

**SOUTH COAST MARINE PROTECTED AREAS PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

**SECTION 2.0
PROJECT BACKGROUND**

2.1 INTRODUCTION

This section of the Draft Environmental Impact Report (EIR) discusses the project background, including certain legislation that directs the proposed Project's goals. The section includes discussion on the design and implementation processes for revising the network of marine protected areas (MPAs) in the South Coast Study Region (SCSR).

2.1.1 Marine Resource Protection Background

Historically, the marine policies of California and other state and federal governments have been based largely on several assumptions. First, the abundance of marine wildlife was thought to be nearly without practical limits. Second, scientists and fishery managers believed that we possessed enough knowledge to exploit marine populations at very high levels over long periods of time without jeopardizing them. Third, marine wildlife was principally valued as a commodity to be processed and traded. Finally, the chief challenge in commercial fisheries management was to expand domestic fishing fleets in order to exploit the assumed riches of the sea (Department 2008).

A wide range of factors and accumulated research have caused scientists, members of the public, and policy-makers to reject those assumptions, and instead, adopt the idea that natural and anthropogenic (or human) factors directly and indirectly influence the abundance and diversity of populations of marine wildlife. The impact of each factor varies with distance from shore and with individual species (Department 2008).

Some types of natural phenomena, such as El Niño and La Niña fluctuations (in which especially warm or especially cool waters, respectively, dominate within the south coast study region [SCSR]), may have transitory impacts on marine wildlife and their habitats. Other natural phenomena, such as longer-term shifts in oceanographic conditions, may affect the abundance of some types of marine wildlife over much longer periods. Increasingly, fisheries managers are attempting to adapt their practices to account for these natural phenomena (Department 2008).

As in other coastal states, California's development and the growth of its population and economy, especially since World War II, have introduced additional stresses to coastal ecosystems. Coastal development has transformed coastal watersheds, wetlands, and estuaries, and placed greater demands on coastal ecosystems. These stresses include chemical pollution and the invasion of non-native species. Numerous public utilities facilities that provide necessary water and energy services to the region also impact the marine environment. For example, intake structures for cooling systems at electrical power plants

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impinge and entrain marine organisms, and thermal discharges from these facilities contribute the largest volume of effluent into California's coastal ocean (Department 2008).

Fishing – both commercial and recreational – impacts marine fish populations and other wildlife. Improvements in technology and the expansion of fishing fleets have led to overfishing, increased by-catch, and habitat damage. Declines in some fish populations have altered species interactions, resulting in adverse ecological impacts (Department 2008).

To address these declines, California's first six MPAs were created between 1909 and 1913; however, all had been removed by 1950. Since 1950, more than 50 other MPAs were created along the California coast, but these MPAs were established on a piecemeal basis and without comprehensive regional management goals. By 2002, MPAs protected less than 1 percent of coastal waters statewide, and no protection extended to deeper waters. Today, many fisheries continue to decline, leading to the general consensus among scientists and concerned citizens that the majority of existing MPAs established before 2002 are too small and lacking in effective protection (legislative declaration at Section 2851 of the California Fish and Game Code).

2.1.2 Purpose of Marine Life Protection Act

In 1999, the California state legislature approved and the governor signed the Marine Life Protection Act (MLPA; codified at Sections 2850 through 2863 of the Fish and Game Code, references herein to specific portions of the MLPA refer to these code sections). In determining the need for the act the legislature held that “California's marine protected areas (MPAs) were established on a piecemeal basis rather than according to a coherent plan and sound scientific guidelines. Many of these MPAs lack clearly defined purposes, effective management measures, and enforcement. As a result, the existing array of MPAs creates the illusion of protection while falling far short of its potential to protect and conserve living marine life and habitat” (MLPA Section 2851).

In enacting the MLPA, the legislature declared that “California's extraordinary marine biological diversity is a vital asset to the state and nation. The diversity of species and ecosystems found in the state's ocean waters is important to public health and well-being, ecological health, and ocean-dependent industry” (MLPA Section 2851(b)). The legislature also held that coastal development, water pollution, and other human activities threaten the health of marine habitat and the biological diversity found in California's ocean waters. New technologies and demands have encouraged the expansion of fishing and other activities to formerly inaccessible marine areas that once recharged nearby fisheries. As a result, ecosystems throughout the state's ocean waters are being altered, often at a rapid rate (MLPA Sections 2851(c) and (d)).

Fish and other sea life are a sustainable resource, and fishing is an important community asset. MPAs and sound fishery management are complementary components of a

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comprehensive effort to sustain marine habitats and fisheries. Understanding of the impacts of human activities and the processes required to sustain the abundance and diversity of marine life is limited. The designation of certain areas as marine life reserves can help expand our knowledge by providing baseline information and improving our understanding of ecosystems where minimal human disturbance occurs. Marine life reserves are an essential element of an MPA system because they protect habitat and ecosystems, conserve biological diversity, provide a sanctuary for fish and other sea life, enhance recreational and educational opportunities, provide a reference point against which scientists can measure changes elsewhere in the marine environment, and may help rebuild depleted fisheries (MLPA Sections 2851(d) through (f)).

Despite the expected value of marine life reserves, only 14 of the 220,000 square miles of combined state and federal ocean water off California, or six-thousandths of 1 percent (0.006 percent), are currently set aside as genuine “no-take” areas (MLPA Section 2851(g)). For all of the above reasons, it is necessary to modify the existing collection of MPAs to ensure that they are designed and managed according to clear, conservation-based goals and guidelines that take full advantage of the multiple benefits that can be derived from the establishment of marine life reserves.

2.2 MARINE PROTECTED AREA PROJECT

The process for improving the MPAs in the SCSR involved a great diversity of individuals and groups that worked together to reach consensus on the best approach to achieve the goals of the MLPA. The following sections detail the groups and agencies involved and the activities that were undertaken to create the proposed Project IPA and alternatives. A brief description of the roles of these agencies, groups, and task forces in implementing the MLPA of is provided below (Department 2008):

- **California Natural Resources Agency.** The Natural Resources Agency provides general oversight and public leadership for MLPA implementation, and this agency’s staff are active participants in the steering committee planning process. The secretary of the agency selects the chair and other members of the Blue Ribbon Task Force (BRTF), and convenes and charges the members with meeting their objectives. The agency provides policy direction for coordinating funding and staffing, and seeks current and future funding for agency and Department personnel committed to the initiative and for completing future phases of the MLPA.
- **California Department of Fish and Game.** The Department serves as the lead agency responsible for the design and implementation of the MLPA Master Plan and statewide network of MPAs. The Department continues its traditional support of the Natural Resources Agency and the Commission. The director of the Department selects the members of the science advisory team (SAT) in consultation with the Resources Agency secretary, the Commission president, and the BRTF chair. Through the MLPA Initiative’s

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steering committee, the Department assists with the development of the draft Master Plan framework and proposals for MPAs. The Department also provides biological, enforcement, and other relevant information, participates in meetings as appropriate, reviews working documents, and acts as the lead agency for CEQA environmental review of regulatory proposals promulgated under the MLPA.

- **Resources Legacy Fund Foundation and the MLPA Initiative.** In August 2004, the California Natural Resources Agency, the Department, and the Resources Legacy Fund Foundation (RLFF) formed the MLPA Initiative, a public-private partnership established to implement the MLPA. The RLFF uses its best efforts to obtain, coordinate, and administer philanthropic investments to supplement public funding for the MLPA Initiative; provides strategic advice to the Resources Agency on public-private funding; and supports the initiative staff in managing private contracts for the initiative.
- **Blue Ribbon Task Force.** The MLPA Initiative's BRTF is composed of distinguished, knowledgeable, and highly credible public leaders selected by the secretary of the California Natural Resources Agency. This task force oversees regional projects to develop alternative MPA proposals to present to the Commission, prepares information and recommendations for coordinating management of MPAs with federal agencies, and provides direction for expenditure of initiative funds. The BRTF also works to resolve policy disputes and provides direction to the MLPA Initiative, while meeting the objectives of the MLPA. The chair of the BRTF oversees the work of the executive director of the initiative, works with the director of the Department to convene the stakeholder group, and serves as the principal link between the BRTF and MLPA Initiative staff. Members of the BRTF are also expected to serve as liaisons to the stakeholder groups.
- **Science Advisory Team.** The director of the Department, in consultation with the chair of the BRTF, the secretary of the California Natural Resources Agency, and the president of the Commission, convenes the SAT for each study region. The SAT is composed of the members required by the MLPA, including staff from the Department, the Department of Parks and Recreation, the State Water Resources Control Board, one member appointed from a list provided by Sea Grant (a state program that sponsors marine research), and an expanded group of scientists knowledgeable in marine ecology, fisheries science, MPAs, economics, and the social sciences. The SAT provides the scientific knowledge and judgment necessary to assist the Department with meeting the objectives of the MLPA Initiative, providing input to the task force BRTF, and completing the master plan for MPAs. Principally, the SAT is charged with reviewing and commenting on scientific papers relevant to the implementation of the MLPA, reviewing alternative MPA proposals, reviewing draft master plan documents, addressing scientific issues presented by those documents, and addressing scientific questions raised by the BRTF or stakeholders. A sub-team of the SAT also attends regularly scheduled

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meetings of the regional stakeholder group to provide scientific summaries, answer scientific questions, and advise on relevant scientific merits of various MPA proposals.

- **Regional Stakeholder Groups.** The regional stakeholder groups are composed of individuals from each study region who are able and willing to provide information that will assist in developing alternative proposals for MPAs in their region. The chair of the task force and the director of the Department solicit nominations, and select from the nominees regionally representative groups that meet regularly over the course of each regional process. The stakeholder groups provide local knowledge for refining regional profiles and informing the MLPA planning process, evaluate existing MPAs, provide information to other stakeholder group members that may be helpful in designing alternative MPA packages, develop alternative MPA proposals, conduct outreach to constituent groups, and identify potential panel speakers to present stakeholder group recommendations and commentary at task force and other public meetings.
- **Other Agencies.** Other state and federal agencies play a variety of roles in the MLPA Initiative. These agencies include, but are not limited to the following, and have provided valuable information related to their operations, programs, and areas of responsibility that have been taken into account in designing regional MPAs:
 - National Oceanic and Atmospheric Administration Marine Fisheries Service
 - National Ocean Service
 - National Marine Sanctuaries Program
 - U.S. Fish and Wildlife Service
 - Pacific Fisheries Council
 - U.S. Minerals Management Service
 - California Coastal Commission
 - State Lands Commission
 - California Park and Recreation Commission/California Department of Parks and Recreation

2.3 DESIGN PROCESS FOR MPA PROPOSALS

Rather than attempting to design a single MPA network for the entire state at one time, the MLPA Initiative envisioned the assembly of a statewide network by 2011 from a series of independent regional processes. The MLPA Initiative identified five study regions:

1. North coast study region (California/Oregon border to Alder Creek near Point Arena)

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2. North central coast study region (Point Arena to Pigeon Point [not including San Francisco Bay])
3. San Francisco Bay study region (waters within San Francisco Bay, from the Golden Gate Bridge northeast to Carquinez Bridge)
4. Central coast study region (Pigeon Point to Point Conception)
5. South coast study region (SCSR; the focus of the presently proposed regulatory action) (Point Conception to the California/Mexico border)

In each of the study regions, it was envisioned that an appointed regional stakeholder group would develop MPA proposals that would be reviewed and evaluated by the SAT, the Department, MLPA Initiative staff, and the public. Public input was central to the process, and in addition to direct input at open houses, the public was also invited to nominate people for appointment to the regional stakeholder group and the SAT. Table 2-1 identifies all public meetings held for the purpose of inviting and accumulating input on the MPA proposal process.

Based on input from these groups, the SCSR MPA proposals were refined by the regional stakeholder group and presented to the BRTF, which made a recommendation to the Commission. This process involved four basic steps, as described below (Department 2008):

1. **Regional Planning:** The regional planning phase involves the preparation of a representative profile of the study region (regional profile), which is then assessed by the regional stakeholder group and SAT, among others, in order to identify potential MPA sites.
2. **MPA Planning:** The regional stakeholder group and SAT review information from the regional planning phase, evaluate existing and proposed new MPAs, as well as other management activities, and the regional stakeholder group develops proposals for packages of MPAs. These proposal packages are submitted by the regional stakeholder group to the SAT and BRTF for review.
3. **Evaluating the Proposals:** The SAT provides a scientific evaluation of the MPA proposals while the BRTF evaluates the proposal packages to identify a preferred alternative and other alternatives to recommend to the Commission. The Department assists in this process by conducting a feasibility analysis for each of the alternatives, providing comments on the alternatives, developing initial regulatory guidance, and forwarding this information to the Commission for review.
4. **Commission Action:** Commission action on the adoption of the BRTF MPA proposals or alternatives takes place based on the above recommendations, regulatory analyses (including CEQA review), and public testimony.

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**TABLE 2-1
PUBLIC MEETINGS HELD DURING THE SOUTH COAST STUDY REGION
PLANNING PROCESS**

Meeting	Major Topic	Meeting Dates	Location
Public Open House	Introduce public to MLPA planning process	6/23/2008	Santa Barbara
Public Open House	Introduce public to MLPA planning process	6/24/2008	Oxnard
Public Open House	Introduce public to MLPA planning process	6/25/2008	Santa Monica
Public Open House	Introduce public to MLPA planning process	7/8/2008	Huntington Beach
Public Open House	Introduce public to MLPA planning process	7/9/2008	Carlsbad
Public Open House	Introduce public to MLPA planning process	7/10/2008	San Diego
BRTF	Provide guidance to SAT/SCRSG on planning process	9/8/2008	San Diego
SAT	Develop science guidance	9/10/2008	Conference Call
SAT	Develop science guidance	9/15/2008	El Segundo
SCRSG	Begin discussion and guidance for MPA proposal development	10/6–7/08	El Segundo
SAT	Develop science guidance	11/12/2008	Los Angeles
SCRSG	Begin discussion and guidance for MPA proposal development	11/18–19/08	Ventura
BRTF	Provide guidance to SAT/SCRSG on planning process	12/10/2008	Sacramento
Joint BRTF and FGC	Provide guidance on how to consider the northern Channel Islands in the south coast planning process	12/11/2008	Sacramento
SAT	Develop science guidance	12/17/2008	Los Angeles
SCRSG	Begin developing round 1 MPA arrays	1/13–14/09	San Diego
BRTF	Discuss policy guidance for the south coast planning process	1/22/2009	Conference Call
SAT	Review and discussion of evaluation methods for south coast planning process	1/23/09 and 1/27/09	Los Angeles
SCRSG	RSG work session	1/29/2009	Los Angeles
SCRSG	RSG work session	2/10/2009	Huntington Beach
SIG	Discuss opportunities for public involvement	2/13/2009	Conference Call
SAT	Consider military use areas in evaluations	2/24/2009	Conference Call
BRTF	Discussion of regional goals and objectives	2/26/2009	Santa Barbara
SCRSG	Discussion and guidance for MPA proposals in development	3/3–4/09	Long Beach
SAT	Review and discuss evaluations of SCRSG proposals for round 1	4/1/09 and 4/6/09	Los Angeles

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**TABLE 2-1 (CONTINUED)
PUBLIC MEETINGS HELD DURING THE SOUTH COAST STUDY REGION
PLANNING PROCESS**

Meeting	Major Topic	Meeting Dates	Location
SIG	Discuss opportunities for public involvement	4/10/2009	Conference Call
BRTF	Discussion and guidance for MPA proposals in development	4/15–16/09	Dana Point
SCRSO	Discussion and guidance for MPA proposals in development	4/28/2009	Oxnard
SCRSO	RSG work session	4/29/2009	Oxnard
SAT	Develop guidance for MPA proposals	5/5/2009	Teleconference/Webinar
SAT	Develop guidance for MPA proposals	5/15/2009	Teleconference/Webinar
BRTF	Develop guidance for MPA proposals	5/18–19/09	Teleconference/Webinar
SCRSO	RSG work session	5/19–20/09	Santa Ana
SCRSO	Finalize round 2 MPA draft proposals	5/21/2009	Santa Ana
SIG	Discuss opportunities for public involvement	5/29/2009	Conference Call
BRTF	Provide guidance for MPA proposals	6/4/2009	Los Angeles
SAT	Evaluation of SCRSO draft MPA proposals	6/18/2009	Los Angeles
Public Open House	Solicit feedback on round 2 MPA proposals	6/29/2009	Carlsbad
Public Open House	Solicit feedback on round 2 MPA proposals	6/30/2009	San Diego
Public Open House	Solicit feedback on round 2 MPA proposals	7/1/2009	Laguna
Public Open House	Solicit feedback on round 2 MPA proposals	7/6/2009	San Pedro
Public Open House	Solicit feedback on round 2 MPA proposals	7/7/2009	Marina Del Rey
Public Open House	Solicit feedback on round 2 MPA proposals	7/8/2009	Oxnard
Public Open House	Solicit feedback on round 2 MPA proposals	7/9/2009	Santa Barbara
Public Open House	Solicit feedback on round 2 MPA proposals	7/13/2009	Avalon
BRTF	Discussion and guidance for final MPA proposal development	7/28–29/09	Santa Monica
SCRSO	Final MPA proposals development	8/3/2009	Carlsbad
SCRSO	RSG work session	8/4/2009	Carlsbad
SCRSO	Complete final MPA proposals	9/9/09–10/09	Los Angeles
SAT	Evaluation of final SCRSO MPA proposals	10/6/2009	Los Angeles
SCRSO and SIG	Briefing regarding Attorney General Informal Advice Letter	10/14/2009	Teleconference/Webinar
BRTF	Receipt of SCRSO alternative MPA proposals and development of IPA	10/20–22/09; and 11/10/09	Long Beach and Los Angeles
BRTF	Review of preferred alternative options	11/4/2009	Los Angeles
SAT	Evaluation of IPA	11/9/2009	Teleconference/Webinar

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**TABLE 2-1 (CONTINUED)
PUBLIC MEETINGS HELD DURING THE SOUTH COAST STUDY REGION
PLANNING PROCESS**

Meeting	Major Topic	Meeting Dates	Location
Joint BRTF and FGC	Delivery of south coast recommendations for alternative MPA proposals	12/9/2009	Los Angeles

Department 2010.

At the present time, the Commission is evaluating the proposed Project IPA that was recommended by the BRTF. The proposed regulations that are subject to environmental review in this Draft EIR will: remove a small number of existing MPAs; establish a number of new MPAs; or modify or replace existing MPA boundaries and regulations. Those existing MPAs along the northern Channel Islands (San Miguel, Santa Rosa, Santa Cruz, and Anacapa) and Santa Barbara Island in the southern Channel Islands, will be retained without modification and are not considered part of the proposed Project IPA or alternatives.

2.4 DESIGN CONSIDERATIONS FOR MPAs

Achieving the MLPA's improved statewide network of MPAs requires consideration of a number of issues and activities, which are discussed in Sections 2.4.1 through 2.4.11.

2.4.1 Goals of the MLPA that Directed Design Considerations

The MLPA directs the state to redesign California's system of MPAs to function as a network in order to: increase coherence and effectiveness in protecting the state's marine life and habitats, marine ecosystems, and marine natural heritage, as well as to improve recreational, educational, and study opportunities provided by marine ecosystems subject to minimal human disturbance (Department 2008). Six goals guide the development of MPAs in the MLPA planning process, codified at MLPA Section 2853(b), including:

1. Protect the natural diversity and abundance of marine life, and the structure, function, and integrity of marine ecosystems.
2. Help sustain, conserve, and protect marine life populations, including those of economic value, and rebuild those that are depleted.
3. Improve recreational, educational, and study opportunities provided by marine ecosystems that are subject to minimal human disturbance, and manage these uses in a manner consistent with protecting biodiversity.
4. Protect marine natural heritage, including protection of representative and unique marine life habitats in California waters for their intrinsic values.

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5. Ensure California’s MPAs have clearly defined objectives, effective management measures, and adequate enforcement and are based on sound scientific guidelines.
6. Ensure the state’s MPAs are designed and managed, to the extent possible, as a network.

The MLPA notes that MPAs should include several elements, such as: an “improved marine life reserve component”; specified objectives and management and enforcement measures; provisions for monitoring and adaptive management; provisions for educating the public and encouraging public participation, and; a process for the establishment, modification, or abolishment of existing or future new MPAs (MLPA Section 2853(c)).

The Department’s Master Plan for Marine Protected Areas (Master Plan; Department 2008) specifies that each MPA proposal or alternative that the BRTF submits to the Commission must include recommended “no-take areas” that encompass a representative variety of marine habitat types and communities across a range of depths and conditions. Each proposal also must avoid activities that upset the natural functions within reserves. Collectively, the MPA proposals and regional alternatives must include replicates of similar types of habitats in each biogeographical region, to the extent possible (Department 2008).

2.4.2 MPA Networks

The MLPA calls for improving and managing the state’s MPAs as a network to the extent possible (MLPA Section 2853(b)(6)). This implies a coordinated system of MPAs, and there are two typical approaches that may link MPA networks. MPAs managed as a network might be linked through biological and/or oceanographic functions, as in the case of adult and juvenile movement or larval transport. Additionally, MPA networks might also be managed and linked by administrative function; at a minimum, the statewide network should function at an administrative level that reflects a consistent approach to design, funding, and management. The important aspect is that MPAs should be linked by common goals and a comprehensive management and monitoring plan, and they should protect areas with a wide variety of representative habitat as required by the MLPA. MPAs should be based on the same guiding principles, design criteria, and processes for implementation (Department 2008).

2.4.3 SAT Guidance on MPA Network Design

The SAT for the MLPA Initiative developed the following guidance regarding the design of MPA networks. Although this guidance is not prescriptive, any significant deviation from it should be consistent with both regional goals and objectives, and MLPA requirements. The SAT’s guidelines were included in the Master Plan (Department 2008), and are linked to specific objectives, with the understanding that the diversity of species and habitats to be protected, and the diversity of human uses of marine environments, prevents a single

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optimum network design in all environments. The SAT's guidelines on MPA network design include:

- To protect the diversity of species that live in different habitats and those that move among different habitats over their lifetime, every “key” marine habitat should be represented in the MPA network.
- To protect the diversity of species that live at different depths, and to accommodate the movement of individuals to and from shallow nursery or spawning grounds to adult habitats offshore, MPAs should extend from the intertidal zone to deep waters offshore.
- To best protect adult populations, based on adult neighborhood sizes and movement patterns, MPAs should have an alongshore extent of at least 3 to 6 miles (5 to 10 km) of coastline, and preferably 6 to 12.5 miles (10 to 20 km). Larger MPAs are required to fully protect marine birds, mammals, and migratory fish.
- To facilitate dispersal among MPAs of important bottom-dwelling fish and invertebrate groups, based on currently known scales of larval dispersal, MPAs should be placed within 31 to 62 miles (50 to 100 km) of each other.
- To enable analysis for management comparisons, and to buffer against catastrophic loss of an MPA, at least three to five replicate MPAs should be designed for each habitat type within each biogeographical region.
- To lessen negative impact, while maintaining value, placement of MPAs should take into account local resource use and stakeholder activities.
- Placement of MPAs should take into account the adjacent terrestrial environment and associated human activities.
- To facilitate adaptive management of the MPA network into the future, and the use of MPAs as natural scientific laboratories, the network design should account for the need to evaluate and monitor biological changes within MPAs.

The SAT's guidance acknowledges that not every MPA will necessarily meet all of these objectives.

2.4.4 Consideration of Habitats on Design of MPAs

The MLPA calls for protecting representative types of habitat in different depth zones and environmental conditions (MLPA Section 2857(c)(2)). The SAT generally confirms that all but one of the habitats identified in the MLPA occur within state waters, and include: rocky reefs, intertidal zones, sandy or soft ocean bottoms, underwater pinnacles, kelp forests, submarine canyons, and seagrass beds. Seamounts do not occur within state waters. The SAT also notes that rocky reefs, intertidal zones, and kelp forests are actually broad categories that include several types of habitat (Department 2008).

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The SAT has identified five depth zones which reflect changes in species composition: intertidal, intertidal to approximately 98 feet depth, 98 to 328 feet depth, 328 to 656 feet depth, and deeper than 656 feet. The SAT also calls for special delineation of estuaries as a critical California coastal habitat. Finally, the SAT recommends expanding the habitat definitions to include ocean circulation features, principally upwelling centers, freshwater plumes from rivers, and larval retention areas (Department 2008).

2.4.5 Species Likely to Benefit from MPAs

The MLPA requires the identification of species likely to benefit from MPAs (MLPA Section 2856(a)(1)(B)). Identifying these species may also assist in identifying habitat areas that can contribute to achieving the goals of the MLPA. The Department prepared a list of such species, which is provided in Appendix G of the Master Plan (Department 2008). The Department has worked with the SAT to refine this list for the SCSR; the list is included in Appendix E of this Draft EIR, and is discussed in detail in Section 7.1.2 of this Draft EIR. This effort included identifying species on the list that are in direct need of consideration when designing MPAs, as opposed to those that may benefit but are not in immediate need of additional protection.

2.4.6 Biogeographic Regions

To help ensure that MPAs established under the MLPA include adequate representation of the marine communities and species diversity representative of California, MPAs must be distributed across biogeographically distinct areas. Both the MLPA and the Master Plan identify two biogeographic regions: 1) Point Conception north to the California-Oregon border and 2) Point Conception south to the U.S.–Mexico border (which includes the entire SCSR).

The SCSR refers to state waters off the mainland coast extending from Point Conception to the U.S.–Mexico border, and state waters surrounding all eight Channel Islands in the Southern California Bight. Southern California is characterized by strong gradients in environmental conditions (e.g., water temperature) and species abundances across the study region. Some parts of the SCSR (e.g., the western Channel Islands) contain biotic assemblages highly similar to central California, while others support quite different species communities that resemble those found in Mexican waters to the south. As has been done in previous study regions, the SAT conducted analyses to identify biogeographically relevant subregions (hereafter referred to as “bioregions”) within the large-scale biogeographic region to help ensure that distinct species assemblages within each study region are adequately represented in MPAs.

The SAT identified five bioregions that characterize the MLPA SCSR:

- North Mainland (Point Conception to Marina Del Rey)

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- South Mainland (Marina Del Rey to U.S.–Mexico border)
- West Channel Islands (San Miguel, Santa Rosa, and San Nicolas islands)
- Mid-Channel Islands (Santa Cruz, Anacapa, and Santa Barbara islands)
- East Channel Islands (Santa Catalina and San Clemente islands)

The SAT recommends including representation of all key habitats in each bioregion (see habitat representation). Representation of key habitats in each of the five bioregions of the SCSR will be considered as part of the habitat representation evaluation for alternative MPA proposals. Replication of habitats will also be evaluated for each bioregion and the entire SCSR.

2.4.7 Types of MPAs

The term “Marine Protected Area” (MPA) refers to a named, discrete geographic marine or estuarine area seaward of the high-tide line or the mouth of a coastal river, including any area of intertidal or subtidal terrain, together with its overlying water and associated flora and fauna, with regulations that are designed to protect or conserve marine life and habitat (MLPA Section 2852(c)). The following MPA terms are defined in Sections 36700 and 36710 of the Public Resources Code; all are discussed in greater detail in Section 3.0 of this Draft EIR:

- **State Marine Reserve (Section 36700(a)):** A “state marine reserve” (SMR) is a non-terrestrial marine or estuarine area that is designated to protect or restore rare, threatened or endangered native plants, animals or habitats in marine areas; protect or restore outstanding, representative or imperiled marine species, communities, habitats and ecosystems; protect or restore diverse marine gene pools; or contribute to the understanding and management of marine resources and ecosystems by providing the opportunity for scientific research in outstanding, representative or imperiled marine habitats or ecosystems: Restrictions make it unlawful to injure, damage, take or possess any marine resource, except under a permit or specific authorization from the managing agency for certain reasons. Access and use by the public (such as walking, swimming, boating, and diving) may be restricted to protect marine resources. Allowable uses include permitted research, restoration, and monitoring; educational activities; and some other forms of non-consumptive human use.
- **State Marine Park (Section 36700(b)):** A “state marine park” (SMP) is a non-terrestrial marine or estuarine area that is to provide for spiritual, scientific, educational, and recreational opportunities. Restrictions make it unlawful to injure, damage, take or possess any living or nonliving marine resources for commercial purposes. Any human use that would compromise protection of the species of interest, natural community or habitat, or geological, cultural, or recreational features may be restricted by the

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designating entity or managing agency. Other uses are allowed, including scientific collection with a permit, research, monitoring and public recreation (including recreational harvest, unless otherwise restricted). Public use, enjoyment and education are encouraged, in a manner consistent with protecting resource values.

- **State Marine Conservation Area (Section 36700(c)):** A “state marine conservation area” (SMCA) is a marine or estuarine area that is designated to protect or restore rare, threatened or endangered native plants, animals or habitats in marine areas; protect or restore outstanding, representative or imperiled marine species, communities, habitats and ecosystems; protect or restore diverse marine gene pools; contribute to the understanding and management of marine resources and ecosystems by providing the opportunity for scientific research in outstanding, representative or imperiled marine habitats or ecosystems; preserve outstanding or unique geological features; or 6) provide for sustainable living marine resource harvest. It is unlawful in most circumstances to injure, damage, take, or possess any specified living, geological or cultural marine resources. In general, any commercial and/or recreational uses that would compromise protection of the species of interest, natural community, habitat or geological features may be restricted by the designating entity or managing agency. Allowable uses include research, education and recreational activities, and certain commercial and recreational harvest of marine resources.

The MLPA recognizes the role of different types, or classifications, of MPAs, and each type provides for different levels of restriction on human uses and includes various objectives. All of the above types of MPAs are discussed in greater detail in Section 3.0 of this Draft EIR. Because the Commission’s authority to restrict uses is limited by statute, the Commission must select types of MPAs that are appropriate for intended uses and restrictions. The Commission has the statutory authority to designate, delete, and modify SMRs and SMCAs. However, SMPs may only be created, modified, or deleted under the authority of the California State Park and Recreation Commission.

2.4.8 Levels of Protection for MPA Classifications

The SAT recognized that there is great variation in the type and magnitude of activities that may be permitted within the three types of MPAs, in particular SMPs and SMCAs (Department 2008). This variety intentionally provides designers of MPA networks with flexibility in proposing MPAs that either individually or collectively fulfill the various goals and objectives specified in the MLPA. However, this flexibility can result in complex and possibly confusing levels of protection afforded by any individual MPA or collection of MPAs. In particular, SMCAs allow for many possible combinations of recreational and commercial extractive activities. Therefore, MPA network proposals with similar numbers and sizes of SMCAs may in fact differ markedly in the type, degree, and distribution of protection.

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To facilitate comparison across alternative MPA proposals, the SAT assigns a “level of protection” to each MPA based on the uses allowed within its boundaries. Levels of protection are based upon the likely impacts of proposed activities to the ecosystems within a MPA. Conceptually, the SAT seeks to answer the following question in assigning levels of protection: “How much will an ecosystem differ from an unfished ecosystem if one or more proposed activities are allowed?”

In assigning MPA protection levels, the SAT considered the proposed allowed uses within each MPA (e.g., specific fishing methods), and the depth zones in which allowed uses could occur (e.g., restricting trolling in different depth zones could confer different levels of protection). Each proposed allowed use was assigned a level of protection, based on the extent to which allowing the use was deemed compatible with protecting living marine resources, and each MPA was then assigned a level of protection corresponding to the level of protection of the activities allowed. Where an MPA would allow multiple activities, the lowest (least protective) level of protection among the allowed activities was assigned to that MPA. The Fish and Game Commission does not have authority to regulate activities such as maintenance of existing artificial structures and ongoing point-source discharges. Therefore, these types of activities were not considered in the levels of protection process. The levels of protection applied to proposed MPAs within the SCSR are summarized below:

- **Very High:** No take of any kind allowed. This designation applies only to SMRs. (Department 2009a).
- **High:** Proposed activities were assigned this level of protection if the SAT concluded that the activity: 1) does not directly alter habitat, 2) is unlikely to significantly alter the abundance of any species relative to an SMR, and 3) is unlikely to have an impact on community structure relative to an SMR (Department 2009a).
- **Moderate-high:** Activities were assigned this level of protection if the SAT concluded that the activity: 1) does not directly alter habitat, 2) is unlikely to significantly alter the abundance of any species relative to an SMR, but 3) has some potential to alter community structure relative to an SMR (Department 2009a).
- **Moderate:** Activities were assigned to this level of protection if the SAT concluded that the activity was likely to alter either habitat or species abundance in the area relative to an SMR, but that these changes were unlikely to impact community structure substantially (Department 2009a).
- **Moderate-low:** Activities were assigned to this level of protection if the SAT concluded the activity was likely to: 1) alter species abundance relative to an SMR, and 2) alter community structure significantly through the change in abundance of a species that plays an important ecological role (e.g., top predator) but does not form biogenic habitat (Department 2009a).

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- **Low:** Only activities that alter habitat in a way that is likely to significantly alter community structure were assigned to this level of protection (Department 2009a).

For a detailed description of the SAT's methods for categorizing MPAs by their relative level of protection, refer to Draft Methods Used to Evaluate MPA Proposals in the MLPA South Coast Study Region (Department 2009).

2.4.9 Enforcement and Public Awareness Considerations in MPA Design

The design of MPAs has an effect on how well these regulations are understood and complied with by the public. The proposed regulatory revisions were drafted with the intent that boundaries should be clear, well-marked where possible, recognizable, measurable, and enforceable. Ease of access to MPAs may influence the level of enforcement activity required to ensure compliance and protection. Siting MPAs where there are other special management programs, such as national marine sanctuaries, may enhance enforceability. In its feasibility analysis (see Department 2009b), the Department has placed an emphasis on boundaries and regulations that are easily understood and enforced (Department 2008). During development of the IPA, the Department made recommendations to the Commission regarding improving comprehension and enforceability of the MPA regulations. These included (Department 2009b):

- Minimizing the use of irregular shapes, diagonal or curved lines, and unmarked offshore locations as MPA boundaries; and instead encouraging the use of straight lines along whole-number latitude and longitude lines, terminating at discernible landforms or other visible features.
- Discouraging the use of the intertidal zone as an MPA boundary, due to the difficulty of accurately determining the location of high- and low-tide lines by the public.
- Simplifying the lists of permitted and prohibited species and methods of take where possible, to facilitate public understanding and compliance.
- Considering and learning from previously documented violations, and avoiding catch-and-release regulations in certain areas to facilitate enforcement.

2.4.10 Information Supporting the Design of MPAs

Section 2855(c) of the MLPA calls for the use of the "best readily available science" in designing and managing MPAs. Baseline data needs are identified in regional profiles for the study regions and MPA management plans. The MLPA also calls for soliciting information from local communities and interested parties regarding the marine environment, the history of fishing, water pollution, and the socioeconomic and environmental impacts of MPA proposals.

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The successful implementation of the MLPA depends on the active involvement of stakeholders and the general public. The public can be involved in a variety of ways, including communicating directly with regional stakeholder group members, attending workshops and public meetings, and providing input on public documents and MPA proposals as they are developed. During the MPA development process, the Department established a website (http://www.dfg.ca.gov/mlpa/publicinvolvement_sc.asp) through which interest groups and the general public could submit comments, suggestions, and feedback into the MPA proposals. For each MPA study region, relevant documents such as the Regional Profile for that region, meeting agendas and materials, and descriptions of the public participation process were also available for review online.

MPA proposals for the SCSR, as well as other regions, are largely crafted by the regional stakeholder group in a collaborative process that occurs throughout MPA proposal development as outlined in the master plan (Department 2008). To help ensure an open transparent, public process where maximum information is made available to the regional stakeholder group for its deliberations, external MPA proposals are accepted outside the regional stakeholder process. Among the ways the regional stakeholder group incorporates external proposals includes, but is not limited to: 1) incorporating individual MPA concepts from external proposals into draft proposals; 2) use of entire external proposals as a starting place to develop draft proposals; and 3) use of boundary designs for particular regulations from external proposals. Extensive oral and written public comments were reviewed during the development of the proposed Project IPA and alternatives. These comments may be accessed at the Department's website at http://www.dfg.ca.gov/mlpa/publiccomments_sc.asp and http://www.dfg.ca.gov/mlpa/meetings_sc.asp.

2.4.11 Other Programs and Activities

Regional profiles and profiles of potential MPAs describe current and anticipated human activities that may affect representative habitats and focal species. Where non-fishing activities may have a significant impact (e.g., point-source or non-point-source discharges to the ocean), a proposal for an MPA may include recommendations to appropriate agencies for reducing the impacts of those activities that are likely to prevent an MPA from achieving its goals and objectives. Such recommendations are also generally referred to the California Ocean Protection Council established under the COPA of 2004, since the council was created to promote coordination of ocean protection efforts across agencies (Department 2008). However, the proposed regulatory changes are not intended to prohibit ongoing activities that have existing authorization from other federal or state agencies. In order to maintain compatibility with existing uses that are expected to continue (i.e., harbors, outfalls, dredging or other activities), it has been recommended that some areas be designated with less restrictive regulation. For example, an area might be designated an SMCA instead of an SMR.

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2.5 REGIONAL DESIGN CONSIDERATIONS

Based on the six goals of the MLPA (see Section 3.2 of this Draft EIR), the South Coast Regional Stakeholder Group (SCRSG) developed regional objectives to meet those goals in the SCSR. The SCRSG also identified design considerations based on the regional goals and objectives. These goals and objectives were critical guidelines used by the SCRSG and others to propose MPAs for the south coast. For each proposal, the SCRSG developed objectives for individual MPAs and linked them to the regional goals and objectives. The Department also evaluated SCRSG-identified goals and objectives for individual MPAs to ensure they were appropriate and attainable, and evaluated the prospects of individual areas to help achieve the MLPA goals.

The SAT for the SCSR provided scientific advice and guidelines, relative to the science guidelines and goals of the MLPA, to the BRTF and SCRSG for development of MPA proposals based on the best readily available science and the Master Plan (Department 2008). In order to analyze the differences between no-take reserves and limited take conservation areas, the SAT developed a ranking for “levels of protection” provided by an MPA based on the impact of allowed extractive (fishing) activities on ecological and ecosystem structure. The levels of protection are described in Section 2.4.8.

Several issues were considered in the design, evaluation, and siting of MPAs in the SCSR in accordance with the “Considerations in the Design of MPAs” that appear in the Master Plan. These considerations were applied to all MPAs and MPA proposals regardless of the specific regional goals and objectives for that MPA and may contribute to the site-level rationales for individual MPA design and placement.

As stated in the Master Plan, these design considerations specify the following:

1. In evaluating the siting of MPAs, considerations shall include the needs and interests of all users.
2. When designing or modifying MPAs, consider leveraging relevant portions of existing management activities and area-based restrictions, including state and federal fishery management areas and regulations (such as rockfish conservation areas and trawl fishery closures, or other restricted access zones).
3. Site MPAs to prevent fishing effort shifts that would result in serial depletion.
4. When crafting MPA proposals, include considerations for design found in state fishery management plans such as the Nearshore Fishery Management Plan (Department 2002) and the Abalone Recovery and Management Plan (Department 2005).
5. In developing MPA proposals, consider how existing state, local and federal programs address the goals and objectives of the MLPA and the south coast study region as well as how these proposals may coordinate with other programs.

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6. Site MPAs adjacent to terrestrial federal, state, county, or city parks, marine laboratories, or other areas that are easily visible to management and the public so as to facilitate management, enforcement, monitoring, education and outreach.
7. Site MPAs to facilitate use of volunteers to assist in monitoring and management.
8. Site MPAs to take advantage of existing long-term monitoring studies.
9. Design MPA boundaries that facilitate ease of public recognition and ease of enforcement.
10. Consider existing public coastal access points when designing MPAs.
11. MPA design should consider the benefits and drawbacks of siting MPAs near to or remote from public access.
12. Consider the potential impacts of climate change, ocean acidification, community alteration, and distributional shifts in marine species when designing MPAs.
13. Preserve the diversity of recreational, educational, commercial, and cultural uses.
14. Optimize the design of the MPA network to facilitate monitoring and research that answers resource management questions; an example is including MPAs of different protection levels in similar habitats and depths, adjacent or in otherwise comparable locations, to state marine reserves, to evaluate the effectiveness of different protection levels in meeting regional and statewide goals.
15. Ensure some MPAs are close to population centers, coastal access points, and/or research and education institutions and include areas of educational, recreational, and cultural use.

2.6 IMPLEMENTATION OF THE MLPA ON THE SOUTH COAST STUDY REGION

The SCSR is the third study region to conduct a regional MPA design process; it was preceded by the central coast and north central coast study regions. The MPA design process is guided by how well an MPA network alternative would meet the six regional goals and objectives identified in the *Adopted Regional Goals and Objectives and Design and Implementation Considerations for the MLPA South Coast Study Region* (Department 2009). See Section 3.2 of this Draft EIR, where the goals are presented in detail.

The planning process to implement the MLPA in the SCSR was conducted pursuant to the processes described in Sections 2.3 and 2.4 of the Master Plan (Department 2008). This process includes substantial public involvement, and Table 2-1 identifies public meetings held in the preparation of MPA alternatives for the SCSR. The process is summarized below (Department 2010a):

1. The SCRSG began meeting in October, 2008 to develop alternative MPAs for the SCSR. Based on the six goals of the MLPA, the SCRSG developed regional objectives to meet

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those goals, and also identified design and implementation considerations based on the regional goals and objectives. For each proposal, the SCRSG developed objectives for individual MPAs and linked them to the regional goals and objectives.

2. The Department contributed to the planning process by providing input to the SCRSG and BRTF throughout proposal development in the form of feasibility and design guidelines, as well as formal evaluations of MPA proposals based on those guidelines. Additionally, the Department provided guidance to the SCRSG regarding selection of appropriate MPA goals and objectives (based on the design of each MPA), and also evaluated SCRSG goals and objectives for individual MPAs to ensure that they were appropriate and attainable.
3. The SAT provided scientific evaluation of SCRSG MPA proposals relative to the science guidelines and goals of the MLPA. In order to analyze the differences between no-take reserves, limited take conservation areas, and recommended parks, the SAT developed a ranking for levels of protection (refer to Section 2.4.8).
4. At a meeting that occurred October 20 through 22, 2009, the BRTF received three SCRSG proposals for the SCSR, and voted to forward these proposals to the Commission for its review. At this time, the BRTF began to create an Integrated Preferred Alternative (IPA) by integrating, and in some cases modifying, MPAs from each of the three SCRSG proposals. The BRTF created the IPA with the intent to meet scientific guidelines and achieve MLPA goals, while also resolving the remaining areas of divergence among the SCRSG proposals and minimizing socioeconomic impacts to the extent feasible.
5. The BRTF voted to recommend that the Commission select the IPA as the regulatory preferred alternative for the SCSR. In a joint meeting on December 9, 2009, the Commission received these recommendations and directed the Department to prepare a regulatory package using the IPA as the Commission's preferred regulations and the three original SCRSG proposals as regulatory alternatives.