

California Marine Life Protection Act Initiative

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To: MLPA North Central Coast Regional Stakeholder Group (NCCRSG)
From: MLPA Initiative Staff
Subject: Application of Science Size Guidelines and Implications for MPA Proposals
Date: March 4, 2008

Request from the NCCRSG for Clarification

Recently members of the NCCRSG have requested an explanation for the use of a nine square mile minimum by the Marine Life Protection Act (MLPA) Master Plan Science Advisory Team (SAT) in evaluating the size of draft proposed marine protected areas (MPAs). More specifically, NCCRSG members have questioned the rationale for combining two size guidelines included within the January 2008 version of the *California MLPA Master Plan for Marine Protected Areas*:

"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 mi or 2.5-5.4 nmi) of coastline, and preferably 10-20 km (6-12.5 mi or 5.4-11 nmi). Larger MPAs would be required to fully protect marine birds, mammals, and migratory fish"
(Page iv).

"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"
(Page iv).

Background

During the MLPA Central Coast Project, the SAT made operational the master plan guidance cited above by suggesting that proposed MPAs have a minimum size of nine square miles. The SAT arrived at this guideline by combining the master plan guidance for a minimum alongshore span of three statute miles and the guidance that MPAs extend to "deep waters offshore." The SAT determined that extending proposed MPAs to the state water boundary would serve as a proxy for offshore extent.

For logistical purposes, and because the offshore extent of state waters varies throughout the State of California, guidance for offshore extent was subsequently incorporated into size and spacing evaluations using a figure of three statute miles. Thus, it was determined that proposed MPAs in the MLPA Central Coast Study Region should be at least three statute miles long and three statute miles wide, or a total of nine square miles in area. SAT members rationalized the decision to combine alongshore extent and offshore extent guidelines by stating that the two criteria are functionally inseparable and must be considered in conjunction; this rationale and guidance has been documented in the MLPA Central Coast Project and appears in the master plan as approved by the California Fish and Game Commission:

"...The combination of these two size guidelines forms the basis for SAT evaluation of MPA areas that use both the alongshore and offshore dimensions." (Appendix R, page 11)

In the MLPA North Central Coast Project, the SAT has used the recommendations from the central coast as a basis for guidance regarding size and spacing of draft proposed MPAs. The size and spacing

guidance can be found in the February 1, 2008 revised draft of *Methods Used to Evaluate Draft MPA Proposals in the North Central Coast Study Region*:

"Size and spacing guidelines were developed to provide for the persistence of important bottom-dwelling fish and invertebrate groups within MPAs and their dispersal among MPAs and to promote connectivity in the network (Goals 2 and 6).

In evaluating the size of MPAs, the SAT considers:

- Whether MPAs cover an alongshore span of at least 3-6 miles (preferably 6-12 miles) to protect the neighborhood size of adult species, as recommended in science guidelines of the Master Plan
- Whether MPAs extend offshore to deep waters, as recommended in the Master Plan science guidelines. The SAT has determined that MPAs that extend to the state water boundary, three miles offshore, best meet this guidance for the purpose of implementing the MLPA.

The SAT makes operational the Master Plan guidance above by using a minimum size threshold of 9 square miles (3 miles alongshore and 3 miles offshore) to evaluate MPAs with regard to goals 2 and 6 of the MLPA. (No MPA that is smaller than 9 square miles could meet both the alongshore and onshore-offshore size guidelines mentioned above.)

In evaluating the spacing of MPAs, the SAT:

- Considers whether an MPA has sufficient habitat present (...), is of sufficient size (minimum cluster size of 9 square miles), and has at least moderate-high protection level to count toward the spacing analysis.
- Combines adjacent MPAs together as a "cluster" as long as they are each at least of moderate-high protection.
- Determines whether similar habitats within MPAs are spaced within 31-62 miles of one another, as recommended in the Master Plan science guidelines. The SAT has made operational this guidance by considering the distance between MPAs that contain each of the key habitats. Each habitat is analyzed separately for the spacing analysis"

(Pages vi-vii).

The referenced guidance and rationale has been discussed by the SAT in the MLPA North Central Coast Project, presented to the MLPA Blue Ribbon Task Force and California Fish and Game Commission, and incorporated into evaluations of draft proposals for MPAs in the MLPA North Central Coast Study Region. In addition, this guidance and rationale has been provided in both the *California Marine Life Protection Act Master Plan for Marine Protected Areas* (January 2008 version, as approved by the California Fish and Game Commission) and in the *Methods Used to Evaluate Draft MPA Proposals in the North Central Coast Study Region* (February 1, 2008 version, as approved by the SAT).

Conclusion and Guidance for NCCRS

The NCCRS should note that the guidance for the size of proposed MPAs is consistent between the central coast and north central coast processes. MLPA Blue Ribbon Task Force guidance states that, in drafting MPA proposals for the MLPA North Central Coast Study Region, the NCCRS closely consider the science guidelines and SAT reviews of proposals, including the minimum size guideline of nine square miles, along with guidelines established by the California Department of Fish and Game.