

**California Marine Life Protection Act Initiative**  
**Draft Responses to Questions Posed at the October 16-17, 2007 Meeting of**  
**the North Central Coast Regional Stakeholder Group**  
*Revised November 9, 2007*

The questions in this document were received at the October 16-17, 2007 meeting of the MLPA North Central Coast Regional Stakeholder Group (NCCRSG). MLPA Initiative staff and the co-chairs of the MLPA Master Plan Science Advisory Team (SAT) have reviewed the questions and determined that some are policy or management questions, others are science-based, and still others have both policy and science components.

MLPA Initiative staff has provided responses to the policy/management questions, while the SAT will provide responses to the science questions (SAT assistants and work groups will prepare draft SAT responses for consideration).

**1. Would allowance of shore-based angling along a broad (100 yard) ribbon of the coast be acceptable and what impact would this have on the protection level of an MPA?**

**Staff response:** Any marine protected area (MPA) that allows shore-based angling will by definition be classified as a state marine conservation area (SMCA) or state marine park (SMP); these areas will be evaluated using the California Department of Fish and Game's (DFGs) feasibility criteria as well as be given a level of protection by the SAT. DFG's recommendation is to propose an SMCA or SMP that allows fishing from shore. A boundary distance offshore is not recommended since 100 yard fishing zones are not easily enforced and this could negate the intent to allow only shore-based fishing. DFG recommends against a separate, narrow SMCA or SMP that allows fishing sited adjacent to and inshore of an SMR or other designation as this creates an abrupt change in regulations from multiple designations in a small area, is difficult to enforce, and creates difficulties for public understanding. DFG recommends that the SAT provide input on the ecological impacts of shore-based fishing on the overall level of protection of the area.

**Draft SAT response:** A draft response to this question is still being formulated.

**2. Where is the sewer outfall from San Francisco in relation to the Gulf of the Farallones National Marine Sanctuary?**

**Staff response:** The outfall for San Francisco's treated sanitary wastewater is outside of the Gulf of the Farallones and Monterey Bay National Marine sanctuaries. The outfall is approximately five nautical miles west of the San Francisco/San Mateo counties boundary, near the twenty meter depth contour. The eastern boundary of the Monterey Bay National Marine Sanctuary is approximately four nautical miles west of the outfall. The eastern boundary of the Gulf of the Farallones National Marine Sanctuary is approximately eight nautical miles west of the outfall.

Reference: Oceanside Biology Laboratory. August 2007. Southwest Ocean Outfall Regional Monitoring Program 2006 Data Report. Prepared for San Francisco Public Utilities

Commission Natural Resources and Land Management Division. Accessed online  
November 1, 2007 [http://www.mbnms-simon.org/docs/project/100212\\_2005\\_report.pdf](http://www.mbnms-simon.org/docs/project/100212_2005_report.pdf)

**3. How should the NCCRSB consider or deal with international telecommunication cables that are being installed and may cross MPAs or future wave farms that may not allow access?**

**Staff response:** A policy memo from DFG has been/will be provided to the NCCRSB addressing the issue of other management measures that may impact MPA deliberations.

**4. Have any wave farms been proposed for this study region?**

**Staff response:** Four wave energy proposals for California are currently under review by the Federal Energy Regulatory Commission (FERC). Additionally, one tidal energy proposal is under review. None of these proposals are within the north central coast study region, though at least two border the region closely.

1. Pacific Gas & Electric: "WaveConnect" pilot project off Humboldt Bay and Fort Bragg. The FERC application is for a 136 square mile study area off Humboldt Bay and 68 square mile area in Mendocino. The actual test sites could be about 1-4 square miles in area and would test multiple types of devices for a period of 3 years. They are not considering any on- or near-shore devices. The pilot project could be near 3 miles off shore.
2. Chevron: Two 40-megawatt wave farms off Fort Bragg are proposed.
3. Finavera: Planning to apply for a preliminary permit for area north of Trinidad (Big Lagoon area). Their plan is to install and test 4 buoy systems to generate 250 MW on average. The four buoys would take up an area of ocean bottom approximately 950 feet by 200 feet.
4. Fairhaven Wave Energy: Proposal to place 40 to 80 wave energy converters (20 MW) in a site approximately ½ mile wide by 4 miles long northwest of Eureka, CA.
5. Golden Gate Energy: Proposal is to develop a tidal current energy system. The system would be installed below the Golden Gate Bridge and use existing infrastructure for placement.

**5. Can the SAT analyze displacement effects?**

**Staff response:** It is extremely difficult to predict human behavior and potential response to fishery closed areas. At present, we do not have the spatial data to effectively conduct this analysis; such an analysis requires high precision, small scale data on catch and fishing behavior. Monitoring efforts of the recently implemented central coast MPAs may in the future provide some insight into fishing behavioral shifts and displacement effects. This question is also addressed in the CEQA review of the central coast MPAs

*Reference:*

Jones & Stokes. 2006. *Environmental Impact Report: California Marine Life Protection Act Initiative Central Coast Marine Protected Areas Project*. Draft. November. State Clearinghouse #2006072060. (J&S 06682.06) Oakland, CA. Prepared for California Department of Fish and Game, Marine Region, Monterey, CA.

**6. Is an MPA that protects Farallon rockfish likely to increase the abundance of juvenile rockfish in the Farallon subregion?**

**Draft SAT response:** A draft response to this question is still being formulated.

**7. The NCCRSG would like the SAT to (re)consider and comment on the following as possible additions to the list of species likely to benefit from MPAs. (An NCCRSG workgroup was tasked to develop a list and rationale for review of particular species – see additional discussion points in Attachment 1)**

- a. Flat abalone, *Haliotis walallensis*, and northern abalone, *Haliotis kamtschatkana* (see Rogers-Bennett, 2007, Sloan, 2004, and Gladstone, 2002)
- b. White sharks - SAT response to NCCRSG questions (revised October 12), "Since little is known about the breeding locations of white sharks, protecting forage species in areas where white sharks aggregate (e.g. the Farallones, Tomales Point) would likely benefit them."
- c. Salmonids - SAT response to NCCRSG questions (revised October 12), "Placing a protected area in the coastal waters offshore of the river mouth will protect salmon during a crucial life stage."

**Draft SAT response:** A draft response to this question is still being formulated.

**8. Would the designation of a state marine reserve or other MPA around the mouth of a major estuary make a significant contribution to protection of anadromous fish that spawn upstream?**

- a. Does the SAT have comments on what size and setback is likely to be protective? Would a fairly narrow boundary accomplish resource protection?
- b. Is there a risk of boats "fishing the line" if the boundary is drawn tight to the mouth of a river?

**Draft SAT response to question 8:** A draft response to this question is still being formulated.

**Draft SAT response to question 8a:** A draft response to this question is still being formulated.

**Staff response to question 8b:** It is DFG's experience in the Channel Islands and elsewhere that fishing effort is often exerted near the boundaries of area-based fishery closures. DFG enforcement staff are, however, very familiar with enforcing boundary line regulations for both MPAs and other management. If the intent of a protected area

is to protect fish returning to a specific spawning location, the area should be large enough to protect the congregation of animals around that location.

**9. What impact would the delineation of "vessel no traffic zones" of varying widths have on the level of protection assigned to an MPA?**

- a. What would be the specific benefit to seabirds and marine mammals?

**Draft SAT response to question 9:** A draft response to this question is still being formulated.

**Staff response to question 9:** DFG will issue a memo to the NCCRSG on the use of 'Special Closures'. This memo will provide information to supplement the SAT response above.

**Staff response to question 9a:** This question was previously addressed. Please see the response to question 6 from the NCCRSG July 10-11, 2007 meeting.

## Attachment 1

### **Additional rationale and discussion provided by the NCCRSG for considering the species listed in Question 7.**

- a. Flat abalone, *Haliotis walallensis*, and Northern abalone, *Haliotis kamtschatkana* (see Rogers-Bennett, 2007, Sloan, 2004, and Gladstone, 2002)

Rationale for this is based on the above scientific literature. Both species are under threat because of ocean warming contracting the southern portion of their ranges, the expansion of the sea otters range, and for the flat abalone, a commercial fishery in Oregon. They would also be a good candidate for "flagship" species that would highlight the need for kelp bed community conservation (Sloan, 2004). Gladstone (2002) included them with other mollusks as important indicator assemblages. In the mid- 90s, we routinely observed flat abalone at Saunder's Reef (*Lance Morgan, pers. comm., Oct. 2007*).

- b. White sharks - SAT response to NCCRSG questions (revised Oct 12), "Since little is known about the breeding locations of white sharks, protecting forage species in areas where white sharks aggregate (e.g. the Farallones, Tomales Point) would likely benefit them."

The following provides additional rationale and discussion for and against the inclusion of white sharks to the list of species likely to benefit from MPAs. These discussion points were summarized from email discussions among the NCCRSG about this topic.

Discussion and rationale against inclusion of white sharks to the list of species likely to benefit:

1. White sharks are already protected from fishing therefore would not benefit any further.
2. The forage base of white sharks is marine mammals which are also fully protected.
3. Since little is known about the breeding locations of white sharks any considerations of MPA placement for benefiting white sharks would entail a 'shotgun' approach which is unacceptable for all other MPA requirements.
4. The feeding grounds for white sharks are very broad. "They eat whenever and where ever they want" therefore would not benefit from MPAs aimed at protecting forage.
5. There is no need to minimize human disturbance to foraging behavior. Seals have been known to board vessels to escape feeding white sharks. Therefore, white shark feeding behavior is not disturbed by vessel presence.

Discussion and rationale for inclusion of white sharks to the list of species likely to benefit:

1. Although white sharks are protected they would still gain benefit from additional protective designations such as MPAs since interactions with humans may still result in some level of take.
  2. White sharks are internationally recognized as threatened and appear on the IUCN's red list and in CITES appendices.
  3. There are only four places where white sharks congregate in central and north central California. Three of those locations lie in the north central coast study region.
  4. The author suggests that research is beginning to show there are limited numbers of white sharks and that some individuals may move between all four sites described above.
  5. As apex predators they have small population sizes and are highly susceptible to human disturbance and impacts.
  6. White sharks mature late and have low fecundity.
  7. The Farallon Islands are an important white shark study area due to location and low human impact.
  8. Allowing take of other organisms increases risks to white sharks.
  9. White sharks frequent the same foraging grounds annually, therefore protecting forage grounds increases protection to white sharks.
  10. As an apex predator they promote ecosystem health and can be an indicator species.
- c. Salmonids - SAT response to NCCRSG questions (revised October 12), "Placing a protected area in the coastal waters offshore of the river mouth will protect salmon during a crucial life stage."

No additional rationale was provided.