California Marine Life Protection Act Initiative
Staff Responses to Questions Posed during MLPA Public Meetings from May to July 2010
July 28, 2010

This document contains process and policy questions posed during public comment periods at Marine Life Protection Act (MLPA) Initiative meetings and submitted by members of the public to MLPAcomments@resources.ca.gov. MLPA Initiative staff reviewed all public comments and provided responses below. Additional questions that focus on the scientific aspects of the MLPA were directed to the MLPA Master Plan Science Advisory Team (SAT); those responses can be found as Briefing Document D.2 at http://www.dfg.ca.gov/mlpa/meeting_072910.asp.

1. How will MPAs change down the road and what is the state's commitment to maintaining them through time?

Response: It is unclear how marine protected areas (MPAs) will respond or change over time but an adaptive management process allows for management or administrative actions necessary to react to future conditions. The MLPA defines adaptive management as "…a management policy that seeks to improve management of biological resources, particularly in areas of scientific uncertainty, by viewing program actions as tools for learning. Actions shall be designed so that, even if they fail, they will provide useful information for future actions, and monitoring and evaluation shall be emphasized so that the interaction of different elements within marine systems may be better understood." (California Fish and Game Code, Section 2852 (a)) The *California Marine Life Protection Act Master Plan for Marine Protected Areas* recommends that a comprehensive review of monitoring results and performance be conducted every five years. Recognizing the need for comprehensive scientific monitoring of the statewide network of MPAs, the California Department of Fish and Game (DFG) has partnered with the California MPA Monitoring Enterprise to sequentially develop monitoring plans upon completion of each regional MLPA planning process. Integrating these regional monitoring plans into a coherent statewide program is essential to ensure the resulting data can be used to inform statewide policies.

2. Can there be a sunset clause on the legislation if monitoring and evaluation do not occur due to lack of funding?

Response: There is no sunset clause specified in the MLPA. Legislation can only be changed through the California State Legislature. The MPA monitoring plans that are being developed for each study region are designed to accommodate a range of financial situations. For example, detailed and comprehensive monitoring efforts are expected during periods of considerable funding. However, when funding is minimal, monitoring may be scaled back to focus on indicators that are consistent with components of the comprehensive approach and that leverage partnerships to the maximum extent possible. The MPA monitoring plan for the north central coast provides an example of this structure and may be found at http://www.calost.org/North_Central.html.

3. How will replicates of offshore rocks and rocky shorelines be evaluated?

Response: Offshore rocks and rocky shorelines are evaluated in the same habitat category for SAT evaluations of habitat replication. The SAT estimated the amount of rocky shores and offshore rocks habitat needed to encompass 90% of local biodiversity to be 0.55 linear miles. A full discussion of the habitat replication and habitat representation evaluations can be found in chapters 4 and 5 of the SAT evaluation methods document, which can be found online as Briefing Document D.1 at http://www.dfg.ca.gov/mlpa/meeting_07810.asp.

4. A. How does the external data submission process evaluate data that are contrary to existing data?

Response: To facilitate the review of data submitted from external sources, the SAT approved a submission form for public use. The form for the submission of external data can be found at http://www.dfg.ca.gov/mlpa/pdfs/agenda_072309h8.pdf and should be used for submitting datasets to the SAT. Another form for submitting external Information, can be found at http://www.dfg.ca.gov/mlpa/pdfs/agenda_072309h9.pdf and should be used to submit information to the MLPA Initiative that is of a more anecdotal nature. The submission process is the same for both forms. MLPA Initiative staff review the forms to determine which MLPA Initiative group or groups would benefit from receiving the data or information, which are then forwarded to those groups. If the submitted data are contrary to existing data, the appropriate MLPA Initiative group (e.g. the SAT or a work group of the SAT) will review both datasets to determine which one is more accurate and therefore most useful to the process.

B. How would a movie showing contiguous kelp habitat from the Oregon border to Point Conception be evaluated?

Response: MLPA Initiative staff would review the movie for authenticity and, if it was found to be authentic, forward it to the appropriate MLPA Initiative group (most likely the SAT Habitat Work Group).

C. If the external data are raw film on DVD with no peer review, what would make these external data more official and acceptable for use?

Response: Data without peer review may be used in the MPA planning process, and the external data submission form includes a place where that can be noted. Data are most easily used by MLPA Initiative groups when they are in a form that can be readily incorporated into planning tools such as MarineMap (see the data submission form for a list of data formats).

D. Will externally submitted data that are contrary to existing information receive the appropriate review given the timeframe of the MLPA process?

Response: MLPA Initiative staff review all external data and information submissions as soon as they are received, and they are forwarded promptly to the appropriate MLPA Initiative group.

E. Who makes the decision to review external data?

Response: MLPA Initiative staff review the external data submissions and forward them to the appropriate MLPA Initiative group. Those groups then determine how best to use the data during the planning process.

F. The external data submission document states that "if the MLPA staff member determines that another component of the MLPA process would benefit from the information or data then the information will be passed on to that MLPA component." Would this information also be passed to the SAT, or only the other component of the MLPA process?

Response: MLPA Initiative staff members pass information to all MLPA Initiative groups that will benefit from the information or data.

5. How does staff determine whether a water body is within the study region? Is Stone Lagoon within the study region?

Response: The MLPA describes state marine and estuarine waters as extending seaward from the mean high tide line or the mouth of coastal rivers, including any area of intertidal or subtidal terrain. In order to define the area to be considered for the MLPA North Coast Study Region (NCSR) planning process, DFG created a spatial data layer that defines study region boundaries as state marine and estuarine waters seaward from the mean high tide line to approximately three nautical miles off the mainland and offshore islands. A detailed explanation for the method used to determine the NCSR boundary can be found in section 3.1.3 of the *Regional Profile of the North Coast Study Region* (http://www.dfg.ca.gov/mlpa/ncprofile.asp); this method is consistent with how boundaries were determined for previous MLPA study regions. An overview of the criteria for inclusion of estuaries and lagoons, and how it applies to Stone Lagoon in Humboldt County, is provided below.

Criteria for the Inclusion of Estuaries and Lagoons

Within estuaries and lagoons, the shoreward boundary of the NCSR was determined by evaluating the extent and presence of mapped salt marsh and brackish vegetation, presence of saltwater species, the known extent of tidal influence, and jurisdictional boundaries. Data sources for this analysis included the U.S. Fish and Wildlife Service National Wetlands Inventory, Digital Globe 1.0 meter satellite color imagery, the National Oceanic and Atmospheric Administration (NOAA) Coastal Change Analysis Program remotely sensed imagery, the NOAA Environmental Sensitivity Index, topographic maps, expert knowledge from DFG biologists and other local experts, and input from MLPA Master Plan Science Advisory Team members. In general, lagoons and estuaries that are open, at least periodically, are included in the study region. Coastal water bodies with limited connections to the ocean, and predominantly freshwater species, are not included in the study region (e.g. Freshwater Lagoon). DFG and MLPA Initiative biologists, planners, and geographic information system specialists compiled this information and created the spatial data layer named "Study Region Boundaries" that can be viewed in MarineMap at http://northcoast.marinemap.org/.

Criteria for the Inclusion of Stone Lagoon

Based on the criteria described above, Stone Lagoon was included in the NCSR. The determination to include Stone Lagoon in the study region was made based on the consideration of the above data sources, including detailed accounts of natural breaching events, documented saltwater fish species, and reported water quality measurements. Key considerations were:

- Stone Lagoon, fed primarily by one perennial stream (McDonald Creek), breaches naturally and is therefore tidally influenced at least periodically. Breaching occurs every several years, generally in the same location at the southern end of the barrier beach during or near the end of the rainy season between October and April (Kraus et al. 2002). Breaching can occur from either the seaward or the lagoon side. Upon breaching, the water level in the lagoon typically reaches near equality with sea level within a day or so, and the breach site can quickly close or remain open for months, depending on the magnitude of water exchange (Kraus et al. 2002, 2008).
- Common saltwater or otherwise euryhaline fish species have been reported from Stone Lagoon, such as Pacific herring, Pacific staghorn sculpin, tidewater goby, bay pipefish, tubesnout, night smelt, topsmelt, cabezon, surfperches, starry flounder, and sandsole (Mulligan 2002, Chamberlain 2006, USFWS 2008, personal communication with expert local biologists).
- Measured water quality parameters from Stone Lagoon, such as salinity, dissolved oxygen, temperature, and pH levels have been reported in various literature sources. For example, salinity values in Stone Lagoon range from 7-30 parts per thousand, they are generally higher near the spit and lower close to the mouth of McDonald Creek, and vertical salinity stratification exists with dense, more-saline water found below less-saline water except during breaching events (Monroe et al. 1976, Chamberlain 2006, personal communication with expert local biologists).

The North Coast Regional Stakeholder Group was convened to enhance the state's ability to carry out the mandates of the MLPA, and to ensure that regional knowledge and interests are reflected in alternative proposals for marine protected areas along the north coast. Debate about the potential benefits and appropriateness of any particular geography as a candidate for protection under the MLPA, such as the Stone Lagoon State Marine Recreational Management Area proposed in some Round 2 draft marine protected area proposals, is encouraged for stakeholder group deliberations.

References

Chamberlain, C. D. 2006. Environmental variables of northern California lagoons and estuaries and the distribution of tidewater goby (*Eucyclogobius newberryi*). U.S. Fish and Wildlife Service, Arcata Fish and Wildlife Office, Arcata Fisheries Technical Report Number TR 2006-04, Arcata, California.

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Mulligan, T. J. 2002. Fishes of Stone Lagoon from February through May 2002, Humboldt Lagoons State Park, Humboldt County, CA. Humboldt State University, advanced ichthyology class project. 24 p.

USFWS. 2008. 50 CFR Part 17. Endangered and threatened wildlife and plants; revised designation of critical habitat for the tidewater goby (*Eucyclogobius newberryi*); final rule. Federal Register January 31, 2008 (Volume 73, Number 21).

6. Is there a suitable cap on the amount of take for research in state marine reserves? Can the California Department of Fish and Game limit scientific collecting?

Response: DFG currently requires permits for all scientific collecting in the State of California, and DFG staff review all permit applications for potential impacts to the ecosystem. Recognizing the increased opportunity for research within MPAs, DFG is currently investigating options to revamp its scientific collection permit program to better define what types and level of research in MPAs will be permissible.

7. How will the presence of state marine recreational managed areas (SMRMAs) or state marine conservation areas (SMCAs) affect state approvals of future projects in Humboldt Bay?

Response: Currently DFG has no additional permitting requirements in place regarding existing or future activities in MPAs and other managed areas, such as state marine recreational management areas (SMRMAs), though this does not preclude DFG from developing an MPA-related project permitting process in the future.

Based on informal advice received from the California Attorney General in 2009 (http://www.dfg.ca.gov/mlpa/pdfs/agenda_102009a1.pdf), some activities may be incompatible with an MPA if they lead to the injury, damage, take or possession of living, cultural or geological resources. State marine reserves are the most restrictive classification and may prohibit some activities (including dredging and certain kinds of maintenance and new construction). Generally, state marine conservation areas, and state marine recreational management areas designated by the California Fish and Game Commission are more compatible with these activities; it is helpful for stakeholders to identify existing permitted activities they wish to continue within a proposed MPA to ensure that the appropriate classification is used.

For the purposes of the Marine Life Protection Act (MLPA) planning process, mariculture activities should be included along with proposed targeted take of living marine resources under "allowed uses," whereas the intent for continuation of activities that may result in extraction or incidental take (e.g. construction, dredging, etc) should be noted under "other regulated activities."

Authority of other federal, state, and local agencies involved in regulating activities cannot have their jurisdiction pre-empted through the designation of MPAs under the MLPA. There is also no way to accurately predict how other agencies may respond to anticipated or future projects occurring in, adjacent to, or "upstream" from MPAs. However, it can reasonably be anticipated that DFG could provide comments on proposed projects to ensure habitat and other resource protections are taken into consideration, and that the projects are consistent with the MPA classification, the goals and objectives associated with the particular MPA, and the overall goals of the MLPA. While each proposed MPA is unique in location, goals and objectives, and may include a multitude of existing permitted activities, it is currently unknown how a particular theoretical MPA may be viewed by the various permitting agencies.

In the MLPA South Coast Study Region, proposed regulations for MPAs that overlap existing structures and ongoing permitted activities have specified that these activities are allowed to continue under current permits (http://www.dfg.ca.gov/mlpa/pdfs/southcoast_isor_040710.pdf). To accommodate ongoing, regulated activities while prohibiting fishing, proposed MPAs with an intended designation as state marine reserves have been reclassified as "non-fishing" state marine conservation areas in the proposed regulations.

8. What are the guidelines for socio-economic impacts?

Response: The MLPA gives precedence to ecosystem integrity and habitat protection goals in designing a network of MPAs. In addition, the MLPA Blue Ribbon Task Force (BRTF) approved the following socioeconomic factors, during its January 31-February 1, 2006 meeting:

- Consideration of socioeconomic factors in the act includes (1) the goal of attention to species of economic value; (2) participation by interested parties and local communities; (3) development of a siting plan for protected areas that considers economic information to the extent possible while achieving goals of the act; and, (4) decision-making based on the best readily available science with no suggestion of deferring action for additional data collection or analyses.

While specific economic targets are not set, to date, the MLPA Initiative has complied with and gone beyond the requirements of the MLPA to consider socioeconomic factors by incorporating (1) the knowledge of its regional stakeholder group members, (2) analyses of existing socioeconomic data, (3) information from interviews with consumptive and non-consumptive users, (4) recreational and commercial fishing data collected by a contractor to the MLPA Initiative, and (5) information gathered from public participation, including during the development of regional profiles.

Regional stakeholder group members also may consider socioeconomics in their MPA design (e.g. through regulations, placement, boundary arrangement). Stakeholders may choose to construct site specific rationale and MPA intent or goals to regard eco-tourism (diving, wildlife viewing) as a viable economic replacement to previous consumptive uses.

9. Can the SAT run optimization models using the size and spacing guidelines to show the RSG a range of possibilities?

Response: The MLPA Master Plan Science Advisory Team (SAT) is responsible for several tasks, including reviewing alternative MPA proposals and addressing scientific questions raised by stakeholders (see the SAT charge at http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentVersionID=29818). It is outside of the charge of the SAT to develop MPA proposals or suggest MPA designs. The MLPA North Coast Regional Stakeholder Group (NCRSG) is responsible for developing alternative MPA proposals, incorporating guidance from various MLPA Initiative bodies and integrating local knowledge (http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentVersionID=30518). One benefit of this process design is that the NCRSG is able to consider a range of information in designing MPA proposals, beyond the location of various habitats and mapped fishing grounds.

While the results of optimized models may help to inform the development of MPA proposals, it is outside of both the charge and capacity of the SAT to run such analyses. Developing optimized proposals requires setting goals and making tradeoffs that amount to policy judgments rather than scientific evaluations. It would be inappropriate for this type of analysis to be conducted by the SAT, a neutral body that is specifically asked to refrain from such policy judgments. Stakeholders wishing to pursue such an optimized analysis may wish to approach organizations outside of the MLPA Initiative to provide this support. MLPA Initiative staff encourages NCRSG members to pursue this kind of additional information, which may help to inform MPA planning.