# Comments on the Draft EIR for the North Coast Study Region MLPA

## Overview:

The *Draft Strategy for Public Participation in the MLPA North Coast Study Region* (DFG 2010) outlined a protocol for "joint fact-finding" to collaboratively develop a common knowledge base with constituents, but formally structured encounters between academic and local experts never took place during the Marine Life Protection Act Initiative (MLPAI) process in the North Coast Study Region (NCSR), because the persons appointed as regional stakeholders represented a limited portion of community expertise. This loss underlies much of what is missing from the EIR.

The MLPAI contained a charge to base decisions on the "best available science." The best available science includes local expertise, Native expertise, and just as many social and cultural scientists as biological and physical scientists. The best available science is inclusive, collaborative, transparent, and modest – in other words, it is keenly aware of its limitations.

The best available science does not rely solely on academic or archival sources, but spends just as much time in the field as it does in a meeting room or in front of a computer. The best available science incorporates site-specific variation, both ecological and cultural. For example, Mendocino County fishermen and biologists repeatedly offered their time and equipment to the MLPAI Science Advisory Team to conduct ground-truthing exercises to provide critical missing data for nearshore habitat at 0-30 meters depth. These offers were never honored, and a proxy was used in the habitat models instead.

The EIR is based primarily, if not exclusively, on written archival material and reports provided by the Department of Fish & Game (DFG), as evidenced in Chapter 10 (References). As such, it omits critical content contained in hundreds of hours of expert testimony provided verbally during MLPAI meetings in the North Coast Study Region (NCSR), most of which was never documented, and often never acknowledged or responded to within the meetings by the people sitting at the center table.

We could also find no evidence of extensive documents provided to the DFG by the tribes listed on Pages 5-10 and 5-11 and Table 2.1, which are directly relevant to Sections 1.1.6, 1.5, 2.3, 4.2.3, 4.3.2 and Chapters 5 and 6.

Residents of the NCSR are deeply and passionately connected to the ocean and coastal resources. The focus of the MLPA on an ecosystems-based approach to marine resource conservation is laudatory, yet from the perspective of NCSR residents, the MLPA does not go far enough in protecting the ocean.

From the beginning of the MLPAI process, constituents have expressed their frustration at the lack of attention paid to potential impacts of anthropogenic activities potentially far more damaging to the region; such as water diversions, oil and gas drilling and transport, seabed/sand mining, military exercises (especially those involving hazardous materials), naval sonar and other forms of acoustic pollution, hydrokinetic power projects (e.g., wave energy), aquaculture projects (and accompanying pollution and escapement) or other forms of industrial development, and non-point source pollution (e.g., from "recreational" users who spread non-biodegradable litter and from multiple legal and illegal forestry and agricultural operations).

Due to the pre-defined scope of topics outlined by the MLPAI, the Draft EIR continues a trend of narrowly defined environmental foci. This trend is at the heart of the contextual concerns expressed by Mendocino County constituents, scientists, and practitioners.

Within the topics allowed by the MLPAI, EIR acknowledges the potential for urchin barrens but does not effectively address their environmental impacts and food web repercussions when MPAs are closed to urchin harvesting in the absence of predators, or how to avoid their creation (Page 4-48); or the impact from effort shift in both commercial and recreational fishing, most especially for abalone. Mendocino County is one of the only regions in the world with sustained populations of abalone, yet these populations are potentially threatened by effort shift from the North Central Coast Study Region (NCCSR) to the southern portion of the NCSR , due to recent closures and MPAs established in the NCCSR.

Scientifically, some of the most troubling omissions in the Draft EIR include:

- the analysis of potential effort shift described in Section 4.4 is based on a model which assumes stasis, homogeneity, and even distribution for key variables that in reality are dynamic, heterogeneous, and unevenly distributed. Implementation of the proposed MPAs will cause disproportionate and uneven effort shift across the NCSR, due to dynamic weather conditions, highly heterogeneous substrate, and the constantly changing distributions of marine species and vegetative (seaweed) habitat.
- the lack of a comprehensive analysis of the significant and unavoidable impact of limiting access to marine resources by tribes, tribal communities, and subsistence harvesters.
- an erroneous assumption that equal opportunities existed for involvement and MLPA planning process.
- an erroneous assumption that no users of MPAs are capable of simultaneously enacting conservation, restoration, or population and ecosystem enhancement.
- an erroneous assumption that the NCSR coastline contains "abundant areas [for] subsistence fishing and gathering" beyond the proposed marine protected areas (MPAs).

The current MPA configuration anticipates that the proposed MPAs, existing within 517 statue miles of shoreline (225 statue miles), would be patrolled by a total of 19 wardens assigned to the region. This averages out to approximately 27 miles of shoreline per warden. Stakeholders have repeatedly expressed their deep concern that this level of enforcement is inadequate. With the addition of more, and more extensive MPAs to the region, we anticipate potential biological impacts of the loss of enforcement capacity that may be an unavoidable result of adding significantly to the workload of the wardens; e.g. wardens on patrol enforcing the MPA regulations are not available to address poaching, trafficking, and water pollution.

We applaud the inclusion of environmental justice in Section 6.6. Yet this section does not begin to address the environmental justice issues faced by constituents in the NCSR. What may appear to be an insignificant macroeconomic impact in a large-scale analysis translates to a significant microeconomic impact in a County with less than 90,000 residents. When one family business or household is crippled or negatively impacted by marine policies that do not yield comprehensive ecological and social benefits, we all feel it.

Small-scale family fisheries, which are a substantial portion of the currently viable and sustainable fisheries in Mendocino County, could suffer significant impacts due to displacement effort, as detailed in Section B.3.1 in this EIR. They include lost revenue, increased travel costs, loss knowledge, user conflicts, possible localized overfishing, depletion or habitat destruction in remaining open areas, and the loss of local enforcement in areas designated as MPAs. This is also an environmental justice issue, due to the heightened vulnerability of family-based, small-scale fishing operations in a remote and economically marginalized county such as Mendocino.

As Section 5.3.2 notes, the entire North Coast is effectively a traditional cultural property[1] for one, or several of the tribes and tribal communities who have inhabited the region for millennia, yet there is no detailed analysis of this in the Draft EIR. Instead, we have an entire appendix devoted to 157 shipwrecks.

The very fact that certain rights within the MLPA Initiative are only considered, or apportioned to, federally-recognized tribes, remains a significant, and unresolved, environmental justice issue. In California, the state with the largest Native American population, an estimated **90%** of Native Americans living in California pertain to tribes who, to this day, have been denied federal recognition[2].

Lastly, echoing the words of a frustrated constituent, providing only three printed copies of a 914-page document for the entire population of the northern Mendocino County coastline; copies that were only available at public libraries open a few days a week, or a DFG office that closed at 5 pm daily (or would have cost $150 to reproduce), meant that the majority of Mendocino County constituents – who either have no internet access, dial-up access, or slow-speed satellite access – were unable to adequately review and comment on the Draft EIR.

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[1] Per Criteria (A) – (D) as stipulated in the National Park Service Bulletin 38, *Guidelines for Evaluating and Documenting Traditional Cultural Properties* (revised 1998).

[2] These figures are taken from a Spring 2006 publication by The Center for Human Services, UC Davis Extension. "Fewer than 10% (approximately 40,000) of Indians living in California are members of federally-recognized tribes."

**CHAPTER 1**

Section 1.1.5 (Page 1-17, ¶3)
This paragraph begins by stating that the human population (etc.) combine to create a complex setting, yet most of the bullet points describe biogeographical features. More bullet points should highlight key features of the human population, i.e.,:

• One of the most diverse populations of Native American tribes and tribal communities in the State; many of whom are actively conserving marine species and habitats
• a coastline which historically can be designated a traditional cultural resource
• significant percentage of the coastal population practicing subsistence harvesting
• some of the last remaining areas of sustainably harvested red abalone
• artisanal seaweed harvesters who are proactively developing policies for their businesses

Section 1.1.5 (Page 1-18, ¶1)
Multiple stakeholder comments have questioned the division into "consumptive" and "non-consumptive" uses; noting that so-called "recreational" uses can also have consumptive impacts, including (but not limited to, trash left by beach visitors and items taken by beach combers, motor fuel fumes and leaks, clearing of kelp by divers creating passageways); and that cultural uses, including but not limited to: ceremonies and rituals, are not recognized within either of these terms.

Section 1.1.6 (Page 1-21, ¶3)
*This section needs to be substantially expanded.* Many more federally-recognized and non-federally-recognized tribes claim ancestral territories within the North Coast Study Region (NCSR) that are not listed in this sub-section.

Section 1.5 (Page 1-30)
Stakeholders, especially from tribal constituencies, take issue with the terms "consumptive" and "recreational" uses. See Page 6.6-7, "…'tribal take' includes gathering, harvesting and fishing for cultural and religious purposes as well as for subsistence."

Section 1.6.2 (Page 1-31 and 1-32)
The extremely low attendance at the four scoping meetings (a total of 27 people attended) demonstrates that inadequate outreach was provided to the relevant constituencies.

**CHAPTER 2**

Section 2.3 and Table 2-1 (Pages 2-6ff)
*This section needs to be substantially expanded.* Note that "Tribal Take" is restricted to members of federally-recognized tribes. A significant portion of Mendocino and Lake County constituents of Native American heritage do not belong to federally-recognized tribes (including, but not limited to, Yokayo and Noyo tribal communities and dis-enrolled members of rancherias), and as such, are excluded from this provision.

The very fact that certain rights within the MLPA Initiative are only considered, or apportioned to, federally-recognized tribes, remains a significant, and unresolved, environmental justice issue. In California, the state with the largest Native American population, an estimated **90%** of Native Americans living in California pertain to tribes who, to this day, have been denied federal recognition[3].

[3] These figures are taken from a Spring 2006 publication by The Center for Human Services, UC Davis Extension. "Fewer than 10% (approximately 40,000) of Indians living in California are members of federally-recognized tribes."

Section 2.5.1 (Page 2-43) Management
Tribes and tribal communities within the NCSR continue to request co-management agreements with the DFG.

Section 2.5.2 (Pages 2-43 and 2-44) Enforcement
The current MPA configuration anticipates that the proposed MPAs, existing within 517 statue miles of shoreline (225 statue miles), would be patrolled by a total of 19 wardens assigned to the region. This averages out to approximately 27 miles of shoreline per warden. Stakeholders have repeatedly expressed their deep concern that this level of enforcement is inadequate.

With the addition of more, and more extensive MPAs to the region, we anticipate potential biological impacts of the loss of enforcement capacity that may be an unavoidable result of adding significantly to the workload of the wardens; e.g. wardens on patrol enforcing the MPA regulations are not available to address poaching, trafficking, and water pollution.

Section 2.5.3 (Page 2-45 and 2-46) Monitoring and Adaptive Management
Recommend that all agencies involved with monitoring work closely and collaboratively with local communities, involving local experts and practitioners in monitoring program design, implementation, analysis, and reporting. **This goes beyond "volunteer monitoring activities" to involve local experts (e.g., divers, fishermen, tribal members) as research associates and co-investigators; and includes regular and timely reports to relevant City Councils and County Boards of Supervisors.**

## CHAPTER 3

No comments

## CHAPTER 4

Section 4.2.3 Local Plans, Policies, Laws, and Regulations (Page 4-14)
*This section needs to be substantially expanded.* No mention is made of plans, policies, laws, and regulations pertaining to the tribal territories of the Yurok Tribe, Smith River Rancheria, or Wiyot Tribe, all of which are recognized as having ancestral territory within the NCSR in Section 1.1.6

Section 4.3.1 Ecosystems and Biological Habitats (Page 4-14ff)
Only standard habitats are mentioned. No mention is made of the urchin barrens present in the NCSR in this section (although they are described on Page 4-48), which, due to the predominance of urchin cover, have distinct ecological characteristics. The presence, persistence, and impacts of urchin barrens on related species should also be discussed in the sub-section entitled "Ecological Linkages" on Page 4-35ff.

Nearshore habitat data for 0-30 meters depth is inaccurate. Mendocino County fishermen and biologists repeatedly offered their time and equipment to the MLPAI Science Advisory Team to conduct ground-truthing exercises to provide critical missing data for nearshore habitat at 0-30 meters depth. These offers were never honored, and a proxy was used in the habitat models instead.

Table 4-6 Kelp Canopy Coverage in the North Coast Study Region (Page 4-30)
The missing data in this table could be partially reconstructed with the assistance of local experts, viz., urchin divers and artisanal seaweed harvesters, who have commented on earlier visual presentations of this data (viz., Dr. Karina Nielsen in a Ft. Bragg lecture).

Section 4.3.2 Important Regional Species (Pages 4-36ff)
*This section needs to be substantially expanded.* The only traditional subsistence harvesting mentioned is contained in the Subsection entitled "Coastal Plants and Algae on Page 4-50. **Recommend that a separate sub-section**

**entitled Species of Cultural Importance" be inserted.** The critical importance of salmon and other cultural keystone species such as surfperch to tribes and tribal communities, many of whom are known as Salmon Nations, are not mentioned in this section.

Section 4.4 Impact Analysis – Evaluation of Displacement (Pages 4-53ff)
**The model used to estimate the increase in fishing intensity is unscientific**, due to the following inaccurate assumptions:

a. The model assumes that fishing pressure in the NCSR remains static.
b. The model assumes all fishing grounds to be homogenous (i.e., identical habitat, identical species composition, identical population levels).
c. The model assumes all fishing to be evenly distributed throughout the study region.

This discussion should take into account the highly uneven distribution of fishing pressure across the study region, which is likely to increase further after Project implementation, and should be based on spatial analysis of specific benthic habitat and fish assemblages in relation to ports and harbors. (See written comments contained in Appendix A and cited in Chapter 10 – References.) Implementation of the proposed MPAs will cause disproportionate and uneven effort shift across the NCSR, due to dynamic weather conditions, highly heterogeneous substrate, and the constantly changing distributions of marine species and vegetative (seaweed) habitat.

For example, commercial artisanal seaweed harvesters in Mendocino County have carefully distributed their harvesting efforts along the coast. The last-minute inclusion, without public vetting, of MacKerricher, Van Damme, and Russian Gulch SMCAs in the list of proposed MPAs would restrict commercial artisanal harvesters from harvesting *Nerocystis* (bull kelp) in these areas and violate the ten-mile safety zone provision used by the regional stakeholders in designed the unified proposal for the NCSR. Seaweed harvesters have proposed that permits to harvest bull kelp *for edible purposes only* be allowed in these SMCAs

## CHAPTER 5

This chapter has not yet incorporated the hundreds of pages of cultural information provided to the DFG Commission by NCSR tribes and tribal communities listed on Pages 5-10 and 5-11 and in Table 2.1 in response to the September - October 2011 DFG Commission factual record gathering process.

## CHAPTER 6

Section 6.2 Public Services and Law Enforcement (Pages 6.2-1ff)
*This section needs to be substantially expanded.* Within the subsection on the California Department of Parks and Recreation, although the proposed park closures are mentioned on Page 6.2-4, the impact of these closures on proposed NCSR MPAs is not analyzed. This is a significant omission, due to the close proximity of proposed MPAs to most of the affected coastal state parks, the presence of threatened and endangered species such as red abalone in these MPAs, and the high annual park attendance (e.g., over 947,000 visitors to MacKerricher State Park in FY2007-8; over 188,0000 visitors to Van Damme State Park).

In light of these closures, the statement on Page 6.3-18 "*the vast majority of proposed MPAs would be located adjacent to or in proximity of existing national, state, or county park facilities. To the extent that additional users would recreate in these proposed MPA locations, existing facilities are already in place to serve visitors*" is inaccurate and misleading.

Additionally, the statement on Page 6.3-18: "*The reduced presence or absence of fishing vessel traffic in these areas potentially could encourage more recreational users to utilize these MPAs*" should be re-written to state: "*The reduced presence or absence of fishing vessel traffic in these areas potentially could encourage more* ***unauthorized fishing and harvesting (e.g., poachers) and*** *recreational users to utilize these MPAs*."

We disagree that the paucity of fish and game wardens and the proposed closures of coastal state parks adjacent to MPAs has a "less than significant" impact as stated on Page 6.2-7, given our previous observation that current DFG wardens are required to cover an average of 27 statue miles of shoreline per person, and with the addition of more, and more extensive MPAs to the region, we anticipate potential biological impacts of the loss of enforcement capacity that may be an unavoidable result of adding significantly to the workload of the Wardens; e.g. Wardens on patrol enforcing the MPA regulations are not available to address poaching, trafficking, and water pollution.

Section 6.4 Research and Education (Pages 6.4-1 ff)
No mention is made of the research, collecting, and educational activities conducted by the Marine Science Technology program of the College of the Redwoods, Ft. Bragg campus (http://www.redwoods.edu/departments/marine/).

Section 6.6 Environmental Justice (Pages 6.6-1 ff)
*This section needs to be substantially expanded.*

Despite the 2003 environmental justice policy of the California Natural Resources Agency as outlined on Page 6.6-3, the following principles were not adequately practiced during the MLPAI process in the NCSR:

1. At the initiation of the MLPAI process in the NCSR, tribal constituents were informed that their concerns would not be part of the discussions. Through the consistent and concerted effort of tribes in the region, this initial policy was challenged and changed. But once the regionally-based meetings were completed (following the final Blue Ribbon Task Force meeting), and relevant discussions were centered in DFG Commission meetings, outreach to tribes focused primarily on the most highly-resourced tribal groups, leaving the majority of the tribes and tribal communities unaware of ongoing developments in the process.

The *Draft Strategy for Public Participation in the MLPA North Coast Study Region* outlined a protocol for "joint fact-finding" to collaboratively develop a common knowledge base, but formally structured encounters between academic and local experts never took place during the MLPAI process in Mendocino County. One of the most deep-seated concerns repeatedly expressed by constituents, and yet never effectively addressed by the MLPAI process, involves the disconnect between the formally-recognized (and largely externally-based) Science Advisory Team and the local experiential knowledge base held by coastal residents, especially our more senior experts. The most active MOCA members have logged hundreds, thousands, or even tens-of-thousands of person-hours in State waters and along our coastlines. These experts include conservationists and educators who have been actively involved in resource and species conservation issues for decades; multi-generational commercial and recreational fishermen who possess intimate knowledge of our coastline, seaweed harvesters who cooperatively developed sustainable practices (e.g., the Seaweed Stewardship Alliance), and tribal and tribal community representatives whose ancestral ties stretch back for millennia, and whose families spent weeks, seasons, or lifetimes on the shoreline.

2. The MLPAI process assumed that members of the Regional Stakeholder Group (RSG) are recognized community leaders (which is not always the case), and that RSG members were willing to volunteer extraordinary amounts of time to communicate with a diverse group of constituents; thus **no significant effort was made to consult with community groups and leaders outside of the RSG**.

3. Due to the internet-centric nature of the documentation, the extremely rapid turnover times for document review, and the fact that the MLPAI never employed locally based communications staff, over 90% of the MLPAI documentation was neither accessible or understandable to the NCSR constituency. Despite the significant population of Latino constituents in the NCSR, none of the documentation was available in Spanish.

This issue was evidenced in the EIR commentary process, as providing only three printed copies of a 914-page document for the entire population of the northern Mendocino County coastline; copies that were only available at public libraries open a few days a week, or a DFG office that closed at 5 pm daily (or would have cost $150 to

reproduce), meant that the majority of Mendocino County constituents – who either have no internet access, dial-up access, or slow-speed satellite access – were unable to adequately review and comment on the Draft EIR.

4. See Point 3., above. The bulk of the MLPAI documentation and meetings were accessibly only by the internet, required sophisticated analytical skills to interpret and analyze (viz., the reports prepared by the Science Advisory Team, and the web-based MarineMap – a program that many constituents remain unfamiliar with). Most Mendocino County residents either have no internet access, only dial-up service, or satellite-based service, which does not permit web-based streaming or web-based software programs such as Google Earth or MarineMap.

5. As noted earlier in our comments, the extremely low attendance at the four scoping meetings (a total of 27 people attended) demonstrates that inadequate outreach was provided to the relevant constituencies. A 2-inch notice in the classified section of a local newspaper, and one email sent to an over-burdened and under-resourced County Clerk does not equate sufficient outreach.

Most public meetings, hearings, and workshops for the stakeholder-based portion of the MLPAI were held during business hours in locations up to a distance of up to 16+ hours round-trip for constituents. **After intensive lobbying by civic leaders**, **the meeting format was revised** to include satellite nodes in two NCSR cities for webinars and teleconferences, but these too were held during business hours, in locations up to a distance of 4+ hours round-trip for many constituents. When the stakeholder-based portion of the MLPAI was complete, the meetings shifted to DFG Commission meeting locations, again at a distance of up to 16+ hours round-trip for NCSR constituents. Although these latter meetings were live-streamed on CAL-SPAN, only in-person public testimony was allowed.

6. See Point 1., above, which echoes the point stated on Page 6.6-12, "*not all tribes were represented during the MLPA Initiative process*." This continues to be the case.

7. See Points 3. and 4., above. When the Mendocino County Board of Supervisors requested access to a relevant environmental justice data set on socio-economic factors for Mendocino County compiled by EcoTrust (letter sent to the CA Natural Resources Agency dated November 30, 2010); over 1 ½ years later, the County still has received no response.

8. MLPAI staff and consultants evidenced a lack cultural competency training. Some of the more egregious demonstrations of this included: cutting off tribal elders during public testimony, and failing to listen to, acknowledge or respond to scientifically relevant testimony, queries, or suggestions by local experts during public comment periods.

Section 6.6.3 (Pages 6.6-4 ff)
Subsistence fishing: no reliable or comprehensive data on subsistence fishing for the NCSR was captured, reported, or analyzed by the MLPAI process. Although a short, survey-based study on Native American harvesting practices was conducted by MLPAI staff, due to the extremely limited numbers of individuals who voluntarily completed the survey, its results cannot be considered representative of the communities within the NCSR.

Section 6.6.4 Impact Analysis (Pages 6.6-13 ff)
**The very fact that certain rights within the MLPA Initiative are only considered, or apportioned to, federally-recognized tribes, remains a significant, and unresolved, environmental justice issue.**

The analysis contained in this section considers a limited number of species within a limited number of proposed MPAs, and does not consider the overall impact of State-sanctioned limiting of access to ancestral territories to the culture, identity, traditions, and livelihoods of tens of thousands of Native Americans throughout the NCSR. Given the lack of a comprehensive analysis, it is unclear how the EIR can conclude that "*overall, there would not be significant or disproportionate impacts on the subsistence fishing or tribal community as a result of these Options*" (Page 6.6-19).

Although Page 8-8 describes "*adverse direct and indirect impacts on cultural resources, including disturbance or loss of historical resources, traditional cultural properties and activities, and tribal practices*." Yet none of these impacts are detailed or considered in this section.

On Page 6.6-20, the statement "*Considering that the proposed restrictions would apply to all shoreline subsistence fishers equally, and equal opportunities for involvement and participation in the MLPA planning process were provided, and abundant areas would remain for subsistence fishing and gathering, a disproportionate impact on minority or low- income populations near the Study Region would not likely result from the Proposed Project*" is based on erroneous assumptions:

(1) "*Equal opportunities for involvement and participation in the MLPA planning process*" applies only to constituents who were: (a) independently wealthy or financed (i.e., paid a consultancy fee to attend the meetings); (b) possessed high-speed internet (thus excluding Mendocino County residents with no internet connection, or dial-up); (c) fluent in English (thus excluding at least 1/5$^{th}$ of Mendocino County residents); and (d) possessed scientific training or scientific literacy, or had access to someone with scientific training (thus excluding the majority of Mendocino County residents).

Constituents with the highest amount of relevant expertise – those who are actively fishing and seaweed harvesting – are also the ones with the least amount of time available to participate in the MLPA process, due to their need to earn a living. Community members who tried to play a proactive role in the MLPA process struggled to attend all the meetings (and cover travel costs to those meetings out of their own pockets), download and read all the documents (especially over dial-up internet service if digital file sizes exceed 1 MB), become fluent in online MarineMap software, and comment on a revolving door of proposals and reports, while taking time out of their jobs and family care responsibilities to contribute uncompensated volunteer input. **The most expert constituents – persons with thousands of person-days on the ocean – were the least likely to have adequate opportunities to participate in the MLPA planning process.**

(2) "*Abundant areas would remain for subsistence fishing and gathering*" ignores the fact that most of the NCSR coastline is off-limits to subsistence fishing and gathering due to: (a) seasonal weather conditions (for most of the winter, i.e., October – March, the waves are too rough for safe harvesting); (b) the fact that most coastal property in Mendocino County is privately owned and therefore inaccessible to the general public; and (c) complex fishing restrictions, including seasonal and semi-permanent closures that cover most of the NCSR (see Map, Northern California Commercial and Recreational Fishing Closures on Page 216 of the NCSR Regional Profile Appendix).

What may appear to be an insignificant macroeconomic impact in a large-scale analysis translates to a significant microeconomic impact in a County with less than 90,000 residents. When one family business or household is crippled or negatively impacted by marine policies that do not yield comprehensive ecological and social benefits, we all feel it.

Small-scale family fisheries, which are a substantial portion of the currently viable and sustainable fisheries in Mendocino County, could suffer significant impacts due to displacement effort, as detailed in Section B.3.1 in this EIR. They include lost revenue, increased travel costs, loss knowledge, user conflicts, possible localized overfishing, depletion or habitat destruction in remaining open areas, and the loss of local enforcement in areas designated as MPAs. This is also an environmental justice issue, due to the heightened vulnerability of family-based, small-scale fishing operations in a remote and economically marginalized county such as Mendocino.

## CHAPTER 7

The EIR does not adequately or comprehensively address the potential impacts of anthropogenic activities that could potentially be far more damaging to the proposed marine protected areas whether or not MPAs are established: such as water diversions, oil drilling and oil transport, naval sonar, hydrokinetic power projects (e.g., wave energy), and non-point source pollution (e.g., from "recreational" users who spread non-biodegradable litter).

Section 7.3 Significant and Unavoidable Impacts
Significantly limiting access to marine resources by tribes, tribal communities, and subsistence harvesters is a significant and unavoidable impact that should be addressed, in detail, in this section.

Section 7.5.2
Black abalone is depleted in the NCSR, and other harvested species of abalone in the NCSR stand to be negatively impacted from the effort shift from the adjacent North Central Coast Study Region, where popular abalone diving locations have been temporarily closed (due to the recent incidence of red tide) or permanently closed via recently established MPAs in that region.

Just because the proposed hydrokinetic project near Point Cabrillo "*would not overlap with the proposed Point Cabrillo SMR"* (Page 7-8) does not mean that marine resources within that SMR would remain unaffected.

## CHAPTER 8

Table 8-3, the Alternatives Comparison Table, is based on flawed assumptions for CEQA Resource Topics Cultural Resources, as described in the Comments above. Table 8-3 should be revised as follows:

| **CEQA Resource Topic** | **No Project Alternative** | **ECA Alternative** |
|---|---|---|
| Cultural Resources | + (not "–") | = |

(-) Overall, the alternative would have additional adverse effects, or would be less beneficial, compared with the Proposed Project (i.e., effects would be more adverse).
(+) Overall, the alternative would have decreased adverse effects compared with the Proposed Project (i.e.,effects would be more beneficial).
(=) Overall, the effects would be similar to those described for the Proposed Project.

## CHAPTER 9

We note that among the EIR authors, there were no senior scientists trained in cultural ecology, historical ecology, environmental anthropology, or cultural studies. This is an oversight that has plagued the MLPAI since the Act's inception in1999, and continued through the process for the NCSR, where the Science Advisory Team also lacked the requisite expertise.

## CHAPTER 10

The reference to "Pfeiffer, J" for Chapter 5 is misspelled here and wherever it appears in the EIR.

Additional references that should be included and cited for Chapters 5 and 6:

- Petterson J.S., E.W. Glazier, A. Wagschal, C. Pomeroy, L. Madge, L. Stanley, R. Scalf, J. Stevens, P. Godde and M. Stevens. December 2010. North Coast Pre-MLPA Community Based Socioeconomic Characterization and Risk Assessment. Final Report. Impact Assessment, 2066 Avenida de la Playa, Suite F, La Jolla, CA 92037. Funding provided by the Humboldt County Headwaters Fund, Eureka, CA.

- Pfeiffer, JM with M Rocha, R McConnell, and the Yurok Tribe. April 2011. Native Science, Harvesting, and Conservation. Invited presentation to the California Department of Fish and Game Commission in Sacramento, April 6, 2011.

- Factual Records provided to the CA DFG Commission in September – October 2011 by the tribes identified in Table 2-1 and listed on Pages 5-10 and 5-11.

- Verbal testimony provided throughout the MLPAI process from Spring 2009 through Winter 2011.

**Appendix A**

No comments.

**Appendix B**

Section entitled "Edible Algae Harvest" on Page B-9ff should be reviewed by Mendocino County artisanal harvesters for accuracy.

**Appendix C**

Kelp beds are largely absent from the 23 maps in this appendix. This oversight needs to be corrected.

**Appendix D**

The Levels of Protection (LOP) model used to assess the potential benefits to inclusion, or negative impacts from exclusion in marine protected areas, has yet to incorporate the specific conditions and realities of the North Coast Study Region. The model is based on a dichotomous ("yes/no") decision-making tree, and is limited to localized biological and ecological determinants (no economic, cultural, social, policy, or larger contextual questions are incorporated into the model). The model assumes that all potential uses are limitless and exploitative to the maximum extent, access is unimpeded, and all activities take place in isolation from any other activity. The model sets as both its baseline, and its goal, an "unharvested system" [i.e., a state marine reserve], ostensibly with no anthropogenic disturbance by humans. The model does not yet incorporate the cultural ecology of the region, i.e., thousands of years of traditional indigenous use and stewardship.

The model's current assumptions result in LOPs that are incongruent with current realities along the Northern California coast. For example, the model assigns a low LOP to hand-harvested species such as edible seaweed and mussels, historically and currently harvested sustainably by artisanal seaweed harvesters, subsistence gatherers, and tribal members. The model assigns a high LOP to culturally important pelagic species such as salmon (citing their highly mobile nature), despite environmental realities that currently negatively impact salmon found within MPAs at different points in their life cycle (e.g., water diversions, farmed salmon, plastics contaminants).

**Appendix E**

We do not understand why 157 shipwrecks merit an entire appendix with detailed tables and maps, yet the thousands of Native American cultural resource sites in the NCSR, many of whom are far older, and closer to population centers (and therefore more vulnerable) are not?

**Appendix F**

Although we are pleased to see the supplemental information provided by the Yurok tribe contained in this appendix, why is there no equivalent documentation sought and obtained from the other 23 recognized tribes in the NCSR?

Documents possessed by the California DFG that were not referenced in the citations or the EIR text include Factual Records provided to the CA DFG Commission in September – October 2011 by the tribes identified in Table 2-1.