

**Marine Life Protection Act Initiative  
Public Comments Submitted through  
February 17, 2010**

KRISTI FURMAN  
Clerk of the Board



TELEPHONE: (707) 463-4221  
FAX: (707) 463-4245  
EMAIL: bos@co.mendocino.ca.us  
www.co.mendocino.ca.us/bos

COUNTY OF MENDOCINO  
BOARD OF SUPERVISORS  
501 Low Gap Road • Room 1090  
Ukiah, California 95482

February 9, 2010

California Department of Fish and Game Director John McCamman  
MLPA Blue Ribbon Task Force Chair Cindy Gustafson  
Marine Life Protection Act Initiative  
c/o California Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Re: Regional Stakeholder Group Appointments for Mendocino County

Dear Director McCamman and Chair Gustafson:

On February 6, 2010, the County received communication from the Marine Life Protection Act Initiative (MLPAI) which indicated Jim Bassler, a commercial fisherman, had been added to the Regional Stakeholder Group (RSG). The Mendocino County Board of Supervisors thanks the MLPAI for this action. It is the understanding of the Board that the RSG appointments for the North Coast Study Region are selected with the goal of achieving a balance of both diversity and representation, from a wide spectrum of interests and geographic perspectives. With the recent nomination of Mr. Bassler, the RSG appointments for Mendocino County include 3 educators, 3 tribal representatives, 1 ornithologist, 1 commercial fisherman, and 3 individuals with experience in seaweed harvesting, sea urchin diving and processing, and recreational fishing.

This Board endorsed 14 of the 23 nominees from Mendocino County; 6 of the nominees we endorsed have been appointed, and they join five others who either submitted nomination letters by the November 30, 2009, deadline, or were directly recruited by the MLPAI staff. We are concerned that the slate of RSG appointees for Mendocino County does not adequately represent the diverse interests of our county. The appointment of additional stakeholders, representing critical interests which currently appear underrepresented or completely omitted, will ensure that a more comprehensive cross-section of our community is able to participate in this process. This enhanced diversity will ultimately lead to a better final product.

RECEIVED BY  
Office of the Secretary

FEB 17 2010

THE BOARD OF SUPERVISORS

RESOURCES AGENCY OF CALIFORNIA

CARRE BROWN  
First District

JOHN MCCOWEN  
Second District

JOHN PINCHES  
Third District

KENDALL SMITH  
Fourth District

J. DAVID COLFAX  
Fifth District

- 1) The southern portion of Mendocino County, from Little River to Gualala, has no representation. This area encompasses a coastline about 40 miles in length, which is essentially equal to the entire length of Del Norte County's coastline (an area with 8 designated representatives). The county's southern coastal area includes the historic and economically significant ports of Arena Cove and the Albion Harbor Complex, in addition to a half dozen campgrounds, the City of Point Arena, and the coastal communities of Gualala, Anchor Bay, Manchester, Elk, Albion, and Little River. As you are aware, the southern coastline of Mendocino County has already been impacted by the adoption of arrays submitted through the North Central Coast Study Region. These impacted communities desperately need direct, local representation in the RSG. Albion residents and RSG nominees, Mike Carpenter and Bruce Campbell, have met or exceeded the RSG selection criteria. Both individuals represent a number of community interest groups, have made exemplary efforts to disseminate information about the MLPA to constituents without internet access, have enabled dozens of other constituent consultations, and have consistently attended meetings of the Mendocino Ocean Community Alliance (MOCA) external array working group. The appointment of Mr. Carpenter and Mr. Campbell to the RSG would address the need for southern coast representation.
- 2) Even with the MLPAI's recent nomination of Jim Bassler, there is limited Mendocino County representation for commercial crab, salmon, and nearshore permit holders. Stakeholders with this unique background have invaluable knowledge regarding seasonal trends in fish and invertebrate populations (abundance and distribution), and rare oceanic events typically experienced only by individuals actively working in the commercial sector. The expert witness many of these individuals are able to provide is gleaned from literally thousands of days working on the ocean, covering a wide oceanographic area. The appointment of RSG nominee Tom Estes would enable the continued participation of a commercial groundfish and large-boat crab fisherman who has reliably participated in external array working group meetings, and given testimony to the Science Advisory Team and Blue Ribbon Task Force. Mr. Estes would also bring specific valuable experience to this process, gained as a regional stakeholder in the North Central Coast Study Region.
- 3) Del Norte and Humboldt County Harbor Districts are represented on the RSG. Mendocino County's Noyo Harbor District is not. This representation on the RSG could be attained through the appointment of Jim Burns, Noyo Harbor Commissioner, or a similar delegate.

The Board appreciates your consideration of this request, and encourages you to contact us directly with any questions regarding this letter.

Sincerely,



Carre Brown, Chair  
Mendocino County Board of Supervisors



## CITY OF FORT BRAGG

*Incorporated August 5, 1889*  
416 N. Franklin St.  
Fort Bragg, CA 95437  
Phone: (707) 961-2823  
Fax: (707) 961-2802  
<http://city.fortbragg.com>

February 10, 2010

Honorable Cindy Gustafson, Chair  
MLPA Blue Ribbon Task Force  
California Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

**RE: Marine Life Protection Act Implementation**  
Representation for the Port of Albion on the North Coast Regional Stakeholder Group

Dear Ms. Gustafson:

The Fort Bragg City Council respectfully requests that you appoint a representative to the North Coast Regional Stakeholder Group (RSG) from the Albion area of Mendocino County. Four persons from that port followed the nomination process set out by the MLPAL, and all were passed over.

The implementation of the MLPA is of paramount importance to our local communities. On February 6, 2010, you appointed Mr. Jim Bassler from Fort Bragg to fill a commercial fisherman slot on the RSG, an action we applaud. The port of Albion needs similar recognition, as this port represents more than 35 miles of ocean access that has no current representation on the RSG.

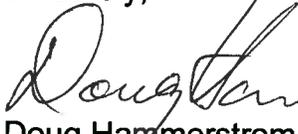
MLPAL staff has repeatedly praised the process as being public and open. Yet, there are many deviations from the announced process. For the North Coast RSG, a specific process with deadlines was established for nominations, interviews and appointments. This process was not used in the appointment some RSG members, which points to a lack of transparency and bias that undermine the integrity of the entire MLPAL. **This is a very serious problem, and the MLPAL will continue to suffer from a lack of public trust until a truly open and public process that considers local communities is imposed.**

The RSG has just concluded its first meeting. We respectfully request that you appoint a representative from the Albion area, one of the persons who followed the nomination process, to ensure real perspectives from that area.

RECEIVED BY  
Office of the Secretary  
FEB 17 2010  
RESOURCES AGENCY OF CALIFORNIA

Thank you for your attention to this request.

Sincerely,



Doug Hammerstrom  
Mayor



Dave Turner  
Vice Mayor



Meg Courtney  
Council Member



Dan Gjerde  
Council Member



Jere Melo  
Council Member

CC: Senator Pat Wiggins  
Assembly Member Wes Chesbro  
Carre Brown, Chair, Mendocino County Board of Supervisors  
Fred Euphrat, Joint Committee on Fisheries and Aquaculture  
Ken Wiseman, Executive Director, MLPAI  
Jaenine Pfeiffer, MOCA  
Jim Martin, MOCA

RECEIVED BY  
Office of the Secretary

FEB 17 2010

RESOURCES AGENCY OF CALIFORNIA

From: **InterTribal Sinkyone Wilderness Council**  
Date: Thu, Feb 11, 2010 at 8:13 PM  
Subject:

Dear Ken,

Attached is the InterTribal Sinkyone Wilderness Council's letter containing our **Comments on Draft Strategy for Public Participation in the MLPA North Coast Study Region**.

Please email or call me if you have any questions.

Sincerely,  
Hawk

**Hawk Rosales, Executive Director**  
**InterTribal Sinkyone Wilderness Council**



# InterTribal Sinkyone Wilderness Council

P.O. Box 1523 Ukiah, CA 95482 Phone (707) 468-9500

## InterTribal Cultural Conservation for Sinkyone Indian Lands



February 11, 2010

### BOARD OF DIRECTORS

**Priscilla Hunter**  
Chairperson  
Founder  
Pomo

**Daniel Rockey, Sr.**  
Vice Chairperson  
Sherwood Valley Band  
of Pomo Indians

**Stoney Timmons**  
Member  
Robinson Rancheria

**Elizabeth Hansen**  
Treasurer  
Redwood Valley  
Little River Band  
of Pomo Indians

**Marilyn Bell-Wilson**  
Member  
Cabto Tribe of  
Laytonville Rancheria

Coyote Valley Band  
of Pomo Indians

**Shawn Pady**  
Member  
Hopland Band  
of Pomo Indians

**David Edmunds**  
Member  
Pinoleville Pomo Nation

Potter Valley Tribe

**Ronald W. Lincoln, Sr.**  
Member  
Round Valley  
Indian Tribes

**Crista Ray**  
Member  
Scotts Valley Band  
of Pomo Indians

**Martha Knight**  
Member-at-Large  
Pomo

### STAFF

**Hawk Rosales**  
Executive Director

**Janene Ilar**  
Administrative Assistant

### Via Email, Fax and U.S. Mail

Ken Wiseman  
Executive Director  
Marine Life Protection Act Initiative  
California Natural Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, California 95814

### Re: Comments on Draft Strategy for Public Participation in the MLPA North Coast Study Region

Dear Ken:

We have reviewed the Draft Strategy for Public Participation in the MLPA North Coast Study Region. We commend the MLPA Initiative for its efforts to foster broad public participation in the North Coast MPA process. However, we believe the Draft Strategy is deficient in significant ways and should be revised to properly accommodate the unique legal status and interests of sovereign Indian Tribes in this Region. The Initiative should set up a separate and distinct formal consultation process between Indian Tribes and the various components of the Initiative, as befits the sovereign status of the Tribes.

Because a flawed process is likely to produce a flawed result, we urge revisions to the Draft Strategy to ensure that the interests and concerns of Indian Tribes are adequately considered. Our review of the Marine Life Protection Act and the implementation documents shows that the process was not originally designed with Indian Tribes in mind and that, if the interests of Tribes were considered at all, they were treated simply as another "stakeholder" member of the public. In fact, there is some doubt whether the planners of the Initiative originally intended to include Indian Tribes in the process at all. Significantly, the list of constituent groups affected by the Initiative in footnote 1 of the Draft Strategy omits Indian Tribes entirely, unless they are thought to be part of the generic category "others."

Fortunately, it is not too late to correct this fundamental mistake, and we appreciate the openness of the Initiative staff and the various component decision-making bodies to consider revisions of the process before it is too far advanced.

The foundational principles of federal Indian law should inform the obligations of the MLPA Initiative to meaningfully accommodate the interests and concerns of Indian Tribes. Foremost among those principles is the doctrine that Indian Tribes are sovereign entities whose right to self-government predates the formation of the United States and the State of California. One of the earliest decisions of the United States Supreme Court

---

**InterTribal Sinkyone Wilderness Council is a Nonprofit Consortium of California Indian Tribes**

**• Cultural Conservation • Native Stewardship • Watershed Rehabilitation • Cultural Ecology Education**

characterized Indian Tribes as “distinct, independent political communities, retaining their original natural rights, as the undisputed possessors of the soil, from time immemorial . . . . [W]ithin their boundary, [Tribes] possessed rights with which no state could interfere.” *Worcester v. Georgia*, 31 U.S. 515, 559-560 (1832) (ruling that the laws of Georgia can have no force within Indian country). This is the law of the United States today. *United States v. Enas*, 255 F.3d 662, 666 (9<sup>th</sup> Cir. 2001) (Indian Tribes are “autonomous sovereigns” and their inherent authority comprises the power to control their internal relations and to preserve their “unique customs and social order.”). The State of California and its agencies are obligated under principles of federal law to respect Indian sovereignty, and state agencies in particular are required to avoid interference with the exercise of Tribal sovereign rights. *Williams v. Lee*, 358 U.S. 217 (1959) (federal law prohibits states from infringing on the right of Indians to govern themselves).

The sovereign status of Indian Tribes has important implications for the Initiative’s Draft Strategy for public participation. Indian Tribes cannot properly be treated simply as undifferentiated members of the general public or as one part of a larger stakeholder group. Rather, the Tribes’ legal status entitles them to a special consultative role in each stage of the Initiative. The Draft Strategy should accordingly be revised to set up a separate consultation process between Indian Tribes and the Initiative. Separate consultations would bring the Initiative’s policy in line with the growing body of federal and state laws that call for government-to-government discussions on all matters of concern to Indian Tribes. As to federal law, more than 150 statutes and regulations impose a duty on federal agencies to consult with Indian Tribes in carrying out agency work. The right of Indian Tribes to be formally consulted when a government agency might affect Tribal interests is so widely acknowledged that it has become a nearly universal rule of law applicable to both federal and state governments.

Because the Initiative is acting as an agent of the State of California in implementing a state statute, formal consultations on a governmental basis are required. The California Legislature acknowledged the value of formal consultation as sound public policy when it enacted SB 18, which requires governments to consult with Indian tribes before adopting or amending a general or specific land use plan. The law took effect in 2005. SB 18 declares an official State policy to “preserve and protect cultural places of California Native Americans.” “Tribal Consultation Guidelines: Supplement to General Plan Guidelines,” November 14, 2005, Governor’s Office of Planning and Research. The Guidelines’ definition of consultation is a useful starting point here: consultation is “the meaningful and timely process of seeking, discussing and considering carefully the views of others in a manner that is cognizant of all parties’ cultural values, and where feasible seeking agreement.” The definition emphasizes that consultation must proceed on the basis of mutual respect: “Consultation between government agencies and Native American Tribes shall be conducted in a way that is mutually respectful of each party’s sovereignty.” *Id.*

Several California state agencies likewise have adopted formal policies to consult with Indian Tribes on matters affecting their vital interests and concerns. For example, State Parks has adopted a formal consultation policy with Indian Tribes on cultural repatriation issues and other matters of concern to Tribes. It is also the policy of Caltrans

to consult “with Indian tribes and other Native American groups and individuals on any proposed Caltrans project that may potentially affect historic properties or ‘cultural resources of interest to Native Americans.’” Caltrans Environmental Handbook, *Cultural Resources*, at 3-5.1. The policy is designed to ensure participation by Indian Tribes in all aspects of identifying, evaluating and treating historic and cultural resources, and to ensure that the Tribes’ recommendations are “given maximum consideration.” *Id.* at 3-1. CAL FIRE also has adopted a mandatory consultation policy for any project “which has the potential to cause significant impacts to a Native American cultural resource.” Daniel G. Foster, Senior State Archaeologist and Linda Pollack, Associate State Archaeologist, “Native American Consultation Procedures for Timber Harvesting Plans and Other CAL FIRE Projects,” October 13, 2006. A critical element of the policy is “listening to, and actively considering the views expressed by Native American individuals.” *Id.*

Under any reasonable definition of consultation, the Draft Strategy fails to provide Indian Tribes a meaningful role in devising MPAs that avoid interference with Indian traditional cultural use areas in the North Coast Region. First, as noted, a separate consultation process should immediately be instituted. Second, with one exception, it appears that the meetings of the Blue Ribbon Task Force and the Science Advisory Team have allowed public comment for two to three minutes only, which is insufficient opportunity for any meaningful exchange of views and discussion. One may well question the Initiative’s commitment to genuine public participation if that meager opportunity is the only oral public comment period provided. Third, although the Initiative has appointed a number of persons with a Native perspective to the Stakeholder Group, the Initiative has inaccurately described their role as “representatives” of the North Coast Indian Tribes. While some of the persons so appointed have been authorized or directed to speak for particular Indian Tribes, others may not have been, and certainly none of them is authorized to speak for the InterTribal Sinkyone Wilderness Council. However useful, the appointment of persons from or affiliated with Indian Tribes to the Stakeholder Group is no substitute for formal consultation with the Tribes themselves. The seven appointed Native stakeholders are neither able, nor authorized, to represent all the Tribes affected within the North Coast Region of the MLPA.

More than 25 federally recognized North Coast Tribes that continue to rely on marine resources for traditional cultural sustenance could be affected by serious cultural, social, and environmental repercussions posed by implementation of the MLPA Initiative. The Mendocino County Tribes affected by the MLPA Initiative include: Cahto Tribe of Laytonville Rancheria; Coyote Valley Band of Pomo Indians; Guidiville Band of Pomo Indians; Hopland Band of Pomo Indians; Manchester-Point Arena Band of Pomo Indians; Pinoleville Pomo Nation; Potter Valley Tribe; Redwood Valley Band of Pomo Indians; Round Valley Indian Tribes; and Sherwood Valley Rancheria of Pomo Indians. The Lake County Tribes affected by the MLPA Initiative include: Big Valley Rancheria of Pomo Indians; Elem Indian Colony of Pomo Indians; Habematolel Pomo of Upper Lake; Lower Lake Rancheria; Middletown Rancheria of Pomo Indians; Robinson Rancheria of Pomo Indians; and Scotts Valley Band of Pomo Indians.

Additionally, the MLPA Initiative also affects federally recognized Tribes in Humboldt County, including: Yurok Tribe; Cher-Ae Heights Indian Community of

Trinidad Rancheria; Wiyot Tribe; Bear River Band of Rohnerville Rancheria; Big Lagoon Rancheria; and others. The Del Norte County Tribes affected by the MLPA include: Smith River Rancheria; Elk Valley Rancheria; Resighini Rancheria; and Yurok Tribe.

From the Tribes' perspective, the interests and rights at stake in the MLPA Initiative are of the highest significance. Because the consequences of interference with Indian traditional cultural practices are so severe, formal consultation with Indian Tribes is required in order to avoid intentional or unintentional violations of aboriginal rights.

Thank you for your consideration.

Sincerely,



Priscilla Hunter  
Chairperson

cc: Federally recognized Tribes of Mendocino, Lake, Humboldt & Del Norte Counties  
Roberta Cordero  
Curtis Berkey

**From:** Tomas DiFiore  
**Sent:** Thursday, February 11, 2010 9:32 AM  
**To:** MLPAComments; Patrick Higgins; Kenyon Hensel  
**Subject:** Public Comment to SAT and BRTF re 02 11 2010 SAT North Coast LOP

Good morning all!  
Just wanted to make sure these get to SAT members and the BRTF today.

Thank you....

MLPA Master Plan Science Advisory Team North Coast LOP comments (all science) re:  
02.11.2010 Webinar Conference Meeting

Specifically I would like to briefly address the following items: *Thank you!*

***I. MPA Design Guidelines and Evaluation Methods for the MLPA North Coast Study Region***

**G. Review and Potentially Approve Levels of Protection and Supporting Text**

*Potential SAT Action: Approve the supporting text for levels of protection (LOPs) adopted at the December 16, 2009 SAT meeting.*

*Potential SAT Action: Approve any revised LOPs and LOP methods*

**H. Review and Potentially Approve the SAT Evaluation Methods Used to Estimate Potential Commercial and Recreational Fishery Impacts**

*Potential SAT Action: Approve the methods used to estimate potential commercial and recreational fishery impacts and supporting documents*

*California MLPA Master Plan Science Advisory Team Draft Criteria for List of Species Likely to Benefit from Marine Protected Areas in the MLPA North Coast Study Region*

***III. Science Guidance Questions from the Public and External Array Proponents***

**K. New Science Question to be Addressed**

Tomas DiFiore  
AHRA Board Member  
Commercial Seaweed Harvester

**From:** Tomas DiFiore  
**Sent:** Thursday, February 11, 2010 9:32 AM  
**To:** MLPAComments; Patrick Higgins; Kenyon Hensel  
**Subject:** Public Comment to SAT and BRTF re 02 11 2010 SAT North Coast LOP

Good morning all!  
Just wanted to make sure these get to SAT members and the BRTF today.

Thank you....

MLPA Master Plan Science Advisory Team North Coast LOP comments (all science) re:  
02.11.2010 Webinar Conference Meeting

Specifically I would like to briefly address the following items: *Thank you!*

***I. MPA Design Guidelines and Evaluation Methods for the MLPA North Coast Study Region***

**G. Review and Potentially Approve Levels of Protection and Supporting Text**

*Potential SAT Action: Approve the supporting text for levels of protection (LOPs) adopted at the December 16, 2009 SAT meeting.*

*Potential SAT Action: Approve any revised LOPs and LOP methods*

**H. Review and Potentially Approve the SAT Evaluation Methods Used to Estimate Potential Commercial and Recreational Fishery Impacts**

*Potential SAT Action: Approve the methods used to estimate potential commercial and recreational fishery impacts and supporting documents*

*California MLPA Master Plan Science Advisory Team Draft Criteria for List of Species Likely to Benefit from Marine Protected Areas in the MLPA North Coast Study Region*

***III. Science Guidance Questions from the Public and External Array Proponents***

**K. New Science Question to be Addressed**

Tomas DiFiore  
AHRA Board Member  
Commercial Seaweed Harvester

MLPA Master Plan Science Advisory Team February 11, 2010 Meeting  
Draft Agenda (revised 02.02.2010)

From: Tomas DiFiore  
[iamtomas@mcn.org](mailto:iamtomas@mcn.org)  
[Albion Harbor Regional Alliance](#)  
POB 122 Albion CA 95410

To: North Coast Science Advisory Team  
Thursday, February 11, 2010 at 9:30 AM  
via teleconference and online meeting  
[MLPAComments@resources.ca.gov](mailto:MLPAComments@resources.ca.gov)  
Marine Life Protection Act Initiative fx 916-653-8102  
c/o California Natural Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Distinguished members of the California Marine Life Protection Act Initiative Master Plan Science Advisory Team. Once again I must apologize at this late hour, but I think several members may be already familiar with the subject - it has been discussed in the 'Study' Regions to the south. I think continued discussion has relevant importance to North Coast Marine planning (MPA's & EBM, adaptive management, replication guidelines, bio-economics) and human impacts that are assumed according to levels of commercial and/or subsistence and recreational harvest of Edible Algae and Edible Bull Kelp, and Sea Urchin.

*On pages 8, 9, and 10 are Four Questions Preceded By Specific Comments Regarding:*

**II. MPA Design Guidelines and Evaluation Methods for the MLPA North Coast Study Region**

**G. Review and Potentially Approve Levels of Protection and Supporting Text**

*Potential SAT Action: Approve the supporting text for levels of protection (LOPs) adopted at the December 16, 2009 SAT meeting.*

*Potential SAT Action: Approve any revised LOPs and LOP methods*

**H. Review and Potentially Approve the SAT Evaluation Methods Used to Estimate Potential Commercial and Recreational Fishery Impacts**

*Potential SAT Action: Approve the methods used to estimate potential commercial and recreational fishery impacts and supporting documents California MLPA Master Plan Science Advisory Team Draft Criteria for List of Species Likely to Benefit from Marine Protected Areas in the MLPA North Coast Study Region*

**III. Science Guidance Questions from the Public and External Array Proponents**

**K. New Science Question to be Addressed**

**6 - Habitat Degradation:** Suffers negative impacts through ecological or habitat changes associated with human activities.

Critical habitat disappearing or degrading as a result of removal activities (e.g. kelp harvesting).

Biological/ Life History Limited larval spore dispersal.

**SEA PALM**

Biological/ Life History

**8 - Other Life History Traits:** Has life history traits which would make it a good candidate for protection

Red sea urchin

These species live relatively long - urchins up to 100 yrs).

Biological/ Life History

**9 - Limited distribution:** A significant portion of its California distribution occurs within the study region.

**SEA PALM**

Biological/ Life History

**10 - Ecological importance:** A species whose removal would cause major ecological change (food chain, diversity, etc), or a key species that defines or characterizes a habitat type.

A key species that defines or characterizes a habitat type.

Bull kelp, Eelgrass

These species define their habitat types.

*\*Criteria denoted by an asterisk are an initial filter and a score of "1" must be achieved in one of the Human Impacts categories with an asterisk and one of the Biological/Life History*

categories with an asterisk. From: California Marine Life Protection Act Initiative Draft Methods Used to Evaluate MPA Proposals in the MLPA South Coast Study Region January 14, 2010 Draft

## 8. Bioeconomic Modeling

California Marine Life Protection Act Initiative  
Draft Methods Used to Evaluate MPA Proposals in the MLPA South Coast Study Region  
Draft Revised September 25, 2009

pgs 24, 25

### Briefing Document C.1: Evaluation Methods for the MLPA South Coast Study Region: Updates to Chapter 3 - Protection Levels (Draft revised)

*Giant kelp (mechanical harvest):*

*Direct impacts* – Mechanical harvest of giant kelp (*Macrocystis pyrifera*) does not directly alter the substrate in a kelp bed because gear never touches the seafloor. However, mechanical harvest significantly alters the abundance of kelp by removing large swaths of kelp canopy to a depth of approximately 4 feet (CDFG 2000). Kelp canopy forms important habitat for a variety of invertebrates and marine fishes including juvenile rockfish. Several studies indicate that repeated kelp harvest may retard kelp growth rates and possibly weaken holdfasts, making kelp more vulnerable to uprooting in stormy conditions (Miller and Geibel 1973, McCleneghan and Houk 1985) but the results of all available studies are inconclusive in this regard.

*Indirect impacts* – Although studies have shown mechanical kelp harvest to have no measurable effects on adult fishes (Quast 1968b, Davis 1968), several studies have shown that juvenile rockfish and other canopy species shift their distribution away from harvested areas and this shift makes some fish more vulnerable to predation (Miller and Geibel 1973, McCleneghan and Houk 1985). Removal of large patches of kelp canopy may also increase the abundance of understory algae by making more light available for their growth (Kimura and Foster 1984). The combined effects of the removal of important canopy habitat and the resultant shifts in algal assemblages are likely to significantly alter kelp forest communities.

**Level of protection: Low**

*Giant kelp (hand harvest):*

*Direct impacts* – Hand harvest of giant kelp (*Macrocystis pyrifera*) does not directly alter the substrate in a kelp bed because gear never touches the seafloor. In contrast to mechanical harvest, hand harvest of giant kelp removes smaller patches of kelp canopy, clipping kelp stipes off at or near the surface. Due to the shallow and patchy removal of kelp canopy realized with hand harvest, a relatively small proportion of the available kelp canopy habitat within a kelp bed is likely to be removed through hand harvest. Kelp canopy forms important habitat for a variety of invertebrates and marine fishes including juvenile rockfish.

*Indirect impacts* – No studies were found that explicitly evaluate the impacts of kelp hand harvest on marine communities, therefore conclusions must be drawn through comparison to the effects of mechanical harvest. Studies have shown mechanical kelp harvest to have no measurable effects on adult fishes (Quast 1968b, Davis 1968) and the same pattern is likely to hold true for hand harvest. Several studies have shown that juvenile rockfish and other canopy species shift their distribution away from areas where kelp is harvested mechanically and this shift makes some fish more vulnerable to predation (Miller and Geibel 1973, McCleneghan and Houk 1985). Since hand harvest of kelp removes kelp canopy in a patchy distribution, the impact on the distribution of juvenile fish is likely to be less dramatic than that of mechanical harvest. Studies have shown that removal of large patches of kelp canopy through mechanical harvest may increase the abundance of understory algae by making more light available for their growth (Kimura and Foster 1984).

In contrast, the smaller patches of canopy removed by hand harvest and the fact that hand harvest cuts kelp at or near the surface indicates that light availability to understory algae is likely to be increased only slightly and for a brief period of time as kelp canopy from harvested plants is likely to regenerate quickly. In conclusion, the patchy and shallow nature of kelp canopy removal due to hand harvest is likely to have little impact on the underlying kelp forest community.

***Level of protection: Moderate***

These Levels Of Protection have been assigned upon determination of (impacts) activities:

***Level of protection: Moderate-high*** – Activities were assigned this level of protection if the SAT concluded that the activity: 1) does not directly alter habitat, 2) is unlikely to significantly alter the abundance of any species relative to an SMR, but 3) has some potential to alter community structure relative to an SMR. Activities assigned this level of protection are generally characterized by substantial uncertainty regarding ecosystem impacts. This uncertainty arises in one of three ways:

1) the movement range of the target species is either uncertain or short enough that reserve effects are possible, yielding uncertainty as to whether the abundance of this species will be altered relative to an SMR,

2) the level or composition of incidental catch is uncertain making it unclear whether the abundance of any non-target species will be altered relative to an SMR, or

3) the ecological role of any removed species is unclear, leading to uncertainty about how removal may alter community structure relative to an SMR.

***Level of protection: Moderate*** – Activities were assigned to this level of protection if the SAT concluded that the activity was likely to alter either habitat or species abundance in the area relative to an SMR, but that these changes were unlikely to impact community structure substantially. Activities that are likely to cause minor habitat perturbations or alter the abundance of species that play a minor ecological role (e.g. one of many prey items) received this level of protection.

**Level of protection: Moderate-low** – Activities were assigned to this level of protection if the SAT concluded the activity was likely to: 1) alter species abundance relative to an SMR, and 2) alter community structure significantly through the change in abundance of a species that plays an important ecological role (e.g. top predator) but does not form biogenic habitat. Activities assigned this level of protection may also alter habitat if that habitat alteration is unlikely to have a significant impact on community structure.

**Level of protection: Low** – Only activities that alter habitat in a way that is likely to significantly alter community structure were assigned to this level of protection. Activities with the potential to alter habitat substantially either through direct contact with fishing gear or removal of habitat-forming organisms received this low level of protection.

*Perhaps differences in understanding of small scale hand harvest activities on the North Coast, which EBM would qualify as contributing to ecosystem services and functions in the marine environment and the social and economic of coastal communities on the North Coast.*

#### **Central Coast Region (Pigeon Point to Point Conception)**

##### **Levels of Protection for MPA Classification (LOP)**

**SMCA Moderate Protection** - These SMCA's protect the majority of benthic species and their habitats while allowing for the take of pelagic finfish, selected benthic fishes and invertebrates, and giant kelp (hand harvested only; see kelp harvesting section below). It is recommended that proposed SMCA's in central California that prohibit take of all species except pelagic finfish, squid, jacksmelt, butterfish, crab, spot prawn, and giant kelp should be placed in this category (a modified list of species may be appropriate in other parts of the state).

These MPAs are considered to provide relatively lower protection than SMR's and SMCA's (high) primarily because they allow the take of species (crab, spot prawn and, to a lesser extent, squid) that have direct interaction, as predator, prey or habitat of those species targeted for protection. Thus, removal of these species can potentially affect the overall ecosystem (Goal 1) as well as particular species targeted for protection that feed on or otherwise interact with these species (Goal 2).

**SMCA Low Protection** - These SMCA's protect some benthic species and their habitats. These proposed SMCA's allow various forms of commercial and recreational fishing and kelp harvesting. Both the directed take and potential bycatch from those fisheries will greatly limit the conservation value of these MPAs relative to SMR's and SMCA's of high and moderate protection. Also, mechanical harvest of giant kelp and the harvest of bull kelp by any method result in both direct and indirect take of many invertebrate and fish species (see kelp harvesting section below). These SMCA's are least likely to assist in achieving MLPA goals 1, 2, and 4.

*Kelp harvesting* – Potential impacts of kelp harvesting depend on the species of kelp, the method of harvest (mechanical or hand collection), and the volume of plant material

removed. **For both methods, take is constrained by regulations to the upper 1.2 m (4 feet) of the forest canopy formed at the surface of the ocean.** Harvest of kelp forests is targeted primarily at the giant kelp, *Macrocystis pyrifera*, and secondarily the bull kelp, *Nereocystis luetkeana*.

Importantly, giant kelp is a perennial (individual plants can live multiple years), and reproduction and new growth occur at the bottom of the plant. **In contrast, bull kelp is an annual (individuals live only one year), and reproduction and new growth occur at the top of the plant. In addition the gas-filled bladder responsible for keeping the bull kelp erect is located at the surface. Therefore, kelp harvesting, regardless of method, has a greater negative impact on bull kelp than on giant kelp.**

Assessments of the impact of harvest (both mechanical and hand) on giant kelp suggest minimal impact to the kelp plants themselves because the plants are not removed entirely and can re-grow rapidly to replace the removed canopy. Moreover, the reproductive portion of the plant is left intact at the bottom of the plant. However, harvest near the end of the summer may result in loss of the canopy for the remainder of the growing season. **Whereas the amount of harvested bull kelp is much less than that of giant kelp, no impact assessment of harvesting has been conducted for bull kelp in California. However, negative impact to individuals and populations of bull kelp is likely to be much greater than giant kelp because the reproductive and growth capacity of the plants is terminated with harvest.**

Of additional, and perhaps greater, concern with the harvesting of kelp is the

- (1) loss of habitat provided by the forest canopy for other species,
- (2) loss of production of plant material that is fed on by numerous grazers and detritivores in kelp forests and other habitats where drift kelp contributes to local productivity (e.g., heads of submarine canyons and sandy beaches), and
- (3) take (i.e., bycatch) of other species closely associated with the canopy habitat.

**The two harvesting methods differ markedly** with respect to these three impacts. Mechanical kelp harvest is conducted by large, specially designed vessels that remove large volumes of the forest canopy and kill many associated species of fishes and invertebrates (including many species of juvenile rockfishes). Loss of habitat and food provided by kelp canopies translates to changes in growth, survival, and reproduction of those species associated with the canopy. The coastwide impact of this mortality on juvenile rockfishes has not been assessed.

However, the impact to an individual kelp forest within a proposed MPA is likely to be substantial, with the loss of large numbers (1,000's) of juveniles. Because of the impacts of mechanical kelp harvest on the well-understood role of kelp to the structure, function, and services provided by kelps to shallow reef ecosystems (Goal 1), and on many species targeted for protection (Goal2), SMCA's that allow mechanical harvest of kelp, even if no other extractive activities are permitted, should be *considered as having low protection and conservation value*. Impacts of hand harvest of kelp in support of the abalone mariculture

industry have received less attention, in large part because of the presumed lesser impact of this method compared to mechanical harvest.

**The reduced impact** is based in part on the lower volume of plant material removed and the likelihood that juvenile fishes are less likely to be removed with the canopy. However, experiments by the Department in 1977 indicated that kelp canopy removal might increase the likelihood that young-of-the-year rockfishes are consumed by opportunistic, predatory fishes such as juvenile bocaccio. Repeated collection of the kelp canopy from the same area likely increases local-scale impacts on habitat and food production.

Because the impacts of **hand harvest** on the well-understood role of kelp to the structure, function and services provided by kelps to shallow reef ecosystems (Goal 1), and on many species targeted for protection by MPAs (Goal 2) are less than the impacts from mechanical harvest, **SMCAs that allow hand harvest of kelp should be *considered as having moderate protection and conservation value.***

### **SAT Evaluation of Replication of Habitats in Central Coast MPA Packages**

*The same criteria for habitat representation were used for this analysis as for the size and spacing analysis for most habitats.*

The exceptions were for kelp beds and submarine canyons. An MPA with any persistent kelp bed (kelp present in three of four years), no matter how small, was considered to have kelp habitat. Likewise, an MPA with any amount of canyon habitat, no matter how small, was considered to have that canyon type.

The evaluation of replication was conducted using four different groupings of MPAs:

- (1) state marine reserves (SMR),
- (2) those with high levels of protection (SMR and SMCA High),
- (3) those with low levels of protection (SMCA-low, SMCA Moderate and SMCA Low), and
- (4) all MPAs together. Habitats were considered adequately replicated with a minimum of three replicate MPAs. It should be noted that some MPAs have very small amounts of some habitats (ca. 0.5 sq. mi) but were counted in totals as being equal to MPAs with much larger areas of protected habitat.

*Methods of SAT analysis of MPAs relative to these spacing guidelines:*

- Since the spacing guidelines are targeted at ensuring connectivity among MPAs for different species, MPAs must be characterized by the habitats they contain. An MPA that does not contain habitat for a particular species (e.g., kelp forest), provides no benefit to that species. Therefore, we calculated the amount of each habitat (i.e., area or linear distance) in each MPA.
- We then calculated the % of the MPA that each habitat represents. For kelp forests, we calculated the % of shallow water habitat (<30m) only, since kelp does not grow in deeper waters.

- An MPA was considered to include a specific habitat if that habitat represented more than a critical fraction of the entire MPA. For common habitats (e.g., rocky intertidal, sandy beach, surfgrass/eelgrass, sand 0 to 30m), we used a threshold of 20% of the MPA. For rarer habitats, we reduced the threshold to either 15% (sand 30 to 100m, rocky reef 0 to 30m) or 10% (kelp forests, sand > 100m, rocky reef 30 to 100m). For the upwelling center habitat category, we counted all MPAs that included shallow and moderate depth habitats in the vicinity of the four major upwelling centers of the central coast - Año Nuevo/Davenport, Pt. Sur, Pt. Buchon, Pt. Arguello/Pt. Conception.
- The use of %s to define which habitats are present in a significant amount presents two problems. First, for small MPAs, even a large fraction of the MPA may represent an insignificant amount of habitat. We believe this problem can be adequately addressed by the MPA size analyses. Second, for large MPAs, even a large area of a particular habitat may represent a small percentage of the MPA. Since larger MPAs have substantial benefits as discussed above, we developed an alternative criterion based upon habitat area *per se*. We considered any habitat that represents more than 2 square miles of habitat within any MPA to be present in a meaningful amount for spacing analyses. This area was chosen based upon patterns of adult movement (see Appendix 1).
- For each habitat we determined the spacing between all MPAs that included that habitat.
- We compared these spacings to the maximum spacing guidelines in the MPF.

### ***MLPA Master Plan Science Advisory Team Responses to Science***

#### ***Questions Posed by the NCCRSB at its July 10-11, 2007 Meeting (revised November 20, 2007)***

The North Central Coast 'Study' Region northernmost boundary is at Point Arena and Alder Creek begins the North Coast 'Study' Region but splits off the tally of social and economic impacts and the effects of effort shift across applicable fisheries in the southern portion from the rest of the more densely populated coastal and inland communities of Mendocino County. Be that as it may it is worth noting that the Species that define their own habitat, and species that are likely to benefit from MPA's in southern Mendocino County (within the NC Study Region) while having somewhat similar species diversity, to the North Central Coast 'Study' Region, do vary significantly.

The levels of harvest, when articulated and described as only those who actually hand harvest the wild edible sea vegetables on our North Coast, win hands down over the lack of science that is specific to the “nearshore <30m marine ecosystem shallow water habitat zone”.

- **Question:** What role would the SMR at Sea Lion Cove Point Arena play in the replication of habitat required in MPA and MPA network arrays in the North Coast 'Study' Region?

**The following is a partial list of types of areas that have regional biodiversity significance:**

- Areas where numerous habitats are found in close proximity and areas with unique combinations of habitats
- Large open estuaries (e.g. Tomales Bay, Drakes Estero, Bolinas Lagoon) with eelgrass beds, tidal flats, and coastal marsh (Maps 2a-2f)
- Stream outlets and estuaries with presence of coho, Chinook, or steelhead populations (Maps 6a and 6b)
- Marine areas off headlands, especially those with kelp forests.
- Marine areas which offer residence adjacent to upwelling centers, especially those with kelp forests and rocky reefs.
- Large kelp beds (Maps 2a-2f) and nearshore rocky reefs (Maps 3a-3f).
- Areas of high bathymetric complexity which provide topographic relief and a variety of habitats in close proximity
- Rocky substrata in all depth zones, since rocky habitat is much less common than soft-bottom habitat and is important for depleted rockfish species (Maps 3a-3f)
- Rocky intertidal shores, especially wave-cut rocky platforms (which provide habitat at diverse tidal elevations), boulder fields, and rare sheltered rocky shores (Maps 2a-2f)
- Seabird colonies and marine mammal rookeries and haulouts (Maps 5a-5f)
- Areas of high fish or seabird diversity and/or density (Maps 5a-5f, 6a-6b, and 7a-7e).
- Offshore islands

*Just to clarify:*

*Natural diversity* is the species richness of a community or area when protected from, or not subjected to, human-induced change (drawn from Allaby 1998 and Kelleher 1992).

*And:*

*Natural abundance* is the total number of individuals in a population protected from, or not subjected to, human-induced change (adapted from Department 2004 and Kelleher 1992).

*From:*

*California Marine Life Protection Act Initiative MLPA Goals and Regional Objectives Adopted for the North Central Coast Study Region with Draft Proposed Revisions for the South Coast Study Region November 14, 2008 draft revisions proposed by MLPA staff*

- **Question:** Would the profound lack of concern given to any impacts (*by allowed harvest activities*) upon kelp habitat or other nearshore intertidal algal species, to the life stage habitat baseline quantifiers and modeled relationships of (perceived or real) impacts on seabird rookeries, seabird populations (or the presence of nesting sites) - notwithstanding the use of 'Special Closures' for their stated intent - constitute support for a **Moderate-High LOP** designation within MPA's for the continued hand harvest of edible Bull Kelp and other Edible Algae in the North Coast Study Region?

Source cited:

**EVALUATIONS OF BENEFITS TO SEABIRDS AND WATERFOWL FROM PROPOSED MARINE PROTECTED AREAS AND SPECIAL CLOSURES IN THE MLPA NORTH CENTRAL STUDY REGION, CALIFORNIA** by: Gerard J. McChesney MLPA Master Plan Science Advisory Team DRAFT FINAL 16 May 2008 137 kb PDF  
[http://www.albionharbor.org/oceana/b4dm\\_NCC\\_science\\_majora.pdf](http://www.albionharbor.org/oceana/b4dm_NCC_science_majora.pdf)

**Measuring Ecosystem Function: Consequences Arising From Variation In Biomass-Productivity Relationships**, by C. P. terHorst and P. Munguia; 159 kb PDF  
[http://www.albionharbor.org/oceana/measuring\\_ecosystem\\_function\\_2008.pdf](http://www.albionharbor.org/oceana/measuring_ecosystem_function_2008.pdf)

This study of seagrass and spatial scale, raises important questions regarding MPA modeling assumptions built on productivity as a measurement of ecosystem function but using change in biomass as proxy measures. Their results suggest that if change in biomass is used as a proxy, highly productive communities that typically show little change in biomass, such as healthy climax communities, will not be interpreted as such. “Conflicting results (investigating the relationship between species diversity and productivity) may be due to differences in the variable between biomass and productivity at different sites and scale. The use of biomass as an estimate of productivity requires an intimate knowledge of both the system and the inherent relationship between the variable measured and productivity.”

Primary producers in marine ecosystems are capable of rapid regrowth.

- **Question:** How are tallies of harvests of Edible Algae weighted across age-class and site distribution? 'Site' refers here to location, marine environment conditions, and includes alongshore linear assemblages of Bull Kelp, or other canopy forming algae.
- **Increases or decreases** in reported harvest amounts by weight and by species, of hand harvested seaweeds and sea vegetables in the North Coast 'Study' Region may in fact contribute to a large margin of error when used to substantiate impacts to marine community structure or ecosystem services and function. Sustainable Hand Harvests reflect (temporal and spatial) decadal, yearly, and seasonal cycles. **These harvest activities likely will have no impact or may be beneficial components of EBM.**

*As a side note here; the rapid growth to maturity and climax of marine plants and most edible algal species, along with the tides, the weather, and ocean conditions are built into the harvest schedule. Maturity to age at climax would generally decrease their market value as a delicacy food in a niche market.*

Respectfully (and hurriedly) submitted  
Tomas DiFiore, and Terry Nieves



Jim Martin <  
Tue, 09 Feb 10, 11:47 AM >>>  
Hi all-

Please forward the following suggestions to the SAT regarding abalone and MPAs in the north coast region. I've attached a track-changes Word file to correct some of the information in the documents related to species likely to benefit and the levels of protection associated with the fishery as it exists on the north coast.

**From: California MLPA Master Plan Science Advisory Team**  
**Draft Supporting Text for Proposed Levels of Protection for the**  
**MLPA North Coast Study Region**  
**Draft revised December 11, 2009**

**Abalone (non-scuba hand collection):**

**Direct impacts:** Take of abalone (*Haliotis* spp.) using hand collection techniques is unlikely to damage habitat. Abalone are relatively sedentary organisms, so their local abundance will likely be altered by take relative to an SMR. Because divers harvest selectively, there is little or no catch of non-target species, with the exception of other invertebrates attached to the abalone themselves. However, divers sometimes accidentally remove sub-legal size individuals, which may kill the animal even though it is often immediately replaced. High numbers of scuba divers at local access sites has been shown to lead to localized habitat impacts (Schaeffer et al. 1999), and the same may be true for free-divers. Divers may also cause behavioral responses in mobile species (Parsons and Eggleston 2006).

**Indirect impacts:** Abalone are important herbivores that feed in the nearshore rocky environment, therefore removal of this species is likely to have impacts on community structure within an MPA. Abalone are important grazers and could have localized impacts on algal abundance in the nearshore environment. Although abalone have deep-water refugia generally beyond free-diving depths, localized depletion of shallow adult spawning stocks within an MPA, combined with short larval dispersal distances, could reduce the local availability of young abalone as prey to small predators. In the case of the (currently closed) commercial abalone fishery, use of diving or "hookah" gear may reduce the deep water abalone refugia thereby increasing the potential for local depletion of adult spawning stocks.

Level of protection: **Moderate-high**

*Additional information regarding the banned commercial take of red abalone in the north coast regions:*

FGC 5521.5. (a) In addition to the moratorium imposed by Section 5521, and notwithstanding any other provision of law, it is unlawful to take **abalone** for commercial purposes in District 6, 7, 16, 17, or 19A, in District 10 north of Point Lobos, or in District 20 between Southeast Rock and the extreme westerly end of Santa Catalina Island.

*DFG responds to a question about abalone bycatch and why it essentially illegal:*

**Comment [JM1]:** This needs to be reconciled with Karpov, et al, a peer reviewed paper showing a *lower* level of abundance of red abalone in no-take areas than in heavily harvested areas that also are open to commercial sea urchin harvest.

**Comment [JM2]:** This is correct, but it needs to be noted that the size limit is set well above the juvenile stage. Therefore, removal of juveniles is not likely to occur even if a sub-legal abalone is removed or improperly. A juvenile abalone is half the size of a legal size abalone and not likely to be removed "accidentally" by law-abiding divers. 50% of all legally-taken abalone contribute to the spawning biomass for several years before harvest. There are abalone dying of old age and natural mortality in this region.

**Comment [JM3]:** The previous two sentences should be stricken from the record. The Schaeffer study is known in diving circles as the "diver disturbance study" and it examined the habitat impacts of non-extractive SCUBA divers in a semi-tropical setting. On the north coast, storm systems move boulders, expose rocky reefs, and bury rocks in sand. The activities of divers have no more impact on habitat than natural oceanographic conditions on the north coast. These studies should be applied to analysis on MPA ... 1]

**Comment [JM4]:** Can this statement be verified by direct observations in north coast community structure? If the abalone in reserves are simply displaced by sea urchins, how does this benefit algae?

**Comment [JM5]:** This sentence should be stricken. There is no evidence for the speculation. The deeper populations of abalone are close enough to the shallow water to repopulate. That is the point of the ban on SCUBA gear in our region.

**Comment [JM6]:** The previous sentence should also be stricken. The commercial harvest of abalone in the region is banned by law, has been since 1948, and the statement ignores the social realities of our region.

**Deleted: low**

Question: If an abalone diver takes a legal-sized abalone, is it legal for him to return it to the same rock if he does not remove more than three abalone during the day? I know some divers that will dive for several hours and may "pop" one to three abalones without damaging them, and keep none of them, returning all of them to the rocks where they were removed. I don't think there is anything, technically, in the laws that prevents this, but maybe there should be.  
(Anonymous)

Answer: There is a law prohibiting this both for the health of the abalone and to prevent high-grading. All legal-sized abalone detached must be retained by the person who detaches it. In addition, no undersize abalone may be retained in any person's possession or under his control. Undersize abalone must be replaced immediately to the same surface of the rock from which detached. (FGC Section 29.15[d]).

In addition, according to DFG Lt. Dennis McKiver, no person shall take more than 24 abalone during a calendar year (FGC Section 29.15[c]). If the diver takes three legal-sized abalone and puts them back, those abalone still count toward both the diver's daily and yearly limit. This means that divers must still record those abalone on their report card so as to not exceed their yearly limit. If a game warden sees someone take a large abalone that is obviously larger than seven inches and the person puts the abalone back, this person has just violated Section 29.15(d). If that person then doesn't record the abalone, he is guilty of failing to complete the Abalone Report Card as required. Game wardens on the North Coast have written several citations for this, usually to trophy hunters looking for that elusive 10-inch abalone. The wardens try to convince people hunting for trophy abalone to measure them before removing them from rocks.

- **California Department of Fish and Game**

The previous two sentences should be stricken from the record. The Schaeffer study is known in diving circles as the "diver disturbance study" and it examined the habitat impacts of non-extractive SCUBA divers in a semi-tropical setting. On the north coast, storm systems move boulders, expose rocky reefs, and bury rocks in sand. The activities of divers have no more impact on habitat than natural oceanographic conditions on the north coast. These studies should be applied to analysis on MPAs that allow swimming and diving compared to MPAs that do not allow any human disturbance. These are non fishing impacts and they could be interpreted as "take" under FGC code. They are not applicable to the recreational take of red abalone in the north central region.