

# California MLPA Initiative North Coast Study Region Summary of MLPA Guidelines and MPA Array Evaluation Approaches

*Revised November 15, 2009*

## Summary of Guidelines for Creating Marine Protected Areas

These guidelines have been summarized from several documents provided to Marine Life Protection Act (MLPA) Initiative regional stakeholder group members in past study regions. Note that key guidelines most relevant to marine protected area (MPA) planning are summarized; these guidelines may be adjusted for the specific conditions and habitats in the MLPA North Coast Study Region as the process moves forward. This is not intended to be a detailed synthesis of the documents referenced; please refer to the original documents, which can be found online, for a more complete explanation of the guidance.

Please note: While many of these documents refer to "proposals," the information is still applicable and relevant to the development of "arrays".

### **Key MLPA Documents**

- California Marine Life Protection Act ([http://www.dfg.ca.gov/mlpa/mlpa\\_language.pdf](http://www.dfg.ca.gov/mlpa/mlpa_language.pdf))
- *California Marine Life Protection Act Master Plan for Marine Protected Areas* (January 2008 revised draft) (<http://www.dfg.ca.gov/mlpa/masterplan.asp>)
- *Draft Methods Used to Evaluate Marine Protected Area Proposals* (note that the MLPA Master Plan Science Advisory Team is currently considering methods for the north coast)
  - MLPA South Coast Study Region (October 6, 2009 draft):  
[http://www.dfg.ca.gov/mlpa/pdfs/agenda\\_102009b1.pdf](http://www.dfg.ca.gov/mlpa/pdfs/agenda_102009b1.pdf)
  - MLPA North Central Coast Study Region (January 17, 2008 draft):  
[http://www.dfg.ca.gov/mlpa/meeting\\_012308.asp#attachments](http://www.dfg.ca.gov/mlpa/meeting_012308.asp#attachments)
- Regional profile (the north coast regional profile is expected to be release in late November, 2009). A message will be sent to the MLPA listserv and a copy for review will be posted on the website.
  - MLPA North Central Coast Study Region: <http://www.dfg.ca.gov/mlpa/nccprofile.asp>
  - MLPA South Coast Study Region: [http://www.dfg.ca.gov/mlpa/regionalprofile\\_sc.asp](http://www.dfg.ca.gov/mlpa/regionalprofile_sc.asp)
- California Department of Fish and Game Feasibility Criteria and Evaluation Components for Marine Protected Area Proposals (staff memorandum revised November 12, 2008):  
[http://www.dfg.ca.gov/mlpa/pdfs/agenda\\_111808n.pdf](http://www.dfg.ca.gov/mlpa/pdfs/agenda_111808n.pdf)
- California State Parks Guidelines for Creating Marine Managed Areas (staff memorandum revised November 18, 2008): [http://www.dfg.ca.gov/mlpa/pdfs/agenda\\_012909b9.pdf](http://www.dfg.ca.gov/mlpa/pdfs/agenda_012909b9.pdf)

### **California Marine Life Protection Act Guidelines**

- Use designations for MPAs as defined in the Marine Managed Areas Improvement Act (state marine reserve, state marine park, state marine conservation area):  
<http://www.dfg.ca.gov/mlpa/pdfs/revisedmp0108b.pdf>
- Address MLPA goals within the statewide network of MPAs and have "specific identified objectives" for each MPA

- Consider existing MPAs
- Replicate habitats within marine reserves in each biogeographic region, to the extent possible

***Science Guidance from the Master Plan for MPAs (January 2008 draft) and Methods Used to Evaluate MPA Arrays and Proposals (May 4, 2009 draft)***

- MPAs should extend from intertidal to offshore areas
- Minimum alongshore span should be 5-10 kilometers (3-6 miles or 2.5-5.4 nautical miles)
- Preferred alongshore span should be 10-20 kilometers (6-12.5 miles or 5.4-11 nautical miles)
- Given guidance for offshore extent and alongshore span, MPAs should be a minimum of 9 square statute miles, and preferably 18 square statute miles, to meet the ecological goals of the MLPA
- Maximum spacing between habitats is 50-100 kilometers (31-62 miles or 27-54 nautical miles)
- Replicate key marine habitats in multiple MPAs
- Include 3-5 MPAs for each habitat type in each biogeographic region (the MLPA North Coast Study Region is part of the biogeographic region that extends from Point Conception to the Oregon border) and at least 1 replicate of each key habitat in each bioregion (distinct regions within each biogeographic region, to be determined by the SAT for the north coast)

***Previous Guidance from the MLPA Blue Ribbon Task Force***

- Place great weight on MLPA Master Plan Science Advisory Team (SAT) evaluations
- Strong emphasis will be placed on MPAs that fall within the SAT preferred size and spacing range; MPA arrays should include MPAs with "very high" or "high" levels of protection; state marine reserves should be the "backbone" of any array; and may include MPAs with at least a "moderate-high" level of protection or greater.
- Cross-interest support for MPA arrays and cross-interest involvement in their development is important and will be given great weight.
- External MPA proponents should strive for convergence in geographies and regulations, where possible.
- Strong consideration should be given to California Department of Fish and Game (DFG) feasibility criteria. MPA arrays should provide specific rationale for any deviations from the recommendations in the feasibility analysis conducted by DFG.

***California Department of Fish and Game Feasibility Criteria***

- MPAs should be designed to be enforceable, readily understood by the public, and meet the goals of the MLPA
- MPA boundaries should be clear and simple
  - Use straight lines (due north/south or east/west)

- Use easily recognizable, permanent landmarks, or use major lines of latitude/longitude
- MPA clusters oriented in an alongshore fashion (stacked north/south) are preferred compared to an inshore/offshore (east/west) orientation
- Whole minutes are preferred, then half minutes, then tenths of minutes
- Use simple regulations
- Consider accessibility
- Avoid unnecessarily complex arrangements of adjacent marine reserves, marine conservation areas and marine parks (e.g. no "doughnut zones" with different fishing regulations; no "L-shaped designs")
- Avoid depth contour boundaries
- Avoid "distance from shore" boundaries
- Avoid intertidal MPAs that do not have an offshore component
- MPA names should reflect the area designated

### **California Department of Parks and Recreation Guidelines**

- Consider areas offshore of terrestrial state parks as to their appropriateness and suitability for MPAs
- Consider especially areas offshore of state parks when they provide opportunities for public visitation, help protect representative habitats and species, provide special protection for intertidal species and habitats, provide venues for marine interpretation and education, and facilitate law enforcement
- When designing MPAs offshore of terrestrial parks, consider the state park's general plan as well as existing public use patterns

### **Summary of MPA Array Evaluation Approaches**

The SAT, DFG, California State Parks, and MLPA Initiative staff evaluate MPA arrays for the study region relative to the identified guidelines. Evaluations include:

- **MPA size, MPA spacing, habitat replication and habitat representation:** The SAT evaluates MPA arrays in relation to goals 1, 2, 4 and 6 of the MLPA and the science guidelines in the master plan for MPAs. For this analysis, each MPA is assigned a level of protection based on allowed activities within the MPA, which are also considered in other analyses. Levels of protection include low, moderate-low, moderate, moderate-high, high and very high.
- **Bioeconomic modeling:** The SAT uses spatially-explicit bioeconomic models to assess MPA arrays in relation to goals 2 and 6 of the MLPA related to the effects on populations of marine species and connectivity between MPAs. This analysis calculates the biomass of populations of a suite of fished species within proposed MPAs and how the proposed MPAs will affect fishery yield and profit.

- **Marine birds and mammals:** The SAT evaluates MPA arrays based on the protection of breeding, foraging, resting and rearing areas of marine birds and mammals.
- **Socioeconomic impacts:** The SAT, through a contractor, evaluates maximum potential negative impact of MPA arrays to commercial and recreational fisheries.
- **Water quality analysis:** Considered secondary to other SAT evaluations, the SAT evaluates water and sediment quality concerns within proposed MPAs.
- **MLPA Goal 3 analysis:** MLPA Initiative staff evaluates MPA arrays based on access to recreational, educational and study opportunities.
- **DFG feasibility analysis:** DFG conducts an analysis of MPAs relative to department-identified feasibility criteria; it provides guidance on MPA design to help ensure MPA boundaries and regulations are readily enforceable and understood by the public. DFG also evaluates the likelihood of MPAs to meet the goals of the MLPA.
- **State Parks evaluation:** State Parks conducts an evaluation of how different MPA arrays address the State Parks MPA design guidelines.
- **Staff evaluations:** Staff provides basic information and statistics for MPA arrays, including breakdowns by MPA designations, level of protection, and individual MPAs.

## Key Resources

MLPA website: [www.dfg.ca.gov/mlpa/northcoast.asp](http://www.dfg.ca.gov/mlpa/northcoast.asp)

Informational workshop presentations: [www.dfg.ca.gov/mlpa/meeting\\_092909.asp](http://www.dfg.ca.gov/mlpa/meeting_092909.asp)

- Introduction to the MLPA and MLPA Initiative
- Science guidelines
- DFG guidelines
- Introduction to MarineMap
- To view an archived webcast of this workshop, visit <http://www.cal-span.org/cgi-bin/media.pl?folder=MLPA-NCRS>

MarineMap: <http://northcoast.marinemap.org/marinemap>

- MarineMap is an online mapping tool that allows you to view data layers, design MPAs (and MPA arrays), share ideas, and submit draft MPA arrays for consideration. You should know how to:
  - Log on
  - View data layers (turn data layers on and off)
  - View existing MPAs
  - Zoom in and zoom out
  - Draw an MPA
  - Assign MPA attribute information
  - Design an MPA array
    - Submit the array to staff for consideration

- Send an email to [help@marinemap.org](mailto:help@marinemap.org) to set up a MarineMap account
- View MarineMap for past study regions: <http://marinemap.org/marinemap>

MPA arrays and proposals developed in previous study regions:

- Central coast: [http://www.dfg.ca.gov/mlpa/centralcoast\\_mpa.asp](http://www.dfg.ca.gov/mlpa/centralcoast_mpa.asp)
- North central coast: <http://www.dfg.ca.gov/mlpa/nccrsg-proposals0308.asp>
- South coast: <http://www.dfg.ca.gov/mlpa/scrsg-dprops-r3.asp>

Example evaluations from the MLPA South Coast Study Region: <http://www.dfg.ca.gov/mlpa/scrsg-r3-evaluations.asp>

MLPA North Coast Regional Stakeholder Group (NCRSG) nomination form:  
<http://www.dfg.ca.gov/mlpa/ncproject.asp>

Become familiar with commonly used terms and acronyms: <http://www.dfg.ca.gov/mlpa/defs.asp>