

**California MLPA Master Plan Science Advisory Team**  
**Initial Science Questions to Consider for the**  
**MLPA South Coast Study Region**  
*Revised August 29, 2008*

A list of initial science questions to consider for the MLPA South Coast Study Region was developed by MLPA Initiative staff and reviewed by the MLPA Master Plan Science Advisory Team (SAT) for the north central coast at its May 30, 2008 meeting. Since the May meeting, the initial questions have undergone refinement and revision through discussions amongst SAT work groups and staff. The current list of science questions in this document is intended to initiate the development of science guidance for the MLPA South Coast Study Region and may be revised further as discussions with the SAT and SAT work groups proceed.

1. How can modeling be used in the south coast marine protected area (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 Marine Life Protection Act Master Plan for Marine Protected Areas* 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?