

California Marine Life Protection Act Initiative
Science Questions Under Consideration by the Master Plan Science
Advisory Team for the MLPA South Coast Study Region
Revised October 1, 2008

In anticipation of the regionally specific issues that will be encountered in the California Marine Life Protection Act (MLPA) South Coast Study Region, a list of initial science questions for the study region was developed by MLPA Initiative staff and then reviewed by the MLPA Master Plan Science Advisory Team (SAT) for the MLPA North Central Coast Study Region at its May 30, 2008 meeting. The questions were formulated so that the SAT could begin developing guidance, based on the best, readily available science, for the MLPA South Coast Regional Stakeholder Group to use in the process of developing marine protected area (MPA) proposals.

Since the SAT meeting on May 30, 2008, the science questions have been refined and revised through discussions amongst SAT members and staff. On September 15, 2008, the SAT for the MLPA South Coast Study Region met, reviewed the questions and formed work groups to continue the process of developing scientific guidance. Once each work group develops a specific piece of guidance, the draft guidance will be presented at a SAT meeting for discussion and approval. Following full SAT approval, the guidance will be provided to the regional stakeholder group and the MLPA Blue Ribbon Task Force.

The science questions currently under consideration may be revised further as discussions amongst the SAT and SAT work groups proceed.

Science Questions

1. How can modeling be used in the south coast MPA planning and evaluation process?
2. How will islands in the MLPA South Coast Study Region fit into size and spacing guidelines and habitat representation?
3. What are the biogeographically relevant (species distribution breaks, ecosystems, geology, oceanography, etc) subregions in the MLPA South Coast Study Region?
 - a. Are the Channel Islands a separate biogeographic subregion and are there any further subdivisions within the Channel Islands?
4. What key or unique habitats exist in the MLPA South Coast Study Region? Are there any gaps in habitat distribution that will affect size/spacing analysis?
5. Review the *California MLPA Master Plan for MPAs* list of species likely to benefit from MPAs and develop a list of species “likely” and “most likely” to benefit from MPAs specific to the south coast.
6. How could water and sediment quality affect MPAs or the local ecosystem associated with MPAs?
 - a. How could these be considered in MPA planning or in an evaluation of MPA proposals?

7. How do power plant, alternate energy issues (wave farms, tidal energy, or wind farms), or desalination plants affect the local ecosystem and, if habitat quality is impacted, how could the RSG consider these?
 - a. How would the SAT evaluate proposals including these facilities within an MPA?
8. How could habitat restoration efforts (e.g. marsh restoration) and artificial reefs be considered in planning and evaluating MPA proposals?
 - a. Do restoration projects, artificial reefs, or oil platforms provide habitat that contributes to the goals of the MLPA?
 - b. How could the regional stakeholder group consider these facilities when developing MPA proposals?
 - c. How would the SAT evaluate proposals that include these projects and structures within an MPA?
9. What impacts do beach grooming and nourishment have on local marine communities and do beach grooming or beach nourishment affect habitat quality for local marine communities?
 - a. How could the regional stakeholder group consider beach grooming or nourishment when developing MPA proposals?
10. What are the mariculture activities in the MLPA South Coast Study Region and what level of protection would they be assigned?
11. Does beach lighting affect local marine communities and, if so how could the regional stakeholder group consider beach lighting when developing MPA proposals?
12. Can the SAT address benthic pelagic coupling issues for the south coast (similar to salmon trolling in the central and north central regions) and identify fishing activities that might have depth-related differences in impact?
13. What are the various catch and release fisheries and what level of protection would be assigned to catch and release fishing?
14. Are there cumulative effects from allowing take of multiple species within a single level of protection? If so, how could these be addressed?
15. What impacts occur to habitat from non-consumptive diving and what level of protection would be assigned to MPAs in which non-consumptive diving takes place?
16. What impact does shipping or shipping lanes have on the local ecosystem or MPA design and how could they be considered in MPA planning and evaluation?
17. How could invasive species be considered in MPA planning and design?