Attachment 1

California Marine Life Protection Act Initiative, MLPA Master Plan Framework,
August 22, 2005.
Table of Contents and Executive Summary only. The full report is available at:
http://www.dfg.ca.gov/mrd/mlpa/draftdocuments.html

CALIFORNIA MARINE LIFE PROTECTION ACT INITIATIVE

MLPA MASTER PLAN FRAMEWORK

Adopted by the
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Executive Summary

Section 1. Introduction

In 1999, the legislature approved and the governor signed the Marine Life Protection Act (MLPA; FGC Section 2851-2863). The MLPA requires that the Department of Fish and Game (Department) prepare and present to the Fish and Game Commission (Commission) a master plan that will guide the adoption and implementation of a Marine Life Protection Program, which includes a statewide network of marine protected areas (MPAs). Other recent related legislation includes the Marine Life Management Act of 1998 (MLMA), Marine Managed Areas Improvement Act of 2000 (MMAIA), and California Ocean Protection Act of 2004 (COPA).

This legislation continues a long tradition of legislation addressing the conservation of California's diverse coastal and marine wildlife and habitats. Since World War II especially, pressures on these resources have grown as fishing effort and ability have increased and as coastal development has transformed coastal habitats and generated pollutants. In the last 35 years, both federal and state government programs have made an effort to address, if not solve, all of these problems. Marine and coastal wildlife populations also are affected by environmental factors, such as short and long-term shifts in oceanographic conditions, the total effect of which are not clearly understood.

Since passage of the MLMA in 1998, restrictions on commercial and recreational fishing have grown as fishery managers have sought to maintain sustainable fisheries in the face of uncertainty and of declining fish populations. The MLMA reflects shifts in the goals of fishery management away from a single-species focus on maximum yields toward sustainable yields and an ecosystem perspective.

The MLPA reflects prevailing scientific views regarding the role of MPAs in conserving biological diversity, protecting habitats, aiding in the recovery of depleted fisheries, and promoting recreation, study, and education. There remains disagreement whether MPAs, particularly no-take marine reserves, provide direct benefits to fisheries. These scientific viewpoints are discussed in more detail in this document.

In August 2004, the California Resources Agency, California Department of Fish and Game, and Resources Legacy Fund Foundation launched an effort to implement the MLPA, after two unsuccessful earlier attempts. The MLPA Initiative established an MLPA Blue Ribbon Task Force, together with a Master Plan Science Advisory Team (science team) and stakeholder advisory groups, to oversee the completion of several objectives. The first of these objectives is this master plan framework, which includes guidance, based on the MLPA, for the development of alternative proposals of MPAs statewide, beginning in an initial central coast study region. The task force will forward both the master plan framework and, by March 2006, the package of alternative MPA proposals for central coast study region to the Department for its consideration and subsequent submission to the Commission for its consideration and action. The following framework is expected to be an evolving document, which will be modified based on lessons learned in various regional processes and through monitoring and evaluation of MPAs throughout the State.

Section 2. Process for Designing Alternative Marine Protected Area Network Proposals

Rather than attempting to design a single network for the entire state at one time, the MLPA Initiative envisions the assembly of a statewide network by 2011 from a series of regional processes, beginning with an area along the central coast. This master plan framework will guide that process. It describes a series of activities, most of which will be undertaken by a regional stakeholder group and a sub-team of the statewide science team.

The overall aim of this five-step process is developing alternative MPA proposals for consideration by the Department, selection of a preferred alternative by the Department, and adoption of a proposal by the Commission. These five steps are:

1. Regional planning, starting with the identification of a study region moving through the preparation of a regional profile and additional advice, designing regional goals and objectives, analyzing existing MPAs and other management and ending with the identification of alternative approaches to networks and potential MPA sites;
2. MPA planning, in which proposals for potential MPAs are developed, after evaluation of existing and new MPAs and other management activities,
3. Assembling alternative proposals, in which MPAs developed in the previous stage are assembled into alternatives, which are evaluated generally and a feasibility analysis is conducted;
4. Evaluating the proposals, in which the MLPA Blue Ribbon Task Force evaluates the proposals and forwards a package to the Department, which sponsors a peer review and develops initial regulatory documents and forwards these along with a preferred alternative to the Commission;
5. Commission action on MPA proposals, which includes preparing regulatory analyses (including California Environmental Quality Act review), public testimony, and action by the Commission.

It is expected that the Master Plan Framework and the process described above will be reviewed upon completion and that changes will be made based on lessons learned. This adaptive use of the framework will help facilitate future regional processes and statewide implementation.

Section 3. Considerations in the Design of MPAs

Achieving the MLPA's goals and objectives to improve a statewide network of MPAs will require consideration of a number of issues, each of which is discussed in this section.

Goals of the Marine Life Protection Program

The MLPA identifies a set of goals for the Marine Life Protection Program including: conservation of biological diversity and the health of marine ecosystems; recovery of wildlife populations; improving recreational and educational opportunities consistent with biodiversity conservation; protection of representative and unique habitats for their intrinsic value; ensuring that MPAs have defined objectives, effective management and enforcement, and are designed on sound science; and ensuring MPAs are managed, to the extent possible as a network.

The MLPA notes that a variety of levels of protection may be included in MPAs and that the above program shall include several elements. These are: 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; a process for the establishment, modification, or abolishment of existing or future new MPAs.

Each regional preferred alternative submitted by the Department 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 and avoid activities that upset the natural functions within reserves. Collectively the regional alternatives must include replicates of similar types of habitats in each biogeographical region to the extent possible.

MPA Networks

The MLPA calls for improving and managing the state's MPAs as a network, to the extent possible. The MLPA itself does not define a network. However, there are two common approaches to MPA networks: MPAs linked biologically and/or oceanographically, and MPAs linked through administrative function. Biological and oceanographic linkages are described in more detail in this section. At a minimum, the statewide network should function at an administrative level which reflects a consistent approach to design, funding and management.

Science Advisory Team Guidance on MPA Network Design

Explained in more detail below, the science team for the MLPA Initiative developed guidance regarding the design of MPA networks. This guidance, which is expressed in ranges for some aspects such as size and spacing of MPAs, should be the starting point for regional discussions of alternative MPAs. Although this guidance is not prescriptive, any significant deviation from it should be consistent with both regional goals and objectives and the requirements of the MLPA. The following guidelines are linked to specific objectives and not all guidelines will necessarily be achieved by each MPA:

- The diversity of species and habitats to be protected, and the diversity of human uses of marine environments, prevents a single optimum network design in all environments.
- 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 5-10 km (3-6 m or 2.5-5.4 nm) of coastline, and preferably 10-20 km (6-12.5 m or 5.4-11 nm). Larger MPAs would be required to fully protect marine birds, mammals, and migratory fish.

- To facilitate dispersal among MPAs for important bottom-dwelling fish and invertebrate groups, based on currently known scales of larval dispersal, MPAs should be placed within 50-100 km (31-62 m or 27-54 nm) of each other.
- To provide analytical power for management comparisons and to buffer against catastrophic loss of an MPA, at least 3-5 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.

Consideration of Habitats in the Design of MPAs

The MLPA calls for protecting representative types of habitat in different depth zones and environmental conditions. The science team generally confirmed that all but one of the habitats identified in the MLPA occur within state waters: rocky reefs, intertidal zones, sandy or soft ocean bottoms, underwater pinnacles, kelp forests, submarine canyons, and seagrass beds. They noted that seamounts do not occur within state waters. The science team also noted that rocky reefs, intertidal zones, and kelp forests are actually broad categories that include several types of habitat.

The science team identified five depth zones which reflect changes in species composition: intertidal, intertidal to 30 meters, 30 meters to 100 meters, 100 meters to 200 meters, and deeper than 200 meters. The science team also called for special delineation of estuaries as a critical California coastal habitat. Finally, the science team recommended expanding the habitat definitions to include ocean circulation features, principally upwelling centers, freshwater plumes from rivers, and larval retention areas.

Species Likely to Benefit from MPAs

The MLPA requires the identification of species likely to benefit from MPAs. 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 appears in Appendix G. The Department will work with the science team in refining this list for each region. This will include 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.

Geographical Regions

The MLPA requires that representative habitats be included, to the extent possible, in more than one marine reserve in each biogeographical region. The MLPA identifies the following three biogeographical regions: