# California Marine Life Protection Act Initiative
# Guidelines to Assist Stakeholders in Addressing Goal 3 of the Marine Life Protection Act in the MLPA North Coast Study Region

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**California Marine Life Protection Act, Goal 3:**

*"To improve recreational, educational, and study opportunities provided by marine ecosystems that are subject to minimal human disturbance, and to manage these uses in a manner consistent with protecting biodiversity."* (Subsection 2853(b)(3), California Fish and Game Code)

## Background

The six goals of the Marine Life Protection Act (MLPA) function together to provide guidance for a program that improves the management of marine ecosystems and their component parts through a system of marine[1] protected areas (MPAs). Individual MPAs can be designed to address one or more MLPA goals. When taken together, however, the individual MPAs should contribute to a statewide network that achieves all of the goals of the MLPA.

The goals of the MLPA serve to help guide the design of alternative MPA proposals, as required under the MLPA. Several goals specifically relate to conserving ecological characteristics, and these goals may also allow and provide benefits to human uses. Other goals are administrative in nature and offer design and management guidance. Goal 3 is related ocean enjoyment, ecological conservation, and learning about ocean ecosystems and their responses to management and human uses.

## Guidance

One component of Goal 3 is that improved opportunities shall be "provided by marine ecosystems that are subject to minimal human disturbance." While "minimal human disturbance" has not been defined, there are a variety of ways that this component of Goal 3 may be considered. Proposed allowed uses within MPAs give an indication of the potential level of human disturbance. Levels of protection (LOPs), as assigned by the MLPA Master Plan Science Advisory Team (SAT), categorize proposed allowed uses according to the potential ecosystem effects of removing particular species using particular gear types.

Each proposed allowed use in an MPA that involves the harvest of living marine resources is evaluated by the SAT and assigned an LOP based on its potential ecosystem impact. LOPs range from very high (no take allowed) to low (take that has a large impact on the ecosystem). The MLPA Blue Ribbon Task Force (BRTF) has noted that MPAs with LOPs that are very high, high, or moderate-high should be the "backbone" of the MPA network, as those MPAs are most likely to contribute to meeting the ecologically-focused goals of the MLPA. MPAs that have these "higher" levels of protection may be subject to minimal human disturbance and also

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[1] Note that California's system of marine protected areas is to be designed to improve the protection of both marine and estuarine environments; for ease of reference, the word "marine" in the context of this document is defined to include estuarine.

may contribute to meeting Goal 3 of the MLPA. Additionally, MPAs with lower levels of protection may contribute to meeting Goal 3, depending on the specific proposed allowed uses.

Proposed MPAs are not required to meet a specified level of protection or size in order to contribute to meeting Goal 3 of the MLPA. However, the specific design of these MPAs, including the proposed allowed uses, should address at least one of the elements outlined below (recreational, educational, and study opportunities), and be subject to minimal human disturbance. MarineMap, an online mapping tool used in the MPA planning process, provides a number of data layers that can help identify areas where MPAs might be placed to improve recreational, educational, or study opportunities.

### *Improving Recreational Opportunities*

To design MPAs to improve recreational opportunities, one should consider:

- Proximity to access points and launch sites
- Proposed allowed uses consistent with “minimal human disturbance”
- Consideration of consumptive and non-consumptive activities

MPAs may contribute to greater diversity and organismal abundance, as well as a fuller range of size and age classes, relative to areas outside of MPAs. As a result, MPAs may provide benefits for non-consumptive recreational users, such as wildlife viewers and photographers. Similarly, consumptive users such as anglers may gain recreational benefits from these areas by catching larger individuals of certain species outside MPAs.

Accessibility may improve recreational opportunities by allowing members of the public the opportunity to more easily visit MPAs. Public coastal access points are outlined in the California Coastal Commission’s Coastal Access Guide and displayed in MarineMap. These sites include state and national parks, harbors, dive sites, kayak launch sites, hiking trails, and other locations from which members of the public access marine resources.

In some cases, improved access may decrease the capacity for a network of MPAs to improve recreational opportunities. Easy access may increase visitation to an MPA, which may in turn have detrimental effects on marine ecosystems and decrease their ability to confer recreational benefits. For example, intertidal areas that are used for enjoyment and exploration by the public can be subject to trampling and habitat degradation, while extensive anchoring on rocky reefs at popular dive spots may damage habitat. In other cases, MPAs sited in close proximity to coastal access points may reduce the capacity for the public to easily engage in some consumptive recreational activities.

Including some MPAs that are close to access points and others that are distant from access points in an MPA proposal will address the considerations above; this allows for a balance between the enjoyment and use of the MPA and the protection of the ecosystem within the MPA.

Appropriate allowed uses are a second consideration when designing MPAs to improve recreational opportunities in an MPA proposal. Ecological benefits provided by SMRs (that by definition do not allow take) may provide improved non-consumptive recreational opportunities within MPA boundaries, as well as improved consumptive benefits outside of MPA boundaries. Additionally, MPAs can allow some take and still improve non-consumptive and consumptive recreational activities. Allowed uses within MPAs may be designed in a manner consistent with providing for "minimal human disturbance," while still allowing some forms of take. In some cases, MPAs with higher LOPs may contribute to improving recreational opportunities, while in other cases, a select number of allowed uses that result in lower LOPs may still contribute to improving recreational opportunities. In both cases, allowed consumptive uses should be kept to a minimum and should include only a limited number of species.

### *Improving Educational Opportunities*

To design MPAs to improve educational opportunities, one should consider:

- Proximity to access points
- Proximity to educational or outreach facilities
- Proposed allowed uses consistent with “minimal human disturbance”

MPAs may offer opportunities for education. By designing MPAs that capture areas of high biodiversity that are minimally disturbed, people can see first-hand how natural ecosystems function and organisms interact. These educational opportunities may be structured, such as classroom activities and school field trips, or informal, such as viewing informational displays or experiencing visitor centers.

When designing MPAs to improve educational opportunity, one should consider proximity to access points (see above) and proximity to educational or outreach facilities, such as universities, aquariums, and national, state, and regional park information centers and their associated programs. These various facilities play a key role not only in creating educational programs for K-12 schools, but also in providing educational opportunities that foster lifelong learning. Since MPAs placed near educational facilities may receive heavy visitor use, it is necessary to seek a balance between the enjoyment and use of the MPA and the protection of the ecosystem within the MPA. This potentially could be attained by limiting the number of allowed uses or by placing MPAs both very close to and distant from epicenters of visitor activity (to ensure some MPAs receive relatively little visitation and provide better representations of undisturbed ecosystems).

### *Improving Study Opportunities*

To design MPAs to improve study opportunities, one should consider:

- A strong backbone of state marine reserves
- Proximity to access points

- Proximity to universities and marine labs
- Proximity to long-term research sites
- Replication of habitats
- Proposed allowed uses consistent with “minimal human disturbance”

Establishing MPAs creates opportunities to study the ocean environment, species management, human impacts, and ecosystem processes. The value of the information gained through such research is that it provides the opportunity for comparison among sites with different conditions. State marine reserves (SMRs) in particular could serve as “control” sites for the study of a variety of anthropogenic impacts, and MPAs with varying allowed uses could provide scientists with the opportunity to compare how these sites differ in a wide variety of ecosystem parameters. Therefore, a strong backbone of SMRs, which can be compared to areas outside of SMRs as well as to MPAs that allow take of select species, may contribute to improving study opportunities, and may help develop better management in the future.

As with recreational and educational opportunities, access is an important consideration when designing MPAs to improve study opportunities, particularly in the north coast study region, where weather may limit access to distant field sites. Easy access increases the frequency and efficiency of data collection by reducing travel costs, reducing data collection effort, and narrowing the window of acceptable weather necessary to travel to a site. Additionally, placing accessible MPAs within easy reach of universities and marine labs may have a multiplicative effect by providing study opportunities near institutions that have the equipment and facilities to support frequent data sampling and establishment of long-term research sites.

Established long-term research sites are another consideration when designing MPAs to improve study opportunities (a list of long-term research sites is included in the *Regional Profile of the North Coast Study Region*). It is difficult to predict the effect that establishing MPAs with different allowed uses will have on the long-term data sets that have been collected over past years. However, these data sets are an invaluable resource that could provide extensive information about how MPAs interact with the ecosystem, but only if they can provide comparative data. Therefore, long-term research sites will be most informative if they are distributed among MPA types and areas outside of MPAs, instead of having most sites included in MPAs with the same levels of protection.

Allowed uses should be considered in proposed MPAs when attempting to improve study opportunities. SMRs provide control sites, which may be compared to other areas that have a range of uses. MPAs that prohibit most uses, but allow a select few, may provide the opportunity to study the specific role of key organisms in a system. In the south coast study region, the SAT developed a set of guidelines for how to design these types of “adaptive management” MPAs, and that document is available on the MLPA website (http://www.dfg.ca.gov/mlpa/pdfs/agenda_050509m1.pdf).

Finally, habitat replication is a key component of designing MPA networks to improve study opportunities. MPA networks should include multiple MPAs with the same key habitats to allow

scientists to replicate field sites across space, something that is necessary for many research studies.

**Evaluation Methods**

When designing an MPA that is intended to meet Goal 3, it is important to provide an explanation for how the MPA meets the goal in the "Site Specific Rationale" field in MarineMap. The explanation should:

- Build off the Goal 3 guidance included in this document
- Clearly support the improvement of recreational, educational, and/or study opportunities
- Identify which elements of Goal 3 the MPA addresses
- Explicitly state how the design of the MPA addresses Goal 3 and what information was used to decide on the MPA's placement

When indicating an MPA is intended to improve recreational opportunities, it is important to specify whether those recreational opportunities are consumptive, non-consumptive, or both. MPAs intended to meet Goal 3 should be subject to minimal human disturbance and managed in a manner consistent with protecting biodiversity. If a Goal 3 MPA proposes allowed uses that receive a level of protection lower than moderate-high, it is important to justify how it contributes to the goal.

To ensure that Goal 3 is addressed throughout the MLPA north coast study region, all three elements of Goal 3 (improved recreational, educational, and study opportunities) should be addressed within each of the two SAT-defined bioregions. When considering recreational opportunities, both consumptive and non-consumptive users should be addressed by the MPA proposal. Note that the three Goal 3 elements do not need to be addressed within the same MPA, though multiple elements may be addressed in a single MPA. If all three elements of Goal 3 are addressed within each bioregion, the MPA proposal will be considered to meet Goal 3.

MLPA Initiative staff will only review the Site Specific Rationale section for each proposed MPA that is labeled as intending to meet Goal 3. If the Site Specific Rationale accurately describes the MPA's Goal 3 design element and follows the Goal 3 guidelines, that MPA will be counted as contributing toward meeting the described element of Goal 3. MLPA Initiative staff will provide feedback on whether or not each MPA contributes toward meeting the identified element of Goal 3, following the guidelines outlined in this document in the bulleted lists for each Goal 3 element.