



California Marine Life Protection Act Initiative Community Guide to Developing an External Proposed Marine Protected Area Array

Revised November 15, 2009

This checklist and accompanying packet of materials are designed as a preliminary guide for those desiring to develop a marine protected area (MPA) array to be submitted to the California Marine Life Protection Act (MLPA) Initiative North Coast Project. This guide provides community groups and individuals with an initial checklist of key information needed to develop a MPA array. Additional details will be provided by the MLPA Initiative to supplement the information contained in this guide.

LEARN

- Visit MLPA Initiative website to learn more about the MLPA, the marine protected area planning process, and upcoming events – www.dfg.ca.gov/mlpa/northcoast.asp
- Sign up for the MLPA Initiative listserv to stay informed about the planning process, upcoming meetings, and documents available for review – www.dfg.ca.gov/mlpa/maillinglist_n.asp
- Attend MLPA Initiative events in your area or watch live or archived meetings – www.dfg.ca.gov/mlpa/meetings_n.asp
- Review the draft north coast regional profile when it is released in early December. An announcement will go out to the MLPA Initiative listserv and a copy of the regional profile will be posted to the website. View regional profiles from past study regions:
 - 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)
- Visit the MarineMap¹ website, the MLPA online spatial mapping tool, to view available data layers and existing MPAs – <http://northcoast.marinemap.org/marinemap/>

¹ The performance of the MarineMap application is primarily dependent on three things: Your computer, connection speed, and choice of browser. The easiest of those three that you can change is your browser. On Windows, [Mozilla Firefox](#) and [Google Chrome](#) are both excellent choices. While Internet Explorer 7 is supported, it is not a very good performer for web applications like MarineMap. On the Mac, [Safari](#) is fastest followed by [Firefox](#).

- Review MPA proposals developed in previous study regions along the California coast for an idea of the type of information included in a proposal and how an MPA array is designed. All MPA arrays and proposals from previous study regions are posted on the MLPA website (south coast proposals can be found at: <http://www.dfg.ca.gov/mlpa/scrsg-dprops-r3.asp>, north coast proposals can be found at: <http://www.dfg.ca.gov/mlpa/northcentralhome.asp>).

Proposals from the MLPA South Coast Study Region can also be viewed on the south coast MarineMap website (<http://www.marinemap.org/marinemap/>)

ORGANIZE

- Reach out to members of your community
- Inform your community about the MLPA Initiative and the upcoming north coast MPA planning process
- Prepare a plan for developing an external proposed MPA array

SHARE

- Share information about the local marine environment, such as habitats and unique features, with those working on your array and with the MLPA Initiative
- Share information about local social and economic considerations with those working on your proposal and with the MLPA Initiative
- Review and submit comments on the north coast regional profile in December

GET STARTED

- After completing your *Intent to Submit an MPA Array* form, visit www.dfg.ca.gov/mlpa/northcoast.asp for information about other groups that have submitted a form
- Collaborate across interest groups and work together toward solutions that participants can live with
- Consider policy guidance provided by the MLPA Blue Ribbon Task Force
- Learn about science guidelines from the *California Marine Life Protection Act Master Plan for Marine Protected Areas* and MLPA Master Plan Science Advisory Team
- Learn about feasibility criteria from the California Department of Fish and Game and feasibility guidelines from California State Parks
- Review memorandum regarding external arrays to learn about what constitutes a full MPA array and what information is needed for each proposed MPA.
- Sign up for a MarineMap account to begin using the tool to draw MPAs by emailing a request to: help@marinemap.org
- Begin developing draft arrays in MarineMap

California Marine Life Protection Act Initiative North Coast Study Region External Proposed MPA Array Definition

Revised November 5, 2009

Definition of a "Marine Protected Area Array"

The Marine Life Protection Act (MLPA) Initiative includes three rounds of marine protected area (MPA) proposal development. During the first round, proposed MPA arrays – an initial collection of individual MPAs – are developed for the entire study region. In the MLPA North Coast MPA planning process, community groups will be developing this first round of proposed MPA arrays.

These initial ideas are further refined into full MPA proposals in the proceeding rounds by a regional stakeholder group. The MLPA North Coast Regional Stakeholder Group (NCRSG), which is yet to be appointed, will design MPA proposals to best meet guidelines, requirements of the MLPA and fulfill the regional component of a statewide network.

Internal vs. External

“External” proposed MPA arrays are developed external to the MLPA North Coast Regional Stakeholder Group MPA planning process by community groups during Round 1.

“Internal” MPA proposals are developed by the MLPA North Coast Regional Stakeholder Group during Rounds 2 and 3 of the MPA planning process. (Note: the MLPA North Coast Regional Stakeholder Group has yet to be appointed and is expected to be convened in February 2010 - www.dfg.ca.gov/mlpa/ncproject.asp)

What is an “External Proposed MPA Array”?

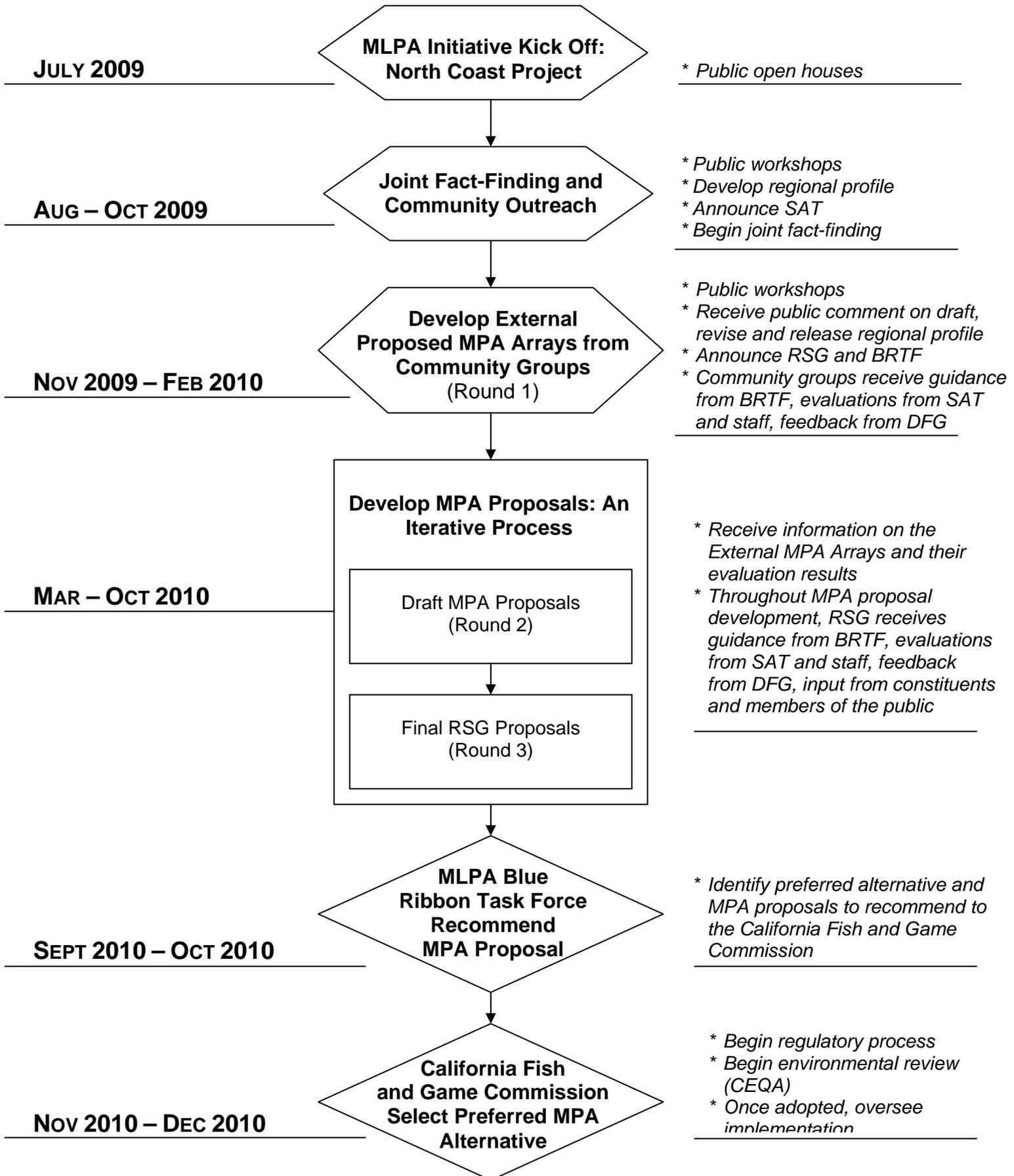
To fully integrate the robust, local knowledge available within the MLPA North Coast Study Region, community groups are invited to develop external proposed MPA arrays as the first round of the MPA planning process. This approach was developed in response to input from local community members and allows the north coast community to build a foundation from which the regional stakeholder group can develop MPA proposals. Complete external MPA arrays that include broad geographic coverage and outline details of MPAs, including specific boundaries and proposed regulations, will be evaluated by the MLPA Master Plan Science Advisory Team, California Department of Fish and Game, California State Parks and MLPA Initiative staff as well as reviewed by the MLPA Blue Ribbon Task Force and the public.

These external proposed MPA arrays, along with their evaluation results, will be presented to the regional stakeholder group for consideration in MPA planning. Community groups and/or individuals are encouraged to attend MLPA workshops and MarineMap trainings, review the *Summary of MLPA Guidelines and MPA Array Evaluation Approaches* document and other guidance materials and connect with MLPA Initiative staff for ongoing support.

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

Marine Life Protection Act Initiative North Coast Study Region Process Outline

*BRTF = Blue Ribbon Task Force DFG = California Department of Fish and Game MPA = marine protected area
MLPA = Marine Life Protection Act RSG = Regional Stakeholder Group SAT = Master Plan Science Advisory Team*



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)
- *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
 - MLPA North Central Coast Study Region (January 17, 2008 draft):
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
- 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
- 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

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

Informational workshop presentations: 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 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
- 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>