Comment Letter AA

Yurok Tribe

Presented Materials to the California Fish and Game Commission

April 11, 2012

Comments to Draft Regulations and Draft Environmental Impact Report for the Marine Life Protection Act North Coast Study Region

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YUROK TRIBE

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April 10, 2012

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MLPA North Coast CEQA Comments
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Re: Response of the Yurok Tribe to the Draft Environmental Impact Report regarding proposed marine protected areas in the North Coast Study Region pursuant to the Marine Life Protection Act and Proposed Marine Life Preservation Act regulations

Dear Commissioners, Fish and Game Staff and Horizon Water and Environment:

The Yurok Tribe makes a reservation of all rights and specifically asserts the right to regulate all Native Americans within reservation boundaries. We are pleased to be here to participate in a historic process.

Thank you for appearing on the North Coast for input into the Northern Group Marine Protected Area Program DRAFT Environmental Impact Report. We also appreciate your efforts to include Tribal harvesting within the baseline.

We extend our thanks to Governor Brown, Secretary of Resources Laird, and Director of Fish and Game Bonham, the Fish and Game Commission for recognizing traditional Native American Harvesting Rights.

The Yurok marine relationship goes back to time immemorial. Over the thousands of years such subsistence harvesting has become an intrinsic part of the environmental baseline. We

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appreciate the implicit recognition of this in the EIR. Long before the Marine Life Protection Act the Yurok Tribe has sustained our maritime tradition by working with National Marine Sanctuaries, developed marine stewardship agreements and has conducted scientific marine research.

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No credible science of any kind has been produced showing any harm from Yurok ceremonial, religious, cultural and subsistence harvesting.

The Tribe supports the regulatory Option One and the Unified proposal with proposed amendments. This option has the support of all relevant Board of Supervisors, City Councils, environment groups, commercial fisherman, sport fisherman, and the Yurok Tribe. We appreciate their overwhelming support for federally recognized Tribal Rights.

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We make the following clarifications or amendments to the proposal before you today. Yurok Tribe ought to be deleted from Tribes listed within Pyramid Point and Point St. George marine protected areas. This area is within the jurisdiction of the Smith River Rancheria. See attached letter. The specific amendment requested is adopting the regulatory option of designating Reading Rock as a State Marine Conservation Area with the appropriate renaming. The False Klamath Cove Special Closure last minute addition of a bird closure should be dropped entirely.

AA-3

The EIR needs to broaden the science considered beyond the Levels of Protection in order to meet Best Available Science guidelines and case law. The Yurok Tribe has submitted added scientific analysis of natural conditions limiting harvest, survey after survey showing healthy mussel populations, and traditional Native American harvesting knowledge. In the interests of time these materials will largely be submitted in writing. We conclude that there are only about 10 to 11 days a year available for intertidal mussel and barnacle harvesting. The EIR needs to respond to and incorporate Yurok submitted materials on Environmental Justice, Cultural Resources and an overall science review by Mike Belchik.

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Sincerely,

John W. Corbett

John W. Corbett

Response of the Yurok Tribe to the Draft Environmental Impact Report regarding proposed marine protected areas in the North Coast Study Region pursuant to the Marine Life Protection Act and Proposed Marine Life Preservation Act regulations

- Native uses need to be added to consumptive uses. The addition of mussels, crabs, seaweed, and other traditional subsistence gathering species need to be added to the consumptive uses on the North Coast. AA-5
- That in addition to the word boat and vessel, the word "canoe" needs to be inserted for non-consumptive use to reflect one Native American method of Harvesting. AA-6
- Harvesting for ceremonial, religious, cultural and subsistence needs to be added to take. AA-7
- The Regulatory Setting needs to add a section to 6.3.2 pp 6.3-1 & 2: The Federal reserved right doctrine espouses the notion that there are implied harvesting rights of Federally recognized Tribes based upon the purposes and boundaries reservations were created by Executive Order or Acts of Congress. AA-8
- Appendix D lists the methodology and conclusions of the science advisory panels regarding species likely to benefit from Marine Protected Areas. Low scores mean little benefit and high scores mean a species is more apt to benefit. (See p. 1 Appendix D). Under Human Impact there is 2 rating given for mussels. The stated reason is because of "tide pool trampling" (p. 3). The Yurok Tribe notes previously detailed restraints on harvesting and low population levels virtually eliminates this risk. There are no known sites of mussel trampling within Yurok ancestral territory of Damnation Creek to Little River. There has been identified one area for enough concern of barnacle and seaweed AA-9

tramping to suggest a formal scientific study needs to be conducted. Ironically, this is located at South Palmers Point within Patrick's Point State Park in a no take area and the cause is universally attributed to the heavy use for educational tours. Such tours are allowed within formally designated Marine Reserves. Nearby areas of traditional harvesting have generated no complaints or concerns. In conclusion the only known possible damage from trampling is within a marine reserve or no take areas allowing educational studies.

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NARRATIVE TO SUBMIT AS COMMENT TO
MLPA ISOR AND DRAFT EIR

2.1 Project Location – Baseline Conditions Comments

The North Coast Study Region is unique among the Marine Life Protection Act (MLPA) study regions for multiple reasons, including natural conditions, demographics, the presence of the largest natural resource-based tribal governments in California, continued subsistence harvesting and gathering of intertidal seaweeds and shellfish for traditional ceremonial, religious and cultural harvesting by tribal members, and economic and health and safety concerns for tribal members related to those uses. These reasons, discussed in more detail below, together justify an approach tailored to the North Coast Study Region that reaches beyond the approach used in the other MLPA study regions.

A Southern View of False Klamath Cove, California. Photograph courtesy of Christa Norton.

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Natural Constraints to Recreational and Tribal Traditional Harvesting

Geographic isolation, severe weather conditions and limited infrastructure, particularly in Del Norte and Humboldt Counties (the northern portion of the North Coast Study Region), considerably reduce access to the intertidal area in the North Coast Study Region of California. This rugged environment has been shaped and defined by significant natural constraints, such as paralytic shellfish poisoning, high winds, closed roads and trails from tree fall, a limited number of very low tides, rough seas, turbidity, and adverse rain and weather conditions. These adverse natural conditions limit recreational and tribal harvesting opportunities throughout the North Coast Study Region. While certain of these constraints

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are California-wide, most others are limited to the North Coast Study Region or a portion of that region. Cumulative constraints within the North Coast Study Region are unique to the region and require a correspondingly unique approach.

Paralytic Shellfish Poisoning

The California Department of Public Health issues an annual paralytic shellfish poisoning (PSP) quarantine that restricts the harvest of shellfish, certain fish, mussels, and other intertidal species a minimum of six months a year. PSP is an acute, and sometimes fatal, form of food poisoning that is associated with the consumption of bivalve mollusks that have fed on the toxin-producing dinoflagellate Alexandrium catgenells (formally Protogonyaulax catenella and Gonyaulax catenella). [1]

> *"Eating shellfish that contain PSP toxins leads to an acute disturbance of the nervous system within a few minutes to a few hours. The PSP toxins are sodium channel blockers and thus inhibit neural transmission. Symptoms begin with the tingling and numbness of the lips, tongue, and fingertips, followed by disturbed balance, lack of muscular coordination, slurred speech and difficulty in swallowing. In severe poisoning, complete muscular paralysis and death from asphyxiation can occur if breathing is not maintained by artificial means. There is no known antidote to the poison."*[2]

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Lingulodinium polyedrum is often associated with fish and shellfish mortality events. Photo courtesy Kai Schuman, California Department of Public Health volunteer.

[1] California's public health officials for protecting the public from PSP has long been warranted, as there have been 542 reported illnesses including 39 deaths attributed to PSP since 1927 (Price et al., 1991). Citatation taken from the Marine Biotoxin Monitoring Program Annual Report 2009 prepared for the California Department of Fish and Game, prepared by Gregg W. Langlois, Senior Environmental Scientists, Environmental Management Branch, environmental Health Services Unit p.1. (Herein referred to as the Marine Biotoxin Annual Report 2009).

[2] Ibid., Marine Biotoxin Monitoring Program Annual Report, 2009, P.1.

The minimum quarantine is issued from May 1 through October 31,[3] but may begin as early as March (2011[4]) and extend into November (2010[5]). These quarantines limit harvesting to the stormiest months of the year. Further extensions of this ban are common, resulting in restricted harvesting over 50% of each year.[6] This provides a significant, ongoing protective constraint on harvesting of intertidal mussels and other species in the North Coast Study Region and throughout California.

Native Americans learned long ago to not harvest during toxic algae bioluminescence periods. Bioluminescence is a light produced through an enzymatic chemical reaction within the cells of Lingulodinium polyedrum.[7]

> *"California has a long history of paralytic shellfish poisoning (PSP), dating back to the time of the coastal Native American tribes. According to Meyer (1928) it was a common procedure for the coastal Pomo tribe to place sentries to watch for luminescence in waves, having apparently established a link between bioluminescence and mussel poisoning, both of which are caused by dinoflagellates in the phytoplankton."*[8]

Minus (or Negative) One Tides

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Minus one tides, the optimal time for harvesting mussels and other intertidal species, are an additional natural constraint on recreational and tribal harvest of marine species. The limited number of minus one tides greatly limits the number of days of possible harvest by recreational harvesters and Native peoples. The chart on the next page illustrates the situation. The total number of such tides in Crescent City, Del Norte County did not exceed 55 for either 2010 or 2009.[9] Approximately half of these minus one tide days fell within the paralytic shellfish quarantine, leaving in 2010 and 2009 only **21** and **23** days, respectively, with acceptable tides for harvest of intertidal species.[10] However, these figures do not account for adverse weather conditions such as storms, high winds, sustained high waves, and other conditions that make conditions dangerous for harvesting.

Sustained high waves with a minimum 9 foot height create a special danger to the harvest of intertidal species. Minus one tide days during which waves exceeded nine feet in height are marked on the chart in red.

From January 1 through December 31, 2010, there were a total of 54 negative one tides, represented on the chart by the blue line. These amount to 15% harvest availability throughout the entire year. Due to

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[3] A quarantine on Sport harves is imposed between May 1 and October 31 when the probability of toxic photoplankton uptake in mussels is high. California Department of Fish and Game, "California's Living Marine Resources: A Status Report, 2001. Such warnings have been ongoing during the same time of the year since at least 2001, www.cdph.ca.gov.

[4] Backer, Howard, "Mussel Quarantine Order," March 25, 2011.

[5] "Sport-Harvested Mussels Quarantine Lifted along California Coastline, Except Channel Islands Region," October 29, 2010.

[6] Backer, Howard, "Mussel Quarantine Order," March 25, 2011.

[7] Harmful Algae & Red Tide Regional Monitoring Program News, SCCOOS FAQ.

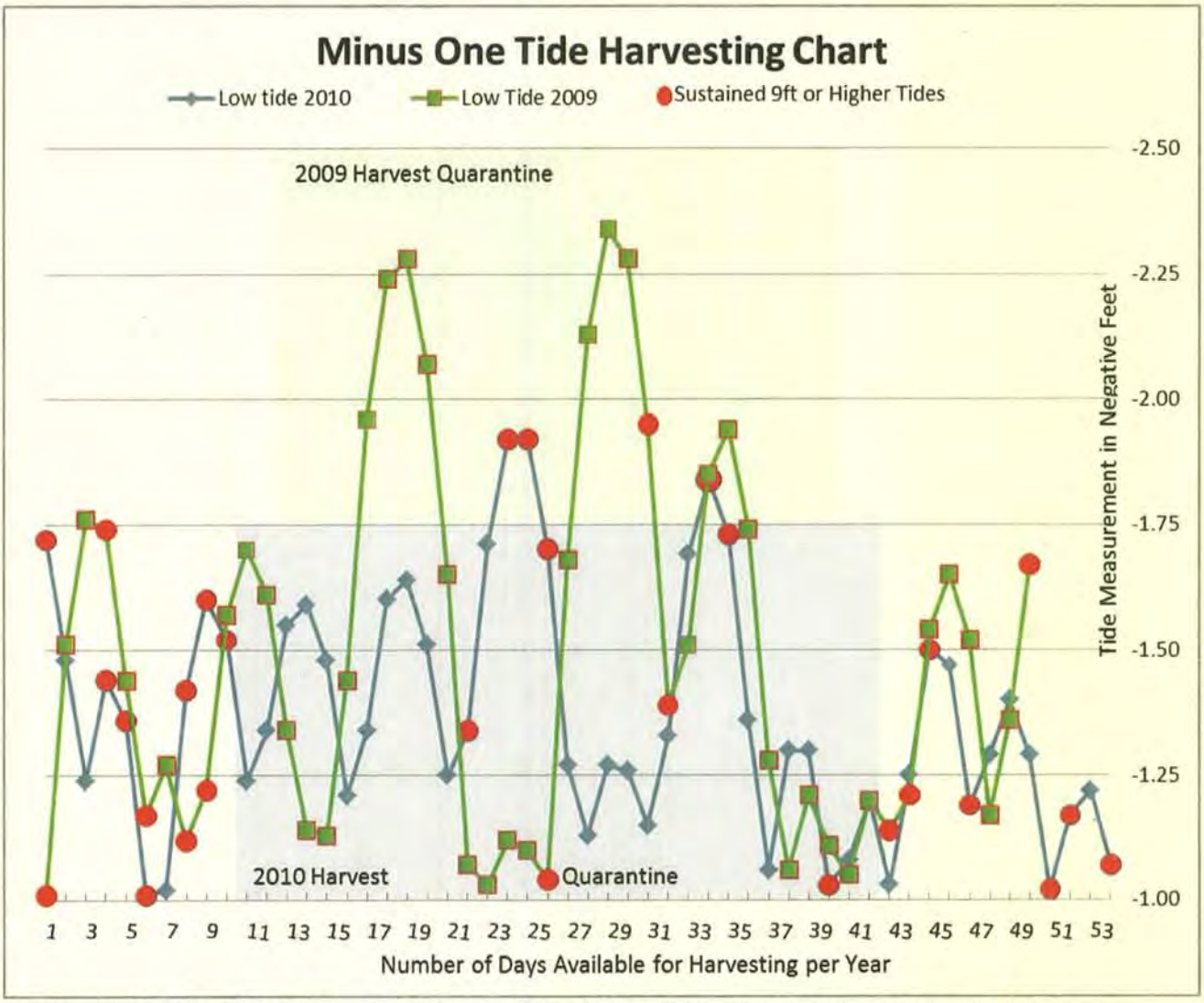
[8] Ibid. P.1 Marine Biotoxin Monitoring Program Annual Report 2009. Yurok Mae Long describes stirring the ocean waters at night to check for toxic algae.

[9] Tide Tables: Crescent City.

[10] Comparison of historical data from 2009 through 2010 utilizing the information contained in FN 2 and 3.

the harvest ban (seen in light blue for 2010), six months of the year are excluded from harvesting. Taking this into account, the recreational harvesters would be limited to 21 days of harvest for 2010, or 5.8% of the year. During 2010, there were 105 days with sustained waves of 9 feet or higher. Overlapped with minus one tide days outside of the paralytic shellfish quarantine, high waves further limit recreational harvesting to 9 days or 2.5% of the year. AA-10

For the entire year of 2009, represented in this chart by the green line, there were 50 minus one tide days for the harvest of mussels and shellfish. However, the six month ban (seen in light green for 2009) eliminated 27 of those days, leaving 23 days for harvest, or 6.3%. Another 8 days restricted because of wave heights over 9 feet, leaving a mere 15 days for harvesting or 4.1% of the year.

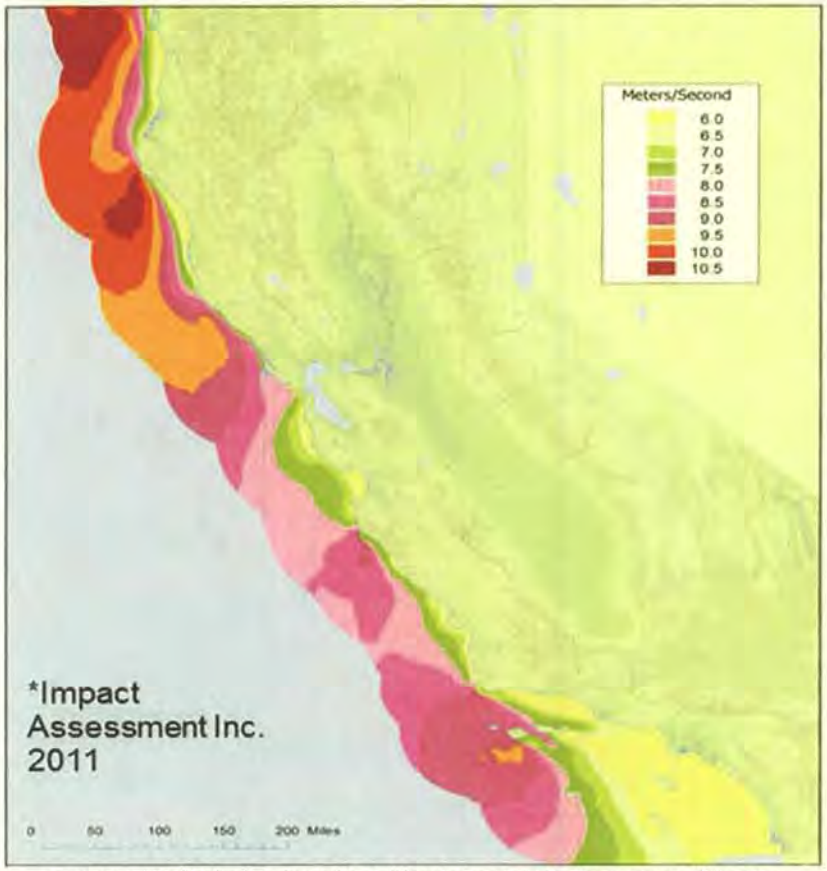


Tide data courtesy of: WWW Tide/Current Predictor: http://tbone.biol.sc.edu/tide, Biological Sciences, University of South Carolina, Columbia SC 29208 USA. Wave data courtesy of: http://www.ndbc.noaa.gov/histsearch.php?station=46027, National Buoy Data Center, National Oceanic and Atmospheric Administration

High Winds of the North Coast Region

Adverse weather conditions in the North Coast Study Region limit harvesting opportunities as well. Such winds are especially intense in Yurok ancestral territory[11] in the far Northern marine reaches of California. According to Dr. Largier, winds play a major role in shaping the marine environment [12] in the North Coast Region Study Group.

Ancestral territory of the Yurok, Tolowa Dee-ni (Smith River Rancheria), and the Trinidad Rancheria are susceptible to the highest wind velocities in California, according to the Impact Assessment of Average Wind Velocity below. These offshore winds reach 10.5 meters per second (approximately 23.5 mph) and higher, especially during the winter months. The large deep red areas on the map are indicative of this. Higher winds correlate with higher waves and rougher seas. These dangerous conditions severly limit the number of days in which to harvest mussels and other intertidal species.



Average Wind Velocity along the California Coast. U.S. Department of Energy

In contrast, southern California is more apt to have winds that range between 6 and 8 meters per second (approximately 13.5 and 18 mph), as illustrated.

As a MLPA Master Science Advisory Team presenter, Dr. John Largier observed the significant role wind plays in the North Coast Study Group Oceanography.

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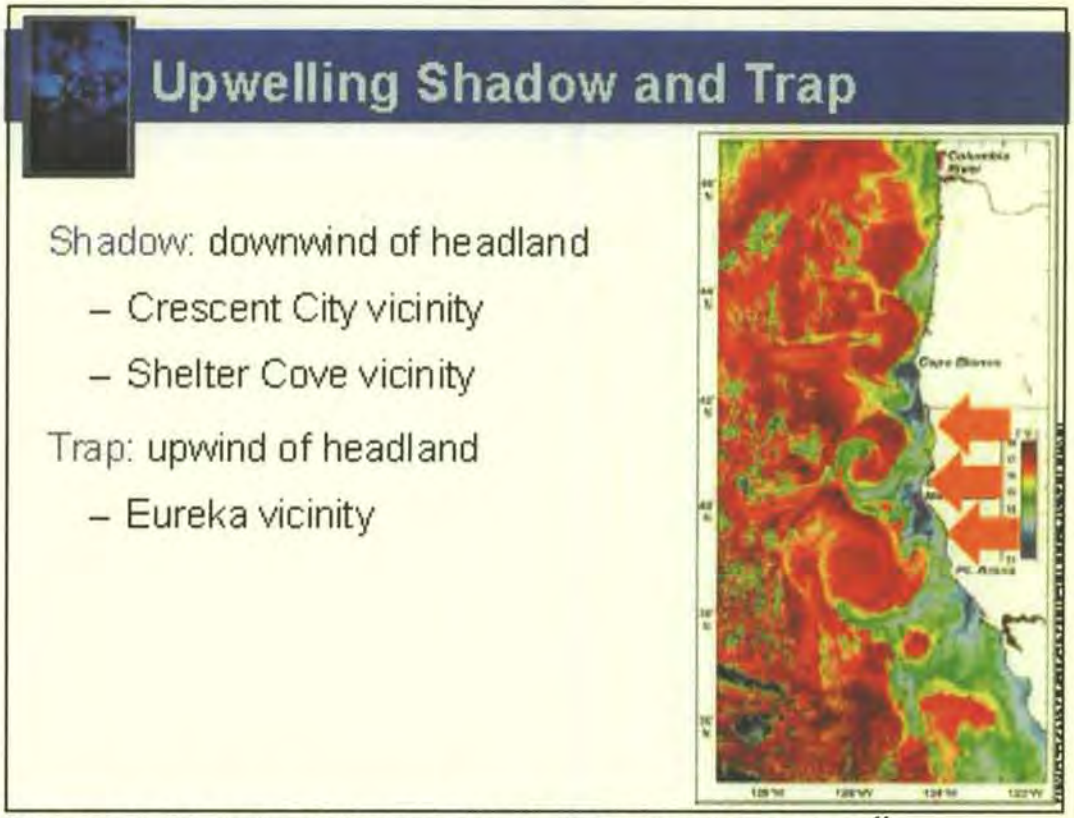
[11] The Yurok ancestral territory begins at Damnation Creek and runs south to Little River. There is a huge rock on the boundary where the Wiyot to the South and the Yurok met to trade. It is common to this day as one passes this huge rock to clap your hands three times, rub your hands together, and rub your thumb and index finger together to wish one good trades and good luck.

[12] Dr. John Largier, University of California Davis-Department of Environmental Science and Policy, Professor Bodega Marine Laboratory. Prior to 2004 he was Research Oceanographer at Scripps Institute of Oceanography. He also held positions at the University of Cape Town and the Natural Research Institute of Oceanology (CSIR) in South Africa. Dr. Largier served on the SAT for the California Marine Life Protection Act (MLPA), the Governing Council for CeNOOS (Central and Northern California Ocean Observing System), the Sanctuary Advisory Committee for the Gulf of Farolones.

The marine environment is characterized by:

> *"wind driven currents and coastal upwelling... The ocean is cold due to wind-driven upwelling... North wind pushes with the coriolis (rotating) surface water offshore....cold, nutrient-rich waters well up from the depths to replace this.... North coast is one of the world's major upwelling regions."*[13]



"Oceanography of the MLPA North Coast Study Region," Slide courtesy of: Dr. John Lagier[14]

As seen in the chart above, the cold waters at -18°C or colder (demonstrated by the dark red), well up from the deeper ocean floor and are brought to the surface, mixing with the warmer surface waters (indicated by the lighter colors and blue) which then get pushed down from along the coast.
The wind driven effects of the most importance in limiting Native American traditional harvesting are rough seas, access restrictions driven by tree and tree limb fall blockage of roads and trails, cold, cloudy waters through ocean upwelling and strong North-South currents that carry river sediments up and down the shoreline coast.

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[13] Dr. John Largier, MLPA Master Plan Science Advisory Team presentation to the MLPA Blue Ribbon Task Force "Oceanography of the MLPA North Coast Study Region" January 14, 2010, Crescent City, California.
[14] Largier, "Oceanography of the MLPA North Coast Study Region," 2010.

Rough Seas of the North Coast

Intertidal marine harvesting is concentrated in the winter months when the frequency of high energy wind and waves is most intense. This is because the paralytic shellfish California Department of Public Health quarantines during the summer and spring months only leave the months of November through April available for harvesting.

Small Craft Advisory Data, Crescent City, CA

Wave Height (Feet)/ Wave Period (Seconds)	2009	2010
	# Instances	
6 ft. min./7	119	146
7 ft. min./8	55	77
8 ft. min./9	47	70
9 ft. min./10	11	38
10 ft. min./11+	8	11

Table information courtesy of:
National Oceanic and Atmospheric Administration,
http://www.ndbc.noaa.gov/histsearch.php?station=46027

This illustration describes the number of instances in which a small craft advisory would normally be issued. The events listed in the chart are each of a four hour minimum duration. When referring to the National Weather Service Western Region Supplement[15] and using the same criteria as Weather Forecast Office (WFO) Eureka, a small craft advisory would be issued with a minimum of six foot waves with the wave lasting up to seven seconds. As the wave duration increases, the minimum footage increases as well. Once the wave duration reaches eleven seconds at maximum with a minimum wave height of 10 feet, small craft advisories become constant.[16] There were 119 events of this nature in 2009 and 146 in 2010.[17] Intertidal harvesting is exceedingly dangerous and difficult under such wave conditions.

According to Hans Voight in the *Lack of MLPA LOP Plausibility: Biological Arguments Using Genus Mytibus,"* (October 15, 2010, page 7)

> *In order to quantitatively describe these differences, we analyzed historical data from weather buoys off the coast of San Diego, CA (Mission Bay) and Crescent City, CA (St. Georges) and queried for conditions that equal or exceed the parameter that trigger the issuance of a "Small*

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[15] Tibi, Robert, "National Weather Service Western Region Supplement 12-2003,"pp A-1 through A-3, 2003.
[16] Tibi, R, 2003.
[17] Data was pulled from NOAA's National Data Buoy Center, using wave height and durations from 2009 through 2010.

Craft Advisory;" namely, sustained winds in excess of 25 mph and/or waves equal to or greater than 9 ft. We chose these parameters since it is unlikely resource gathering would occur in the intertidal zone during such stormy and dangerous conditions. Duration of conditions was standardized in queries so each "bad weather event" lasted a minimum of three hours. ***Results were staggering in their simplicity****. For a five year span from 2005-2009, the Mission Bay buoy documented a total of 13 bad weather events while the St. Georges buoy recorded 470 bad weather events in the same time frame. The implications for winter fishing near Crescent City (when mussels aren't toxic) versus fishing near San Diego are obvious: many more fishing opportunities (days per season) are lost to bad weather near Crescent City."*

Other special wave heights and wave duration periods are met in order to create a "Hazardous Seas Warning" as designated by the National Weather Service. Please note that the Weather Forecast Offices in Monterey, Los Angeles and San Diego do not have parameters in which to issue a "Hazardous Seas Warning".[18]

28 foot United States Coast Guard vessel battles waves during a training mission. Count the number of crew members aboard. Photograph courtesy Times Standard.

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High Waves in the North Group Study Region, and especially in Yurok Ancestral territory, limit all access including Native Americans ceremonial, ancestral, and cultural intertidal harvesting and fishing in the ocean.[19]

" Weather conditions make fishing or gathering on the north coast of California uniquely

[18] Tibi, R, 2003.

19 Hans Voight "Lack of MLPA LOP Plausibility: Biological Arguments Using genus *Mytilus*. Prepared by Hans Voight October 15, 2010.

challenging compared to the rest of the state's coastline, and can be thought of as number of fishing take opportunities available each year. Local Dungeness crab fisherman echo this reality when they remark that on average they get to fish 2-3 days a week due to stormy seas." (Robert Jackson letter dated 3-October-2010; Jonathon Jackson, letter dated 10 October 2010)[20]

The Redwood National and State Parks pamphlet, "*Enjoying the Beach on the North Coast,*" makes the following pointed comments regarding waves:

"Even on relatively calm days, large sneaker waves can strike without warning. Sneaker waves surge high up on the dry sand with enough force to knock a person down and drag him or her into the ocean—where he or she ***will likely be killed*** *by the combination of numbing cold water, turbulent surf and rip currents,"* and

"On average, four people drown from sneaker waves every year on Northern California beaches…Waves can cut off hiking trails…If someone else goes into the water, they are trouble. Don't go in the water. Most rescuers don't survive…At Freshwater Lagoon Spit[21] four drowning deaths, including young children have occurred from sneaker waves since 2004. Without warning, park visitors were knocked down and dragged into the ocean by a large and unexpected wave. ***They did not survive.****"*[22]

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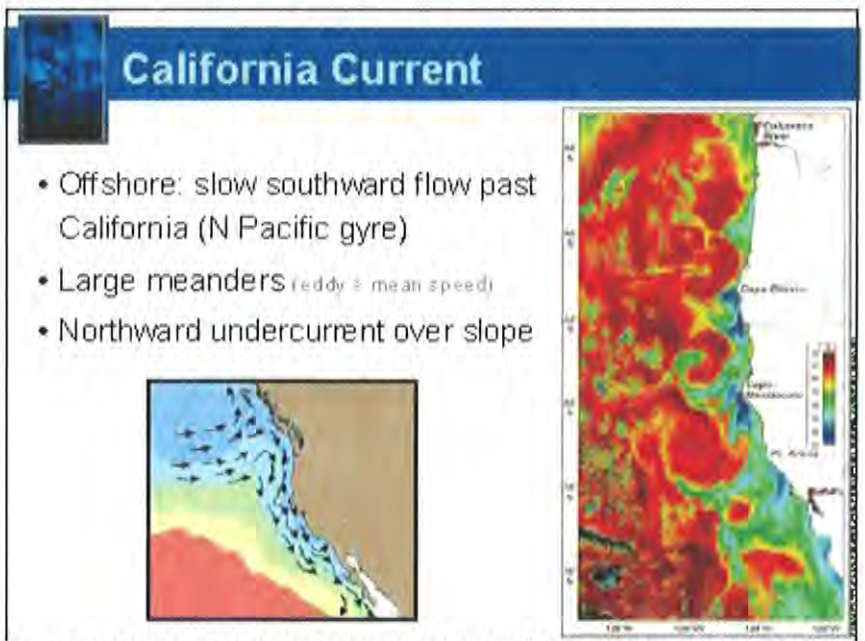

"Oceanography of the MLPA North Coast Study Region," Slide courtesy of: Dr. John Lagier[1]

The Notice of Preparation produced by Horizon Water and Environment specifically notes that exposure to high energy wind and waves shapes both the environment and

[20] Ibid, Hans Voight, p 7.

[21] Freshwater Lagoon is a traditional Yurok fishing site and was used as the point where the canoes would turn West to go out to Redding rock.

[22] Humboldt County State Parks similarly discourage swimming by Park visitors. ***"Please Remember Swimming is not advised.*** *The ocean off Patrick's Point is cold and dangerous. Children should not even be allowed to wade, as there are unexpected hole in the underwater sand and the undertow is very stron. "Rogue" waves appear periodically and unexpectedly and can be much larger than ordinary waves.****Never turn your back on the Ocean."*** Patrick's Point State Park Pamphlet. These Northern Park warning are in sharp contrast to Van Damme Park in Mendocino County. Listed park activities include "The Beach is popular with abalone divers….Kayak Tours: Visitors can get a unique perspective of the coast line by taking **kayak tours, available through a concession agreement, at the Van Damme Beach Parking Lot,** March 30, 2012.

human uses in the north coast. [23]

To illustrate this, on January 21, 2011, wherein the chart above was presented, the contrast between rough seas in Northern and Southern California is apparent. It is also clear that the vast majority of rough seas occur November through March during the only time harvesters are free from paralytic shell fish poisoning season, thus further restricting the harvest. The safety problems associated with high winds are even greater in the intertidal area.

Giant Redwood logs carried by the waves float along, intermittently crashing upon the shore line and cliffs. There are over ten logs floating in the ocean in this photograph. Such logs are deadly and have killed many on the North Coast. Photograph courtesy of Christa Norton.

Floating Debris Along the Shoreline

Along with the heavy rains, high winds, and rough seas, there is always the danger of floating debris. This debris come in many forms, but most commonly logs – fallen trees that have blown down at some point, washed into the rivers, out to sea until they are washed ashore by the crashing waves.

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A redwood log rests after moving the tetrapod beneath it approximately 35 feet. Photograph courtesy of Caltrans.

Logs are very powerful and dangerous when floating in the ocean current. According to Professor Lori Dengler, Geologist at Humboldt State University, "... Logs cause more damage than the water itself. Logs in the ocean are a significant hazard in the Pacific Northwest." (April 4, 2012.)

While some floating debris may be seen in the picture above, there are many hidden just under the surface, the silt disturbed by the waves making it difficult to see these hazards. Many logs laying on the

[23] Correction to Notice of Preparation for the Marine Life Protection Act North Coast Study Region EIR, Horizon Water and Environment, September 16, 2011 p 2. See also Initial Statement of Reasons for regulatory action which notes LOPs are described in the Draft Master Plan and are reconsidered for each Study Region for evaluation purposes, p.4

rocky beaches may be carried back into the ocean with the high tide and rough seas, creating yet another hazard posed to tribal harvesters, further limiting access.

Turbidity of Rivers and Shoreline

The winter storms of the north coast bring heavy rains to the area. This rain finds its way into the local Klamath and Eel Rivers. The heavy rainfall creates strong winter fresh water inflow into the ocean[24] bringing sediment with it. The rough seas cause the sediment to be pushed back to the mouth of the rivers and along the shoreline.

An aerial view of the mouth of the Eel River emptying into the Pacific Ocean. Notice the brown water. This is the silt which hugs the coast line due to the Northern California currents. Photograph courtesy of Dr. Largier.

Within the North Coast Study Region, water turbidity limiting visibility is particularly acute along the Humboldt and Del Norte Counties coast. The Eel, Klamath, and Mad rivers carry heavy sediment loads, **among the highest in North America.**[25] The Eel River has the highest amount of unsettled sediment yield compare to any other river of its size or larger (not affected by volcano eruptions or glaciers), draining 1720 tons per kilometer in a two year time frame.[26]

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Along our state, the California Current hugs the coast north of Point Conception during most of the year, except in winter when southeast winds force it farther offshore, producing the Davidson Current that flows north near the coast.[27]Coastal current patterns shift from north to south, forcing sediment to hug the coast, resulting in the poorest visibility for the entire California Coast in Humboldt and Del Norte Counties.[28] This lack of visibility, combined with the floating debris and rough seas mentioned earlier, greatly restrict skin and scuba diving take opportunities. Experts believe the severe turbidity in Del Norte and Humboldt counties contribute to the highest shark attack rates in the State of California.

County Location	Population	Shark Attacks	Likelihood of Shark Attack - one in . . .
Humboldt	129,000.00	12	10,750
Del Norte	29,100.00	2	14,550
Marin	248,794.00	11	22,618
Mendocino	86,221.00	1	86,221
San Diego	3,001,072.00	15	200,071

[24] Largier, "Oceanography of the MLPA North Coast Study Region," 2010.
[25] Wheatcroft, R.A, and Sommerfield, C.K, "River Sediment Flux and Shelf Sediment Accumulation Rates on the Pacific Northwest Margin," 2004.
[26] Lisle, Thomas, "The Eel River, northwestern California; high sediment yields from a dynamic landscape," 1990.
[27] "California's Offshore Ecosystem, California's Living Marine Resources: A Status Report," California Department of Fish and Game, 2001, p. 291.
[28] Wheatcroft and Sommerfield, 2004.

Adverse weather and rough seas, combined with few days of minus one tides for possible intertidal species harvest, results in severely limited opportunities for recreational and tribal harvest within the North Coast Study Region. For 2010, the number of days with a greater than minus one tide but with wave heights less than nine feet totaled just nine days.[29] In 2009, there were just 15 days[30] with tide and wave conditions acceptable for harvesting of intertidal species. Acceptable harvest days would be further reduced by high winds, insufficient sun or moon light, or large rain events.

Demographic and Structural Constraints

Demographics of the North Coast Study Region vary significantly from that of the other study regions. The North Coast Study Region encompasses the least populated area in all of California. Based on 2010 U.S. census data, the number of people per square mile in Del Norte County is 28.4, while the total population density of the North Coast Study Region counties is 31.07 persons per square mile, which is exceeding less than 2419.6 persons per square mile in Los Angeles County in the South Coast Study Region or 307.1 in Sonoma County in the North Central Coast Study Region.[31] This necessarily reduces the amount of potential recreational or tribal harvesting relative to the other MLPA study regions.

A re-occurring land slide blocks Requa Road, leaving the Requa community residents isolated and without power and blocking ocean harvesting access. Photograph courtesy of Redwood National and State Parks

These demographic differences play out in the harvest of marine resources as evidenced by the number of licenses by county. Department of Fish and Game statistics indicate that the total number of annual fishing licenses issued in 2005 for all of Del Norte, Humboldt, and Mendocino counties combined was 29,072.[32] This amounts to less than 1.5% of the total sportfishing licenses issued that year. The number of potential recreational harvesters and gatherers in the North Coast Study Region is vastly outstripped by those in the other study regions.[33]

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[29] A comparison of multiple data from 2010 was used to derive this information, including wave heights and quarantine information.

[30] A comparison of multiple data from 2009 was used to derive this information, including wave heights and quarantine information.

[31] "County QuickFacts from the US Census Bureau," USCensus Bureau: State and County Quick Facts.

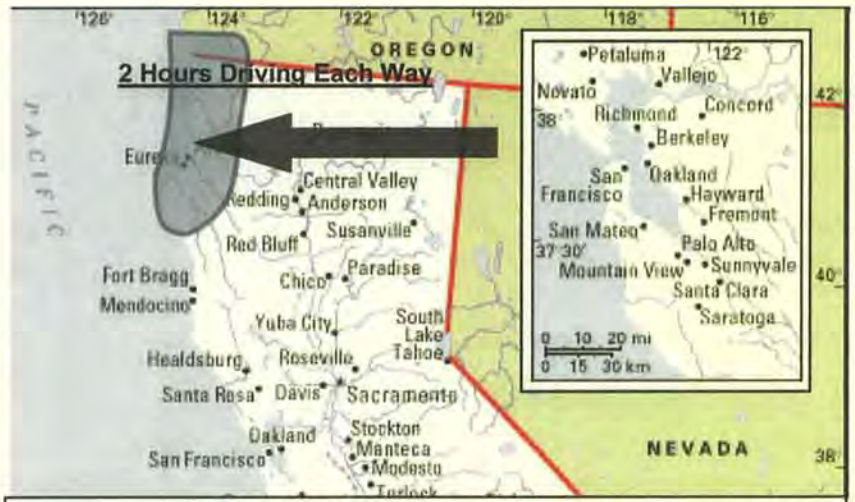
[32] "Department of Fish and Game Sales by County for Item 20050101 Sport Fishing Residence License."

[33] Commercial Passenger Fishing Vessel (CPFVs) studies are consistent with the fact that there are higher densities of fishing near population centers. Average annual landings and ex-vessel value during 1995-1999, by area and major species group. Norther California 52,555, Central California 85,290, and Southern California 289,225. "California's Living Marine Resource:.." p.57. See also Tables II-5, 6, 7, III-1, 2, 4, 5, 6, and 7.

Infrastructure and Access Constraints

Further in contrast to the other study regions, coastal access within the North Coast Study Region, particularly within Del Norte and Humboldt Counties, is severely limited. Humboldt and Del Norte Counties remain a world apart from large metropolitan populations and the rest of California, separated by the natural barriers of the Coastal Range and what's commonly known as the "Redwood Curtain."[34] Accessing the rugged coastline can often require traversing through the thick redwood forest either by road or trail, scaling steep embankments, climbing jagged rocks, or navigating mounds of unstable driftwood. During the winter months, it is a common for coastal or river flooding, landslides, and trees and other debris to close major roadways, such as U.S. Highway 101,[35] severely limiting vehicular access in or out of coastal communities like Crescent City and Klamath.[36]

U.S. Highway 101 provides the primary means for vehicular access in Del Norte and Humboldt Counties, linking many of the small, rural communities. Many of these isolated coastal communities, like Klamath and Crescent City, have one main road leading in and out. Unlike the rest of California, the Pacific Coast Highway 1 does not reach the North Coast above Leggett in Mendocino County.[37] From the Oregon border to Patrick's Point, there are only roughly 10 miles of coastal access for this entire 75 miles of highway.[38] Access along the remaining 65 miles is severely limited by the lack of a highway comparable to U.S. Highway 1 in the South and Central Coast Study Regions, extensive coastal land held by Redwood National and State Parks, high coastal bluffs, and long and steep hiking trails.[39]



AA-10

U.S. Highway 101 in Del Norte County has a lower level of service (LOS) than Central and Southern California Highways. According to CalTrans's Year 2000 Highway Capacity Manual , the capacity of the two lane highway is 1,700 passenger cars per hour for each direction. This amounts to 81,600 cars in a 24 hour period.[40] Including large vehicles such as semi's or RV's reduces the LOS. At 81,600 vehicles per

[34] Inforain. Ecotrust Well-Being Assessment of Communities in the Klamath Region.
[35] "The Hill That Ate Hwy 101," North Coast Journal, April 7, 2011.
[36] "Weather Update to Yurok Employees," January 17, 2012.
[37] California Department of Transportation, "California Scenic Highway Mapping System
[38] US 101S/Oregon Coast Hwy to US 101S – Google Maps. Several Google maps were used to compile this data.
[39] Redwood National and State Parks-Welcome.
[40] Caltrans, "Highway Capacity Manual," 2000.

day, Del Norte County would suffer from oversaturation of traffic, and also lacks the proper infrastructure to accommodate the additional visitors.

A hillside slide blocks four lanes of traffic on U.S. Highway 101 in Humboldt County. Photograph courtesy of Felix Omai ©2011

AA-10

Redwood National Park Service access road to Fern Canyon and Gold Bluffs Beach flooded by puddles and creeks. http://twitpic.com/39j4jh

Within the 83 miles of Yurok Ancestral Territory that border the Pacific Ocean, Redwood National and State Parks (RNSP) manage thirty-seven 37 miles of coastline.[41] Distinguishing themselves from other parks in California, RNSP prioritizes resource protection and preservation over development of easy accessibility, focusing primarily on hiking through nature, preventing extractive use or vehicular access. Additionally many park areas and beaches are restricted to day use only.[42]

Map depicting the 83 miles on coastline. Map courtesy of Redwood National and State Parks.

AA-10

[41] Redwood National and State Parks-Welcome.
[42] Redwood National and State Parks, General Management Plan.

Newton B. Drury Scenic Parkway, a primary access road within RNSP for coastal trails and gathering areas, is closed routinely for partial days to weeks at a time because of safety concerns due to fallen

Newton B. Drury Scenic Parkway closed by fallen redwood tree after an October 2011 storm. Photograph courtesy of Redwood National and State Parks.

AA-10

trees, forest debris, and frozen roads sheltered by the redwood canopy.[43] The difficulty of keeping roads open along the North Coast is so great that the Redwood National Parks Service is decommissioning coastal roads and converting them to hiking trails.[44] These trails, in turn, become more difficult to use as footbridges are removed and trails become covered with debris. For instance, Newton B. Drury Parkway was closed approximate 15 times from January 2010 through December 2011, due to fallen trees, mudslides, icy roads and various other conditions.[45] This road is closed so often that there is a closure sign on a swivel pole at the north entrance. The southern entrance is open a little ways in until the Ranger Station. Just passed the Ranger Station, there is a gate that closes off the entire road.[46]

[43] Redwood National and State Parks, "Twitter Road Access Updates," December 21, 2010 through January 2012.
[44] Staff Recommendation on Consistency Determination, CD-045-11 California Coastal Commission, December 9, 2011.
[45] This data was compiled from different Tweets by the Redwood National and State Parks between January 2010 and December 2011.
[46] Pictures taken and information received April 2, 2012, 12:15p.m.

Prairie Creek Redwoods State Park notifies motorists of road closure 1 mile ahead. Motorists must turn around as there are no other exits available. Photograph courtesy of Christa Norton.

The temperate coastal climate of the North Coast makes for wet conditions year-round, which impact accessibility to beach areas over trails of dirt or wet, slippery rock. With limited road access, trails are often the only way to get to the beach. Many areas of rocky intertidal shoreline are simply not practically accessible by any means.

In addition, those accessing these areas risk physical injury from "**widow makers**." Widow maker is the term used to describe loose debris such as limbs and tree tops suspended from the forest canopy which can fall at any time, but most often during high winds or other adverse weather, and may strike humans on the ground.[47] Redwood National and State

This is a close up of the swivel pole in its locked position show in the photograph at the top left. The road is closed so often that a swivel "Closed" sign is needed. Photograph courtesy of Christa Norton.

AA-10

Parks Service and the Occupational Safety and Health Administration (OSHA) advise individuals to avoid redwood forests in times of high winds, heavy rainfall and coastal flooding. [48]

A view looking up into the tree tops where Widow Makers often fall during adverse weather. Photograph courtesy Redwood National and State Parks.

[47] "Winter's Back: Rain with Wind Gusts +30mph. Avoid old growth in wind- "widow makers" fall from hundreds of feet up!" Twitpic@RNP, Redwood National Parks, February 14, 2011.

[48] A man driving on Route 36 in Humboldt County died while driving due to a large chunk of redwood falling on his 2005 Ford Ranger. His wife survived. Times Standard, April 3, 2012.

Access to Traditional Gathering which is Fundamental to Health, Safety, and General Welfare of Native Americans

Native Americans are at greater risk for diabetes than any other population in the United States. According to the American Diabetes Association, American Indians and Alaskan Natives are 2.2 times more likely to have Type II Diabetes than non-Hispanic whites.[49] Diabetes diagnosis brings costly complications which include blindness, amputations of lower extremities, kidney failure, cardiovascular disease, decreased quality of life and premature death.[50]

This photograph was taken by Redwood National and State Parks. A trail footbridge has been damaged by fallen tree. Notice part of the bridge lying in ruins next to the tree.

Current dietary choices of Native American people are the result of systematic loss of culture, historical trauma stemming from systematic genocide, forced removal, and assimilation policies of the United States government which forced Native Americans to become dependent upon government rations and food programs. Adverse health effects directly correlate with Western expansion and the separation of Native people from their ancestral lands and the freedom to harvest natural foods from their homelands. Other factors that exacerbate the extreme rate of diabetes in Native communities are the high rate of poverty, low education level, lack of resources, facilities and equipment and lack of access to nutritious foods.

AA-11

Direct access to traditional food sources is essential to the health, safety and survival of Native American communities. Utilizing traditional knowledge and lifestyles can influence positive change in Native American communities. Regular engagement in traditional gathering provides necessary physical activity and access to nourishing foods like seaweed, mussels, barnacles, and surf fish.[51]

In May 2010, Kathleen Sloan, PhD, and Susan Fluharty, Phd, surveyed more than one dozen mussel beds (of which 3 are EPA sampling sites) along Yurok ancestral territory.[52] In all but one of the surveyed beds, there were dense populations of mussels of different kinds. Many of these beds had various sized mussels, sharing space with sea grass, barnacles, sea snails, and many algae species. Only one site surveyed showed mostly young mussels with only a few scattered older mussels. There was no evidence of over harvesting.

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[49] "Native American Complications," American Diabetes Association, 2010.

[50] Harris MI, Summary, In: Harris MI, Cowie CC, Stern MP, et al., eds. Diabetes in America, 2nd ed. Washington, DC: US Department of Health and Human Services, Public Health Service, National Institutes of Health, 1995 (DHHS publication # NIH 95-1468).

[51] Kennedy, Stacey, "California Food Guide – Health and Dietary Issues Affecting American Indians," 2005.

[52] Kathleen Sloan is the director of the Yurok Tribe's Environmental Program, and Susan Fluharty was an Environmental Specialist for the Yurok Tribe Environmental Program in May 2010. See "Yurok Ancestral Territory Marine Mussel Survey," 2010.

The survey was conducted over a period of several days, allowing for proper timing of minus tides, hikes in and out of the sites, and proper weather conditions. All the sites surveyed had few to no occupants at the site, except for Moonstone Beach, the last site surveyed. There were a minimum of 20 people on this beach at the time of the survey, none of which were harvesting mussels. This site contained " ... dense, highly uniform mussels ... most appearing to be approximately 5cm."[53]

A prohibition or restriction in traditional tribal uses of marine resources will further contribute to the declining health of Native American populations by denying access to a reliable healthy traditional food source.

AA-11

This is a close up photograph of a mussel bed at Redwood Creek, Orick, California. This is survey site number 9. Photograph courtesy of Yurok Tribe.

[53] "Yurok Ancestral Territory Marine Mussel Survey," 2010.

Map of surveyed mussel beds conducted for the May 2010 "Yurok Ancestral Territory Marine Mussel Survey."

AA-11

20

Relationship Between California, Tribal Governments, and Ceremonial, Cultural and Religious Subsistence Gathering by Tribal People

Indian tribes and traditional practices play a major role in California, which has more federally recognized tribes than any other state with the exception of Alaska. The North Coast Study Region encompasses the ancestral territory of numerous tribes, most of which are natural resources-based tribes with significant numbers of tribal members engaged in traditional harvesting. The region includes the largest tribes in California with strong, culturally intact traditional harvesting practices. Important cultural resources and traditional tribal practices are documented in the various tribal factual records submitted to the Fish and Game Commission hereby incorporated. The traditional tribal uses of these marine resources constitute for both tribes and the state a significant cultural and historic resource.

California has a substantial interest in protecting the culture of federally recognized Indian tribes, which are distinct political entities within its borders. Current Governor Jerry Brown issued Executive Order B-10-11, recognizing that California has an important relationship with Native American tribes and that California is committed to strengthening and sustaining effective government-to-government relationships between the state and Tribes. Additionally, Tribal members within the state are also California citizens, the health and safety of which is of utmost concern to the state. These interests are balanced against California's interest in the conservation, sustainable use, and restoration of California's marine resources.

A young woman and her family harvests mussels and seaweed after hiking a one mile trail in. She will fill the basket and make the return hike with her basket.

Each of the federally recognized tribes in the North Coast Study Region is uniquely situated. While the governmental structure and traditional use of marine resources of various tribes has been documented in the factual records submitted to the Fish and Game Commission in September 2011, the Yurok Tribe is highlighted below.

Yurok Tribe

The Yurok Tribe, a federally recognized tribe and the largest tribe in California with over 5,700[54] members, is one example of the type of tribe and tribal people within the North Coast

[54] Enrollment Department, Yurok Tribe, 2012.

AA-12

Study Region.[55] Yurok people have engaged in subsistence harvesting and gathering uninterrupted since time immemorial. The Yurok Reservation is in a remote location, with limited road access. Unemployment is over three times greater on the Yurok Reservation compared to the national average.[56] Nearly one third of those individuals living on the Yurok Reservation live below the poverty level.[57] Yurok tribal members supplement their income through subsistence gathering of marine aquatic plants and shellfish, which are an important food source. Continued access to a food source for Yurok people is a health and safety issue, directly related to the general welfare of California residents, and a compelling interest for California.

AA-12

Yurok subsistence harvesting incorporates ceremonial, cultural, and religious practices at specific sites, rendering it non-transferable to another site. The Yurok have maintained an uninterrupted presence at these sites for subsistence harvesting and gathering since time immemorial. For example, the Yurok have documented traditional sea canoe routes to Redding Rock, which was and still is used for cultural, ceremonial, and subsistence gathering purposes. They had extensive pathways to the beaches also. Since the settlement of California, the Yurok depend on the roads to get to the trailheads of traditional trails which are often 3-5 mile hikes to the beach. Traditional take and other customary uses by Yurok people is an intrinsic component of the marine ecosystem. There is a lack of credible scientific evidence or proof that ceremonial, cultural, or religious subsistence gathering or harvesting by Yurok tribal members has damaged marine resources.

AA-13

The Yurok Tribe has extensive scientific, police, and court enforcement capacity. This translates into an ability to enforce tribal laws, including those regulating marine resources, with Yurok tribal members. Yurok Tribal Public Safety Officers are P.O.S.T. certified and cross-deputized by both Humboldt and Del Norte Counties. This also provides an opportunity to supplement state MLPA monitoring and enforcement efforts with tribal efforts. Department of Fish and Game enforcement officers currently work with Yurok law enforcement to patrol the Klamath River fishery, which indicates a similar opportunity for improved patrolling of marine resources.

AA-14

The Yurok Tribe's Fisheries Department has demonstrated its scientific capacity through its leadership role in research and restoration efforts throughout the Klamath River basin. The department employs over 70 staff and is largely acknowledge as comprising the most knowledgeable and experienced team of fish biologists on the North Coast. In addition, the Yurok Tribe Environmental Program has assumed EPA regulatory and monitoring responsibility for the Yurok Reservation. The Yurok Tribe is currently conducting independent research on eulachon and mussel toxicity within the marine environment, with additional planned marine resources baseline and monitoring research.

AA-15

[55] The remaining factual information comes from factual records of the Yurok Tribe submitted to the Department of Fish and Game, September 2011.
[56] "Comparison of US Census Data: Yurok Reservation, Counties, State, and Nation,"
[57] "Comparison ...,"

Comments of the Yurok Tribe Cultural Resources Department

Rosie Clayburn, M.A., Yurok Tribal Archaeologist

Robert McConnell, Yurok Tribal Heritage Preservation Officer

Buffy McQuillen, Yurok Native American Graves and Repatriation Manager

Chapter 5: Cultural Resources

5.2.1 Federal Law, Regulation and Policies

AA-16

- Add the American Indian Religious Freedom Act of 1978.

AA-17

Analyze the impact of Cultural Resources according to American Indians ability to access sites and practice Native religion.

AA-18

- Add a definition of NAGPRA law, it is needed because human remains are analyzed for impact.
- Add to the TCP definition under the NHPA law section. TCPs are eligible for inclusion to the National Register of Historic Places:

AA-19

"According to the Bulletin 38 entitled "Guidelines for Evaluating and Documenting Traditional Cultural Properties," there are many definitions of the word "culture" but in the National Register programs the word is understood to mean the traditions, beliefs, practices, lifeways, art, crafts and social institutions of any community be it an Indian Tribe, a local ethnic group, or the people of the nation as a whole (Parker and King 1990:1). "One kind of cultural significance a property may possess, and that may make it eligible for inclusion in the Register, is traditional cultural significance." (Parker and King 1990:1). "Traditional" as defined by this bulletin are those beliefs, customs and practices of a living community of people that have been passed down through the generations, usually orally or through practice. It is therefore that the traditional cultural significance of a historic property, is derived from the role the property plays in a community's historically rooted beliefs, customs, and practices.

"A traditional cultural property can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community." (Parker and King 1990)"

5.3.1 Historical Setting

- Add section on **Traditional Cultural Properties** as a separate section under Archaeological Resources

Suggested language:

"Traditional Cultural Properties are an important element of the native experience all along the California coastline. Tribes attribute significant meaning to the coast and marine resources. TCPs may include elements of the archaeological record, however, they often include intangible elements such as sound, viewshed, and smell. Access to TCP's must also be evaluated in assessing TCP's. TCP's may include hunting, gathering, fishing, villages, prayer sites, trails, off shore rocks, and any other area that possesses cultural values.

AA-20

5.3.3 Known and Recorded Cultural Resources

The Yurok Tribe attributes cultural values to the entirety of the ancestral territory coastline. From Little River on the south to Damnation Creek on the north is within the bounds of Yurok Ancestral Territory. The coastline through this section contains important archaeological sites, historical locations, and Traditional Cultural Properties. There are numerous locations recorded along this stretch of coastline including villages, camps, trails, gathering, hunting, and fishing locations. One of the proposed State Marine Reserves (Redding Rock) and Special Closure areas (False Klamath Rock) have within each multiple potentially eligible Traditional Cultural Properties.

Redding Rock Traditional Cultural Property

AA-21

The area of Redding Rock is a Traditional Cultural Property, and is an eligible property as defined by Bulletin 38, NHPA and CEQA standards. The Yurok Tribe recognizes the importance of Redding Rock as a gathering, hunting, fishing, prayer and ceremonial site. The Yurok Tribe designated Redding Rock as a Traditional Cultural Property through a resolution passed by the Yurok Tribal Council.

False Klamath Cove is also consistent with the criteria set forth by Bulletin 38, NHPA and CEQA standards. This property is also potentially eligible to the National Register as a Traditional Cultural Property. The area is culturally significant location for Yurok people as a gathering, prayer, and ceremonial site.

5.4.3 Environmental Impacts

- General Comment: How was the *Level of Significance of Impact* analyzed? What is the basis for the *less than significant impact*? Who was the qualified staff that performed this analysis (it is appropriate to name the people writing this section who meet the secretary of the interior qualifications).

AA-22

- "Subsistence fishing and gathering is addressed in Section 6.6, "Environmental Justice," and will not be discussed in detail in this chapter."
  -cannot separate subsistence fishing and gathering from Traditional Cultural Property elements, therefore fishing, gathering and hunting need to be analyzed in the impact pertaining to Cultural Resources.

AA-23

Impact CR-3: Adverse Impacts on Traditional Cultural Properties and Activities Involving Take 2 by Federally Recognized Tribes (Significance Criterion B)

The proposed location of the SMR at Redding Rock, and the Special Closure at False Klamath Rock will have an ADVERSE EFFECT on the Traditional Cultural Property designation by the Yurok Tribe. Under criteria B, it will "substantially alter the characteristics of, or reduce access to, locations that provide unique ethnic or cultural values to Native Americans (such as religious or sacred sites), or otherwise substantially impair the ability for Native Americans to engage in traditional cultural practices".

If Yurok People are not allowed to access the sites for cultural, religious and subsistence purposes there will be a substantial alteration in the characteristic of the locations that provide unique cultural values for Yurok People.

"Altogether, the Proposed SMRs total less than 5% of the Study Region. Two of the SMRs (Reading Rock and Mattole Canyon) are offshore and difficult to access owing the rough conditions off the north coast."

AA-24

Cannot justify closing one spot that is a Traditional Cultural Property because other locations will be open. Traditional Cultural Properties have unique value and are irreplaceable and non-transferable. Also, the remaining 95% of the Study Region is not all open to tribal gathering due to access issues between private ownership, state and federal agencies.

Redding Rock is offshore and difficult to access, however a factual record, proclamations, and proof has been submitted by the Yurok Tribe throughout the MLPA process that Redding Rock is accessed by Yurok for use as a Traditional Cultural Property. Redding Rock is protected because of the rough conditions and its location most of the year. However, when the conditions are right it is important that Yurok have the ability to access.

"Although tribes traditionally have hunted on some of the areas surrounded by proposed special closures, existing laws are in place for the protection of many of these

species that currently prevent their take. The Proposed Project would not conflict with or supersede any state or federal laws regarding the take of protected, threatened, or endangered species.

None of the Proposed MPAs would restrict access. The special closures, on the other hand, would prevent all people, including tribes, from accessing particular offshore rocks and islands."

Yurok still need access to False Klamath Rock. When species become sustained, Yurok will retain its right to procure these resources. Closing the area 6 months out of the year will have an ADVERSE IMPACT on Yurok ability to use the area as a Traditional Cultural Property.

"The SMRs and special closures would restrict the tribal members' ability to conduct traditional practices involving varying types of take, as well as non-consumptive practices conducted in conjunction with practices involving take. However, as a result of the extensive coordination effort described above, and the fact that other locations would continue to be available for such practices, the Commission considers this impact to be less than significant."

Coordination does not replace these sites. There is an ADVERSE EFFECT under CEQA and NHPA because of the ability of Yurok to access and use the locations as a Traditional Cultural Property. It would restrict tribal member ability to conduct tribal practices involving varying types of take, as well as non-consumptive practices conducted in conjunction with practices involving take, therefore it will impact a Traditional Cultural Property.

AA-24

Impact CR-5: Adverse Impacts on Tribal Practices (Significance

Criterion B)

It is impossible to isolate non-consumptive from consumptive tribal practices. They are inter-related, prayer is a pre-requisite before gathering, hunting, fishing, and even walking along a trail. Lack of access to resources at Redding Rock and False Klamath Cove will have an Adverse Impact to Tribal Practices, both non-consumptive and consumptive. There clearly needs to be more analysis done on the basis for determination of effect on Tribal Practices.

AA-25

6.6 Environmental Justice

6.6-7"During the MLPA Initiative planning process, the Tribes and Tribal communities educated the MLPA Initiative and the Department on understanding tribal take activities-including subsistence fishing, and current and historical target species, modes of harvesting and locations-conducted by the tribes and tribal communities"

AA-26

Comments of Michael Belchik, Senior Fisheries Biologist to the MLPA DEIR

Pg 1-1 and 1-2: The proposed action fails to meet several of the MLPA goals and objectives listed.

The goals of the MLPA as stated here do not explain the sole emphasis on harvest in the designation and regulation of the MPA's in all their forms. Nothing in the MLPA legislation itself limits regulation to harvest regulation only, and yet, this is the only prohibition in any of the MLPA's as offered in the alternatives. In fact, the MLPA legislation itself only mentions harvest once.

Because the DEIR improperly and inexplicably focuses solely on harvest prohibition and area closures, while ignoring other threats to the marine environment, the alternatives in this DEIS fall short of meeting the goals and objectives of the MLPA. For example, under the MLPA proposal, Indian Tribes will be prohibited (or substantially restricted) from practicing traditional hand gathering for sustenance and ceremonial purposes, yet other potentially devastating activities such as oil drilling would be permitted. Thus, the MLPA proposed action fails to meet the goals of the MLPA, and specifically it fails to meet the following goals stated on pages 1-1 and 1-2. AA-27

1. *to protect the natural diversity and abundance of marine life, and the structure, function, and integrity of marine ecosystems;*
2. *to help sustain, conserve, and protect marine life populations, including those of economic value, and rebuild those that are depleted; and*
4. *to protect marine natural heritage, including protection of representative and unique marine life habitats in California waters for their intrinsic value;*

Pg 1-7: *"Take is not limited to fishing activities. For example, coastal power-generating stations impinge fishes and invertebrates and entrain their larvae in the process of drawing ocean water for cooling systems. Likewise, many minor seawater intakes and sewage outfalls occur along the coast. The impacts of seawater intakes and sewage outfalls can be diffuse in nature, and can affect ecosystems both locally and regionally (CDFG 2008). Despite this, levels of protection are only assigned to MPAs based on directed take, depending on the allowed uses specified for the MPA."*

Here, the DEIS acknowledges directly the lack of breadth of alternatives and the shortcomings of their evaluation of the level of protection. In other words, the MLPA process has focused its actions on the regulation of harvest, when many other activities are, or could be, causing take. Furthermore, the SAT assumed that any harvest that is allowed in an MPA could occur in the future at very high rates. Yet, the SAT did not apply that approach to other sources of take, such as power plant intakes, or future oil, gas, wind, or wave energy development.

AA-27

AA-28

Page 1-6: (last paragraph) "*The evaluation of the level of protection provided by each MPA was largely based on its restrictions for removal or "take" of living marine resources. Three forms of take include:*

1. *Direct removal of a species,*
2. *Unintended incidental removal of a species in the process of targeting another species (referred to as "bycatch"), and*
3. *Perturbation of the ecosystem in such a way that it leads to increased mortality of a species (e.g., alteration of habitat that leads to reduced refuge from predators)."*

The first problem with this, is that although the document (on page 1-7) acknowledges that other forms of "take" are important, the only "take" considered in the SAT's evaluation of the Levels of Protection (LOP) for the proposed MPAs is directed take (harvest). No reason is given for this narrow focus.

AA-29

Additional problems with the simple Level of Protection (LOP) conceptual model applied by the SAT are:

1. LOP designations fail to take into account other continued or future activities that are not expressly prohibited by the SMCA regulation. So, for example, if take of a certain species (e.g. mussels) is allowed, it is assumed that it will occur at a much higher level in the future, thus the SMCA is only given a "low" rating for protection. However, other activities (oil drilling, sewage outfall, etc) are not factored into the assignment of the LOP, even though they too, may increase in intensity in the future.
2. The LOP fails to take into account the fact that large stretches of the North Coast are already *de facto* SMRs due to inaccessibility. The DEID itself, and the LOP

conceptual model devised by the SAT fail to take into account readily available literature that supports that point of view. For example[1] in a study in Portugal, the authors found that inaccessible areas were measurably healthier even though they were not expressly part of an MPA.

3. The SAT's LOP conceptual model failed to account for system-wide and often unpredictable effects of harvest prohibition. For example, in the Mediterranean, researchers concluded that a complete prohibition of take actually reduced the health of mussel beds (as measured by size and density)[2], because top predator species were no longer exploited by humans. Thus mussel size and density both were decreased in areas of complete closure. It is simply inaccurate to assume that a prohibition of "take" of marine organisms will be beneficial for all species. In this case, mussels (designated by the SAT as a cornerstone species) showed a negative response to full protection.

Page 1-7 (continued comment): The SAT's LOP conceptual model completely ignores an international body of science that shows that the effects of prohibition of harvest is far more complex than is embodied in the simple conceptual model adopted in the MLPA process (see previous comment for problems with the LOP conceptual model). This, in turn, has caused the SAT to overestimate the number of habitat replicates needed (particularly in the North Coast Study Region) to achieve the goals of the MLPA. This has occurred in part because the SAT's LOP model does not account for the fact that the rugged nature of the North Coast Study Region protects large portions of the coastline due to inaccessibility issues (lack of roads, unstable and unscalable cliff faces, high wind and wave conditions, and much shorter winter days than the South Coast). In other parts of the world (i.e. Chile and Portugal[3]), scientific studies have demonstrated the importance of these naturally inaccessible areas as *de facto* refugial areas, and the authors of these studies have implied that these areas serve as important re-seeding areas for maintaining the ecological health of other, harvested areas. AA-29

As an example of the lack of intellectual rigor of the SAT, and thus the DEIS, the following references, which appear to be directly applicable were not found in the document. As a body of literature, these references show that:

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[1] Rius, M. and H. Cabral. 2004. *Human harvesting of Mytilus galloprovincialis Lamarck 1819, on the central coast of Portugal.* Scientia Marina 68:4 (545-551).

[2] Rius, M, and M. Zabala. 2008. *Are marine protected areas useful for the recovery of the Mediterranean mussel populations?* Aquatic Conservation: Marine and Freshwater Ecosystems. 18: 527–540

[3] Rius and Cabral, 2004.

1. Human exploitation of intertidal zones has occurred long enough for organisms and ecosystems to have responded; i.e. man is part of the ecosystem, and has been a natural and key component of intertidal ecosystems for as long as 400,000[4] years in some regions. Humans are a key top predator of these systems, and have been for a very long time. As with any top predator, removal can lead to unpredictable system response.
2. The ecological responses of rocky intertidal zones to human predation are complex, and are very difficult to predict. The literature shows that eliminating human predation and exploitation of intertidal organisms and nearby fishes has not always produced intuitive results (i.e. target organism populations do not always respond positively). Yet, nowhere is this acknowledged by the SAT.
3. Sections of shoreline that are inaccessible to man due to geomorphology act as "buffer zones" or "source areas" providing recruitment to exploited sections of shoreline[5].

It is lack of attention to point #3 that has caused the SAT to over-predict the amount and types of MPAs necessary to achieve the objectives of the MLPA, and to propose unnecessarily restrictive regulation of Tribal harvest in traditional areas.

AA-29

Specifically with regard to point #3 above, we believe that rough seas, combined with long distances to fishing ports makes it unnecessary to designate the offshore component of Reading Rock MPA as an SMR with no take, even tribal, permitted. We believe that this area will be protected to a high degree even if traditional Tribal uses are allowed on and near Reading Rock.

AA-30

With regard to point #1 above, we dispute the need for a Special Closure at False Klamath Rock. Yurok Tribal members have gathered on and near False Klamath Rock for millennia, and the loss of gathering in March, April and May will take away a very important gathering spot for Yurok Tribal members for mussels, seaweed, as well as other resources for both subsistence and ceremonial purposes.

AA-31

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[4] Hockey P.A.R. (1994). Man as a component of the littoral predator spectrum: a conceptual overview. In Rocky Shores: Exploitation in Chile and South Africa, ed. R.W. Siegfried, pp. 17–31. Springer-Verlag, Berlin.
[5] Siegfried W.R., *Rocky Shores: Exploitation in Chile and South Africa*, ed. R.W. Siegfried, pg. 24, Springer-Verlag, Berlin.

The following is a partial list of applicable and readily available references not found in the DEIR. This partial list is provided to show the overly narrow focus of the SAT whose guidelines instructed the formation of the MLPA network proposed for the North Coast Study Area, and how the SAT has ignored a wide body of international study and literature on the subject of humans as top predator in intertidal areas, and the complexities of such. For an excellent overview, see:

Hockey P.A.R. (1994). Man as a component of the littoral predator spectrum: a conceptual overview. In Rocky Shores: Exploitation in Chile and South Africa, ed. R.W. Siegfried, pp. 17–31. Springer-Verlag, Berlin.

Partial List of Applicable Literature not to be found in the MLPA DEIS

1. Moreno C.A., Sutherland J.P. and Jara H.F. (1984). Man as a predator in the intertidal zone of southern Chile. Oikos 42, 155–160.

2. Castilla J.C. and Durán L.R. (1985). Human exclusion from the rocky intertidal zone of central Chile: the effects on Concholepas concholepas (Gastropoda). Oikos 45, 391–399.

3. Durán L.R. and Castilla J.C. (1989). Variation and persistence of the middle rocky intertidal community of central Chile, with and without human harvesting. Mar. Biol. 103, 555–562.

4. Keough M.J., Quinn G.P. and King A. (1993). Correlations between human collecting and intertidal mollusc populations on rocky shores. Conserv. Biol. 7, 378–390.

5. Lasiak T. (1991). The susceptibility and/or resilience of rocky littoral molluscs to stock depletion by the indigenous coastal people of Transkei, southern Africa. Biol. Conserv. 56, 245–264.

6. Hockey P.A.R. (1994). Man as a component of the littoral predator spectrum: a conceptual overview. In Rocky Shores: Exploitation in Chile and South Africa, ed. R.W. Siegfried, pp. 17–31. Springer-Verlag, Berlin.

7. Siegfried W.R., Hockey P.A.R. and Branch G.M. (1994). The exploitation of intertidal and subtidal biotic resources of rocky shores in Chile and South Africa—An

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overview. *In* Rocky Shores: Exploitation in Chile and South Africa, ed. R.W. Siegfried, pp. 1–15, Springer-Verlag, Berlin.

8. Lasiak T. and Field J.G. (1995). Community-level attributes of exploited and non-exploited rocky infratidal macrofaunal assemblages in Transkei. J. Exp. Mar. Biol. Ecol. 185, 33–53.

9. Harris J.M., Branch G.M., Elliot B.L., Currie B., Dye A.H., McQuaid C.D., Tomalin B.J. andVelasquez C. (1998). Spatial and temporal variability in recruitmentof intertidal mussels around the coast of southern Africa. S. Afr. J. Zool. 33, 1–11.

10. Lasiak T. (1998). Multivariate comparisons of rocky infratidal macrofaunal assemblages from replicate exploited and non-exploited localities on the Transkei coast of South Africa. Mar. Ecol. Prog. Ser. 167, 15–23.

11. Hockey P.A.R. and Bosman A.L. (1986). Man as an intertidal predator in Transkei: disturbance, community convergence and management of a natural food resource. Oikos 46, 3–14.

12. Lasiak T. (1997). Temporal and spatial variations in the pattern of shoreline utilization in a region subject to subsistence exploitation. Int. J. Environ. Stud. 52, 21–46.

13. Oliva D. and Castilla J.C. (1986). The effect of human exclusion on the population structure of key-hole limpets Fissurella crassa and F. limbata on the coast of central Chile. Mar. Ecol. 7, 201–217.

14. Erlandson, Jon M., T.C. Rick, T.J. Braje, A. Steinberg, & R.L.Vellanoweth. 2008. Human Impacts on Ancient Shellfish: A 10,000 Year Record from San Miguel Island, California. Journal of Archaeological Science 35:2144-2152

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Scientists in other parts of the world have done extensive research in an effort to understand the role of humans as a predator in the intertidal zone that has co-existed with these species for tens of thousands of years and is thus a part of the ecosystem itself. These areas have long and complex histories of human utilization of marine resources, and thus should provide useful information in managing systems here on the north coast of California that have similarly long and complex histories of human interaction with intertidal ecosystems. Yet the DEIR does not utilize this extensive body of work.

The above list is only a partial list of available literature. The absence of this literature from the DEIR indicates a lack of intellectual rigor; given that many papers that appear to be directly applicable toward assessing the impact of SMRs and SMCAs to intertidal ecology along the coast appear to have been ignored.

AA-32

<u>The SAT Needs to Reconvene and Reconsider both the LOP Conceptual Model and Spacing and Replication Criteria for MPA's and SMCA's.</u>

The lack of consideration of the above-noted body of peer-reviewed scientific information has lead to a fundamentally flawed LOP conceptual model, and this in turn led to inaccurate standards and guidelines on MPA spacing and replication in this DEIS, as well as an inaccurate assessment of the alternatives. The Yurok Tribe strongly urges the SAT to reconvene, include Tribal science representatives, and revise their conceptual approach to determination of LOP and recommended SMR and SMCA spacing criteria by including the consideration of long-term human harvest and existing physical barriers to harvest in their spacing criteria, and other considerations as noted above and in the scientific literature.

AA-33

3.1 Agricultural Resources

P. 3.1.7 Environmental Impacts

While it is true that no aquaculture activities currently occur within the South Humboldt Bay study area, there is no reason to believe that this will not be proposed for economic development purposes in the future. The creation of an MPA in the Southern Humboldt Bay would prohibit this potential future activity from occurring. As a result this is a negative socio-economic impact on what otherwise would be a potential economic development of this resource area. AA-34

3.2 Air Quality

3.2.13-15
Displaced vessel analysis is speculative and is not based on actual data, yet it is acknowledged that emissions will likely increase as a result of additional distances that will be traveled by displaced vessels to avoid impacting the MPAs. This must be monitored in the future to determine if the assumptions made and used to calculate the emissions resulting from displaced commercial vessels (avoiding MPAs) needs to be validated with actual, observed data. If such observation indicates that the assumptions were incorrect, then the impacts to AQ and GHG emissions and Climate Change must be reassessed and if determined significant, mitigations must be developed and implemented. The cumulative impacts of increased emissions resulting from displaced vessels must be analyzed. It is highly possible that the actual impacts will actually be significant and would result in increased GHGs as well as increased impacts to human health as a result of increased air pollution from displaced vessel traffic. AA-35

3.3 Climate Change and GHG Emissions

See Air Quality comments. Increased travel is acknowledged in the previous section to be an outcome for displaced vessels, given the need to travel further distances to avoid MPAs. This would require additional fuel to achieve and would result in increased GHGs resulting from the increased consumption and combustion of fuels required to power these displaced vessels. This increase in GHG emissions resulting from the increased distances required by displaced vessels must be analyzed in this section. This is likely to be a significant impact. AA-36

One activity that is not prohibited in MPAs is oil and gas exploration or drilling. As a result there are potentially significant impacts resulting of this allowable and potentially future activity within an MPA. This must be analyzed in light of GHG emissions and the fact that the combustion of fossil fuels is the primary cause of Climate Change. The AA-37

omission of the potential for future oil and gas exploration and extraction from within an MPA must be acknowledged and fully analyzed in the EIR. AA-37

3.4 Water Quality

See Climate Change impacts. The potential for oil and gas exploration and extraction within an MPA could result in significant and adverse impacts to Water Quality throughout the entire coastal region. It cannot be assumed that the creation of MPAs would prohibit contamination or increased pollution to coastal waters if oil and gas exploration and extraction remain as possible allowable future activities within an MPA. This potential future activity, and its real and adverse impacts on coastal Water Quality, must be acknowledged and analyzed in the EIR. AA-38 The cumulative impacts from allowable (in addition to prohibited) future uses within an MPA must be given equal weight within the EIR analysis. AA-39 The issue of increased pollution from displaced vessels on coastal water quality must also be adequately analyzed in this section. AA-40 Outboard engines, fuel leaks and common pollution from vessels will also increase in coastal waters if the assumption is true that displaced vessels will have to travel further, and use more resources and fuel, to avoid MPAs. AA-41

Comment Letter AA – Yurok Tribe

Note that only part 4 of the packet submitted to the Commission at the public meeting on April 11, 2011 in Eureka, California, pertained to the DEIR. The remainder of the packet (parts 1-3) pertains to comments on the proposed regulations. Responses are provided below to comments submitted in only part 4 of the submittal.

Response to Comment AA-1

The comment expressing agreement with the DEIR's inclusion of the history of the relationship between the Yurok tribe and the marine environment is noted. The extent to which Native American harvesting, or take by any entity, is having an effect on marine resources is a question for reserve design. The network of MPAs was designed in part to address the effects that take of marine resources is having on those resources. Tribal representatives were deeply involved in development of the RNCP, and the RNCP is a consensus-based proposal. Because of this consensus, it is implicit that the stakeholder group, including tribal representatives, concluded that an alternative network of MPAs that would be more restrictive on tribal harvest was not necessary to address the effects of tribal harvest. The fact that the Commission selected this alternative affirms that the Commission agreed with this conclusion. No changes to the DEIR are necessary.

Response to Comment AA-2

This comment in support of the Tribal Gathering Option One and the unified proposal with the commenter's proposed amendments is noted. The DEIR, including a description of the proposed regulations, was circulated to solicit public comments regarding the sufficiency of the related environmental analysis. Comments expressing a policy preference are noted and will be considered by the Commission as they contemplate final action. No changes to the DEIR are necessary.

Response to Comment AA-3

This comment does not address the sufficiency of the environmental review conducted and published in the DEIR; it is related to proposed MPA regulations and/or regulatory sub-options under consideration by the Commission. The statements regarding the list of tribes allowed to take from Pyramid Point and Point St. George SMCAs, the option for the Reading Rock MPA designation as a SMCA, and the False Klamath Rock Special Closure are more relevant to and appropriately addressed by the Commission through the rulemaking process it is concurrently undertaking pursuant to the APA; thus instead of including a response within this FEIR, the comment has been forwarded to the Commission for consideration. No changes to the DEIR are necessary.

Any comment that addresses issues other than environmental issues or analysis contained in the DEIR will be forwarded to the Commission for consideration through its APA rulemaking process and noted as such within this FEIR. This also includes comments related to how the Commission should weigh and decide on the facts presented in the DEIR. Comments regarding the proposed regulations under APA will be received and considered by the Commission through its decision hearing scheduled for June 6, 2012. See www.fgc.ca.gov for details.

Response to Comment AA-4

See *Master Response 3: Inadequacy or Application of Data Gathered During the MLPA Initiative Planning Process, and Adequacy of the Science Standard.*

See *Master Response 6: Levels of Protection (LOP).*

Response to Comment AA-5

DEIR Appendix B, *Characterization of Consumptive Uses and Associated Socioeconomic Considerations of the Region,* evaluates consumptive commercial and recreational uses. Tribal consumptive uses are included in Appendix B; however, as discussed in DEIR Section 5.3.2 *Cultural Landscape,* on page 5-10 of Chapter 5 *Cultural Resources*, there is a distinction between commercial and recreational consumptive uses and tribal consumptive uses:

> Tribal members practice many traditional cultural uses of the coast and ocean waters that are consumptive and nonconsumptive. Traditional practices are specific to different tribes; they are not a single, large group of people. Consumptive uses include traditional subsistence, medicinal, spiritual, and ceremonial contexts. Nonconsumptive use examples include use of the viewshed[1] from a particular place for spiritual purposes. These cultural uses are not recreational or commercial, though some tribes have commercial fishing interests, as well. Particular locations are important for certain resources and/or uses by a given family, tribe, or tribal community (MLPAI 2010a).

A summary of tribal consumptive uses can be found in DEIR Section 5.3.2 *Cultural Landscape* in Chapter 5 *Cultural Resources,* on page 5-10. The text has been copied and pasted below for reference:

> The rich diversity of marine and coastal resources continues to be part of the daily lives of tribes. Important marine resources include salmon, clams and abalone (both as food sources and for the shells), mussels, seaweed, eels, crab, rockfish, steelhead, trout, sea bass, perch, lingcod, surf fish, candle fish (or eulachon), and sea salt. Subsistence fishing for crab, salmon, steelhead, surf fish (smelt), eels, mussels, and clams, among other coastal resources, occurs regularly from rocky beaches and in other coastal areas. Marine shells, such as abalone and olivella, are especially important for repairing and making traditional regalia used in ongoing ceremonies. Geological resources with cultural significance found in the coastal zone include, but are not limited to, steatite and chert, which are mined or collected to make items such as polished stone bowls and pipes, and flaked-stone knives and arrow points, respectively.

The factual records submitted by six tribes contain more specifics on tribal consumptive uses and are incorporated by reference. The data in the factual records were analyzed by the Commission for regulatory purposes. A detailed list of species was not necessary for the CEQA analysis for the Proposed Project.

[1] A viewshed is an area of land, water, or other environmental feature that is visible to the human eye from a fixed vantage point.

Response to Comment AA-6

The comment requests the addition of the word *canoe* throughout the DEIR where the phrase *boat and vessel* is used to describe methods of travel for tribal uses. For the purposes of the EIR, the terms *boat* and *vessel* are inclusive of canoes. The common definition of boat is a relatively small, open craft propelled by oars, paddle, sails, or motor for travelling on water, although it can also include ships and submarines, and the common definition of vessel is a craft, especially one larger than a rowboat, designed to navigate on water.

No changes to the DEIR are necessary.

Response to Comment AA-7

This information is provided in DEIR Chapter 6, Section 6.6, *Environmental Justice,* in footnote 1 of page 6.6-7. However, in response to this comment, the word "ceremonial" has been added to the footnote text as follows:

> [1] Some tribes and tribal communities have raised concern about the term 'Tribal take' used in the proposed regulations. Based on information received by tribal members, to completely encompass the full range of traditional cultural extractive activities of California Indian Tribes in this area, it is necessary to understand that, to members of the north coast tribes and tribal communities, the term "tribal take" includes gathering, harvesting and fishing for <u>ceremonial,</u> cultural and religious purposes as well as for subsistence. Pursuant to tribal culture, all three terms must be used because each conveys specific and unique kinds of activities that cannot be adequately encompassed by a single term. Under state statute, the term "take" is clear and, combined with the allowed uses defined in the MPA specific regulations, unambiguous. In Fish and Game Code Section 86, "Take" means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill. The California Code of Regulations Title 14 Section 1.80 defines "Take" as hunt, pursue, catch, capture or kill fish, amphibians, reptiles, mollusks, crustaceans or invertebrates or attempting to do so.

Response to Comment AA-8

These comments raise complex issues of law and policy and do not address the sufficiency of the EIR. As a matter of law, the MLPA cannot interfere with any tribal right that has been conferred by the federal government. No further response is warranted.

Response to Comment AA-9

The rating of mussels in DEIR Appendix D, *List of Species Likely to Benefit from MPAs in the North Coast Study Region*, applies equally to all of the north coast MPAs and not an individual MPA or a particular area within an MPA. The rating is an indicator of what potentially can occur to mussels, when it states, "These species can be trampled by tidepoolers" (Table 1, Appendix D). CEQA requires lead agencies to identify and where feasible to avoid or mitigate, significant adverse environmental impacts resulting from the Proposed Project. The DEIR analyzed impacts to the state's living marine resources and their habitats, including encrusting invertebrates. These analyses were conducted and the results are included in DEIR Chapter 4 *Biological Resources* and Appendix D. California mussels (*Mytilus spp*.) are ubiquitous throughout the Study Region and the state and are unlikely to suffer declines due to the implementation of the Proposed Project or alternatives

which would be considered significant or potentially significant under CEQA using the criteria from Chapter 4 and Appendix D of the DEIR.

Response to Comment AA-10

Your comment regarding the limits to harvesting in the north coast has been noted See *Master Response 5: Natural Constraints and Baseline Conditions.*

Response to Comment AA-11

Your comment that the Proposed Project could contribute to the declining health of Native American populations by prohibiting access to marine resources is noted. The DEIR lists the important marine species for the traditional Yurok diet in DEIR Chapter 5 *Cultural Resources,* Section 5.3.2 *Cultural Landscape,* in the subsection "Ethnographic Setting," the second paragraph on page 5-10:

> The rich diversity of marine and coastal resources continues to be part of the daily lives of tribes. Important marine resources include salmon, clams and abalone (both as food sources and for the shells), mussels, seaweed, eels, crab, rockfish, steelhead, trout, sea bass, perch, lingcod, surf fish, candle fish (or eulachon), and sea salt. Subsistence fishing for crab, salmon, steelhead, surf fish (smelt), eels, mussels, and clams, among other coastal resources, occurs regularly from rocky beaches and in other coastal areas.

Subsistence fishing by tribes and tribal communities is discussed in DEIR Chapter 6.6 *Environmental Justice,* Section 6.6.3 *Environmental Setting,* in the subsection "Subsistence Fishing" on pages 6.6-5 and 6.6-6. The middle of the first paragraph on page 6.6-6 states that "during the MLPA Initiative planning process, the MLPA Initiative and the Department conducted extensive outreach to tribes and tribal communities near the Study Region to solicit information in an effort to attain an understanding of the tribal take activities—including subsistence fishing, and current and historic target species, modes of harvesting, and locations—conducted by the tribes and tribal communities." Impact EJ-1: *Reduced Subsistence Take Opportunities for Tribes and Tribal Communit*ies, on pages 6.6-13 through 6.6-19, found that the Proposed Project would have a less-than-significant impact on subsistence take practices of tribes and tribal communities. Similarly, Impact CR-3: *Adverse Impacts on Traditional Cultural Properties and Activities Involving Take by Federally Recognized Tribes,* on pages 5-21 through 5-23 in DEIR Chapter 5 *Cultural Resources,* evaluated the potential impact of the Proposed Project on tribal practices involving varying types of take of marine resources. The DEIR found the impact of the Proposed Project to be less than significant. Therefore, it is not anticipated that the Proposed Project would contribute to the declining health of Native American populations.

Response to Comment AA-12

These comments raise complex issues of law and policy and do not address the sufficiency of the EIR. As a matter of law, the MLPA cannot interfere with any tribal right that has been conferred by the federal government.

Information provided by the Yurok Tribe is contained in Appendix F to the DEIR.

Response to Comment AA-13

See *Response to Comment A1-4* regarding the analysis of TCPs in the DEIR.

Regarding the comment about a lack of evidence that tribal take is damaging to the environment, see *Response to Comment AA-1*.

Response to Comment AA-14

See *Master Response 4: Enforcement*.

Response to Comment AA-15

These comments do not address the sufficiency of the EIR; therefore, no changes were made.

Goal 3 of the MLPA (see Section 2.2 *Project Goals and Regional Objectives* in DEIR Chapter 2 *Project Description,* on pages 2-4 and 2-5) clearly states the intention of the proposed regulations to improve recreational, educational, and study opportunities. A discussion of the scientific environmental programs operated by the Yurok Tribe similar to the comment can be found in DEIR Chapter 6, Section 6.4 *Research and Education* (pages 6.4-6 through 6.4-7).

Response to Comment AA-16

A new sub-section has been added to DEIR Chapter 5, *Cultural Resources* Section 5.2.1 *Federal Laws, Regulations, and Policies*, following the *National Historic Preservation Act of 1966 on page* on page 5-3 as follows:

> *American Indian Religious Freedom Act of 1978*
>
> Protection and Preservation of Traditional Religions of Native Americans (42 U.S.C. § 1996) became law in 1978 and was amended in 1996. The amended act is commonly known as the American Indian Religious Freedom Act (AIRFA). The AIRFA requires federal agencies to consider the effects of their programs on places and practices of religious importance to American Indian, Eskimo, Aleut, and Native Hawaiians.
>
> Section 2 (a) of the AIRFA states that each executive branch agency with statutory or administrative responsibility for the management of Federal lands shall, as appropriate, promptly implement procedures for the purposes of carrying out the provisions of the AIRFA, including, where practicable and appropriate, procedures to ensure reasonable notice is provided of proposed actions or land management policies that may restrict future access to or ceremonial use of, or adversely affect the physical integrity of, sacred sites. In all actions pursuant to this section, agencies shall comply with the Executive memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments"

Response to Comment AA-17

Potential impacts on traditional cultural properties and practices have been evaluated in DEIR Chapter 5 *Cultural Resources, under* Impacts CR-3, CR-4, CR-5, and CR-6. See the

Response to Comment AA-13 for details regarding the analysis. Additionally, the impact discussion in DEIR Chapter 6, Section 6.6, *Environmental Justice,* did not distinguish between tribal use of marine resources for the purpose of traditional subsistence, medicine, or religious ceremony, as noted on page 6.6-7 in the subsection "Native American Tribes and Tribal Communities." See the response to Comment AA-11 for more of a discussion on Impact EJ-1. The comment does not provide any information which would result in analysis or conclusions which differ from those presented in the DEIR; therefore no changes were made.

Response to Comment AA-18

A new subsection has been added to DEIR Chapter 5 *Cultural Resources,* Section 5.2.1 *Federal Laws, Regulations, and Policies*, following *American Indian Religious Freedom Act* on page 5-3 as follows:

Native American Graves Protection and Repatriation Act of 1990

> Native American Graves Protection and Repatriation Act of 1990 (NAGRPA; Public Law 101-601; 25 U.S.C. 3001 et seq.) regulations develop a systematic process for determining the rights of lineal descendants and Indian tribes and Native Hawaiian organizations to certain Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony with which they are affiliated. These regulations are applicable to the identification and appropriate disposition of human remains, funerary objects, sacred objects, or objects of cultural patrimony.
>
> This statute requires that Federal agencies and museums receiving Federal funds inventory holdings of Native American human remains and funerary objects and provide written summaries of other cultural items. The agencies and museums must consult with Indian Tribes and Native Hawaiian organizations to attempt to reach agreements on the repatriation or other disposition of these remains and objects. NAGPRA requires that Indian tribes or Native Hawaiian organizations be consulted whenever archeological investigations encounter, or are expected to encounter, Native American cultural items or when such items are unexpectedly discovered on Federal or tribal lands.

Response to Comment AA-19

The definition of TCPs under the NHPA has already been included in the DEIR Chapter 5 *Cultural Resources*, Section 5.3.2 *Cultural Landscape,* on pages 5-11 and 5-12.

No changes to the DEIR were made.

Response to Comment AA-20

A section on TCPs has already been included in DEIR Chapter 5, Section 5.3.2 *Cultural Landscape,* on pages 5-11 and 5-12, to emphasize the ongoing traditional practices of the tribes of the Study Region.

No changes to the DEIR were made.

Response to Comment AA-21

Comment noted. See *Response to Comment A1-4* regarding the analysis of TCPs in the DEIR.

Response to Comment AA-22

Please refer to DEIR Chapter 1 *Introduction*, Section 1.7.1 *Terminology Used in this DEIR*, page 1-35. Descriptions of impact levels are provided below for reference:

> No Impact: "No impact" is declared if, based on the current environmental setting, the stated impact would not occur in the context of the Proposed Project, or if the stated impact would not result in an adverse change to existing conditions in the environment.
>
> Less-than-Significant Impact: A project impact is considered less than significant when it does not reach the standard of significance and thus would cause no substantial change in the environmental (no mitigation required). A project impact may also be considered less than significant if the adoption of mitigation measures would avoid the impact or reduce it below a level of significance (mitigation required).
>
> Significant Impact: A project impact is considered significant if it results in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects in the context of specified significance criteria. Mitigation measures or alternatives are identified to reduce these effects on the environment.

The criteria for determining the levels of significance vary by each resource topic. Please refer to the *Impact Analysis* sections for each resource topic for a discussion on the methods and criteria used to evaluate the level of impacts for each topic.

DEIR Chapter 9 presents the list of preparers. State CEQA Guidelines do not require that the analysis be conducted by senior scientists or persons meeting Secretary of the Interior Qualifications. As stated in State CEQA Guidelines Section 15142, *Interdisciplinary Approach*:

> An EIR shall be prepared using an interdisciplinary approach which will ensure the integrated use of the natural and social sciences and the consideration of qualitative as well as quantitative factors. The interdisciplinary analysis shall be conducted by competent individuals, but no single discipline shall be designated or required to undertake this evaluation. (Note: Authority cited: Section 21083, Public Resources Code; Reference Sections 21000, 21001, and 21100, Public Resources Code.)

Further, State CEQA Guidelines Section 15149, *Use of Registered Professionals in Preparing EIRs,* states:

> (a) A number of statutes provide that certain professional services can be provided to the public only by individuals who have been registered by a registration board established under California law. Such statutory restrictions apply to a number of professions including but not limited to engineering, land surveying, forestry, geology, and geophysics.

> (b) In its intended usage, an EIR is not a technical document that can be prepared only by a registered professional. The EIR serves as a public disclosure document explaining the effects of the proposed project on the environment, alternatives to the project, and ways to minimize adverse effects and to increase beneficial effects. As a result of information in the EIR, the Lead Agency should establish requirements or conditions on project design, construction, or operation in order to protect or enhance the environment. State statutes may provide that only registered professionals can prepare technical studies which will be used in or which will control the detailed design, construction, or operation of the proposed project and which will be prepared in support of an EIR. (Note: Authority cited: Section 21083, Public Resources Code; Reference: Sections 21003, 21061, and 21100, Public Resources Code.)

Response to Comment AA-23

Although a more detailed analysis of subsistence fishing is contained in DEIR Chapter 6. Section 6.6 *Environmental Justice*, subsistence fishing and gathering is also an integral part of the analysis of TCPs in Chapter 5 *Cultural Resources*. Text from the top of page 5-22 under Impact CR-3 in the DEIR is pasted below:

> For the tribes of the north coast, TCPs include locations for religious and spiritual ceremonies and sites for implementing cultural traditions of harvesting and gathering. In addition to TCPs, other locations not eligible for listing may also be of cultural significance to tribes. This discussion evaluates potential adverse impacts on locations where federally recognized tribes have cultural ties that involve consumption of marine resources (including both TCPs and other locations).

No changes to the DEIR are necessary.

Response to Comment AA-24

See the *Response to Comment AA-13* regarding the CEQA analysis of potential impacts of the Proposed Project to sites that are eligible to be listed as TCPs.

See the *Response to Comment S16-2* regarding the designation of Reading Rock ("Sek-kwo-nar" in the Yurok language) as a TCP.

The comment regarding the importance of False Klamath Rock to the Yurok Tribe is noted; however, the Proposed Project would not substantially alter the physical characteristics of the site in a manner that would make it ineligible to be listed as a TCP. As such, the impact would be less than significant and no change to the DEIR has been made.

Response to Comment AA-25

The Department acknowledges that consumptive and nonconsumptive uses may be inseparable for certain locations and activities. Regardless, as discussed in *Response to Comment AA-13*, the Proposed Project would not involve any activities which would result in a significant impact to TCPs as defined under CEQA. No further analysis is necessary, and no change to the DEIR has been made.

Response to Comment AA-26

This section of the comment letter quotes text from the DEIR but does not provide any comments upon it. As such, no response has been provided.

Response to Comment AA-27

This comment is a duplicate of Comment H-1. See *Response to Comment H-1*.

Response to Comment AA-28

Refer to *Response to Comment F1-4*.

See *Master Response 3: Inadequacy or Application of Data Gathered During the MLPA Initiative Planning Process, and Adequacy of the Science Standard*.

See *Master Response 6: Levels of Protection (LOP)*.

Response to Comment AA-29

The SAT determined LOPs for proposed activities within MPAs based upon the potential impacts on the ecosystems within the MPA, using the best readily available scientific information and according to a decision tree that has been refined throughout the MLPA process. LOPs were assigned to proposed allowed uses within an MPA that identify a particular species by a particular method (MLPA SAT 2011a). For information on how the SAT determined LOPs which were then used in some SAT analyses during the north coast MPA planning process, see SAT (MLPA SAT 2010a, question 6), SAT (MLPA SAT 2010b, questions 6, 8, and 9), SAT (MLPA SAT 2010c, question 7), SAT (MLPA SAT 2010d, question 1), and SAT (MLPA SAT 2011b).

See *Master Response 3: Inadequacy or Application of Data Gathered During the MLPA Initiative Planning Process, and Adequacy of the Science Standard.*

See *Master Response 6: Levels of Protection (LOP)*.

Also, see *Response to Comment F1-4.*

Response to Comment AA-30

See *Response to Comment AA-3*.

Response to Comment AA-31

This comment contains statements not related to the environmental review published in the DEIR, but rather related to proposed MPA regulations and/or regulatory sub-options under consideration by the Commission as part of its current rulemaking process conducted pursuant to the APA. See *Response to Comment A1-6*.

Response to Comment AA-32

See *Master Response 3: Inadequacy or Application of Data Gathered During the MLPA Initiative Planning Process, and Adequacy of the Science Standard.*

Response to Comment AA-33

See *Master Response 3: Inadequacy or Application of Data Gathered During the MLPA Initiative Planning Process, and Adequacy of the Science Standard*.

See *Master Response 6: Levels of Protection (LOP)*.

Also, see *Response to Comments AA-25 and F1-4.*

Response to Comment AA-34

As discussed in DEIR Chapter 1 *Introduction*, Section 1.5 *Consumptive Uses and Associated Socioeconomic Considerations* (page 1-30), State CEQA Guidelines Section 15131 states that "economic or social effects shall not be treated as significant effects on the environment." Therefore, socioeconomic effects are not considered environmental impacts under CEQA, unless they have relevance to a significant environmental impact. Furthermore, no future aquaculture projects in South Humboldt Bay have been identified at this time; as such, any evaluation of them would be speculative. Finally, because the MPA would be in existence at the time of any specific proposal, such a proposal would need to be evaluated in light of its potential to impact the MPA, rather than the other way around.

See DEIR Chapter 7 *Other Statutory Considerations* for the evaluation of potential future aquaculture activities within the Study Region. Also review *Master Response 2: Analysis of Other Activities within the North Coast Study Region*.

Response to Comment AA-35

DEIR Chapter 3, Section 3.2 *Air Quality*, presents a reasonable "worst-case" scenario regarding the potential for increased air emissions that could result from implementation of the Proposed Project or alternatives. This scenario was used to estimate air emissions using best readily available scientific information. The results of this analysis indicate that the emissions resulting from the Proposed Project would be substantially below the levels that would be considered significant by the local air districts. In addition, the DEIR adequately addresses climate change impacts from the Proposed Project in Chapter 3, Section 3.3 *Global Climate Change and Greenhouse Gas Emissions*, which indicates that no significant adverse climate related impacts are expected to result from implementation of the Proposed Project or alternative regulatory proposals. Because of the conservative assumptions used in the analysis, and the fact that even with these conservative assumptions, impacts would be orders of magnitude lower than the significance criteria, the potential for a significant impact is considered negligible. It would therefore be unreasonable and an inefficient use of resources to require subsequent monitoring.

Response to Comment AA-36

DEIR Chapter 3, Section 3.3 *Global Climate Change and Greenhouse Gas Emissions,* includes a discussion of the potential effects of displacement on GHG emissions. Specifically, Impact GHG-1 beginning on page 3.3-8, concludes that the likely increases in vessel displacement and GHG emissions associated with the Proposed Project would not exceed Bay Area Air Quality Management District thresholds. As stated on page 3.3-10, "…the increase in emissions would need to be several orders of magnitude larger than has been estimated before the threshold would be exceeded." It should also be noted that this impact discussion also includes the consideration of future increases in commercial and recreational vessel

trips. Therefore, the Department disagrees with the comment's assertion regarding the likelihood of a significant impact.

Since the DEIR currently includes a detailed discussion of potential GHG emissions, no further changes to the DEIR are necessary.

Also, see *Response to Comment AA-31.*

Response to Comment AA-37

See *Master Response 1: Scope of the MLPA and Regulatory Authority.*

See *Master Response 2: Analysis of Other Activities within the North Coast Study Region.*

Also review to *Response to Comment AA-32* above.

Response to Comment AA-38

CEQA requires an analysis of impacts of the Proposed Project and alternative to the physical environment. The impacts that may occur in the future should oil and gas drilling occur within the North Coast Study Region are different than the impacts that could occur from implementation of the Proposed Project or alternative regulatory proposals because these proposals only regulate fishing activity not oil and gas extraction activity. Hence these proposals will have no effect on nor add to the impacts that occur with oil and gas drilling and extractive activities. Further, DEIR Section 1.4 *Topics Dismissed from Detailed Analysis* presents information that indicates that offshore oil and gas drilling activities are very unlikely to occur on the north coast.

Response to Comment AA-39

Please review *Master Response 2: Analysis of Other Activities within the North Coast Study Region.* CEQA does not require evaluation of cumulative impacts at an equal level of detail as potential impacts directly resulting from the project.

Response to Comment AA-40

DEIR Chapter 3, Section 3.4 *Water Quality,* includes a discussion of the potential effects of both consumptive and nonconsumptive uses on water quality (Impacts HYD-2 and HYD-3). As stated in these impact discussions beginning on page 3.4-17, potential shifts in uses would not result in adverse impacts in water quality.

Similarly, the topic of exposure potential to pollution from displaced vessels on coastal water is included in DEIR Chapter 6, Section 6.5 *Vessel Hazards.* This discussion placement is due to the general considerations of Appendix G of the State CEQA Guidelines for significance criteria and the overall document structure developed for the DEIR. Please refer to Section 6.5 for greater details on potential hazards associated with vessel use and transit.

Since these issues have been adequately addressed in the DEIR, no additional changes have been made.

Response to Comment AA-41

As noted above in *Response to Comment AA-36,* DEIR Chapter 3, Section 3.4 *Water Quality,* includes consideration of increased travel distances and finds that Proposed Project's effects on water quality would be less than significant.

Furthermore, Impact VT-3 beginning on page 6.5-13 specifically considers the potential increase in use of hazardous materials (petroleum, gas, etc.), and spills or leaks. As noted in Impact VT-3, the slight increases in travel distances would not require substantial increases in use or on-boat storage of hazardous materials, and potential for accidental spills or leaks would be less than significant.

No additional changes to the DEIR are necessary.