmarks or at readily determined lines of latitude and longitude, are intertidal MPAs, or contain irregularly shaped lines.

**California Department of Fish and Game
South Coast Study Region
Feasibility Evaluation: Draft MPA Array Topaz B**

Proposal Name: Topaz B

This proposal met some of the feasibility guidelines outlined in the CDFG feasibility document¹⁰. However, a variety of feasibility concerns were identified and should be addressed. MPA-specific comments are detailed below, while overarching feedback and additional guidance are outlined in the executive summary regarding how to improve commonly-observed feasibility issues. A table is provided, following the individual MPA evaluation, that summarizes a variety of issues observed for each MPA (Table 1).

Individual MPA Evaluation:

1. MPA Name: Point Conception SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

2. MPA Name: Refugio SMCA

Boundaries: Boundaries are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks, and create hanging corners.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

3. MPA Name: UCSB SMR

Boundaries: Eastern boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark. Eastern and western boundaries create a wedge shape in the onshore corners.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

4. MPA Name: Deveraux SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

¹⁰ Feasibility Criteria and Evaluation Components for Marine Protected Area Proposals (CDFG, November 12, 2008).

5. MPA Name: Goleta SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Should be more specific than “plant”, suggest using “all marine aquatic plants and algae”.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

6. MPA Name: Carp Marsh SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

7. MPA Name: Mugu SMCA

Boundaries: Boundaries are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks.

Take Regulations: Appears to meet guidelines.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

8. MPA Name: Mugu SMR

Boundaries: Western boundary is not located at readily determined lines of latitude and longitude or at a easily recognizable landmark.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

9. MPA Name: Muwu SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Should be more specific than “plant”, suggest using “all marine aquatic plants and algae”.

MPA Design: Appears to meet guidelines.

Other: Waterfowl hunting occurs in this lagoon. In areas where duck or other waterfowl hunting occurs presently, we recommend using the State Marine Recreational Management Area designation and specifically allowing hunting to continue.

Goals, regional objectives and site-specific rationale all included? No.

10. MPA Name: Malibu SMCA

Boundaries: Boundaries are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Boundaries are slightly angled and should be cleaned up in MarineMap (if angles were not intended).

11. MPA Name: Malibu SMR

Boundaries: Boundaries are not located at readily determined lines of latitude and longitude or at easily recognizable landmarks.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

Recommendations to Improve MPA: Boundaries are slightly angled and should be cleaned up in MarineMap (if angles were not intended).

12. MPA Name: Palos Verdes SMCA

Boundaries: Eastern boundary is not located at a readily determined line of latitude and longitude or at an easily recognizable landmark.

Take Regulations: Appears to meet guidelines.

MPA Design: Does not meet feasibility guidelines for multiple zoning with three contiguous MPAs proposed in the area, Palos Verdes SMCA, Palos Verdes Scientific 1 SMCA, and Palos Verdes Scientific 2 SMCA.

Goals, regional objectives and site-specific rationale all included? No.

Recommendations to Improve MPA: Northern boundary at a landmark. However, considering the large number of points in the area, could consider moving boundary to a more prominent point such as Point Vicente or Long Point. Could also consider approximating points with readily determinable lines of latitude for this boundary to increase feasibility.

13. MPA Name: Palos Verdes Scientific 1 SMCA

Boundaries: Boundaries create hanging corners and are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Appears to meet guidelines.

MPA Design: Does not meet feasibility guidelines for multiple zoning with three contiguous MPAs proposed in the area, Palos Verdes SMCA, Palos Verdes Scientific 1 SMCA, and Palos Verdes Scientific 2 SMCA.

Also, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

14. MPA Name: Palos Verdes Science 2 SMCA

Boundaries: Boundaries create hanging corners and are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Appears to meet guidelines.

MPA Design: Does not meet feasibility guidelines for multiple zoning with three contiguous MPAs proposed in the area, Palos Verdes SMCA, Palos Verdes Scientific 1 SMCA, and Palos Verdes Scientific 2 SMCA.

Also, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

15. MPA Name: Point Fermin SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, create hanging corners, and are defined by distance offshore.

Take Regulations: Take regulations have been greatly simplified from the existing MPA. However, allowed take should be specified by gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

16. MPA Name: Bolsa Chica SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

17. MPA Name: Upper Newport Estuary SMCA

Boundaries: Boundaries are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Appears to meet guidelines.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

18. MPA Name: Crystal Cove SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are not located at readily determined lines of latitude and longitude or easily recognizable landmarks, utilizes an unanchored diagonal line, and create hanging corners.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation. Also, the Fish and Game Commission does not have the authority to regulate (allow or disallow) once through cooling. However, recommendations such as this can be included under "design considerations" in MarineMap.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

19. MPA Name: Laguna Beach SMCA

Boundaries: Boundaries are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude. Location of southern boundary creates a wedge shape in the south-eastern corner of MPA.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type. Also, take regulations should not change by depth or location within an MPA.

MPA Design: Does not meet feasibility guidelines for multiple zoning with four contiguous MPAs proposed in the area, Laguna Beach SMCA, Laguna Scientific 2 SMCA, Laguna Scientific 1 SMCA, and Laguna South Tidepool SMCA.

Goals, regional objectives and site-specific rationale all included? No.

20. MPA Name: Laguna Scientific 2 SMCA

Boundaries: Boundaries create hanging corners and are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Appears to meet guidelines.

MPA Design Does not meet feasibility guidelines for multiple zoning with four contiguous MPAs proposed in the area, Laguna Beach SMCA, Laguna Scientific 2 SMCA, Laguna Scientific 1 SMCA, and Laguna South Tidepool SMCA.

Also, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

21. MPA Name: Laguna Scientific 1 SMCA

Boundaries: Boundaries create hanging corners and are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Appears to meet guidelines.

MPA Design: Does not meet feasibility guidelines for multiple zoning with four contiguous MPAs proposed in the area, Laguna Beach SMCA, Laguna Scientific 2 SMCA, Laguna Scientific 1 SMCA, and Laguna South Tidepool SMCA.

Also, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

Other: Management schemes, such as is proposed here, constitutes fisheries management and is not in the prevue of the MLPA.

22. MPA Name: Laguna South Tidepool SMCA

Boundaries: MPA utilizes a diagonal line that does not meet feasibility guidelines. Diagonal lines are not anchored at whole minutes of latitude and longitude and creates hanging corners. The offshore boundary is not sufficiently offshore to accommodate nearshore users.

- Diagonal lines may be used if they follow the angle of the coastline, and both ends are anchored at whole minute lines of latitude *and* longitude. Diagonal boundaries should also be placed sufficiently offshore to accommodate nearshore users that are less likely to utilize navigational equipment.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: Does not meet feasibility guidelines for multiple zoning with four contiguous MPAs proposed in the area, Laguna Beach SMCA, Laguna Scientific 2 SMCA, Laguna Scientific 1 SMCA, and Laguna South Tidepool SMCA.

Also, intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

23. MPA Name: Dana Point SMCA

Boundaries: Appears to meet guidelines. This MPA utilizes an easily recognizable landmark for the northern boundary, a buoy to delineate the offshore boundary, and an easily recognizable landmark for the south-eastern boundary.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

Other: Management schemes, such as the TUPA proposed here, constitutes fisheries management and is not in the prevue of the MLPA.

24. MPA Name: Doheny Beach SMCA

Boundaries: Boundaries appear to meet guidelines with minor modification. Boundaries appear to be determinable by line of sight from an easily recognizable landmark. However, the southern boundary should utilize a boundary that is oriented directly due E/W (it is currently slightly angled).

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

25. MPA Name: Agua Hedionda Lagoon SMR

Boundaries: Boundaries are confusing and difficult to determine. Boundaries do not follow a due N/S E/W orientation, are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

26. MPA Name: Batiquitos Lagoon SMR

Boundaries: Boundaries do not meet feasibility guidelines as eastern boundary does not follow a due N/S E/W orientation, and is not located at a readily determined line of latitude and longitude.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

27. MPA Name: San Elijo Lagoon SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

28. MPA Name: Del Mar North SMCA

Boundaries: Appears to use half minutes for northern and southern boundary. Boundaries need to be cleaned up in MarineMap to fall on half minutes.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type

MPA Design: Does not meet feasibility guidelines for multiple zoning with three contiguous MPAs proposed in the area, Del Mar North SMCA, Del Mar SMR, and Del Mar South SMCA. Creates an unnecessarily complex cluster of MPAs.

Goals, regional objectives and site-specific rationale all included? Yes.

Other: Management schemes, such as is proposed here, constitutes fisheries management and is not in the prevue of the MLPA.

29. MPA Name: Del Mar SMR

Boundaries: Appears to meet guidelines. Southern Boundary should be cleaned up in MarineMap to fall on whole minute.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Does not meet feasibility guidelines for multiple zoning with three contiguous MPAs proposed in the area, Del Mar North SMCA, Del Mar SMR, and Del Mar South SMCA. Creates an unnecessarily complex cluster of MPAs.

Goals, regional objectives and site-specific rationale all included? Yes.

30. MPA Name: Del Mar South SMCA

Boundaries: Southern boundary is not located at an easily recognizable landmark, or at a readily determined lines of latitude.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: Does not meet feasibility guidelines for multiple zoning with three contiguous MPAs proposed in the area, Del Mar North SMCA, Del Mar SMR, and Del Mar South SMCA. Creates an unnecessarily complex cluster of MPAs.

Goals, regional objectives and site-specific rationale all included? Yes.

31. MPA Name: San Dieguito Lagoon SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

32. MPA Name: Carmel Valley SMR

Boundaries: Appears to meet guidelines.

Take Regulations: The Fish and Game Commission does not have the authority to regulate (allow or disallow) once through cooling. However, recommendations such as this can be included under "design considerations" in MarineMap.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

33. MPA Name: La Jolla North SMR

Boundaries: A series of buoys mark the current MPA boundaries. However, boundaries do not meet guidelines (see additional enforcement concerns for this MPA).

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries.

Additional Enforcement Concerns: Enforcement would prefer any MPA in this area be redesigned to conform to feasibility guidelines regarding boundaries and not utilize the current set of buoys to delineate the boundaries, due to enforceability concerns regarding the movement of these buoys.

Goals, regional objectives and site-specific rationale all included? No.

34. MPA Name: Point Loma SMCA

Boundaries: Boundaries have been improved from existing MPA. However, boundaries create hanging corners and are not located at easily recognizable landmarks, or readily determined lines of latitude and longitude.

Take Regulations: Management schemes, such as is proposed here, constitutes fisheries management and is not in the prevue of the MLPA.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? Yes.

35. MPA Name: South San Diego Bay SMCA

Boundaries: Northern boundary is not located at an easily recognizable landmark, or at a readily determined lines of latitude, and creates an irregularly shaped line.

Take Regulations: MPAs that propose seasons, gear, or size limits that conflict with existing fishery regulations outside of MPAs do not meet DFG guidelines for enforceability (CDFG Memo. Department of Fish and Game guidance on bag limits and size limits in MPAs. February 10, 2009). If changes to fishery regulations are desired, they should be brought to the Fish and Game Commission separately for consideration in the regular rulemaking process.

Also, proposed MPAs with catch and release fishing included do not meet DFG guidelines for enforceability. Enforcement will provide additional information regarding proposals for catch and release fishing to the RSG.

MPA Design: See comments regarding boundaries for this MPA.

Additional Enforcement Concerns: See comments regarding take regulations for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

36. MPA Name: Imperial Beach SMCA

Boundaries: Northern boundary is not located at readily determined lines of latitude and longitude or at a easily recognizable landmark.

Take Regulations: A long list of excepted species to the general regulation makes it difficult to enforce the regulation.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

Other: Management schemes, such as is proposed here, constitutes fisheries management and is not in the prevue of the MLPA.

37. MPA Name: Imperial Beach Wetlands SMR

Boundaries: Appears to meet guidelines.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? Yes.

38. MPA Name: Catalina Isthmus SMCA

Boundaries: Boundaries do not meet feasibility guidelines as boundaries do not follow a due N/S E/W orientation, are defined by irregularly shaped lines, are not located at readily determined lines of latitude and longitude, and creates hanging corners.

Take Regulations: Does not provide sufficient protection to meet the goals of the MLPA.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

39. MPA Name: Catalina Inside SMCA

Boundaries: North-western boundary is not located at readily determined lines of latitude and longitude or at easily recognizable landmarks.

Take Regulations: Take regulations not clearly stated. Allowed take should be clearly stated with all relevant information included. Each MPA should include allowed take for recreational and commercial users, the allowed take, and gear type.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? No.

Recommendations to Improve MPA: Could approximate Long point using 34° 24.400.

40. MPA Name: Catalina Harbor SMP

Boundaries: Appears to meet guidelines.

Take Regulations: Appears to meet guidelines.

MPA Design: Appears to meet guidelines.

Goals, regional objectives and site-specific rationale all included? No.

41. MPA Name: Catalina Farnsworth SMR

Boundaries: If it was intended to keep the existing boundaries of the MPA, then boundaries meet guidelines. Boundaries should be cleaned up in MarineMap if existing boundaries are to be kept.

Take Regulations: Take regulations are simple, as no take of living marine resources is allowed in a SMR.

MPA Design: See comments regarding boundaries for this MPA.

Goals, regional objectives and site-specific rationale all included? Yes.

42. MPA Name: Lover's Cove SMCA

Boundaries: Boundaries are defined by irregularly shaped lines, distance offshore, do not follow a due N/S E/W orientation, create hanging corners, and are not located at readily determined lines of latitude or longitude, or at easily recognizable landmarks.

Take Regulations: Appears to meet guidelines.

MPA Design: Intertidal MPAs that do not extend into deeper waters do not meet feasibility guidelines and are not recommended. In addition, these areas do not follow the scientific guideline which recommends extending MPAs from shallow to deep habitats. If intertidal protection is desired, it should be located in areas where offshore habitats are also protected.

Goals, regional objectives and site-specific rationale all included? No.

Table 1. California Department of Fish and Game Feasibility Evaluation summary table of Topaz B.

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
1	Point Conception SMR	X						N	Y
2	Refugio SMCA				X		X	N	N
3	UCSB SMR						X	N	Y
4	Deveraux SMR	X						N	Y
5	Goleta SMP	X						N	N
6	Carp Marsh SMR	X						N	Y
7	Mugu SMCA						X	N	Y
8	Mugu SMR						X	N	Y
9	Muwu SMP	X						N	N
10	Malibu SMCA						X	Y	N
11	Malibu SMR						X	Y	Y
12	Palos Verdes SMCA			X			X	N	Y
13	Palos Verdes Scientific 1 SMCA			X	X		X	N	Y
14	Palos Verdes Science 2 SMCA			X	X		X	N	Y
15	Point Fermin SMCA		X		X		X	N	N
16	Bolsa Chica SMP	X						N	Y
17	Upper Newport Estuary SMCA						X	Y	Y
18	Crystal Cove SMCA				X	X	X	Y	N
19	Laguna Beach SMCA			X			X	N	N
20	Laguna Scientific 2 SMCA			X	X		X	N	Y
21	Laguna Scientific 1 SMCA			X	X		X	N	Y

MPA #	MPA Name	Boundaries Meet Guidelines	Frequently observed boundary types that do not meet feasibility guidelines					Goals, Objectives & Rationale Included	Regulations Meet Guidelines
			Use of Distance or Depth	Multiple Zoning	Hanging Corners	Unanchored Diagonal Lines	Other ¹		
22	Laguna South Tidepool SMCA			X	X	X	X	N	N
23	Dana Point SMCA						X	Y	N
24	Doheny Beach SMCA						X	N	N
25	Agua Hedionda Lagoon SMR						X	N	Y
26	Batiquitos Lagoon SMR						X	N	Y
27	San Elijo Lagoon SMR	X						N	Y
28	Del Mar North SMCA	X						Y	N
29	Del Mar SMR	X						Y	Y
30	Del Mar South SMCA						X	Y	N
31	San Dieguito Lagoon SMR	X						N	Y
32	Carmel Valley SMR	X						Y	N
33	La Jolla North SMR						X	N	Y
34	Point Loma SMCA				X		X	Y	Y
35	South San Diego Bay SMCA						X	Y	N
36	Imperial Beach SMCA						X	Y	N
37	Imperial Beach Wetlands SMR	X			X			Y	Y
38	Catalina Isthmus SMCA						X	Y	N
39	Catalina Inside SMCA						X	N	N
40	Catalina Harbor SMP							N	Y
41	Catalina Farnsworth SMR	X						Y	Y
42	Lover's Cove SMCA	X						N	Y

¹ Other includes, but is not limited to: boundaries that are not oriented due N/S E/W, are not placed at easily recognizable landmarks or at readily determined lines of latitude and longitude, are intertidal MPAs, or contain irregularly shaped lines.

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