The following appendices are available upon request and on the HBRCD website:

APPENDIX A: NOTICE OF PREPARATION AND AGENCY MEETING NOTICE MATERIALS

A1 Notice of Preparation
A2 Notification list
A3 Agency letter and Meeting Agenda
A4 NOC for NOP & State Clearinghouse Summary of Posting

APPENDIX B: PUBLIC SCOPING MEETING MATERIALS

B1 Scoping Meeting Agenda & Presentations: Overview
B2 Public Meeting Flyer
B3 Sign in sheet
B4 Maps

APPENDIX C: WRITTEN & ORAL COMMENTS

C1 Written comments received during the scoping period (see Table 1)
C2 Summary of public scoping meeting (presentations and oral comments)
C3 Agency meeting comments

APPENDIX D: ABBREVIATIONS

CEQA	California Environmental Quality Act
CDFW	California Department of Fish & Wildlife
CSLC	California State Lands Commission
CDWR	California Department of Water Resources
EIR	Environmental Impact Report
GHG	Greenhouse gas
ITP	Incidental Take Permit
NMFS	National Marine Fisheries Service
NOP	Notice of Preparation
USACE	US Army Corps of Engineers
USFWS	US Fish & Wildlife Service

Appendix A

Humboldt Bay
Harbor, Recreation and Conservation District
(707) 443-0801
P.O. Box 1030
Eureka, California 95502-1030

NOTICE OF PREPARATION
DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT TITLE: Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm

PROJECT LOCATION: North Humboldt Bay, Humboldt County, California

LEAD AGENCY: Humboldt Bay Harbor, Recreation and Conservation District

This notice announces that a Draft Environmental Impact Report (DEIR) will be prepared for the Humboldt Bay Intertidal Mariculture Pre-Permitting Project (Intertidal Pre-Permitting Project) and Yeung Oyster Farm project. The two projects will be evaluated in one EIR because they have many similarities including proposed timing, location, shellfish culture methods, culture species, and potential environmental effects. Both projects are within intertidal areas of north Humboldt Bay. The DEIR will identify, evaluate and disclose possible environmental effects of these projects. The Humboldt Bay Harbor, Recreation and Conservation District (Harbor District) is the project proponent for the Intertidal Pre-Permitting Project and Mr. Jerry Yeung is the project proponent for the Yeung Oyster Farm. The Harbor District is the California Environmental Quality Act (CEQA) Lead Agency.

Background: In January 2015, the Harbor District, as the CEQA Lead Agency, circulated a DEIR for the Humboldt Bay Mariculture Pre-Permitting Project (SCH#2013062068) (Pre-Permitting Project). The Pre-Permitting Project proposed intertidal shellfish culture in the same areas as are currently proposed by the Intertidal Pre-Permitting Project and Yeung Oyster Farm. However, the Pre-Permitting Project included additional intertidal areas and subtidal areas. The Final EIR for the Pre-Permitting Project was certified by the Harbor District in February 2016. At the time of certification, the Harbor District determined that the culture proposed in the intertidal portion of the project was not feasible because a large proportion of the area was on privately owned lands. As such, an alternative that only included the subtidal areas was certified (i.e., as certified, the FEIR did not apply to any intertidal areas). After certification of the FEIR, the Harbor District began working with private landowners to develop a feasible project for the intertidal areas. The Harbor District has secured agreements with landowners to permit shellfish culture at four sites in the bay. Additionally, Mr. Jerry Yeung is pursuing regulatory approvals for his property, which was also previously within the boundaries of the Pre-Permitting Project. In January, 2017 the Harbor District circulated a draft Initial Study / Mitigated Negative Declaration for the Yeung Oyster Farm (SCH#2016122066), but based on public comments the Harbor District has determined that an EIR is appropriate for this project. Hence, the Harbor District is developing one EIR for the Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm.

Project Description:
The objective and purpose of both projects is to allow for an expansion of commercial mariculture activities in Humboldt Bay, create jobs and improve the local economy, while also increasing local and sustainable seafood production.

The projects will use the same culture methods and culture the same species (Kumamoto oysters [*Crassostrea sikamea*] and Pacific oysters [*C. Gigas*]). Both of these species are currently cultured in Humboldt Bay. Proposed methods and sites are included as Attachment A. After receiving regulatory approvals for Intertidal Mariculture Pre-Permitting Project sites, the Harbor District will grant leases to private shellfish growers ("Lessees") for discrete portions of these sites. Mr. Yeung will culture oysters on his property and may also lease portions of his property to other growers.

Possible environmental effects:
Because of the potential for significant impacts to the environment, the Harbor District has decided to prepare an EIR. The purpose of an EIR is to inform decision-makers and the general public of the environmental effects of a proposed project. The EIR process is intended to provide information sufficient to evaluate a proposed project and its potential to cause significant effects on the environment; examine methods of reducing adverse environmental impacts; and identify and evaluate alternatives to the proposed project.

Based on a preliminary review performed by the Harbor District of comments received during circulation of the Pre-Permitting Project DEIR, Yeung Oyster Farm IS/MND and other resources, the following environmental resources could be affected by the project:

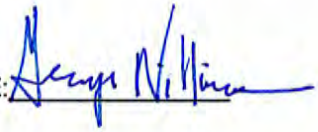
- Aesthetics
- Air quality
- Biological resources
- Cultural resources
- Hydrology and water quality
- Recreation

Comments on the Notice of Preparation (NOP) must be received no later than 5:00 p.m. Monday, April 24, 2017 (or, if applicable, within 30 days after receipt of the NOP as indicated by certified mail).

Interested public agencies, organizations and individuals are invited to comment on the scope of the EIR. A scoping meeting will be held on Tuesday April 18, 2017. Your comments regarding the forthcoming EIR must be written and submitted to:

George Williamson, District Planner
601 Startare Drive, Eureka, CA 95501
Telephone: (707) 443-0801
Facsimile: (707) 443-0800
Email: districtplanner@humboldtbay.org

DATE: March 23, 2017

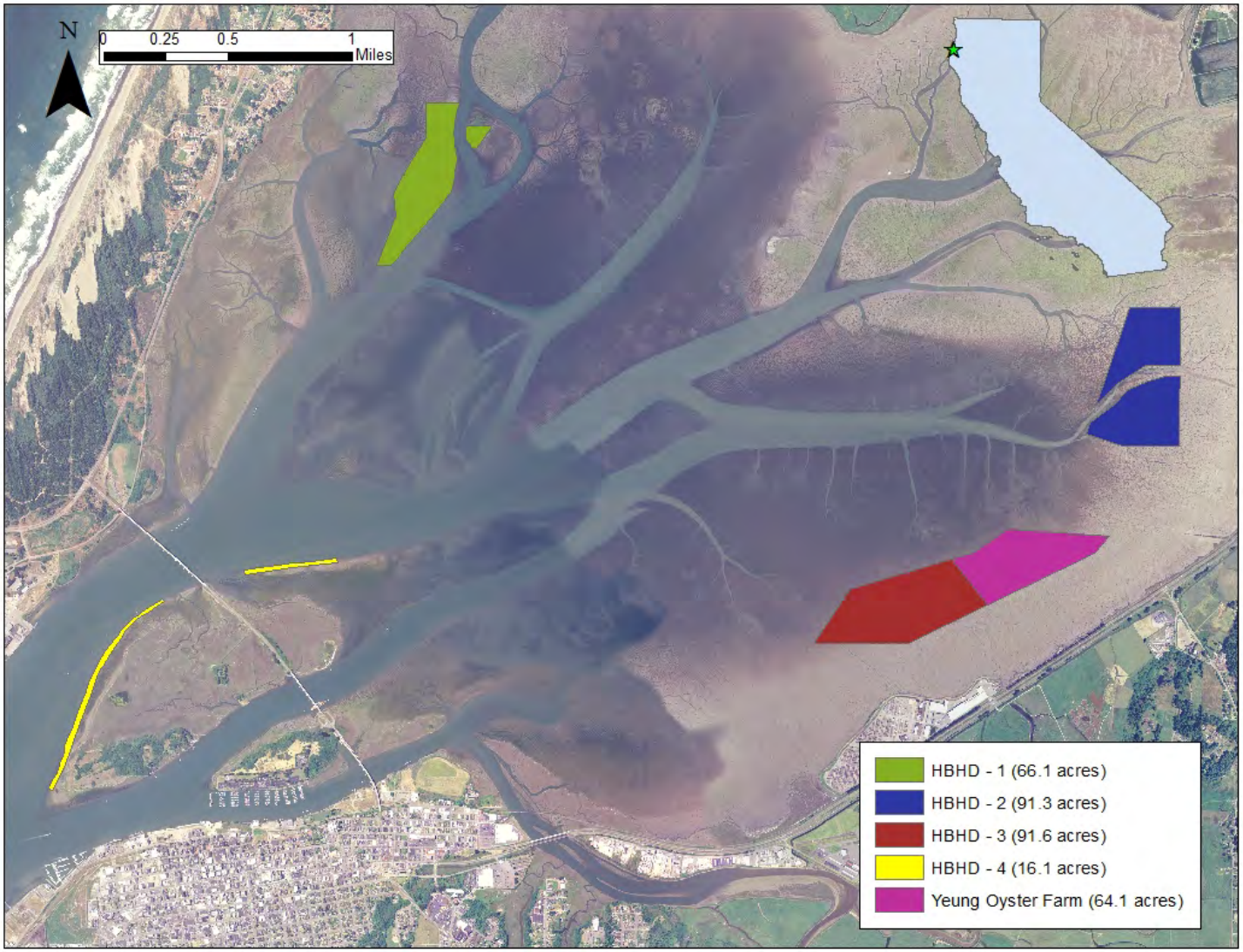
SIGNATURE: 

Attachment A

Proposed Sites and Methods for the Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm

Sites

The Intertidal Mariculture Pre-Permitting Project includes four proposed sites. These sites and the Yeung Oyster Farm site are shown in Figure 1. The area of each individual site is also shown in Figure 1; the total area of all the sites is approximately 329 acres.



Methods

The continued success of mariculture in Humboldt Bay will require adaptation of culture methods as new technologies are developed. New methods can result in higher production, improved product quality and reduced environmental effects. To allow for adaptation of culture methods, the following process was used to develop the Project description:

1. For each site, a Project layout was developed based on the following culture methods. These methods represent the general types of culture that would occur under the Project.
    a. Rack-and-Bag
    b. Cultch-on-Longline
    c. Basket-on-Longline
2. The following culture characteristics were assessed. These culture characteristics are related to specific environmental effects of mariculture (Table 1).
    a. Levels of activity by farm workers
    b. Water surface area occupied by culture equipment and cultured organisms
    c. Volume of culture equipment and cultured organisms
    d. Area of culture equipment in contact with bay bottom (benthic footprint)
    e. Maximum biomass of shellfish soft tissue that could be present at any given time
3. Based on the culture characteristics of each method, thresholds were established for the Projects. Under the Projects, culture can occur within each site as long as it:
    a. Does not exceed these culture characteristic thresholds,
    b. Follows other terms and conditions established by the Project's regulatory approvals including the EIR, and
    c. Does not result in any environmental effects that were not considered under the Project.

If there are environmental effects that were not considered under the Project, then additional regulatory approvals may be required.

Table 1. Culture Characteristics and Related Potential Environmental Effects

Culture Characteristics	Potential Environmental Effect
Levels of activity by farm workers	Environmental effects by farm workers (e.g., trampling, wildlife disturbance)
Water surface area occupied by culture equipment and cultured organisms	Increased shading and overwater cover
Volume of culture equipment under the water line	Effects on currents and sedimentation
Benthic footprint	Reduction in habitat for benthic organisms
Biomass of cultured shellfish	Reduced particulate organic matter as a result of consumption by cultured shellfish

Example Culture Methods

The Project is designed to allow for flexibility in culture methods. The following culture methods were used to evaluate the potential environmental effects of mariculture and to establish thresholds for the mariculture characteristics presented in Tables 2 and 3.

Shellfish Culture Rack-and-Bag Method

This description was adapted from Coast Seafoods Company (CSC) (2007)[1]. Rack-and-bag culture is used for growing Kumamoto oysters and Pacific oysters. The oysters are grown as "singles", meaning they are not attached to any structure such as shells or to each-other (they are "loose" in the bags). Rack-and-bag culture uses polyethylene mesh bags and rebar frames. Each rebar frame is 3 feet (ft) x 12 ft and supports 3-6 bags attached to the frame via industrial rubber bands. Each bag is initially seeded with oysters and placed in intertidal areas. It takes 1–2 years for the seed to grow into oysters of market size, depending on tidal height and primary productivity, and then the bags of oysters are harvested by hand (lifted from the racks into a skiff), processed and brought to market.

Shellfish Culture Cultch-on-Longline Method

This description was adapted from CSC (2007)[1]. Cultch-on-longline culture is used for growing Kumamoto oysters and Pacific oysters. Prior to planting in the bay, oyster seed is attached to shells, which are attached to longlines. Planting is accomplished by placing seeded longlines on notched PVC stakes that are arranged in rows on the mudflats. The longlines are strung through notches on top of the PVC stakes, suspending the oyster seed approximately one ft above the bay bottom.

Longline beds are harvested when they have oysters of a harvestable size and market conditions are right. It usually takes 1.5–3 years for oysters to reach a harvestable size. One of two methods is used to harvest longlines. The first, hand picking, involves placing around 20 bushel tubs on the bed at high tide using an oyster scow. The tubs are then filled at low tide by hand. The picking crew cuts the longline into manageable single clusters and places them in the picking tub. A floating ball is attached to each tub, and at high tide an oyster scow is used to pull the tub out of the water. The oysters are dumped on the deck of the scow, and the tub is placed back on the bed to be refilled.

The second method of harvest, the longline harvester, involves positioning a scow over the longline bed at high tide. Individual lines are then pulled onto the floating scow either by hand or by means of a hydraulically operated roller. If the lines are pulled by hand then the lines need to be cut into individual clusters, usually at the plant. If the lines are pulled mechanically they run through a breaker that strips the clusters from the line. The longline harvester does not come in contact with the bottom while harvesting longlines.

Shellfish Culture Basket-on-Longline Method

Basket-on-longline culture is used to grow Kumamoto oysters and Pacific oysters as singles. This method utilizes baskets that hang off a monofilament line suspended off the bottom using 2-inch

[1] Coast Seafoods Company. 2007. Coast Seafoods Application for Continued Mariculture Operations in Humboldt Bay, California. Draft Mitigated Negative Declaration. Prepared for Humboldt Bay Harbor, Recreation and Conservation District.

schedule 80 PVC pipe. The monofilament line is 5mm in diameter and protected by a 3/8-inch polyethylene sleeve that the monofilament is slid inside. The baskets are approximately 24 inches (in) x 10 in x 6 in and are held on the line with plastic clips. A float, which is approximately 2.5 in diameter and 5.5 in long, is often attached to the baskets so that the baskets float up during high tides. Once the oysters reach a harvestable size, in approximately 1.5–2 years, the baskets are removed from the water, and the oysters are accessed through end caps on the baskets.

Determination of Culture Characteristics

The following processes and assumptions were used to develop an understanding of mariculture characteristics, upon which thresholds for mariculture operations were based.

Environmental Effects by Farmworkers

Farmworkers may have environmental effects when they are working at the culture sites, for example by trampling vegetation or disturbing wildlife. Mr. Greg Dale (CSC operations manager) and Mr. Ted Kuiper (retired shellfish culturist) were interviewed to determine the type and number of visits for each method.

Surface Area

Cultured organisms and associated equipment can affect eelgrass (*Zostera marina*) and other habitat features by increasing shade over these features. Overwater structure can also provide habitat for organisms, including plants, birds, fish and invertebrates. The water surface area per acre (ac) occupied by culture equipment and cultured organisms was calculated based on the following assumptions:

For rack-and-bag culture:

- Racks are 12 ft x 3 ft and are elevated by six 5/8-inch rebar posts
- Racks are set in groups of 9, with a distance of 3 ft between subgroups of three racks
- Each group of nine racks is 10 ft apart from each other group of nine racks

For cultch-on-longline culture:

- Area is based on measurements of sampled cultch-on-longlines in 2012
- Lines are in groups of 5, with a distance of 2.5 ft between each line
- Each group of five lines is separated by 5 ft within a given row
- Rows are 10 ft apart
- Lines are a maximum of 100 ft, but areas where a 100 ft line won't fit are filled by partial lines
- Lines are elevated by 2-inch PVC posts every 2.5 ft

For basket-on-longline culture:

- Baskets are 24 in x 10 in
- Basket floats are 2.5 in diameter and 5.5 in long

- Lines are in groups of 3, with a distance of 3 ft between each line
- Each group of three lines is separated by 20 ft on all sides
- Lines are a maximum of 100 ft, but areas where a 100 ft line won't fit are filled by partial lines
- Lines are elevated with 2-inch PVC posts every four baskets and line ends are anchored with 1.5 in x 2 in wide galvanized fence posts

Volume

Cultured organisms and associated equipment can alter water currents and sedimentation rates. The overall volume of cultured organisms and associated equipment is a reasonable metric for assessing effects on currents and sedimentation. The volume of each culture method per ac was assessed based on the following assumptions.

For rack-and-bag culture:

- Rack dimensions are 12 ft x 3 ft x 0.7 ft
- Racks are set in groups of 9, with a distance of 3 ft between subgroups of three racks
- Each group of nine racks is 10 ft apart from each other group of nine racks

For cultch-on-longline culture:

- Volume of individual lines and associated shellfish is based on measurements taken in 2012
- Lines are in groups of 5, with a distance of 2.5 ft between each line
- Each group of five lines is separated by 5 ft within a given row
- Rows are 10 ft apart
- Lines are a maximum of 100 ft, but areas where a 100 ft line won't fit are filled by partial lines

For basket-on-longline culture:

- Basket dimensions are 24 in x 10 in x 6 in
- Floats are 2.5 in diameter and 5.5 in long
- Lines are in groups of 3, with a distance of 3 ft between each line
- Each group of three lines is separated by 20 ft
- Lines are a maximum of 100 ft, but areas where a 100 ft line won't fit are filled by partial lines

Benthic Footprint

The area of culture equipment in contact with the bay bottom was calculated based on the following:

For rack-and-bag culture:

- Racks are 12 ft x 3 ft and are elevated by six 5/8-inch diameter rebar posts
- Racks are set in groups of 9, with a distance of 3 ft between subgroups of three racks

- Each group of nine racks is 10 ft apart from each other group of 9 racks

For cultch-on-longline culture:

- Lines are elevated by 2-inch PVC posts every 2.5 ft
- Lines are in groups of 5, with a distance of 2.5 ft between each line
- Each group of five lines is separated by 5 ft within a given row
- Rows are 10 ft apart

For basket-on-longline culture:

- Each line holds 40 baskets
- Lines are in groups of 3, with a distance of 3 ft between each line
- Each group of three lines is separated by 20 ft
- Lines are a maximum of 100 ft, but areas where a 100 ft line won't fit are filled by partial lines
- Lines are elevated with 2-inch PVC posts every four baskets and line ends are anchored with 1.5 in x 2 in wide galvanized fence posts

Biomass of Cultured Shellfish

Phytoplankton consumption by cultured shellfish is proportional to the number of shellfish cultured. The shellfish biomass calculations are based on the following:

For rack-and-bag culture:

- Each Rack-and-Bag unit contains six bags per rack, with 2 liters (L) of seed added per bag and periodic subsequent division of that stock into more bags
- Racks are set in groups of 9, with a distance of 3 ft between subgroups of three racks
- Each group of nine racks is 10 ft apart from each other group of nine racks

For cultch-on-longline culture:

- Each 100-ft longline contains 40-100 dozen oysters
- Lines are in groups of 5, with a distance of 2.5 ft between each line
- Each group of five lines is separated by 5 ft within a given row
- Rows are 10 ft apart

For basket-on-longline culture:

- Each basket is planted with 2 L of seed with periodic subsequent division of that stock into more baskets. Each line holds 40 baskets
- Lines are in groups of 3, with a distance of 3 ft between each line
- Each group of three lines is separated by 20 ft
- Lines are a maximum of 100 ft, but areas where a 100 ft line won't fit are filled by partial lines

Results and Thresholds

Based on the information describe above, culture characteristics are presented in Tables 2 and 3. Culture methods will not exceed the thresholds established in the shaded cells in these tables. The thresholds are based on the example methods described above, but are not specific to individual culture methods, they apply to every method.

Table 2. Type and Number of Visits by Farmworkers to Different Types of Intertidal Mariculture Operations

Method	Type of Visit	# Visits per Year	Note
Rack-and-Bag	Place racks	0.2	Once every 5 years
	Inspections	104	Range of 1–3 times per week, assumed average of twice per week
	Flip bags	26	Bags flipped on average every two weeks
	Grade oysters	6.4	Every 6–8 weeks in summer (Feb to Oct) and every 8–12 weeks in winter (Nov to Jan)
	Plant and harvest	1	Plant and harvest once per 2 years
Cultch-on-Longline	Staking lines	0.2	Once every 5 years
	Monthly inspection	12	
	Plant and Harvest	1	Plant and harvest once every two years
Basket-on-Longline	Stake lines	0.2	Once every 5 years
	Grade oysters	6.4	Every 6–8 weeks in summer (Feb to Oct) and every 8–12 weeks in winter (Nov to Jan)
	Plant and harvest	1	Plant and harvest once per 2 years

- "Shaded cells" depict the maximum values for each culture characteristic. These values represent the maximum level of effort that generally occurs for the various mariculture methods.

* The information provided is for individual culture units (i.e., a single bag, longline or basket). A group of units would generally be visited more frequently.

Table 3. Culture Characteristics of Example Intertidal Culture Methods

Method	Water Surface Area (ft^2) in Culture per Acre	Volume (ft^3) of Shellfish Culture Equipment and Cultured Organisms per Acre	Benthic Footprint (ft^2) per Acre	Biomass (kg) of Shellfish Dry Weight per Acre (6% of Live Weight)
Rack-and-Bag	13,068 (30%)	8,736	4.36	253
Cultch-on-Longline	4,792 (11%)	1,947	118.07	97
Basket-on-Longline	3,484 (8%)	1,623	11.80	207

- "Shaded cells" represent the maximum values for each culture characteristic. Under the Project, these maximum values are the culture characteristic thresholds that cannot be exceeded by shellfish culture operations.

Appendix A Mariculture Pre-Permitting Intertidal and Yeung Oyster Farm EIR Scoping Report Notification List

National Marine Fisheries Service (NMFS)
California Coastal Commission
California Department of Fish and Wildlife
NCRWQCB
California State Lands Commission
California Department of Public Health
US Army Corps of Engineers
US Fish and Wildlife Service
City of Eureka
City of Arcata
Humboldt County
Planning and Building Department
Humboldt County Environmental Health Department
North Coast Unified Air Quality Management District
Tribes
Wiyot Tribe
Bear River Band of Rohnerville Rancheria
Blue Lake Rancheria
NGO's/ Other Orgs.
Pacific Flyway Council
Audubon California
EarthJustice
Oceana
Redwood Region Audubon Society
Humboldt Baykeeper
Northcoast Environmental Center
California Waterfowl
The Black Brant Group
Individuals/Others
Ken Bates
Matt Brinkman
Scott Frazer
Steven Grantham
Stephen Rosenberg
Hog Island Oyster Company
Jon Lee
Pacific Outfitters
Thomas Peters
Ted Romo
Casey Allen
HSU Department of Biological Sciences
Stan Brandenbrug
Richard J. Todoroff

Humboldt Bay
Harbor, Recreation and Conservation District
(707) 443-0801
P.O. Box 1030
Eureka, California 95502-1030

March 31, 2017

Dear Interested Agency,

The Humboldt Bay Harbor, Recreation and Conservation District intends to prepare an Environmental Impact Report for the proposed Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm. The Notice of Preparation for the DEIR was sent on you March 23, 2017 and is available on the District's website (http://humboldtbay.org/public-notices).

We request your agency's assistance in developing an adaptive management plan for the projects. The adaptive management plan will be designed to ensure adequate avoidance, minimization and mitigation of biological effects. Adaptive management will involve monitoring that will inform mitigation and refinement of best management practices as agreed to by regulatory agencies and other partners prior to project approval.

We propose that a suite of mitigation measures will be implemented prior to implementation of the projects. This mitigation would be for benthic and other potential impacts that can be quantified prior to implementation and may include a combination of the following:

- Preservation of bay habitats through fee title acquisition and/or conservation easements.
- Removal of unused piles and debris in the bay to create benthic habitat.
- Contribution to bay restoration projects, including projects that enhance or create salt marsh and/or eelgrass habitat.

Conservation of eelgrass (*Zostera marina*) and eelgrass ecological functions is a primary consideration. Hence, initial shellfish culture within eelgrass habitat may be limited to a small amount of "pilot culture". Pilot culture sites and reference sites would be monitored to assess eelgrass and other ecological effects. Full implementation of culture in eelgrass habitat would only occur if it is determined that effects are below a certain threshold and can be adequately mitigated.

We hope to work with you to further refine our conceptual ideas for adaptive management and to develop an adaptive management plan that will ensure conservation of Humboldt Bay's important ecological resources. We would like schedule a meeting the week of April 10, 2017 regarding development of the adaptive management plan. We will email a doodle poll to determine your availability and confirm meeting date and time. Please let me know if additional people from your agency should be invited to this meeting.

Thank you,

George Williamson

George Williamson, AICP
District Planner
districtplanner@humboldtbay.org

Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm EIR Scoping

Agency Meeting

April 14, 2017 1 – 3 p.m.

Harbor District Conference Room 601 Startare Drive, Eureka

Call-in phone number: (712) 432-0220 PIN: 443-0801#

Meeting Purpose: Receive input regarding proposed mitigation strategy and adaptive management measures to protect biological resources.

AGENDA

- Introductions
- Overall structure of projects and EIR
- Project descriptions
- Conceptual mitigation strategy
- Proposed schedule and key outcomes

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #2017032068

Project Title: Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm

Lead Agency: Humboldt Bay Harbor, Recreation and Conservation District — Contact Person: George Williamson

Mailing Address: 601 Startare Drive — Phone: 707-443-0801

City: Eureka — Zip: 95501 — County: Humboldt

Project Location: County: Humboldt — City/Nearest Community: Eureka

Cross Streets: HWY 101 / HWY 255 — Zip Code: 95564

Longitude/Latitude (degrees, minutes and seconds): ____° ____ ′ ____ ″ N / ____° ____ ′ ____ ″ W Total Acres: 329

Assessor's Parcel No.: Humboldt Bay Parcels — Section: ____ Twp.: ____ Range: ____ Base: ____

Within 2 Miles: State Hwy #: 101 and 255 — Waterways: Humboldt Bay

Airports: Eureka City Airport/ Murray Fie — Railways: NCRA — Schools: City of Eureka Schools

Document Type:

CEQA: ☒ NOP ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ____ Other: ____

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other: ____

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☒ Other: Harbor Dist. Per

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational: ____
☐ Recreational: ____
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☒ Other: Aquaculture

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☐ Agricultural Land
☒ Air Quality
☐ Archeological/Historical
☒ Biological Resources
☐ Coastal Zone
☐ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☐ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☐ Geologic/Seismic
☐ Minerals
☐ Noise
☐ Population/Housing Balance
☐ Public Services/Facilities
☒ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☐ Sewer Capacity
☐ Soil Erosion/Compaction/Grading
☐ Solid Waste
☐ Toxic/Hazardous
☐ Traffic/Circulation
☐ Vegetation
☒ Water Quality
☐ Water Supply/Groundwater
☒ Wetland/Riparian
☐ Growth Inducement
☐ Land Use
☒ Cumulative Effects
☐ Other: ____

Present Land Use/Zoning/General Plan Designation:

GENERAL PLAN DESIGNATION: Natural Resources/ Water Conservation ZONING: Natural Resources/Wetland

Project Description: *(please use a separate page if necessary)*

Expansion of commercial mariculture activities in Humboldt Bay. The projects will use the same culture methods and culture the same species (Kumamoto oysters and Pacific Oysters). The Intertidal Mariculture Pre-Permitting Project includes four proposed sites, and Yeung includes one site. The total area of all sites is approximately 329 acres.

See NOP Attachment A for detailed discussion.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

X	Air Resources Board	X	Office of Historic Preservation
X	Boating & Waterways, Department of		Office of Public School Construction
	California Emergency Management Agency	X	Parks & Recreation, Department of
	California Highway Patrol		Pesticide Regulation, Department of
X	Caltrans District # 1		Public Utilities Commission
	Caltrans Division of Aeronautics	S	Regional WQCB # 1
	Caltrans Planning	X	Resources Agency
	Central Valley Flood Protection Board		Resources Recycling and Recovery, Department of
	Coachella Valley Mtns. Conservancy		S.F. Bay Conservation & Development Comm.
S	Coastal Commission		San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
	Colorado River Board		San Joaquin River Conservancy
X	Conservation, Department of		Santa Monica Mtns. Conservancy
	Corrections, Department of	S	State Lands Commission
	Delta Protection Commission		SWRCB: Clean Water Grants
	Education, Department of	X	SWRCB: Water Quality
	Energy Commission	X	SWRCB: Water Rights
S	Fish & Game Region # 1		Tahoe Regional Planning Agency
	Food & Agriculture, Department of		Toxic Substances Control, Department of
	Forestry and Fire Protection, Department of	X	Water Resources, Department of
	General Services, Department of		
	Health Services, Department of	S	Other: County of Humboldt, City of Eureka
	Housing & Community Development	S	Other: City of Arcata, USACE, NMFS
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date March 24, 2017 Ending Date April 24, 2017

Lead Agency (Complete if applicable):

Consulting Firm: _____ Applicant: _____
Address: _____ Address: _____
City/State/Zip: _____ City/State/Zip: _____
Contact: _____ Phone: _____
Phone: _____

Signature of Lead Agency Representative: George Williamson _____ **Date:** 3/23/17

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

SCH Number: 2017032068

Document Type: NOP - Notice of Preparation

Project Lead Agency: Humboldt Bay Harbor

Project Description

Expansion of commercial mariculture activities in Humboldt Bay. The projects will use the same culture methods and culture the same species (Kumamoto oysters and Pacific Oysters). The Intertidal Mariculture Pre-Permitting Project includes four proposed sites, and Yeung includes one site. The total area of all sites is ~329 acres.

Contact Information

Primary Contact:
George Williamson
Humboldt Bay Harbor, Recreation and Conservation District
(707) 443-0801
601 Startare Drive
Eureka, CA 95501

Project Location

County: Humboldt
City: Eureka
Region:
Cross Streets: Hwy 101/Hwy 255
Latitude/Longitude:
Parcel No: Humbold Bay Parcels
Township:
Range:
Section:
Base:
Other Location Info:

Proximity To

Highways: Hwy 101, 255
Airports: Eureka City/Murray Field
Railways: NCRA
Waterways: Humboldt Bay
Schools: City of Eureka
Land Use: GPD: Natural Resources/Water Conservation Z: Natural Resources/Wetland

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Development Type

Other (Aquaculture)

Local Action

Other Action (Harbor Dist....)

Project Issues

Aesthetic/Visual, Air Quality, Biological Resources, Recreation/Parks, Water Quality, Wetland/Riparian, Cumulative Effects

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Reviewing Agencies (Agencies in **Bold Type** submitted comment letters to the State Clearinghouse)

Resources Agency; California Coastal Commission; Department of Conservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 1E; Department of Fish and Wildlife, Marine Region; **Native American Heritage Commission**; Public Utilities Commission; **State Lands Commission**; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 1; State Water Resources Control Board, Division of Water Quality; **Regional Water Quality Control Board, Region 1**

Date Received: 3/24/2017 **Start of Review:** 3/24/2017 **End of Review:** 4/24/2017

Appendix B

HUMBOLDT BAY INTERTIDAL MARICULTURE PRE-PERMITTING AND YEUNG OYSTER FARM

DRAFT ENVIRONMENTAL IMPACT REPORT
PUBLIC SCOPING MEETING
TUESDAY APRIL 18, 2017
4 – 6 PM

Agenda

- Introductions
- Background
- Overall structure of projects and EIR
- Project descriptions and locations
- Potential culture methods
- Potential environmental effects
- Next Steps and Proposed Schedule
- Public Comments

BACKGROUND

- Mariculture Pre-Permitting Project DEIR (subtidal and intertidal) circulated January 2015
- Final EIR for subtidal sites certified in February 2016
- Draft Initial Study/ Mitigated Negative Declaration for Yeung Oyster Farm circulated January 2017
- Now preparing one Draft EIR for both intertidal projects

PROJECTS AND EIR STRUCTURE

- Harbor District is project proponent for Intertidal Pre-Permitting Project
  - Agreements with landowners
  - Pursuing regulatory approvals for culture
  - Will lease areas within each site to private growers

- Mr. Yeung is pursuing regulatory approvals for his property
  - Mr. Yeung's property was previously part of the District's Pre-Permitting project

PROJECT PURPOSE

The objective and purpose of both projects is to allow for an expansion of commercial mariculture activities in Humboldt Bay, to create jobs and improve the local economy, while also increasing local and sustainable seafood production.


Pacific Ocean
North Bay
Arcata
Mad River Slough Wildlife Area
Mad River Slough Wildlife Area
Arcata Marsh & Wildlife Sanctuary
Manila
Manila Community Park
Humboldt Bay National Wildlife Refuge
Bracut
Yeung
Samoa
Indian Island
Brainard
Indianola
Humboldt Bay National Wildlife Refuge
Fay Slough Wildlife Area
Eureka
Fairhaven
1
2
3
4
N
0 0.5 1 Miles
HBHD - 1 (66.1 acres)
HBHD - 2 (91.3 acres)
HBHD - 3 (91.5 acres)
HBHD - 4 (16.1 acres)
Yeung Oyster Farm (64.1 acres)
Parks/Wildlife Areas
City Boundaries
PLANWEST PARTNERS, INC.

Site	Approximate Size (acres)
HBHRCD – Site 1	66.1
HBHRCD – Site 2	91.3
HBHRCD – Site 3	91.6
HBHRCD – Site 4	16.1
Yeung Oyster Farm	64.1
TOTAL	**329.2 acres**

Potential Intertidal Culture Methods

Rack-and-Bag

Basket-on-Longline

Cultch-on-Longline

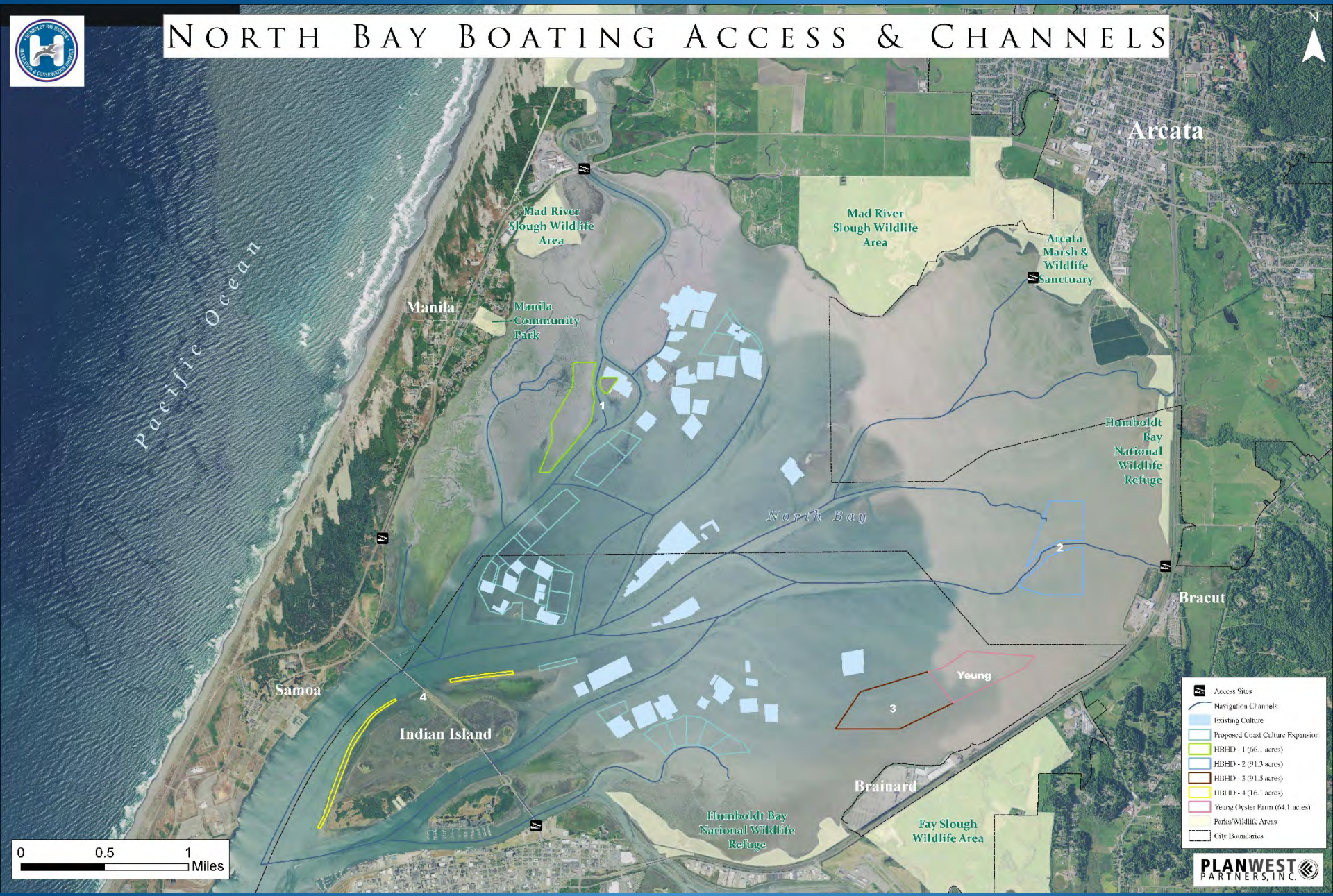
Culture Characteristics and Related Potential Effects

Culture Characteristics	Potential Environmental Effect
Levels of activity by farm workers	Environmental effects by farm workers (e.g., trampling, wildlife disturbance)
Water surface area occupied by culture equipment and cultured organisms	Increased shading and overwater cover
Volume of culture equipment under the water line	Effects on currents and sedimentation
Benthic footprint	Reduction in habitat for benthic organisms
Biomass of cultured shellfish	Reduced particulate organic matter as a result of consumption by cultured shellfish

OVERVIEW OF POTENTIAL EFFECTS

Potential project effects on the following resources based on preliminary review:

- Aesthetics and Visual Resources
- Air Quality
- Biological resources
- Tribal Cultural resources
- Cultural and Archeological Resources
- Hydrology and water quality
- Recreation
- Cumulative


NORTH BAY BOATING ACCESS & CHANNELS
N
Pacific Ocean
Arcata
Mad River Slough Wildlife Area
Mad River Slough Wildlife Area
Arcata Marsh & Wildlife Sanctuary
Manila
Manila Community Park
1
Humboldt Bay National Wildlife Refuge
North Bay
2
Bracut
Yeung
3
Samoa
4
Indian Island
Brainard
Humboldt Bay National Wildlife Refuge
Fay Slough Wildlife Area
0
0.5
1
Miles
Access Sites
Navigation Channels
Existing Culture
Proposed Coast Culture Expansion
HBHD - 1 (66.1 acres)
HBHD - 2 (91.3 acres)
HBHD - 3 (91.5 acres)
HBHD - 4 (16.1 acres)
Yeung Oyster Farm (64.1 acres)
Parks/Wildlife Areas
City Boundaries
PLANWEST PARTNERS, INC.

NEXT STEPS AND PROPOSED SCHEDULE

- Scoping Report
- Public Draft EIR
- Response to Comments and Final EIR
- Agency Permitting (Separately for District and Yeung)

QUESTIONS/ COMMENTS

PUBLIC MEETING

HUMBOLDT BAY INTERTIDAL MARICULTURE PRE-PERMITTING PROJECT & YEUNG OYSTER FARM

DRAFT ENVIRONMENTAL IMPACT REPORT SCOPING MEETING

HUMBOLDT BAY HARBOR RECREATION & CONSERVATION DISTRICT

JOIN US

Tuesday

April 18th 2017

4:00 - 6:00 pm

Harbor District Meeting Room

601 Startare Dr, Eureka, CA 95501

Questions: (707) 443-0801

districtplanner@humboldtbay.org

MEETING SIGN-IN SHEET – VOLUNTARY – INTERTIDAL MARICULTURE PRE-PERMITTING

Meeting Date: Tuesday, April 18, 2017 4:00pm – 6:00pm

	Your Name	Company/Agency	E-mail Address or Phone Number
1	Steve Rosenberg		Sjrsun@gmail.com
2	STAN BENDENBERG		Stan.brandebug@smcl.com
3	Scott Frazer		genescottf@gmail.com
4	CASEY ALLEN	HASA	Jlongfish@humboldt2.com
5			
6			

MEETING SIGN-IN SHEET – VOLUNTARY – INTERTIDAL MARICULTURE PRE-PERMITTING

Meeting Date: Tuesday, April 18, 2017 4:00pm – 6:00pm

	Your Name	Company/Agency	E-mail Address or Phone Number
1	Judy Colonna	SELF/Access Humboldt	judyann436@gmail.com
2			
3			
4			
5			
6			
7			
8			
9			

North Bay Boating Access & Channels

N

Pacific Ocean

Arcata

Mad River Slough Wildlife Area

Mad River Slough Wildlife Area

Arcata Marsh & Wildlife Sanctuary

Manila

Manila Community Park

1

Humboldt Bay National Wildlife Refuge

North Bay

2

Bracut

Yeung

3

Samoa

4

Indian Island

Brainard

Humboldt Bay National Wildlife Refuge

Fay Slough Wildlife Area

0 0.5 1 Miles

- Access Sites
- Navigation Channels
- Existing Culture
- Proposed Coast Culture Expansion
- HBHD - 1 (66.1 acres)
- HBHD - 2 (91.3 acres)
- HBHD - 3 (91.5 acres)
- HBHD - 4 (16.1 acres)
- Yeung Oyster Farm (64.1 acres)
- Parks/Wildlife Areas
- City Boundaries

PLANWEST PARTNERS, INC.

Appendix C

April 24, 2017

Mr. George Williamson
601 Startare Drive
Eureka, CA 95501
districtplanner@humboldt.org

Re: Notice of Preparation for Draft Environmental Impact Report: Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm

Dear Mr. Williamson,

Audubon California and California Waterfowl provide the following comments on the proposal to permit intertidal shellfish culture in 329 acres in Arcata Bay. According to the map provided in the Notice of Preparation, 247 acres are proposed in the East Bay Management Area, and 16.1 acres are proposed on the west shore of Indian Island. According to habitat maps of Arcata Bay, the proposed areas primarily include dense and patchy eelgrass and mudflat habitat. The types of mariculture would include rack-on-bag, basket-on-longline, and culch-on-longline. Specific proposed acreages and locations for the different types of mariculture are not provided in the Notice of Preparation.

Audubon opposes the expansion of oyster mariculture in sensitive habitats in Humboldt Bay, including the East Bay Management Area and the west shore of Indian Island. Additionally, existing oyster operations should be removed from the East Bay Management Area. Currently, there are approximately 300 acres of active mariculture located primarily in eelgrass habitat in Arcata Bay. These operations have caused unacceptable negative impacts, including severely damaged eelgrass beds: eelgrass density in farmed areas with 2.5-ft longline spacing has been reduced by about 90%. Even when spaced at wider intervals, mariculture gear can cause serious damage to eelgrass habitat. Studies demonstrate that 10-foot spacing of longlines would reduce eelgrass density by over 60%.

Mariculture operations also cause disturbance to waterfowl, such as Pacific black brant, and shorebirds. In addition, infrastructure and gear associated with oyster operations, including PVC pipes, lines, and baskets, has impeded recreational uses of the bay, such as birdwatching, hunting, and boating, and created unaddressed navigational hazards.

The impacts associated with the proposed 329-acre expansion of mariculture operations must be considered together with the impacts of existing operations as well as other proposed aquaculture expansions. Coast Seafoods is pursuing another large expansion of operations from 300 acres to 491 acres, primarily in eelgrass habitat. We recommend the Harbor District undertake a spatial planning exercise in collaboration with permitting and trustee agencies to develop a proposal that provides a permanent, capped balance of oyster farms and resource protection in Humboldt Bay for the long term. The need to undertake this task is specifically noted in the Harbor District's own Management Plan for the bay. Key concerns within mudflat and high intertidal habitats are eelgrass, shorebirds, black brant, and waterfowl.

Eelgrass

Over the past several years, in response to oyster mariculture proposals in Arcata Bay from the Harbor District, Jerry Yeung, and Coast Seafoods, numerous agencies and independent scientists have recommended avoidance of new or continued oyster culture in eelgrass habitat due to the sensitivity and importance of this habitat to the marine and coastal ecosystem, recent moderate to severe declines in this habitat in California and Baja Mexico, and the numerous ecosystem and socioeconomic services provided by this habitat. In addition to comments from permitting and trustee agencies, other agencies including the Pacific Fishery Management Council (PFMC), the California State Lands Commission, the Humboldt Bay National Wildlife Refuge, and the Pacific Flyway Council, have submitted comment letters to the Harbor District recommending avoidance of eelgrass habitat. Many of these letters note the particular rarity and uniqueness of Humboldt Bay's intertidal eelgrass.

The National Marine Fisheries Service's California Eelgrass Mitigation Policy recommends projects be conditioned so as to achieve No Net Loss of eelgrass and avoid eelgrass altogether whenever possible. The PFMC notes eelgrass is a Habitat Area of Particular Concern (HAPC). An HAPC is an area within designated Essential Fish Habitat that is rare, particularly susceptible to human-induced degradation, especially ecologically important, and/or located in an environmentally stressed area. HAPC designations are used to provide additional focus for conservation efforts. In designating sea grass habitat as an HAPC, fishery managers noted that it has great ecological importance and is sensitive to human-induced environmental degradation. In sum, oyster mariculture should be removed from delineated eelgrass beds and consolidated in less sensitive areas.

Black Brant and other waterfowl

The project would have a significant adverse impact of limiting foraging opportunities for Pacific black brant, American wigeon and other wildlife using eelgrass. The East Bay Management Area, the west shore of Indian Island, and other parts of the bay are critical for feeding and resting for migratory waterbirds and brant. Brant are completely reliant on eelgrass for food during their migratory period. Studies and observations show that brant will not feed inside an area where long lines and plastic pipes are installed after the tidal cycle drops below the

top of the oyster culture lines. This portion of the tide cycle is when brant and other waterfowl are able to feed most efficiently and the most nutritious portions of the eelgrass are available. Oyster mariculture operations also cause disturbance and other adverse impacts to brant and migratory birds. Basket on longline would cause the most ongoing disturbance with 1-3 visits per week, according to the Notice of Preparation.

Black brant are showing signs of stress at the population level. First-year survival and adult survival of brant banded across their breeding range in Alaska and Canada have generally declined since the early-1990s, with the largest decreases taking place in recent years. [1,2] Other important migratory stopovers for brant, including Morro Bay and San Quintin Bay, have experienced dramatic decreases in eelgrass areal extent. The cumulative impacts of expanding oyster mariculture into hundreds more acres of crucial eelgrass habitat in Humboldt Bay must be evaluated in light of the significant existing and foreseeable threats to black brant and their habitat along their migratory route. [3,4,5]

Hunting and vessel safety

Brant and other waterbirds using Humboldt Bay, such as canvasback, teal, and northern pintail, are important recreational species for California's recreational hunting community. In regard specifically to hunting and vessel safety, numerous comments have been submitted to the Harbor District over the past several years from local residents and hunting organizations opposing expansion of oyster operations and continued operations in the East Bay Management Area. These letters provide detail on the importance of the brant hunting tradition in the bay, the loss of hunting areas caused by the existing mariculture footprint, and the navigational obstruction and hazards caused by mariculture gear and operations.

Shorebirds

The importance of protecting mudflat wetlands is reflected in the 2003 Southern Pacific Shorebird Conservation Plan's priority conservation actions for Humboldt Bay, which include prohibiting "further alteration of tidal flats for oyster culture." California's coastal mudflats host the densest concentrations of shorebirds in the state, highlighting the critical need to protect this habitat type from further modification.[6] California has lost over 70 percent of its intertidal habitat areas. Humboldt Bay is a Western Hemisphere Shorebird Site of International Significance supporting large percentages of global shorebird populations during the winter, spring and fall. The bay supports at least 23% of western sandpiper, 43% of Pacific subspecies of dunlin, 10% of marbled godwit, and over 600 critically imperiled long-billed curlew.[7] All of these species are reliant on a few West Coast estuaries for brief stopover times during their migratory cycle. The

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[1] Summary Opinion and Recommendations for Pacific Flyway Brant Management. 13 December 2016. Aaron Christ, Biometrician, USFWS Maritime National Wildlife Refuge, Alaska Region ; Josh Dooley, Wildlife Biologist, USFWS Migratory Bird Management, Headquarters Region ; David Koons, Associate Professor, Department of Wildland Resources, Utah State University; Jim Leafloor, Biologist, Canadian Wildlife Service, Environment Canada

[2] Leach, A. et al. 2017. Survival and recovery rates of Black Brant from arctic and subarctic breeding areas. *The Journal of Wildlife Management*. In review.

[3] Merkel & Associates. 2014. San Francisco Bay Eelgrass Inventory. Report for the National Marine FisheriesService. Santa Rosa

[4] Simancas, J.E. 2013. Assessment of the quality eelgrass habitat for black brant, Branta bernicla nigricans, during the non-breeding season of San Quintin, Baja California, Mexico. Master's Thesis. CICESE, Ensenada, Baja California

[5] Pacific Watershed Associates. 2015. Preliminary Eelgrass (*Zostera marina*) Mapping and Habitat Characterization, North Humboldt Bay, California. For: Humboldt Bay Harbor, Recreation, and Conservation District Mariculture Pre-Permitting Project, Eureka, California. Pg. 14.

[6] Stralberg. R. Cameron, M. Reynolds, C. Hickey, K. Klausmeyer, S. Busby, L. Stenzel, D. Shuford, G. Page. 2011. Identifying habitat conservation priorities and gaps for migratory shorebirds and waterfowl in California. Biodiversity Conservation 20: 19-40

[7] Audubon. 2017. Unpublished analysis.

bay has the highest diversity of shorebirds documented on the West Coast and the East Bay Management Area hosts the largest contiguous mudflat in Humboldt Bay highlighting the importance of this site for shorebirds. The best available scientific information from West Coast estuaries shows that most shorebirds avoid aquaculture structure.[8] The west shore of Indian Island is important habitat for the long-billed curlew, which occupies specific territories in this location. The placement of aquaculture structure within curlew territories could have a significant impact on these birds.

Conclusion

In conclusion, the proposed project would significantly impact eelgrass habitat, Pacific black brant and other waterfowl, shorebirds, hunting, birdwatching, sculling, and recreational boating. We recommend that the Harbor District not pursue developing oyster mariculture operations in the East Bay Management Area or the west shore of Indian Island and that it evaluate the impacts of developing other areas on the west side of the bay in the context of cumulative impacts with the Coast Seafoods proposal. Overall, before pursuing or permitting any expansion of mariculture operations, we recommend that the Harbor District conduct a spatial planning exercise to identify areas where mariculture will have minimal impacts and cap a smaller cumulative footprint of mariculture operations that would provide a healthy balance of oyster operations and protection of natural resources and recreation in the bay.

Sincerely,

Anna Weinstein
Marine Program Director
Audubon California

Mark Hennelly
Vice President
Legislative Affairs and Public Policy
California Waterfowl

[8] Kelley, J., J. Evens, R. Stallcup, and D. Wimpfheiner. 1996. Effects of aquaculture on habitat use by wintering shorebirds in Tomales Bay, California. California Fish and Game 82(4): 160-174.

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Marine Region
1933 Cliff Drive, Suite 9
Santa Barbara, CA 93109
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

April 24, 2017

George Williamson
District Planner
601 Startare Drive
Eureka, CA 95501
districtplanner@humboldtbay.org

Subject: Notice of Preparation of an Environmental Impact Report for the Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm Project (SCH#2017032068)

Dear Mr. Williamson:

The California Department of Fish and Wildlife (Department) has reviewed the Notice of Preparation (NOP) for the Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm Project (SCH#2017032068; Project). The Project proposes to add an additional 329.2 acres of intertidal oyster growing areas in north Humboldt Bay. The Project includes 265.1 acres of expansion proposed by the Humboldt Bay Harbor Recreation and Conservation District, and 64.1 acres proposed for the Yeung Oyster Farm. Areas for expansion include areas in the western and eastern portions of north Humboldt Bay, as well as along the north-west side of Indian Island. The areas consist of wetland habitats, including Eelgrass and areas of unvegetated mudflat habitat.

As a trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection and management of fish, wildlife, and habitats necessary for biologically sustainable populations of those species (Fish and G. Code §1802). In this capacity, the Department administers the California Endangered Species Act, the Native Plant Protection Act, and other provisions of the California Fish and Game Code that afford protection to the State's fish and wildlife resources. The Department is also responsible for marine biodiversity protection under the Marine Life Protection Act (MLPA) in coastal marine waters of California and is recognized as a "Trustee Agency" under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.; hereafter CEQA; Cal. Code Regs., § 15000 et seq.; hereafter CEQA Guidelines). As a Trustee Agency, the Department is responsible for providing biological expertise to review and comment upon environmental documents and impacts arising from the Project activities (CEQA Guidelines, § 15386; Fish and G. Code, § 1802). §1802). In this capacity, the Department administers the California Endangered Species Act, the Native Plant Protection Act, and other provisions of the California Fish and Game Code that afford protection to the State's fish and wildlife resources. Pursuant to our jurisdiction, the Department has the following concerns, comments, and recommendations regarding the Project.

Biological Significance

Humboldt Bay is California's second largest bay, and the largest estuary on the Pacific coast between San Francisco Bay and Coos Bay, Oregon. The marine and estuarine habitats of Humboldt Bay provide refuge and nursery habitat for more than 300 fish and invertebrate species, many with important commercial and recreational fisheries value. Numerous sensitive species, including some listed as threatened or endangered pursuant to the California Endangered Species Act (CESA) or the Federal Endangered Species Act (ESA), or are listed as California species of special concern (SSC), occur in the Project area. The Department designates certain species as SSC due to declining population levels, limited ranges, and/or continuing threats that have made them vulnerable to extinction. Species that occur in the Project area and are protected under the CESA or ESA, or are designated as SSC, include:

- Black Brant, *Branta bernicla nigricans*, State SSC;
- Chinook Salmon, *Oncorhynchus tshawytscha*, federally-threatened (California Coastal ESU);
- Coastal Cutthroat Trout, *Oncorhynchus clarki clarki*, State SSC;
- Coho Salmon, *Oncorhynchus kisutch*, State and federally-threatened (Southern Oregon/Northern California Coho (SONCC) Evolutionarily Significant Unit (ESU));
- Eulachon, *Thaleichthys pacificus,* federally-threatened (southern Distinct Population Segment (DPS));
- Green Sturgeon, *Acipenser medirostris,* federally-threatened (southern DPS); State SSC (northern and southern DPS);
- Longfin Smelt, *Spirinchus thaleichthys*, State-threatened;
- Pacific Lamprey, *Entosphenus tridentatus*, State SSC;
- Steelhead, *Oncorhynchus mykiss*, federally-threatened (Northern California ESU);
- Western River Lamprey, *Lampetra ayresi*, State SSC; and
- White Sturgeon, *Acipenser transmontanus*, State SSC.

The Department reviewed the NOP and is concerned the Project will have potentially significant impacts to Public Trust resources, including Eelgrass and mudflat habitats, and species such as Pacific Herring, Salmon and Steelhead, shorebirds, and waterfowl such as Black Brant and Widgeon. The Department offers the following comments and recommendations regarding the Project.

Project Description

The Department recommends the project description in the DEIR include a comprehensive discussion of the following:

- a description of how gear and species are placed into beds, the equipment required, the frequency it is replaced and maintained, and the methods of harvest and removal;
- a description of the number of leases that will be issued, the number, size and frequency of boats;
- a description of boat routes proposed to access each of the sub-leased areas;
- the size, frequency and location (mid channel, margin, in Eelgrass or outside of Eelgrass) of all boat routes, anchoring, including the practice of placing boats on mudflats/Eelgrass beds for the duration of the low tide.

Recommended Analysis and Discussion

Eelgrass- The Department recommends the DEIR describe and quantify potentially significant impacts to Eelgrass and Eelgrass habitat. Specifically, potential impacts from placement of gear, planting, maintenance and harvesting activities, trampling, boat routes and anchoring sites, shading, sedimentation, alteration and fragmentation, and loss of habitat and detrital food web sources from floating Eelgrass rafts and beach wrack should be evaluated. To assist with site planning and to allow agencies to provide meaningful comments on the proposed Project, a current Eelgrass survey of all proposed lease areas should be conducted during the growing season (May through September) and be included in the DEIR.

Further, the Department recommends the DEIR include a comprehensive discussion of alternatives that minimize impacts to Eelgrass including the placement of all aquaculture gear outside of Eelgrass areas, while incorporating a buffer between Eelgrass habitats and new aquaculture apparatus. Consistent with the Department's recommendations to the Fish and Game Commission for state-managed aquaculture leases, we recommend that the DEIR incorporate at least a 10 ft. buffer between boat landings, anchoring spots, and gear placement to minimize impacts to Eelgrass.

Mudflats- To fully assess impacts to mudflat habitat the Department recommends the DEIR include the following:

- an evaluation of the possible impacts to mudflat habitat from changes in elevation caused by altered erosion and deposition processes;
- an assessment of possible changes to infauna composition and the subsequent impacts to shorebird and fish food resources; and

- an analysis of the reduction in foraging areas for shorebirds and fish species, such as Salmonids, Bat Rays, Green and White sturgeon, Leopard Sharks and Longfin Smelt.

Shorebirds, waterfowl and marine mammals- The Department recommends the DEIR assess the potentially significant impacts of disturbance to shorebirds, waterfowl, and marine mammals by quantifying the increase in the number and magnitude of disturbance events, over a range of temporal scales (e.g., day, week, month, year), from boat traffic and human activities from the Project. The analysis should incorporate published buffer distances for each species potentially impacted (e.g., Laursen et al. 2005; Borgmann 2010), the number, pathway, and duration of boat trips, and the number and location of personnel in North Bay. A model such as the one described in Stillman et al. (2015), could be used to estimate possible changes in stopover duration and weight accumulation per day due to disturbance.

In addition, the DEIR should assess potential impacts from cumulative increases in disturbance from other current and proposed bay activities. Further, potential cumulative impacts from the relationship between disturbance events and loss of food resources, which may occur simultaneously, should be evaluated for shorebirds and waterfowl.

Black Brant- The Department recommends the DEIR include a discussion that assesses, quantifies and evaluates the following:

- the loss of Eelgrass food resources and its impact on Black Brant;
- the potential impacts of the Project on foraging opportunities for Black Brant;
- the percent increase in disturbance from the Project and its potential impact on Black Brant;
- the cumulative impact of both a loss of food and increase in disturbance occurring at the same time; and
- the impacts from reduced food resources and increased disturbance with the potential cumulative impacts from the Coast Seafoods expansion project.

Waterfowl Hunters and other Recreational Users- The Department recommends a comprehensive discussion regarding:

- an evaluation of all recreational uses in north Humboldt Bay and potential impacts to recreational users from the Project; and
- an evaluation of cumulative impacts to recreational use of north Humboldt Bay from existing, and all proposed expansion of aquaculture.

Conclusion

The Department recommends a thorough analysis of the impacts and significant avoidance, minimization and mitigation measures be developed to reduce impacts to a level of less than significant.

The Department appreciates the opportunity to review and comment on the PN. Department personnel are available to discuss our comments, concerns, and recommendations in greater detail. For further information regarding hunting and waterfowl issues please contact Melanie Weaver, Senior Environmental Scientist, California Department of Fish and Wildlife, 1812 9th Street, Sacramento, CA 95811, phone (916) 445-3717, email Melanie.Weaver@wildlife.ca.gov; for other topics please contact Rebecca Garwood, Environmental Scientist, California Department of Fish and Wildlife, 619 2nd Street, Eureka, California, 95501, phone (707) 445-6456, and email Rebecca.Garwood@wildlife.ca.gov.

Sincerely,

Craig Shuman, D. Env.
Regional Manager
Marine Region

ec: Becky Ota, Environmental Program Manager
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Eric Nelson, Refuge Manager
Humboldt Bay Wildlife Refuge
Eric_t_nelson@fws.gov

References

Borgmann, K. 2010. A review of Human Disturbance Impacts on Waterbirds. Audubon. 23pps.

Laursen, K., Kahlert, J. & J. Frikke. 2005. Factors affecting escape distances of staging waterbirds. Wildlife Biology. 11(1). 13-19.

Stillman, R., Wood, K., Gilkerson, W., Elkinton, E., Black, J., Ward, D. & M. Petrie. 2015. Predicting effects of environmental change on a migratory herbivore. Ecosphere. 6(7): art114.

HUMBOLDT BAY OYSTER CO.
P.O. BOX 241 CUTTEN CALIFORNIA 95534 (707) 499-2388

April 25, 2017

George Williamson, District Planner
601 Startare Drive
Eureka, CA 95501

Re: Humboldt Bay Mariculture Intertidal Pre-Permitting and Yeung Oyster Farm, NOP, Draft EIR

Mr. Williamson,

Additional acres of intertidal ground have recently been included to the Intertidal #1 Parcel of the Harbor District's Pre-Permitting Project. The acreage appears to be ground recently vacated by Coast Seafoods across Mad River Slough Channel to the east of the original Intertidal #1 Parcel in previous documents. I believe the addition of approximately five acres of intertidal ground constitutes a significant change to the Project and requires a new round of Request for Proposals by the District for that new ground. The addition of this ground was not made public nor circulated to stakeholders in the process and awarding it to any entity without this necessary transparent process would infringe on the public's right to participate especially given that the funding for the Project comes from our community's Headwaters Fund Grant. Please call for a new round of RFPs for this new ground and review by the same Selection Committee that selected the best proposals and tenants from the first round.

I also noticed in the NOP for the Project that 2" PVC is specified in the Cultch-On-Longline method for suspending longlines off bottom. The standard for this method in Humboldt Bay has always been ¾" PVC. Is this a new specification for Cultch-On-Longline? Or is it a typo in the NOP?

Thank you for the opportunity to comment.

Todd Van Herpe

Regional Water Board - Comment Letter - SCH#2017032068

From: Thompson, Brendan@Waterboards [mailto:Brendan.Thompson@waterboards.ca.gov]
Sent: Friday, April 21, 2017 6:03 PM
To: District Planner (districtplanner@humboldtbay.org) <districtplanner@humboldtbay.org>
Cc: Bargsten, Stephen@Waterboards <Stephen.Bargsten@waterboards.ca.gov>; state.clearinghouse@opr.ca.gov; 'Sirkin, L K SPN' <L.K.Sirkin@usace.army.mil>; Garwood, Rebecca@Wildlife <Rebecca.Garwood@wildlife.ca.gov>; Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>; Matt Goldsworthy - NOAA Federal (matt.goldsworthy@noaa.gov) <matt.goldsworthy@noaa.gov>
Subject: SCH#2017032068 Comment Letter for Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm

Dear Mr. Williamson,
Thank you for providing staff at the North Coast Regional Water Quality Control Board (Regional Water Board) the opportunity to comment on the March 24, 2017, *Notice of Preparation of Draft Environmental Impact Report* for the Humboldt Bay Intertidal Mariculture Pre-Permitting and Yeung Oyster Farm projects (SCH #2017032068) (NOP).

The NOP addresses two projects: 1) The Humboldt Bay Intertidal Mariculture Pre-Permitting Project, in which the Humboldt Bay Harbor, Recreation, and Conservation District (Harbor District) would lease intertidal areas to private shellfish growers; and 2) The Yeung Oyster Farm Project, a proposed Kumamoto and Pacific basket-on-longline oyster farm in northeast Humboldt Bay. The Harbor District and Mr. Jerry Yeung are hereinafter referred to as the "Applicants."

We offer the following comments for your consideration in preparation of the Environmental Impact Report (EIR).

Because these Projects will likely require a permit from the United States Army Corps of Engineers under Section 10 of the Rivers and Harbors Act, they will necessarily require a Clean Water Act section 401 water quality certification (401 certification) from the Regional Water Board.

Before the Regional Water Board may issue a 401 certification, the Applicants must demonstrate that the projects' designs maximize opportunities to avoid impacts to waters of the state and their beneficial uses (e.g., marine habitat, special status species, wildlife habitat, recreation). After the Applicants have demonstrated that impacts have been avoided to the maximum extent feasible, they must demonstrate that the remaining impacts have been minimized to the maximum extent. Only after avoidance and minimization measures have been satisfactorily demonstrated will the Regional Water Board consider mitigation measures for impacts to waters of the state.

The EIR must analyze project alternatives that completely avoid eelgrass. Because eelgrass is an important species providing critical ecological function and supporting special-status and other marine and wildlife habitat, and because it may be negatively affected by oyster

cultivation activities, the Project must consider an alternative that fully avoids areas where continuous and patchy eelgrass is present.

We anticipate that the EIR may include project alternatives proposing potential impacts to eelgrass. Should the Regional Water Board find that the project proponents sufficiently exhaust eelgrass impact avoidance and minimization opportunities, then an eelgrass impact mitigation plan would be considered. Any mitigation plan must be found acceptable prior to 401 certification issuance. The mitigation plan must ensure no net loss of eelgrass habitat function and should also account for any loss in habitat function incurred between the time period when eelgrass is impacted and eelgrass mitigation is found to be successful.

Coast Seafoods is also currently seeking regulatory permits to expand its intertidal oyster cultivation operations in Humboldt Bay. The combination of the Pre-Permitting Project, the Yeung Oyster Farm Project, and the Coast Seafoods Project would result in a significant acreage expansion of oyster cultivation in Humboldt Bay beyond what currently exists; because of this, the EIR must thoroughly assess and evaluate the cumulative impacts resulting from implementation of these three projects.

Beneficial uses that may be impacted by the projects also fall under the jurisdiction and expertise of other state and federal regulatory agencies (e.g., California Department of Fish and Wildlife, California Coastal Commission, and the National Marine Fisheries Service). The Regional Water Board will consult with these agencies to assess Project impacts and appropriate levels of mitigation during our review of the Project's 401 certification applications. It is important that the Humboldt Bay Harbor District and Applicants continue to engage these agencies and provide requested information to ensure the permitting process moves forward efficiently.

Thank you for considering these comments on the NOP. If you have any questions or comments, please contact me at (707) 576-2699 or Brendan.Thompson@waterboards.ca.gov.

Brendan Thompson, QSD, CPESC, CESSWI
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Established in 1938

April 24, 2017

File Ref: SCH # 2017032068

George Williamson, District Planner
601 Startare Drive,
Eureka, CA 95501

Subject: Notice of Preparation (NOP) for a Draft Environmental Impact Report (Draft EIR) for Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm, Humboldt County

Dear Mr. Williamson:

The California State Lands Commission (Commission) staff has reviewed the subject NOP for a Draft EIR for the Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm (Project), which is being prepared by the Humboldt Bay Harbor, Recreation and Conservation District (District). The District, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The Commission is a trustee agency for projects that could directly or indirectly affect sovereign land and their accompanying Public Trust resources or uses. Commission staff requests the District consult with us on preparation of the Draft EIR as required by CEQA section 21153, subdivision (a), and the State CEQA Guidelines section 15086, subdivision (a)(2).

Commission Jurisdiction and Public Trust Lands

The Commission has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The Commission also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6009, subd. (c); 6009.1; 6301; 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust Doctrine.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not

limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

Since 1851, the California Legislature has periodically transferred portions of the State's prime waterfront lands to local governmental entities for management purposes. These statutory tide and submerged land grants are held in trust for statewide Public Trust purposes. The proposed Project appears to affect lands with different jurisdictional components.

- **Humboldt Bay Intertidal Mariculture Pre-Permitting Project Component:** It appears a portion of the proposed Project will involve Public Trust lands legislatively granted to the City of Eureka (City). Sites HBHD-3 and HBHD-4 (see Figure on page A-1 of NOP) are located within lands granted to the City pursuant to Chapter 187, Statutes of 1927, Chapter 225, Statutes of 1945, and Chapter 1084, Statues of 1970, and as amended. Please contact the City for leasing requirements. Commission authorization is not required for the Project, as day-to-day administration of these lands has been granted to the City.
- **Yeung Oyster Farm Project Component:** After review of in-house records, the Project at this location appears to be located within lands the State patented as Tideland Locations 256 and 266, (resurveys of Humboldt County tideland surveys 121 and 120). Although the landowner has fee title to the submerged property, the property is burdened with a dominant Public Trust easement. The Public Trust easement is part of the lands that have been granted to the District pursuant to Chapter 1283, Statutes of 1970, as amended. Any proposed private use may be subject to the exercise of the Public Trust easement.

This determination is without prejudice to any future assertion of State ownership or public rights, should circumstances change, or should additional information come to our attention. In addition, this letter is not intended, nor should it be construed as, a waiver or limitation of any right, title, or interest of the State of California in any lands under its jurisdiction. For further clarification or questions concerning the City's granted lands and the Commission's jurisdiction, please contact Reid Boggiano, Public Land Management Specialist (see contact information below).

Project Description

The District proposes to develop approximately 329 acres of intertidal shellfish culture to meet its objectives and needs as follows:

- Combine two projects that were previously analyzed individually in the following environmental documents because of the similarities between the two projects in timing, location, shellfish culture methods, culture species, and potential environmental effect: (1) Humboldt Bay Mariculture Pre-Permitting Project analyzed in the Draft Environmental Impact Report (State Clearinghouse #

2013062068); and (2) Yeung Oyster Farm Project analyzed in the Draft Mitigated Negative Declaration (State Clearinghouse # 2016122066).

- Expand commercial mariculture activities in Humboldt Bay;
- Create jobs and improve the local economy; and
- Increase local and sustainable seafood production.

From the Project Description, Commission staff understands that the Project would include the following components:

- Culture Kumamoto oysters (*Crassostrea sikamea*) and Pacific oysters (C. Gigas) currently being cultured in Humboldt Bay and
- Culture proposed aquaculture with rack-and-bag, cultch-on-longline, and basket-on-longline methods.

Environmental Review

Commission staff requests that the District consider the following comments when preparing the Draft EIR.

General Comments

1. Potential Impacts from Storms. Staff believes that the Project may be vulnerable to storm impacts resulting in unacceptably high impacts to black brant foraging habitat and behavior (see comment # 4 below), marine debris (see comment # 8 below), and impacts to Public Trust resources (see comment # 2 below). These concerns were raised in Commission staff's January 19, 2017, comment letter (enclosed) to the District consideration of the final EIR for the Coast Seafoods Project (SCH # 2015082051) and remain unaddressed. Commission staff recommends that the District seek to comprehensively disclose and analyze these issues in the Draft EIR for the current Project.

2. Public Trust Lands and Assets. Since the proposed Project is on lands subject to a Public Trust easement, Commission staff believes there are opportunities for the District to reduce impacts to the Public Trust resources identified in the comments below, thus strengthening the findings the District is required to make under the granting statute. The Commission staff strives to be a resource for, and provide assistance to, the State's legislative grantees (like the District) in managing their Public Trust lands and resources. Staff is available to assist the District in ensuring that Public Trust resources are protected to the extent feasible as it analyzes and considers this or future projects.

3. Cumulative Impacts. The Draft EIR should include a sufficient review of the cumulative impacts of this Project in addition to the Coast Seafoods Project. This Project would bring additional 329 acres of aquaculture to the Humboldt Bay. Expansion of aquaculture operations throughout Humboldt Bay requires a serious evaluation of cumulative impacts to important biological, cultural, and recreation

resources. For example, in relation to biological resources, Commission staff is particularly concerned with potential eelgrass and tidal mud flat habitat fragmentation, degradation of ecosystem integrity, and loss of ecological function. Eelgrass beds found in Humboldt Bay represent the third largest eelgrass meadows found along the west coast and host over 40 percent of the total black brant population each spring during their migration from southern wintering sites to northern breeding grounds.[1] Therefore, Commission staff encourages the District to expand review of the Project description and provide details about the culture operations themselves, including detailed descriptions of not only the equipment, but also the maintenance and harvesting activities, and pre- and post-project monitoring data on the extent of eelgrass in the vicinity of the Project in order to better assess direct and cumulative impacts to eelgrass beds.[2]

Biological Resources

4. Black Brant (Species of Special Concern). The Commission staff believes that proposed Project-related equipment and human activities would impact black brant foraging habitat, because these birds rely heavily on eelgrass habitat as a food source on their annual migration along the Pacific Flyway. As noted in previous comment letters, the District's proposed spacing may reduce loss of eelgrass but is likely to continue to exclude black brant from the entire envelope of the cultured areas. Commission staff recommends that mitigation be required to compensate for significant impacts to black brant feeding resources that would result from Project implementation.

Climate Change

5. Greenhouse Gas (GHG) Emissions. The GHG emissions analysis in the Draft EIR should:
    - Identify a threshold for significance for GHG emissions;
    - Calculate the level of GHGs that will be emitted as a result of construction and ultimate build-out of the Project; and
    - Determine the significance of the impacts of those emissions to demonstrate if they are less than significant.

6. Sea-Level Rise. The Commission staff requests that a sea-level rise analysis be included in the Draft EIR because rising sea levels are likely to affect the Public Trust resources and values within the Project area, including the Public Trust easement. As noted on page 7 of the 2013 Humboldt Bay Shoreline Inventory, Mapping and Sea Level Rise Vulnerability Assessment, the Humboldt Bay is

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[1] U.S. Fish and Wildlife Service's Pacific Brant Habitat: https://www.fws.gov/refuge/Humboldt_Bay/wildlife_and_habitat/PacificBrant.html.

[2] National Oceanic and Atmospheric Administration's Eelgrass Mitigation Policy and Implementation Guidelines for West Coast Fisheries: http://www.westcoast.fisheries.noaa.gov/publications/habitat/california_eelgrass_mitigation/Final%20CEMP%20October%202014/cemp_oct_2014_final.pdf.

experiencing the largest annual relative sea-level rise of any location on the California coast as a result of the combination of rising seas and land subsidence. The District is subject to the requirements of Assembly Bill (AB) 691 (Muratsuchi; Stats. 2013, ch. 592). This law requires the State's trustees to assess the impacts of sea-level rise and propose how sea-level rise will be addressed on granted Public Trust lands. The assessment should include existing and future development on tide and submerged lands underlying ports, harbors, and marinas. Within the Project Description or other appropriate section, the District should discuss sea-level rise and its potential effects on the environmental conditions and setting of the Project area.

Please also note that the State of California released the final "Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy" (Safeguarding Plan) on July 31, 2014, to provide policy guidance for decision-makers as part of continuing efforts to prepare for climate risks. The Safeguarding Plan sets forth "actions needed" to safeguard ocean and coastal ecosystems and resources as part of its policy recommendations.

7. Storm Events. Commission staff requests that the Draft EIR thoroughly discuss storm events. Storm events are likely to increase in intensity and frequency due to climate change and other factors. Storm events can contribute significantly to greater total water levels, particularly in combination with rising sea levels and when they co-occur with extreme high tide events, such as King Tides. In 2003, for example, a storm surge co-occurred with an extreme high tide event and overtopped the earthen dike at Mad River Slough (in another part of Humboldt Bay), flooding nearly 600 acres of adjacent agricultural lands (Humboldt Bay Shoreline Inventory, Mapping and Sea-Level Rise Vulnerability Assessment, 2013, page 7). Therefore, Commission staff requests the District include the following analysis in the Draft EIR:

    - How the proposed Project would be "resilient" in its designs to ensure function, safety, and protection of the environment over the expected life of the structures;
    - How storm events combined with turbidity rates would interact with aquaculture nutrients and effluents; and
    - How water quality could potentially be impacted from storm events.

8. Marine Debris. The Commission staff believes that stronger storms will increase marine debris from the dislodgement of intertidal and submerged infrastructure and equipment. Marine debris is a hazard to public safety, public access, navigation, and recreation. Staff requests that detailed discussions and appropriate mitigation measures be proposed for robust equipment monitoring, repair, and a recovery program to ensure derelict gear and equipment is not left in the Humboldt Bay, and is promptly cleaned up and removed.

Cultural Resources

9. Submerged Resources. A preliminary search of the shipwrecks database maintained by the Commission did not reveal any known shipwrecks at the Project site. The database includes known and potential vessels located on the tide and submerged lands in and around the State; however, the locations of many shipwrecks are unknown. Please note that any submerged archaeological site or submerged historic resource that has remained in State waters for more than 50 years is presumed to be significant. Because of this possibility, please add a mitigation measure requiring that in the event cultural resources are discovered during any construction activities, Project personnel shall halt all activities in the immediate area and notify a qualified archaeologist to determine the appropriate course of action.

10. Title to Resources. The Draft EIR should mention that the title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in California's tide and submerged lands may be vested in the State and could be under the Commission's jurisdiction (Pub. Resources Code, § 6313). Our records indicate that there could potentially be historic or cultural resources near the HBHB-4 Site for the following reported shipwrecks: (1) the Santa Rosa (1877); (2) the Hartford (1864); (3) the Admiralen (1911); and (4) the Jeanellen (1962). The Commission staff requests that the District consult with Staff Attorney Jamie Garrett (see contact information below) if historic or cultural resources are discovered on tide and submerged lands during construction or operations. Additionally, staff requests that the following statement be included in the Draft EIR.

    The discovery of archaeological, historical, and paleontological resources recovered at the Project site must be reported to Commission, and legal title to any such archaeological, historical, and paleontological resources must be determined prior to their final disposition.

11. Tribal Cultural Resources.

    a. *Tribal Engagement and Consideration of Tribal Cultural Resources*. Commission staff recommends the District's Draft EIR reflect the September 2016 regulatory update to the State CEQA Guidelines Appendix G Checklist Form (see https://www.opr.ca.gov/s_ab52.php) and include a thorough discussion of tribal engagement and consideration of Tribal Cultural Resources in order to demonstrate compliance with AB 52 (Gatto; Stats. 2014, ch. 532), which applies to all CEQA projects initiated after July 1, 2015.[3] In particular, AB 52 includes procedural and substantive requirements for lead agency consultation with California Native American Tribes, consideration of effects on Tribal cultural resources (as defined in Pub. Resources Code, § 21074), and examples of mitigation measures to avoid or minimize impacts to these resources. Even if no tribe has submitted a consultation notification request for the Project area covered by the Draft EIR, the District should:

[3] Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 were added to CEQA pursuant to AB 52.

- Contact the Native American Heritage Commission to obtain a general list of interested tribes for the Project area;
- Include the results of this inquiry within the Draft EIR; and
- Disclose and analyze potentially significant effects to Tribal cultural resources; and avoid impacts when feasible.

Commission staff recommends that the District ensure both notification to the Tribes who have requested it as well as outreach to other potentially interested Tribes and include documentation of their responses in the Draft EIR to maintain a clear record of the District's efforts to comply with AB 52.

b. *Determination of Significance*. Additionally, with respect to significance determinations, CEQA section 21084.2 states that, "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." When feasible, public agencies must avoid damaging effects to Tribal Cultural Resources, and shall keep information submitted by the tribes confidential. Staff recommends that the District provide in the Draft EIR a thorough discussion of how it determined the appropriate scope and extent of resources meeting the definition of Tribal Cultural Resources and whether locally-affiliated Tribes were consulted as part of this determination.

Recreation

12. Notifications. Commission staff requests that maps showing public access routes on the Project site be posted at local kayak and boat launching sites, or other known sites for all public recreation. These signs should be clear and highly visible to help inform all sectors of the public, and to inform wildlife refuge managers and local jurisdictions.

Mitigation and Alternatives

13. Deferred Mitigation. In order to avoid the improper deferral of mitigation, mitigation measures should either be presented as specific, feasible, enforceable obligations, or should be presented as formulas containing "performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way" (State CEQA Guidelines, §15126.4, subd. (a)).

14. Alternatives. In addition to describing mitigation measures that would avoid or reduce the potentially significant impacts of the Project, the District should identify and analyze a range of reasonable alternatives to the proposed Project that would attain most of the Project objectives while avoiding or reducing one or more of the potentially significant impacts (see State CEQA Guidelines, § 15126.6).

Thank you for the opportunity to comment on the NOP for the Project. As a trustee agency, Commission staff requests that you consult with us on this Project and keep us advised of changes to the Project description and all other important developments.

Please send additional information on the Project to the Commission staff listed below as the Draft EIR is being prepared.

Please refer questions concerning environmental review to Afifa Awan, Environmental Scientist, at (916) 574-1891 or via e-mail at Afifa.Awan@slc.ca.gov. For questions concerning archaeological or historic resources under Commission jurisdiction, please contact Attorney Jamie Garrett at (916) 574-0398 or via email at Jamie.Garrett@slc.ca.gov. For questions concerning Commission leasing jurisdiction, please contact Reid Boggiano, Public Land Management Specialist, at (916) 574-0450 or via e-mail at Reid.Boggiano@slc.ca.gov.

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

Enclosure: Commission February 3, 2017, comment letter for the Initial Study/Draft Mitigated Negative Declaration for Yeung Oyster Farm Project

cc: Office of Planning and Research
A. Awan, Commission
R. Boggiano, Commission
K. Colson, Commission
J. Garrett, Commission
J. Mattox, Commission
S. Pemberton, Commission

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Established in 1938

February 3, 2017

File Ref: SCH # 2016122066

George Williamson
Humboldt Bay Harbor, Recreation and Conservation District
601 Startare Drive
Eureka, CA 95501

Subject: Initial Study/Draft Mitigated Negative Declaration (MND) for Yeung Oyster Farm Project, Humboldt County

Dear Mr. Williamson:

The California State Lands Commission (CSLC) staff has reviewed the MND for the Yeung Oyster Farm Project (Project), which is being prepared by the Humboldt Bay Harbor, Recreation and Conservation District (District). The District is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The CSLC is a trustee agency for projects that could directly or indirectly affect sovereign lands and their Public Trust resources or uses.

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6009, subd. (c); 6009.1; 6301; 6306). All tidelands and submerged lands, granted or ungranted, and navigable lakes and waterways, are subject to the protections of the common law Public Trust Doctrine.

As background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of California for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

Since 1851, the California Legislature has periodically transferred portions of the State's prime waterfront lands to local governmental entities for management purposes. These statutory tide and submerged land grants are held in trust for statewide Public Trust purposes.

After review of in-house records, the Project at this location appears to be located within lands the State patented as Tideland Locations 256 and 266, (resurveys of Humboldt County tideland surveys 121 and 120). Although the landowner has fee title to the submerged property, the property is burdened with a dominant Public Trust easement. The Public Trust easement is part of the lands that have been granted to the District pursuant to Chapter 1283, Statutes of 1970, as amended. Any proposed private use may be subject to the exercise of the Public Trust easement. For further clarification or questions concerning CSLC's jurisdiction, please contact Reid Boggiano, Public Land Management Specialist (see contact information below).

This determination is without prejudice to any future assertion of State ownership or public rights, should circumstances change, or should additional information come to our attention. In addition, this letter is not intended, nor should it be construed as, a waiver or limitation of any right, title, or interest of the State of California in any lands under its jurisdiction.

Project Description

The District proposes a new 64-acre oyster farm to meet the objectives and needs of the land owner, Jerry Yeung (Applicant), as follows:

- Culture oysters on the Applicant's 64 acres (Assessor's Parcel Numbers 501-241-04 and 501-251-03) of the 200 acres in the Project area (see Figure 2 on page 4 of MND); and
- Permanently conserve 22 acres of tidelands, where no shellfish culture or other commercial activities would be allowed.

From the Project description, CSLC staff understands that the Project would include the following components:

- Culture Kumamoto oysters (*Crassostrea sikamea*) and Pacific oysters (C. Gigas) currently being cultured in Humboldt Bay;
- Culture with basket-on-longline method with off-bottom culture; and
- Culture on less than 3 feet of Mean Lower Low Water with only patchy eelgrass and unconsolidated sediment (see Figures 3 and 4 on pages 5 and 6 of MND).

Environmental Review

The CSLC staff requests that the District consider the following comments on the Project's MND.

General Comments

1. Coast Seafoods Project (State Clearinghouse # 2015082051). The CSLC staff recommends that the District update the MND analysis to include concerns raised during the District's January 19, 2017, meeting considering whether to certify the Environmental Impact Report (EIR) for the proposed Coast Seafoods aquaculture expansion in Humboldt Bay. Staff believes that the Project as proposed in the Final EIR (which has not yet been certified) may still experience storm impacts resulting in posing unacceptably high impacts to Black brants' foraging habitat and behavior, marine debris, and impacts to Public Trust resources as explained in CSLC staff's January 19, 2017, comment letter (enclosed).

2. Public Trust Lands and Assets. Since the proposed Project is on lands subject to a Public Trust easement, CSLC staff believes there are opportunities for the District to do more to reduce impacts to the Public Trust resources identified in the comments below, thus strengthening the findings the District is required to make under the granting statute. The CSLC staff strives to be a resource for, and provide assistance to, the State's legislative grantees (like the District) in managing their Public Trust lands and resources. Staff is available to assist the District in ensuring that Public Trust resources are protected to the extent feasible as it analyzes and considers future projects.

3. Cumulative Impacts. The MND does not include a sufficient review of the cumulative impacts (starting on MND page 52) of this Project. This Project would bring another 64 acres of the Humboldt Bay under aquaculture development, at the same time as two other major aquaculture projects. The other projects include the Coast Seafoods project (see above) and the Harbor District's Pre-permitting Project, which would cover an additional 622 acres and 266 acres, respectively (see MND pages 2 and 3). Though both of those projects are still pending certification of their EIRs, they may go forward. Expansion of aquaculture operations throughout the Humboldt Bay requires a serious evaluation of cumulative impacts to important biological, cultural, and recreation resources. For example, in relation to biological resources, CSLC staff is particularly concerned with potential eelgrass and tidal mud flat habitat fragmentation, degradation of ecosystem integrity, and loss of ecological function. The CSLC staff encourages the District to expand review of the Project description and provide more details about the culture operations themselves, including detailed descriptions of not only the equipment, but also the maintenance and harvesting activities, in order to better assess direct and cumulative impacts to resources.

4. Permanently Conserving 22 Acres of Tidelands. The CSLC staff suggests that additional information about permanently conserving 22 acres of tidelands be included in the MND (see Figure 8 on page 34 of MND). The MND analysis should explain consultations with the California Department of Fish and Wildlife (CDFW) staff about the value of conserving these tidelands, and any outcomes resulting from those consultations since the 22 acres of tidelands are planned to be gifted to CDFW (see MND page 33).

Biological Resources

5. Black Brants (Species of Special Concern). The CSLC staff believes that proposed Project-related equipment and human activities would impact Black brants' foraging habitat, because these birds rely heavily on eelgrass habitat as a food source on their annual migration along the Pacific Flyway (see MND pages 19 and 20). The proposed 3 feet of spacing between each of the three groups of 100 feet of basket-on-longline, with 40 buckets or the 20 feet between a group of three lines, would probably still not be enough area for Black brants to easily use the patchy eelgrass under a portion of the proposed Project. Staff recommends that mitigation be required to compensate for significant impacts to Black brants' feeding resources that would result from Project implementation.

Climate Change

6. Greenhouse Gas (GHG) Emissions. The GHG emissions analysis on page 40 of the MND should: 1) identify a threshold for significance for GHG emissions; 2) calculate the level of GHGs that will be emitted as a result of construction and ultimate build-out of the Project; and 3) determine the significance of the impacts of those emissions to demonstrate that they are less than significant.

7. Sea-Level Rise. The CSLC staff requests that a sea-level rise analysis be included in the MND or in the District's staff report because rising sea levels are likely to affect the Public Trust resources and values within the Project area, including the Public Trust easement. As noted on page 7 of the 2013 Humboldt Bay Shoreline Inventory, Mapping and Sea Level Rise Vulnerability Assessment, the Humboldt Bay is experiencing the largest annual relative sea-level rise of any location on the California coast, owing to the combination of rising seas and land subsidence. The District is subject to the requirements of Assembly Bill (AB) 691 (Muratsuchi; Stats. 2013, ch. 592). This law requires the State's trustees to assess the impacts of sea-level rise and propose how it will be addressed on granted Public Trust lands. The assessment should include existing and future development on tide and submerged lands underlying ports, harbors, and marinas. Within the Project Description or other appropriate section, the District should consider discussing sea-level rise and its potential effects on the environmental conditions and setting of the Project area.

   Please also note that the State of California released the final "Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy" (Safeguarding Plan) on July 31, 2014, to provide policy guidance for decision-makers as part of continuing efforts to prepare for climate risks. The Safeguarding Plan sets forth "actions needed" to safeguard ocean and coastal ecosystems and resources as part of its policy recommendations.

8. Storm Events. Storm events are likely to increase in intensity and frequency due to climate change and other factors. Storm events can contribute significantly to greater total water levels, particularly in combination with rising sea levels and when they co-occur with extreme high tide (EHT) events, such as King Tides. In 2003, for example, a storm surge co-occurred with an EHT event and overtopped the earthen

dike at Mad River Slough (in another part of Humboldt Bay), flooding nearly 600 acres of adjacent agricultural lands (Humboldt Bay Shoreline Inventory, Mapping and Sea-Level Rise Vulnerability Assessment, 2013, page 7). Therefore, CSLC staff requests the District include additional analysis in the MND for the following:

- How the proposed Project would be "resilient" in its designs to ensure function, safety, and protection of the environment over the expected life of the structures;
- How storm events combined with turbidity rates would interact with aquaculture nutrients and effluents; and
- How water quality could potentially be impacted from storm events.

9. Marine Debris. Storm events are increasing in intensity and frequency. The CSLC staff believes that stronger storms will increase marine debris from the dislodgement of intertidal and submerged infrastructure and equipment. Marine debris is a hazard to public safety, public access, navigation, and recreation. Staff requests additional mitigation measures be proposed with detailed and robust equipment monitoring, repair, and a recovery program to ensure derelict gear and equipment is not left in the Humboldt Bay, and is promptly cleaned up and removed.

Cultural Resources

10. Submerged Resources. A preliminary search of the shipwrecks database maintained by the CSLC did not reveal any known shipwrecks at the Project site. The database includes known and potential vessels located on the tide and submerged lands in and around the State; however, the locations of many shipwrecks are unknown. Please note that any submerged archaeological site or submerged historic resource that has remained in State waters for more than 50 years is presumed to be significant.

11. Title to Resources. The MND should mention that the title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in California's tide and submerged lands may be vested in the State and could be under the CSLC's jurisdiction (Pub. Resources Code, § 6313). The CSLC staff requests that the District consult with Staff Attorney Jamie Garrett (see contact information below) if cultural resources are discovered on tide and submerged lands during construction or operations. Additionally, staff requests that the following statement be added to Mitigation Measure CR-1, starting on page 36 of the MND.

> The discovery of archaeological, historical, and paleontological resources recovered at the Project site must be reported to CSLC, and legal title to any such archaeological, historical, and paleontological resources must be determined prior to their final disposition.

12. Tribal Cultural Resources.

a. *Tribal Engagement and Consideration of Tribal Cultural Resources*. The CSLC staff recommends that the District revise the MND to reflect the recent regulatory update to the State CEQA Guidelines Appendix G[1] and expand the discussion of tribal engagement and consideration of Tribal Cultural Resources in order to demonstrate compliance with AB 52 (Gatto; Stats. 2014, ch. 532), which applies to all CEQA projects initiated after July 1, 2015.[2] The CSLC staff notes that the MND does not contain any information as to how the District has complied with AB 52 provisions, which provide procedural and substantive requirements for lead agency consultation with California Native American Tribes, consideration of effects on Tribal Cultural Resources (as defined in Pub. Resources Code, § 21074), and examples of mitigation measures to avoid or minimize impacts to these resources. The CSLC staff is aware from its review of the Coast Seafoods Project that the Wiyot Tribe, a tribe traditionally and culturally affiliated with the geographic area of the proposed Project, has requested formal consultation with the lead agency (the District), pursuant to AB 52. Even if no tribe has submitted a consultation notification request for the Project area covered by the MND, the District is required to:

- contact the Native American Heritage Commission to obtain a general list of interested tribes for the Project area;
- include the results of this inquiry within the MND; and
- disclose and analyze potentially significant effects to tribal cultural resources; and avoid impacts when feasible.

Since the MND does not disclose if notification or outreach to interested tribes has occurred and does not document their response, CSLC staff recommends that the District include this information in the MND to maintain a clear record of the District's efforts to comply with AB 52.

b. *Determination of Significance*. Additionally, with respect to significance determinations, CEQA section 21084.2 states that, "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." When feasible, public agencies must avoid damaging effects to Tribal Cultural Resources, and shall keep information submitted by the tribes confidential. The CSLC staff believes that the MND lacks adequate support for the District's conclusion that potentially significant impacts to Tribal Cultural Resources are less than significant with incorporation of the biological resource mitigation measures, as stated on page 36 of the MND. Staff recommends that the District provide additional discussion on how it determined the appropriate scope and

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[1] On September 27, 2016, the California Natural Resources Agency completed rulemaking which updated Appendix G of the State CEQA Guidelines to ensure lead agency compliance with AB 52 (http://resources.ca.gov/ceqa/docs/ab52/final-approved-appendix-G.pdf).

[2] Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 were added to CEQA pursuant to AB 52.

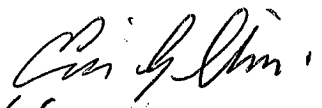
extent of resources meeting the definition of Tribal Cultural Resources and whether locally-affiliated Tribes were consulted as part of this determination.

Recreation

13. Notifications. Even if the Project site is only expected to be accessed by hunters at high tides (see MND page 48), CSLC staff requests that maps showing public access routes on the Project site be posted at local kayak and boat launching sites, or other known sites for all public recreation. These signs should be clear and highly visible to help inform all sectors of the public, and to inform wildlife refuge managers and local jurisdictions.

Thank you for the opportunity to comment on the MND for the Project. As a trustee agency, we request that you consider our comments prior to adopting the MND. Please send copies of future Project-related documents, including electronic copies of the adopted MND and Mitigation Monitoring Program when they become available. Please refer questions concerning environmental review to Afifa Awan, Environmental Scientist, at (916) 574-1891 or via e-mail at Afifa.Awan@slc.ca.gov. For questions concerning CSLC jurisdiction, please contact Reid Boggiano, Public Land Management Specialist, at (916) 574-0450 or via e-mail at Reid.Boggiano@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Jamie Garrett, Staff Attorney, at (916) 574-0398 or via e-mail at Jamie.Garrett@slc.ca.gov.

Sincerely,



for Cy R. Oggins, Chief
Division of Environmental Planning
and Management

Enclosure: CSLC January 19, 2017, comment letter on the Final Environmental Impact Report (EIR), and CSLC September 16, 2016, comment letter on the Recirculated Draft EIR.

cc: Office of Planning and Research
A. Awan, CSLC
R. Boggiano, CSLC
K. Colson, CSLC
J. Garrett, CSLC
J. Mattox, CSLC
S. Pemberton, CSLC

CALIFORNIA STATE LANDS COMMISSION
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Established in 1938

January 19, 2017

File Ref: SCH # 2015082051

SENT VIA ELECTONIC AND U.S MAIL

Jack Crider, Executive Director
and Board of Commissioners
Humboldt Bay Harbor, Recreation and Conservation District
P.O. Box 1030
Eureka, CA 95502-1030

Subject: January 19, 2017 Agenda Item 7a, b, & c: Final Environmental Impact Report for Coast Seafoods Company Humboldt Bay Shellfish Aquaculture Permit Renewal and Expansion Project, Humboldt County

Dear Mr. Crider and Board of Commissioners:

The California State Lands Commission staff has reviewed the Final Draft Environmental Impact Report (EIR) for the Coast Seafoods Company Shellfish Aquaculture Permit Renewal and Expansion Project prepared by the Humboldt Bay Harbor, Recreation and Conservation District (District). Commission staff previously commented on the Recirculated Draft EIR in its capacity as a trustee agency for projects that could affect sovereign lands and their Public Trust resources or uses.

The proposed Project is located on sovereign lands legislatively granted in trust to the District to operate pursuant to its granting statutes and the common law Public Trust Doctrine. In addition to complying with the California Environmental Quality Act and consistent with the fundamental principles of the Public Trust Doctrine, the granting statute requires the District to consider environmental and ecological effects before issuing any lease or permit involving the granted lands. The District must make findings that the lease or permit is necessary to "promote safety, health, comfort, and convenience of the public, and are required by the public convenience and necessity and that such proposed uses will not have any substantial adverse environmental or ecological effect." (Chapter 1283, Statutes of 1970, Section 24.) The District may determine a lease is required by public convenience and necessity only if it finds the use is (1) reasonably required to promote area growth and does not adversely affect the environment or ecology of the area to any substantial degree and (2) will not produce an unreasonable burden on the natural resources and aesthetics of the area, on the public health and safety, and on air and water quality in the vicinity, or on parks, recreational or

scenic areas, historic sites or buildings, or on archeological sites in the area. (Section 24 (g) of Chapter 1283.)

Commission staff appreciates that the District has endeavored to address concerns regarding adverse impacts to sovereign Public Trust lands and resources, including eelgrass habitat, by adding the environmentally superior alternative 5: East Bay Management Area Avoidance Alternative (Final EIR, pp. 4-3 and 4-7). While staff has additional suggestions to more comprehensively protect Public Trust resources, if the District chooses to approve the Project, staff supports the District staff's recommendation to approve the environmentally superior alternative 5 because it has less potentially adverse environmental impacts to Public Trust lands and resources than the proposed Project or other alternatives. Commission staff, however, request that the District consider the staff's suggestions below in order to strengthen the District's required findings.

Black Brant, Species of Special Concern. Alternative 5: East Bay Management Area Avoidance Alternative represents a reduced footprint over eelgrass habitat; however, staff believes that Project-related human activities and equipment within and adjacent to the revised Project area may pose unacceptably high impacts to black brants' foraging habitat and behavior. This species and other migratory birds heavily rely on this habitat as a food source on their annual migration along the Pacific Flyway (see "Revised Project" in the enclosed letter). Humboldt Bay is a regionally significant habitat foraging area for brant. Thus expanding facilities would affect them even under Alternative 5 because they would tend to avoid the entire envelope of the facilities and the increased vessel traffic would disrupt their behavior and roosting. Wildlife advocates and recreational users (e.g., hunters) share this continued concern. Stress and disruption of brant on the Bay could be reduced further if the areas proposed for expansion (depicted in Figures 5.8 and 5.9 in the Final EIR) were further consolidated to reduce the overall envelope of activities. The District could also explore, through continued dialogue with the stakeholders, options to alter the amount, timing, and routes taken by facility-related vessels to reduce disruption of brant in certain areas or at certain times of year.

Storm Impacts and Marine Debris. Storm events are increasing in intensity and frequency. Commission staff believes that stronger storms will increase marine debris from the dislodgement of intertidal and submerged infrastructure and equipment. Marine debris is a hazard to public safety, public access, navigation, and recreation. Commission staff appreciates the improved management strategies Coast Seafoods has employed in its existing operations to secure lines, moorings, and baskets; however, staff encourages the District to develop, with Coast, a detailed and robust equipment monitoring, repair, and recovery program to ensure derelict gear and equipment is not left in the Bay and is instead promptly discovered and cleaned up.

As a trustee agency and as the state entity vested with the responsibility to oversee the management of sovereign Public Trust lands and assets by legislative grantees who manage them on behalf of the state, Commission staff believe there are

opportunities for the District to do more to reduce impacts to the Public Trust resources identified above; thus strengthening the findings the District is required to make under its granting statute. The overall objective of protecting Public Trust resources beyond what might be minimally required under the California Environmental Quality Act transcends beyond this particular project and may be relevant to a number of other projects being analyzed by the District, particularly relating to cumulative impacts on sensitive species and habitats. The Commission strives to be a resource for and provide assistance to the state's legislative grantees in their management of Public Trust lands and resources. Commission staff can be available to assist the District in ensuring that Public Trust resources are protected to the extent feasible as it analyzes and considers future projects. If you have questions or would like to coordinate on future projects, please do not hesitate contact me at (916) 574-1800.

Sincerely,

Sheri Pemberton

SHERI PEMBERTON
Chief, External Affairs Division

Enclosure: State Lands Commission September 16, 2016, comment letter on the Recirculated Draft EIR

cc: Kathryn Colson, Senior Staff Counsel, State Lands Commission
Cy Oggins, Chief, Division of Environmental Planning and Management, State Lands Commission

STATE OF CALIFORNIA — EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
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Established in 1938

September 16, 2016

File Ref: SCH # 2015082051

Jack Crider
Executive Director
Humboldt Bay Harbor, Recreation and Conservation District
601 Startare Drive
Eureka, CA 95501

Subject: Recirculated Draft Environmental Impact Report (EIR) for Coast Seafoods Company Humboldt Bay Shellfish Aquaculture Permit Renewal and Expansion Project, Humboldt County

Dear Mr. Crider:

The California State Lands Commission (CSLC) staff has reviewed the Recirculated Draft EIR for the Coast Seafoods Company Humboldt Bay Shellfish Aquaculture Permit Renewal and Expansion Project (Project), which is being prepared by the Humboldt Bay Harbor, Recreation and Conservation District (District). The District is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The CSLC is a trustee agency for projects that could directly or indirectly affect sovereign lands and their accompanying Public Trust resources or uses.

CSLC Jurisdiction and Public Trust Lands

The CSLC staff has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6009, subd. (c), 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust Doctrine.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. These lands are held for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat

preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

It appears a portion of the proposed Project will involve lands that have been legislatively granted to the District, pursuant to Chapter 1283, Statutes of 1970, and as amended. The CSLC's authorization is not required for the Project, because day-to-day administration of these lands has been granted to the District. However, all activities involving lands granted to the District must be consistent with the Public Trust and the provisions of the applicable granting statutes. Please contact Reid Boggiano, Public Land Management Specialist (see contact information below) for more information.

Project Description

The Coast Seafoods Company (Coast) proposes to expand the Project area boundaries within Humboldt Bay to meet its objectives and needs (pages 4-20 of the Recirculated Draft EIR) as follows:

- Expand Coast's shellfish farm to increase future oyster production, meet increasing customer demand for raw and shucked oysters, and regain access to markets and customers lost after production decreases associated with the 2006 transition to sustainable, off-bottom culture practices on a reduced footprint;
- Conduct comprehensive eelgrass monitoring and develop sustainable oyster cultivation practices that can be adapted to documented site conditions;
- Use a varied and diverse culture plot design to evaluate and determine the best method(s) to sustainably grow oysters in eelgrass, including different spacing regimes and an adaptive management plan that is responsive to the results of eelgrass monitoring;
- Create additional job opportunities and sustainable economic development for Humboldt Bay and local jurisdictions;
- Enhance a source of local sustainable seafood and reduce Humboldt County's and California's reliance on imported seafood; and
- Provide comprehensive planning of Coast's owned and leased areas in Humboldt Bay to allow for adaptive operational and management needs, maintain undeveloped areas of the Bay, maximize optimal growing conditions, and limit the farm's spatial footprint.

Based on the Project Description, CSLC staff understands that the Project would include the following components:

- Extend regulatory approvals for Coast's approximate 300 acres of existing shellfish culture;
- Increase shellfish culture within an already permitted floating upwelling system by adding eight culture bins;

- Authorize culture of Pacific and Kumamoto oysters within the Project's existing clam rafts;
- Relocate approximately five acres of existing cultch-on-longline culture; and
- Permit an additional 622 acres of intertidal culture in two phases.

The Recirculated Draft EIR identifies Alternative 1 (10-Foot Spacing Alternative) as the Environmentally Superior Alternative, because it would achieve some Project objectives with no significant impacts to eelgrass and without any significant and unavoidable impacts to other resources (page 1-9 of the Recirculated Draft EIR).

Environmental Review

The CSLC staff requests that the District consider the following comments on the Project's Recirculated Draft EIR.

Biological Resources

1. Revised Project: The CSLC staff received correspondence from a number of interested stakeholders in February 2016 expressing concerns about the expansion proposed in the original Draft EIR, and requesting input from the CSLC regarding adverse impacts to Public Trust resources and values, particularly black brant and eelgrass habitat. These concerns were also articulated in comment letters from other relevant trustee and regulatory agencies including the California Department of Fish and Wildlife, California Coastal Commission, and NOAA Fisheries. The CSLC staff attended an agency meeting regarding the revised project proposal on May 5, 2016, at which eelgrass habitat avoidance, herring monitoring, in-kind mitigation, and adaptive management were discussed. In preparing a revised Project and recirculating the Draft EIR, the District explains its belief that the revised Project proposal addresses the concerns raised at the agency meeting and during public comment on the original Draft EIR, including the incorporation of a "no net loss" standard for eelgrass impacts, increased monitoring, and phased implementation. However, after further examination of the revised Project footprint, maps, and characterization of impacts, CSLC staff remains concerned that unacceptably high adverse impacts will still occur to locally and regionally important Public Trust resources and values, notably brant, shorebirds, and eelgrass.

   The CSLC staff is concerned that the revised proposed Project not only does not reduce the previously identified impacts, but in fact may increase those impacts by increasing the overall Project footprint by 100 acres. By increasing the spacing between clutch-on-longline lines to 10 feet, and basket-on-longline lines alternating between 9 feet and 16 feet, the Project will cover a greater total area of Humboldt Bay, including eelgrass beds. While the revised Project may reduce the level of significant impacts to eelgrass habitat in the existing aquaculture area, it does not reduce or mitigate the impacts resulting from the proposed expansion areas. For example, Table 2 of Exhibit 1 in Appendix D shows that while the increased spacing corresponds to an increase of eelgrass shoot density, there is still a significant

impact compared with control plots (eelgrass shoot density was 40-54% less under 10-foot spacing conditions than the control). The CSLC staff recommends additional mitigation measures for impacts to eelgrass that adequately account for the loss of continuous eelgrass beds.

Furthermore, by expanding the "envelope" of aquaculture operations, the revised Project will increase, rather than decrease, adverse impacts on black brant, a Species of Special Concern. Eelgrass is the most important food source that supports black brants on their annual migration along the Pacific Flyway. Black brants regularly avoid areas of human disturbance and artificial structures (as noted under Cumulative Impacts 7.2.1.2). The in-kind mitigation spacing increases the overall area of Humboldt Bay eelgrass habitat exposed to aquaculture activities and structures, and therefore the impact to black brant foraging behavior is likely to be significant. Mitigation Measure BIO-4 implies that there will be additional mitigation for eelgrass habitat if there are significant observed impacts during monitoring. The CSLC staff recommends that mitigation be required at the onset of the Project to compensate for significant impacts to black brant feeding resources that will result from Project implementation.

The proposed configuration in the revised Project also appears to increase, rather than decrease, impacts on shorebirds due to the expanded footprint of existing operations and expansion of the Project onto additional areas of shallow water habitat and mudflats, on which these species depend for loafing and foraging. The CSLC staff advises that the District consider avoiding intact eelgrass beds to the extent feasible and provide legitimate offsetting mitigation for unavoidable impacts in order to meet the no net loss standard.

Climate Change

2. Storm Events: Storm events are likely to increase in intensity and frequency due to climate change. Storm events can contribute significantly to greater total water levels, particularly in combination with rising sea levels and when they co-occur with extreme high tide (EHT) events, such as King Tides. For example, in 2003, storm surge co-occurred with an EHT event and overtopped the earthen dike at Mad River Slough (located adjacent to the Project area on the north side), flooding nearly 600 acres of adjacent agricultural lands (Humboldt Bay Shoreline Inventory, Mapping and Sea-Level Rise [SLR] Vulnerability Assessment, 2013, p.7). Since the revised and expanded Project area in Figure 1.1 on page 1-3 of the Recirculated Draft EIR overlaps with the predicted high wave exposure seen in Figure 6.5.5 on page 6.5-8 of the Recirculated Draft EIR, the CSLC staff requests the District include additional analysis of how storm events combined with turbidity rates (page 6.5-62 of Recirculated Draft EIR) will interact with aquaculture nutrients and effluents, and identify possible significant impacts to water quality from such events.

   The CSLC staff also recommends further discussion of the Project's preparedness and resiliency to the impacts of storm events, EHTs, and sea-level rise on fixed and floating features of the Project and its maintenance equipment. Conservation

Measure BIO-3, and Mitigation Measures Haz-1 and Haz-4 indicate that equipment will be inspected post-storm, as well as clean-up operations performed. However, there is no description of how the fixed and floating features are resilient or adaptable to storm and EHT activity, nor sea-level rise. This information should be included in the Project Description.

3. Sea-Level Rise: Rising sea levels, including State-owned lands and resources, will impact the Project area. As noted on page 7 of the 2013 Humboldt Bay Shoreline Inventory, Mapping and SLR Vulnerability Assessment, Humboldt Bay is experiencing the largest annual relative sea-level rise of any location on the California coast due to the combination of rising seas and land subsidence. The District, as the trustee and manager of legislatively granted Public Trust lands in the Bay, is subject to the requirements of Assembly Bill 691 (Muratsuchi), Chapter 592, Statutes of 2013. This law requires the State's trustees to assess the impacts of sea-level rise and propose how it will be addressed on granted Public Trust lands. The assessment should include existing and future development on tidal/submerged lands underlying the State's ports, harbors, and marinas. Assessments are due to the Commission no later than July 1, 2019. Thus, the District should consider discussing sea-level rise and its potential effects on the environmental conditions and setting of the Project area within the Project Description or other appropriate section. The CSLC staff also recommends the Recirculated Draft EIR describe any "resilient" designs that have been incorporated into the Project components to ensure structural designs are sufficient to ensure function, safety, and protection of the environment over the expected life of the structure (see previous comment).

   Please also note that the State of California released the final "Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy" (Safeguarding Plan) on July 31, 2014, to provide policy guidance for State decision-makers as part of continuing efforts to prepare for climate risks. The Safeguarding Plan sets forth "actions needed" to safeguard ocean and coastal ecosystems and resources as part of its policy recommendations.

Cultural Resources

4. Submerged Resources: Based on the discussion on page 6.4-1 of the Recirculated Draft EIR, please clarify if the CSLC maintained shipwrecks database was searched. The CSLC staff requests that the District contact Assistant Chief Counsel Pam Griggs (see contact information below) to obtain shipwrecks data from the database and CSLC records for the Project site. The database includes known and potential vessels located on the State's tide and submerged lands; however, the locations of many shipwrecks is unknown. Please note that any submerged archaeological site or submerged historic resource that has remained in State waters for more than 50 years is presumed to be significant.

5. Title to Resources: The Recirculated Draft EIR should mention that the title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in California's tide and submerged lands is vested in the State and under the CSLC's

jurisdiction (Pub. Resources Code, § 6313). The CSLC staff requests that the District consult with Assistant Chief Counsel Pam Griggs if cultural resources are discovered on tide and submerged lands during construction. Additionally, the CSLC staff requests that the following statement be added to Mitigation Measure CR-2 (starting on pages 1-11 and 6.4-6 of the Recirculated Draft EIR):

"The final disposition of archaeological, historical, and paleontological resources recovered on State lands under the jurisdiction of the CSLC must be approved by the Commission."

Recreation

6. Notifications: The CSLC staff requests that maps (showing public access routes on the Project site) be posted at local kayak and boat launching sites or other known sites (see Figure 6.11.1 on page 6.11-3 of the Recirculated Draft EIR) for all public recreation. Page 6.11-4 of the Recirculated Draft EIR should include discussion for the signs to be clear and highly visible to help inform all sectors of the public, and to inform wildlife refuge managers and local jurisdictions.

Thank you for the opportunity to comment on the Recirculated Draft EIR for the Project. As a trustee agency, we request that you consider our comments prior to certifying the Final EIR. Please send copies of future Project-related documents, including electronic copies of the Final EIR, Mitigation Monitoring Program, Notice of Determination, CEQA Findings and, if applicable, Statement of Overriding Considerations when they become available, and refer questions concerning environmental review to Afifa Awan, Environmental Scientist, at (916) 574-1891 or via e-mail at Afifa.Awan@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Pam Griggs, Assistant Chief Counsel, at (916) 574-1854 or via e-mail at Pamela.Griggs@slc.ca.gov. For questions concerning CSLC jurisdiction, please contact Reid Boggiano, Public Land Management Specialist, at (916) 574-0450 or via e-mail at Reid.Boggiano@slc.ca.gov.

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
Brian Heaton, City of Eureka
R. Boggiano, CSLC
K. Colson, CSLC
J. Mattox, CSLC
A. Awan, CSLC
S. Pemberton

Wiyot Tribe

April 27, 2017

Humboldt Bay Harbor District
District Planner
601 Startare Drive
Eureka, CA 95501
districtplanner@humboldtbay.

ATTN: George Williamson

Thank you for notice of preparation of the EIR for the Humboldt Bay Intertidal Mariculture Pre-Permitting Process. As the process moves forward, I ask that you to engage in government to government consultation with the tribe. We recognize that this letter was not a formal AB 52 notification, but we hope to engage with you as early as possible in the process. Since the technology and location are fundamentally similar, many of the Tribe's concerns will remain the same as with the Coast Seafoods Expansion Project. In particular, we urge the adoption of the inadvertent discovery protocols that were adopted in that FEIR.

As part of the consultation, we would like to review specific permitted locations to understand the potential impact to archaeological locations and tribal cultural resources as defined in CEQA. We would also like to review the ad hoc committee and their relationship to this project. As noted in previous consultations, the Tribe remains committed to the protection of all native species in the bay. While we understand, and agree with, the concerns that oyster mariculture might impact protected species such as black brant, eelgrass, and herring, we also urge protection of other native species. This is especially true for bivalves, which have long played an important role in Wiyot culture.

I therefore encourage you to work with Tom Torma, our Tribe's Cultural Director and Tribal Historic Preservation Officer at tom@wiyot.us or Tim Nelson, the Tribe's Natural Resources Director at tim@wiyot.us. Both can be reached at 707-733-5055. They will be happy to work with you to meet with tribal council where we can fully engage in meaningful consultation.

Sincerely,

Ted Hernandez,
Chair, Wiyot Tribal Council

1000 Wiyot Drive • Loleta, California 95551 • (707)733-5055 • (800)388-7633 • FAX (707)733-5601

Appendix C1 Intertidal Mariculture Pre-Permitting and Yeung NOP email comments

From: Joan Romo [mailto:HumboldtRed@rocketmail.com]
Sent: Monday, April 24, 2017 4:09 PM
To: districtplanner@humboldtbay.org
Subject: Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm

George Williamson, District Planner
601 Startare Drive
Eureka, CA 95501
districtplanner@humboldtbay.org

Our bay belongs to all the voiceless entities who have lived in the bay for thousands of years and have interacted in a way with each other so they all benefit. Now, in the name of monetary gain for a few individuals, that balance will never be the same. Saying that there will be insignificant impact or "unknown" impacts is not based on "science".

Collecting scientific data for the pre-expansion and/or new aquaculture permits should have started at least 5 years ago. All the different birds should have been counted in the potential expansion areas and in a "control" area that is not going to have aquaculture. Data should have been collected throughout key aspects of the tidal cycles that impact foraging and loafing periods, and during mid-winter periods, when there is a possible reduction in food availability, and then in spring when there is a peak in population.

The only way to have zero impact on black brant, eelgrass, shorebirds, and all the other living entities in North Bay, is to stay out of their neighborhood and let them maintain their existence peacefully without physical or environmental disturbances. Monetary gain for a few individuals should not trump the lives of the myriad of voiceless species that are impacted by any and all interactions with man-made activities, like trampling vegetation or disturbing the wildlife.

Do not allow the aquaculture oyster expansion permit and Yeung project permit to continue because it will only financially benefit a few people. The financial tradeoff is not worth compromising the aesthetics of the bay, disturbing loafing and feeding brant and shorebirds, or the destruction of feeding and nursing habitat for a myriad of living species.

Sincerely,
Joan Romo
Eureka, CA 95501

From: Ted Romo [mailto:blackbrantsky@yahoo.com]
Sent: Monday, April 24, 2017 4:45 PM
To: districtplanner@humboldtbay.org
Subject: Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm

George Williamson, District Planner
601 Startare Drive
Eureka, CA 95501
districtplanner@humboldtbay.org

Stay out of North Humboldt Bay, east of the Arcata channel to preserve the success of the species of migrating and local birds. Oyster culture gear will always interfere with recreational users. Make the aesthetics of the bay a priority as part of the county's development of hiking trails around the bay. Before any development happens for an expansion or new permit, a minimum of 5 years of analysis should be a contingency in order to start collecting "scientific data".

All subleasing of property in Humboldt Bay should not be allowed. The bay is a natural resource of beauty and not to be pimped out like a prostitute for many people to use and abuse under the facade of pleasure via money.

Keep the bay open and undeveloped.
Sincerely,
Ted Romo
Eureka, CA

-----Original Message-----
From: steve rosenberg [mailto:eursjr@yahoo.com]
Sent: Tuesday, March 28, 2017 3:03 PM
To: districtplanner@humboldtbay.org
Cc: sjreur@gmail.com
Subject: humboldt bay intertidal mariculture pre-permitting project and yeung oyster farm

Dear Mr. Williamson:
An examination of the Humboldt Bay Management Plan of 2007 reveals that all or virtually all of the project falls within an area designated for bay conservation. (see Fig. 2.1) Assuming arguendo, however, that this is not accurate, almost the entire project project lies in the east bay, which has been steadfastly singled out by the public and environmental groups as an area that should be off-limits to mariculture due to its extreme importance as a benthic resource, the additional fact that ninety percent of the bay's waterfowl utilize this area for feeding and resting and that it is by far the single most important hunting area for scullboaters in the bay, the remaining habitat being either without significant waterfowl use save brant use on the west side of the bay or excessively compromised by existing mariculture operations. As previously urged by biologists, hunters and environmental groups, this area should be declared permanently off-limits to mariculture, thereby rendering moot the necessity of an environmental impact study at all. As to the westerly portion of the project, all that area within the designated conservation zone shouild be eliminated, just as should any portion of the easterly project lying within said boundary. Following your management plan is a legal requirement. The failure to observe and

continue to subordinate the rights of the public to mariculture interests will only lead to continued dispute. The relevant government agencies involved all stress consolidation of mariculture operations rather than expansion into new areas.- Why the District continues to ignore these principles is alarming, not only to me, but to many others who care deeply about this last relatively undisturbed esturine ecosystem in California.

Sincerely
Stephen Rosenberg
Eureka, Ca

From: Steve Cobine [mailto:stevecobine49@gmail.com]
Sent: Monday, April 24, 2017 5:02 PM
To: districtplanner@humboldtbay.org
Subject: North Humboldt Bay Oyster Farm

It is difficult to express in words how disappointed I am that a large business company is even being considered by our local, state and Federal government to gain more control and profit from our North Humboldt Bay.

I was not born here but moved to Eureka with my parents in the early 1960's. The bays and waterways were a stunning sight to me as a twelve year old boy. I soon found myself with new found friends, boating, fishing, and exploring the many wonders of this area. I attended and graduated from Zane Jr. High, Eureka High, College of the Redwoods, and Sacramento State College graduating with a degree in Criminal Science. After graduation, I moved back to Eureka, applied and was hired as a Deputy Sheriff with the County of Humboldt. During my career with the Sheriff's Department I tested and earned a position of Boating and Waterways Patrol Deputy. The position was a dream come true for me, protecting the people and waterways of the county. I held that position, patrolling six navigable rivers, the bays, lagoons, and the pacific ocean contiguous zone for over thirteen years. During my childhood days, my official patrol years, and now retirement, I have witnessed firsthand the lack of concern and respect by any of the oyster company's, past and present, on North Humboldt Bay. In the 1990's, during my patrol years, I have seen artificial islands that were built of shucked shells without warning, or navigational markings, "Bat Ray" fences built without notification, flat barges anchored without navigational markers. I have seen floating nylon mesh bags and plastic "racks" that are almost indestructible and probably never bio-degrade..

Now retired and recreating in North Bay; I watch oyster boats (smaller craft) operate apparently without concern over the eel grass covered mudflats at high tide without any restriction. At present day I don't dare attempt to navigate North Bay on any tide near the oyster area, too hazardous, and still not marked Now, wood stakes draped with nylon mesh bags are used to keep oysters out of the mud. They look as dangerous as bayonets stuck in the mud to any personal watercraft recreating in the bay.

I ask you to someday charter a boat, or better yet a helicopter on a minus tide and see for yourself what has been abandoned damaged, and destroyed by oyster farming in the bay. They need to clean up the property they have now, manage what they have, operate more efficiently, and with safety concern to the recreating public. We do not need or want more habitat consumed in the bay by big business for profit.
Steve Cobine
Captain, Humboldt County Sheriff's Department. Ret.

April 24, 2017

Mr. George Williamson
601 Startare Drive
Eureka, CA 95501
districtplanner@humboldt.org
Dear Mr. Williamson:

The following scoping comments are submitted in response to the Notice of Preparation for Draft EIR: Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm;

1- Avoid placement of oyster culture in North Humboldt Bay east of the Arcata channel. This is not just an issue of Herring fishery impacts related to the East Bay Management Area. The benefits of keeping the North Humboldt Bay open and "undeveloped" is important to shorebirds, migratory waterfowl and people.

There appears to be a conflict between the approach taken by Humboldt Bay Harbor, Recreation, and Conservation District (HBHRCD) in agreeing as lead agency to "Avoid the East Bay Management Area" in the negotiations with Natural Resource Agencies regarding the Coast Seafoods Final EIR, and the approach being used or considered for HBHRCD Intertidal Pre-Permitting Draft EIR. What rational would allow HBHRCD to select Avoidance of expanding oyster production in the East Bay Management Area in one large oyster development and then place the majority of two additional oyster projects (Yeung, and HBHRCD Pre-Permitting) in the EBMA and adjacent areas "East of the Arcata Channel"?

2- The Draft EIR for Pre-Permitting and Yeung should survey, delineate and quantify the amount of all "patchy", dense or any other types of eelgrass stands located in or adjacent to the proposed projects.

3- Avoid the use of double hung oysters on long lines or baskets over any type of eelgrass due to the adverse impacts to Pacific black brant and other migratory birds.

4- Oyster culture gear interferes with recreational uses and access in North Humboldt Bay, specifically recreational boating, as well as hunting access.

5- Aesthetics are an important consideration in the project areas. Development of hiking trails around the bay, "view- sheds", and ecotourism will be adversely affected by the proposed projects.

6- Setting aside a dedicated portion of North Humboldt Bay for Natural Resource values should be given consideration. As you are aware there was a 51 acre parcel donated by Coast Seafoods to the HBHRCD as a condition of permit issuance in 2006.

7- The planning for Pre-Permitting and Mr. Jeung should start with a Spatial Planning approach which evaluates where conditions for growing oysters is compatible with all of the other natural resource issues and does not conflict with Recreation or other uses by the general public. This project seems to be driven by "ownership" or control of specific geographic areas in the tidal bay landscape and not by evaluation of the natural resource values present with due consideration of potential conflicts over landuse. The planning for commercial uses should

involve the public in workshop format meetings initially to plan all areas in the bay and used to revise or update the HBHRCD Management Plan.

8- Monitoring data collection requirements of the tidal wetlands and plant communities, as well as avian use or avoidance of the project sites should be made a condition of any development or permits to cultivate oysters. Data must be collected before; during, and after oyster projects are implemented. The data for baseline conditions should be collected for one full calendar year before starting the development work to allow for seasonal variation in site conditions.

Thank you for the opportunity to comment on these projects.

Scott E. Frazer
P.O. Box 203
Blue Lake, CA 95525

From: HBHRC Clerk [mailto:clerk@humboldtbay.org]
Sent: Friday, April 28, 2017 8:30 AM
To: 'Jack Crider' <jcrider@humboldtbay.org>
Subject: FW: Form submission from: Contact

-----Original Message-----
From: Humboldt Bay Harbor District [mailto:sallieg15@hotmail.com]
Sent: Wednesday, April 19, 2017 7:43 AM
To: clerk@humboldtbay.org
Subject: Form submission from: Contact

Submitted on Wednesday, April 19, 2017 - 7:43am Submitted by anonymous user: [64.50.180.137]
Submitted values are:

Your Name: Sallie Grover
Email Address: sallieg15@hotmail.com
Phone Number: 707 b822 8974
Questions / Comments: I'm concerned about the scale of oyster farming being permitted. Third party review should be required going through the full process. The current seafood company ships bay resources out of the country and cuts prices to fishermen and women. The bay needs to retain it's natural ecosystem to be healthy. Providing habitat for wildlife is a big part of what makes our bay beautiful, unique and vital. Review by state commissions, not paid for by the groups with interests and personal/economic gain is needed.

The results of this submission may be viewed at:
http://humboldtbay.org/node/5/submission/1173

Scoping Report Appendix C2

Humboldt Bay Intertidal Mariculture Pre-Permitting Project and Yeung Oyster Farm EIR

Public Scoping Meeting
April 18, 2017 4 – 6 p.m.

Harbor District Conference Room 601 Startare Drive, Eureka

Meeting Purpose: Receive public input regarding proposed scope of EIR.

AGENDA

- Introductions
- Overview s of projects and EIR
- Public Comment
- Adjournment

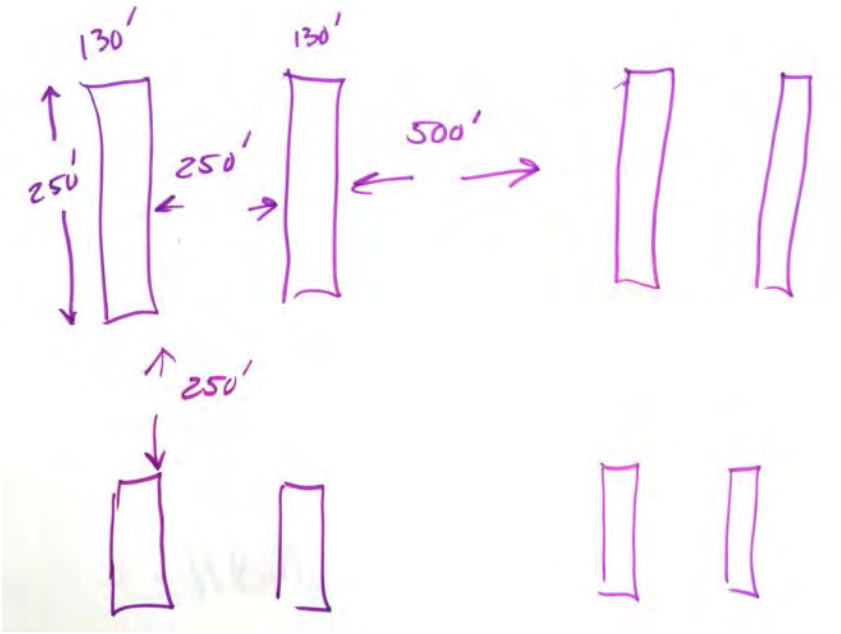
Comments

- Mapping is general, would like to see specific mapping down to "bed level".
- Site 2 is the terminus of Arcata's rail to trail and they are putting wildlife viewing points. People would not want to see rack and bag, etc. Also major ingress and egress for boat hunters.
- Boat Access at Bracut for Hunting
- Hunting Sites 2 & 3
- All east bay sites are in "the bucket" which is a major hunting area.
- Under SHPO is hunting considerable.
- Should define spacing, densities and other details in advance.
- Double hung culture equipment too high and would exclude waterfowl hunters.
- Depiction of ideal spacing to allow for navigation and for waterfowl to feed [SEE FIGURE].
- Site 4 is in the middle of one of the best brant areas in bay (and a gritting site)
- Site 1 also major brant gritting and feeding site
- Don't want to see any mariculture expansion in east bay.
- Humboldt Bay Management Plan (HBMP) conservation designation applicable (P 30 Fig. A-2)
- Yeung and Site 2 and 3 are in conservation, not aquaculture area, in HBMP.
- Most important benthic habitat in Arcata bay is where the east bay sites are.

- Rocky Gulch Channel through area 2
- 90 percent of hunting is in east bay.
- Is Area 1 in HBMP Conservation Area?
- Northern Indian Island site is sand bar, gritting site.
- Recreation Considerations (HBMP)
- The South Bay is difficult for scullers & is crowded
- 2.5' of water above culture at Mean High Tide (MHT)
- Patchy eelgrass is very important shorebird habitat
- Sculling is part of Humboldt Bay History
- Limited Access
- Opposed to site 1,2 & 3
- Site 4 can see Brant in from bridge (north)
- South of site 4 in working the working part of the Bay is not in conflict with hunters
- Is culture proposed Northwest of the bridge?
- Brant like to avoid clutter
- Increased spacing sounds good if monitored to show that Brant use it
- Prefer open area in east by when there is hunting pressure.
- Need to assess cumulative impacts.
- Decoy hunting is only at Sand Island and Gunther Island.
- Going to off-bottom culture and reducing footprint increased eelgrass and bird use, these project would be "going backwards".
- Spacing and minimize height for navigation and brant. (no more than 12")
- Sites 2&3 & Yeung main area for birds
- Raft culture
- Avoid placement of oysters east of Arcata channel (Coast EIR?), affects: Herring; Migratory birds; People; and is same area (East Bay Management Area) commented on in Coast EIR
- Draft should survey and point out extent of eelgrass at each site and all adjacent sites
- Avoid use of racks or double hung baskets over eelgrass
- Oyster culture avoids with boating uses of the bay.
- Interferes with boating uses of the bay
- Aesthetics. Effort to increase tourism. A need to have natural areas.
- Set aside a dedicated portion of tidal bay east of Arcata channel for natural resource values.
- 51 Acre natural resource area, consider a similar approach
- A spatial planning approach would benefit the project.
- Involve public in planning process.
- Determine monitoring requirements and commitments.
- Scullers hunt over the whole Bay. Hunter avoidance area (consistent with hunting regulations) Seasonal. Wed, Sat, Sun and holidays and opening and closing days of season. Between 2 hours before sunrise to sunset.
- Safety of hunters/boaters
- More to hunting than Brant - October 15-Jan 28, Wednesday, Saturday, Sunday and Holidays ~35-40 days of use

- East Bay Conservation area
- If you destroy habitat, it doesn't come back
- Mitigation (North of Indian Island) Remove old culture gear
- Bracut – Southern mud dike area – Remove ruins
- Area 3 has a lot of PVC pipe in it – access channel
- Update cumulative maps showing all mariculture
- Overlay HBMP Figure 2 ES4 Pg. 30

The following proposed culture spacing sketch of was drawn up at the scoping meeting:



Humboldt Bay Mariculture Pre-Permitting Intertidal and Yeung Oyster Farm Project

Agency EIR Scoping Comments

Received April 14, 2017

Harbor District Conference Room 601 Startare Drive, Eureka

AGENDA

- Introductions
- Overall structure of projects and EIR
- Project descriptions
- Conceptual mitigation strategy
- Proposed schedule and key outcomes

Harbor District staff and Yeung Oyster Farm Project. Representative explained that a new EIR would be prepared for the Mariculture Pre-Permitting Intertidal and Yeung Oyster Farm Project. The previous EIR had analyzed Mariculture Pre-Permitting Intertidal and subtidal leases, and had not included the Yeung Oyster Farm Project. An Initial Study and Draft Mitigated Negative Declaration had been prepared for the Yeung Oyster Farm Project. A final EIR was certified for the subtidal leases, and it was determined that Intertidal leases were not feasible at that time, as agreements with landowners for intertidal leases were needed.

There have also been changes to intertidal lease sites since the prior EIR, including the Yeung Oyster Farm permit application received by the District. Other introductory comments included:

- Timing alignment and similarities to prior environmental analysis
- Intertidal Pre-permitting Project
    - District leases to private growers
    - Allow flexibility of methods within thresholds
    - Mostly rack and back or baskets
- Phased approach to project implementation
    - Avoid eelgrass
    - Pilot culture
- Potential effects

    - Farmworkers
    - Water surface area
    - Volume
    - Benthic footprint
    - Biomass
- Thresholds
- Mitigation strategy
    - Suite of mitigation
    - Benthic footprint impacts
    - Preservation
    - Phased approach
    - Pilot culture with monitoring
    - Use mariculture review committee
    - Monitor pilot areas

A Notice of Preparation was released for the new EIR, and a Scoping Report will be prepared at end of NOP comment period.

Agencies represented at meeting: California Coastal Commission, California Department of Fish and Wildlife, National Marine Fisheries Service

Comments

- Boat Routes
    - Further sublease or not?
    - Establish threshold of operators
    - Number of leases and number of boats
- Questions about culturing in patchy versus unconsolidated eelgrass beds
- Neutral effects- thresholds should be considered
- Negative effects of different culture methods should be documented
- Tomales Bay study referenced
- District could conduct pilot project without CEQA
- End of season gets the best information (July-August), study Spartina and Water quality
- North of Indian Island (Site 4)
    - Grit site (for Black Brant RE Jeff Black); Grit site higher value than culture?
- Agencies becoming increasingly concerned about culturing in East Bay
    - Shorebirds and other species
    - Boats
    - Change in carrying capacity for shorebirds and brant in North Bay
- Use 10ft culture spacing in eelgrass areas
- Basket spacing similar to Coast spacing
- Can eelgrass be avoided?
- Concerns about existing footprint of Coast project within Bay have become more clear
- Get all stakeholders together about overall aquaculture in Bay
- Large groups of people saying they don’t want increased aquaculture

    - Look at Stan Bradenburg comment on Coast FEIR
    - Consider Fewer areas are more densely used
- Smaller more condensed beds for project?
- Talk about more general terms of larger area of aquaculture in Bay
    - Real access points
    - What impacts there are
    - Seasons
    - Access limitations of gear
- Hunters not feeling heard: Improve access for hunters? Wide transit lanes; Bed mapping and marking
- Viewshed (Visual simulations from public viewpoints at full buildout)
- New uses
- Bottom culture: Low profile bags on bottom will float at higher tides if not contacting bottom; might not be full at all times
- Google Earth Tomales Bay (Oyster company)
- Off bottom bags (fill issues)
- Hog Island example (modified basket)
- Modified bottom culture: Access; Viewshed; Growing at higher elevations
- Is one method going to grow more with less space?
- Adding new access point as mitigation
- Need in kind mitigation
- Get current mapping done at appropriate time before DEIR released

Prior correspondence provided by CA F&W (Rebecca Garwood) at meeting:

Date	Author	Subject
1/23/2013	Paul Hamdorf	Unavoidable Significant Environmental Impacts re:The Mariculture Expansion Project, Humboldt Bay, CA
7/25/2013	Craig Shuman	Mariculture Expansion Project, Humboldt Bay, CA (SCH# 2013062068)
3/12/2015	Craig Shuman	Draft EI Rfor the Humboldt Bay Mariculture Pre-Permitting Project (SCH#2013062068)
6/10/2015	Neil Manji and Kathleen Perry	Th Humboldt Bay Harbor, Recreation and Conservation District's Pre-Permitting Project, Re: Bracut Tidelands
7/11/2014	Craig Shuman	Coast Seafood Company Renewal and Expansion of Aquaculture Operations in Humboldt Bay, CA
12/31/2015	Craig Shuman	Draft Environmental Impact Report for the Coast Seafoods Company Humboldt Bay Shellfish Culture Permit Renewal and Expansion Project (SCH# 2015082051)
9/23/2015	Craig Shuman	Notice of Preparation of an Environmental Impact Report for the Coast Seafood Company Humboldt Bay Shellfish Culture Permit Renewal and Expansion Project (SCH# 2015082051)
2/27/2015	Craig Shuman	Initial Study for the Coast Seafoods Company Humboldt Bay Shellfish Culture Permit Renewal and Expansion Project

9/16/2016	Craig Shuman	Recirculated Draft Environmental Impact Report for the Coast Seafoods Company Humboldt Bay Shellfish Aquaculture Permit Renewal and Expansion Project (SCH# 2015082051)