



HUMBOLDT BAY HARBOR, RECREATION AND CONSERVATION DISTRICT



P.O. BOX 1030
Eureka, California 95502
(707) 443-0801
(707) 443-0800 fax

Date Filed _____

General Information	For Commission Use
1.) Name & Address of Developer, Project Sponsor and Legal Owner Todd Van Herpe 2797 O'Neil Lane Eureka, CA 95503	A. Application No. <u>2023-04</u> Application Type: Franchise <input type="checkbox"/> Permit <input checked="" type="checkbox"/> Lease <input type="checkbox"/>
2.) Address of Project and Assessor's block, lot and Parcel Number 506-191-008, 506-181-001, 506-121-001, 400-181-006, 400-181-005, 405-031-009	B. Date Received by Harbor District <u>07/27/2023</u>
	C. Date Accepted for filing by BOC
3.) Name, Address and Telephone No. of Person to be contacted concerning this Project Todd Van Herpe 2797 O'Neil Lane Eureka, CA 95503 707-499-2388, toddvanherpe@gmail.com	D. Date of Public Notice
	E. Date of Acceptance EIR or Negative Declaration
	F. Date of Public Notice
	G. Date of Public Hearings
4.) Attach list of names and addresses of all adjoining property owners Attachment A	H. Date of Approval
5.) List and Describe any other related Permits & Other Public Approvals required for this Project, including those required by City, Regional, State & Federal Agencies. Attachment A	Disapproval _____ Conditional _____ Approval _____
	I. Expiration Date
6.) Existing Zoning District Attachment A	Describe in detail the proposed project: Comments
7.) Proposed Use of Site (Title of Project for which this form is filed) Humboldt Bay Oyster Company Shellfish Farm	

Describe in detail the proposed project:

See Attachment B

Answer all questions completely on a separate sheet of paper. If the question does not apply to your project, so indicate by marking N.A. If you have questions, please contact the Harbor District Office.

Project Description

8. Site Size **N/A**
9. Square Footage **N/A**
10. Number of floors of construction **N/A**
11. Amount of off-street parking provided **N/A**
12. Attach plans **Attachment B**
13. Proposed scheduling **Attachment B**
14. Associated projects **None**
15. Anticipated incremental development **None**
16. If residential, include the number of units, schedule of unit sizes, range of sale prices or rents, and type of household size expected. **N/A**
17. If commercial, indicate the type, whether neighborhood, city or regionally oriented, square footage of sales area, and loading facilities **N/A**
18. If industrial, indicate type, estimated employment per shift, and loading facilities. **N/A**
19. If institutional, indicate the major function, estimated employment per shift, estimated occupancy, loading facilities, and community benefits to be derived from the project. **N/A**
20. If the project involves a variance, conditional use or recognizing application, state this and indicate clearly why the application is required. **N/A**

Are the following items applicable to the project or its effects? Answer yes or no. Discuss all items answered yes.

21. Change in existing features of any bays, tidelands, beaches, lakes or hills, or substantial alteration of ground contours. **Yes. Installation of shellfish culture equipment.**
22. Change in scenic views or vistas from existing residential areas or public lands or roads. **Yes. Distant view of shellfish culture operations from residences and public lands.**
23. Change in pattern, scale or character of general area of project. **No.**
24. Significant amounts of solid waste or litter. **No.**
25. Change in dust, ash, smoke, fumes or odors in vicinity. **No.**
26. Change in ocean, bay, lake, stream or ground water quality or quantity, or alteration of existing drainage patterns. **Yes. Minor change in water quality and drainage patterns due to shellfish culture operations.**
27. Substantial change in existing noise or vibration levels in the vicinity.

- A. During Construction **No.**
- B. During Project Utilization **No.**

- 28. Site on filled land or on slope of 10% or more. **No.**
- 29. Use of disposal or potentially hazardous materials, such as toxic substances, flammable or explosives. **No.**
- 30. Substantial change in demand for municipal services (police, fire, water, sewage, etc.) **No.**
- 31. Substantially increase fossil fuel consumption (electricity, oil, natural gas, etc.). **No.**
- 32. Relationship to larger project or series of projects **No.**

ENVIRONMENTAL SETTING:

- 33. Describe the project site as it exists before the project including information on topography, soil stability, plants and animals, and any cultural, historical, or scenic aspects. Describe any existing structures on the site and the use of the structures. Attach photographs of the site. Snapshots or polaroid photos will be accepted. **Attachment A.**
- 34. Describe the surrounding properties, including information on plants and animals and any cultural, historical, or scenic aspects. Indicate the type of land use (residential, commercial, etc.) intensity of land use (one-family, apartment houses, shops, department stores, etc.) and the scale of development (height, frontage, set-back, rear yard, etc.) Attach photographs of the vicinity. Snapshots or polaroid photos will be accepted. **Attachment A.**

-----Questions 35; 36 and 39 MUST BE ANSWERED!-----

- 35. How will the proposed use or activity promote the public health, safety, comfort, and convenience? **The use will create jobs and economic activity. It will also provide shellfish which is a source of protein for humans.**
- 36. How is the requested grant, permit, franchise, lease, right, or privilege required by the public convenience and necessity? **For food production and economic activity.**
- 37. Financial statement:
 - A. Estimated cost of the project. **\$30,000**
 - B. How will the project be financed. **By owner.**
- 38. Describe fully directions necessary to arrive at project site. **See Maps in Attachment B regarding the sites in Mad River Slough and Mad River Slough Channel. A boat is required to get to these sites. For Woodley Island Marina take CA Hwy 255 and exit Startare Drive.**

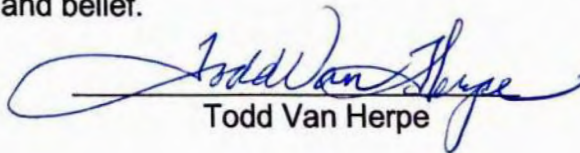
39. Will the Applicant agree that as a condition of the permit being issued to Applicant, to indemnify and hold harmless the Humboldt Bay, Harbor Recreation and Conservation District from any and all claims, demands, or liabilities for attorneys' fees obtained from or against demands for attorney's fees, costs of suit, and costs of administrative records made against District by any and all third parties as a result of third party environmental actions against District arising out of the subject matter of this application and permit, including, but not limited to, attorney's fees, costs of suit, and costs of administrative records obtained by or awarded to third parties pursuant to the California Code of Civil Procedure Section 1021.5 or any other applicable local, state, or federal laws, whether such attorneys' fees, costs of suit, and costs of administrative records are direct or indirect, or incurred in the compromise, attempted compromise, trial, appeal, or arbitration of claims for attorneys' fees and costs of administrative records in connection with the subject matter of this application and permit? **Yes**
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NOTE

The District hereby advises the Applicant that, under California Public Resources Code Section 21089, the District when a lead agency under the Environmental Quality Act of 1970, as amended, pertaining to an Environmental Impact Report (EIR) or a Negative Declaration may charge and collect from the Applicant a reasonable fee in order to recover the estimated costs incurred by the District in preparing an Environmental Impact Report (EIR) or Negative Declaration for the project and the procedures necessary to comply with the provisions of the public resources code on the Applicants project. In the event your project contains an analysis of issues pertaining to the Environmental Quality Act of 1970, as amended, for which District staff is not competent to independently review, or District requires the same in preparation of an Environmental Impact Report (EIR) or Negative Declaration for the project, the District may retain a reviewing consultant to evaluate the content of the Administrative-Draft EIR and Final EIR or Negative Declaration with respect to these issues. The cost of such reviewing consultant services shall be borne by the Applicant.

CERTIFICATION: I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Dated: June 28, 2023


Todd Van Herpe

Attachment A

Responses to Select Harbor District Permit Application Questions

4. Adjoining Property Owners

Christie Raymond
295 Jackson Road Ranch
Arcata, CA 95521

US Fish and Wildlife Service
2800 Cottage Way
Sacramento, CA 95825

Cal Poly Humboldt
1 Harpst Way
Arcata, CA 95521

US Fish and Wildlife Service
2800 Cottage Way
Sacramento, CA 95825

Cue IV LLC
323 5th Street
Eureka, CA 95501

Coast Seafoods Company
16797 SE 130th Ave
Clakamas, OR 97015

Samuel Sprague
330 E Pierson Rd.
Phoenix, AZ 85012

5. Required Permits

Agency	Approval Type
North Coast Regional Water Quality Control Board	Clean Water Act Section 401 Certification
US Army Corps of Engineers	Clean Water Act Section 48 Nationwide Permit
California Coastal Commission	Coastal Development Permit District Permit
Humboldt Bay Harbor District	California Environmental Quality Act Mitigated Negative Declaration

6. Zoning

County of Humboldt, Coastal Zone, Natural Resources with combining zones of Special Archeological Resource Area Outside of Shelter Cove, Coastal Wetlands, and Beach and Dune Areas

33. Project Site

The Project is located in Mad River Slough, Mad River Slough Channel and at Woodley Island Marina. See Attachment B (Project Description) for more details. Mad River Slough and Mad River Slough Channel are tidal channels with existing shellfish culture operations. Woodley Island Marina is an existing marina. All project sites have potential for fish species listed under the Federal and California Endangered Species Acts, including salmonids, green sturgeon and longfin smelt. Fishing, hunting and other recreational activities occur in the Mad River Slough and Mad River Slough Channel.

Attachment B
Project Description

Humboldt Bay Oyster Company Shellfish Farm – Project Description

Humboldt Bay Oyster Company (HBOC) currently farms Pacific oysters (*Crassostrea gigas*) and Kumamoto oysters (*C. sikamea*) in Humboldt Bay, California. The farm was established in 1978 and HBOC purchased it from Kuiper Mariculture in 2002. Based on direction from the Humboldt Bay Harbor, Recreation and Conservation District and California Coastal Commission, HBOC is reviewing the farm’s existing regulatory approvals and will update these approvals as needed.

The HBOC Farm (the “Project”) has three distinct phases. Each phase is necessary for a specific life stage of the oysters. Oyster seeds are first matured in a subtidal floating upwell system (FLUPSY), then subtidal rafts and finally they are grown to market size using intertidal rack-and-bag culture (Figure 1). HBOC is seeking approval for (1) existing farm operations; (2) farming within a proposed expansion area; and (3) use of an additional intertidal culture method known as “Longline Culture”. These Project components are described below.

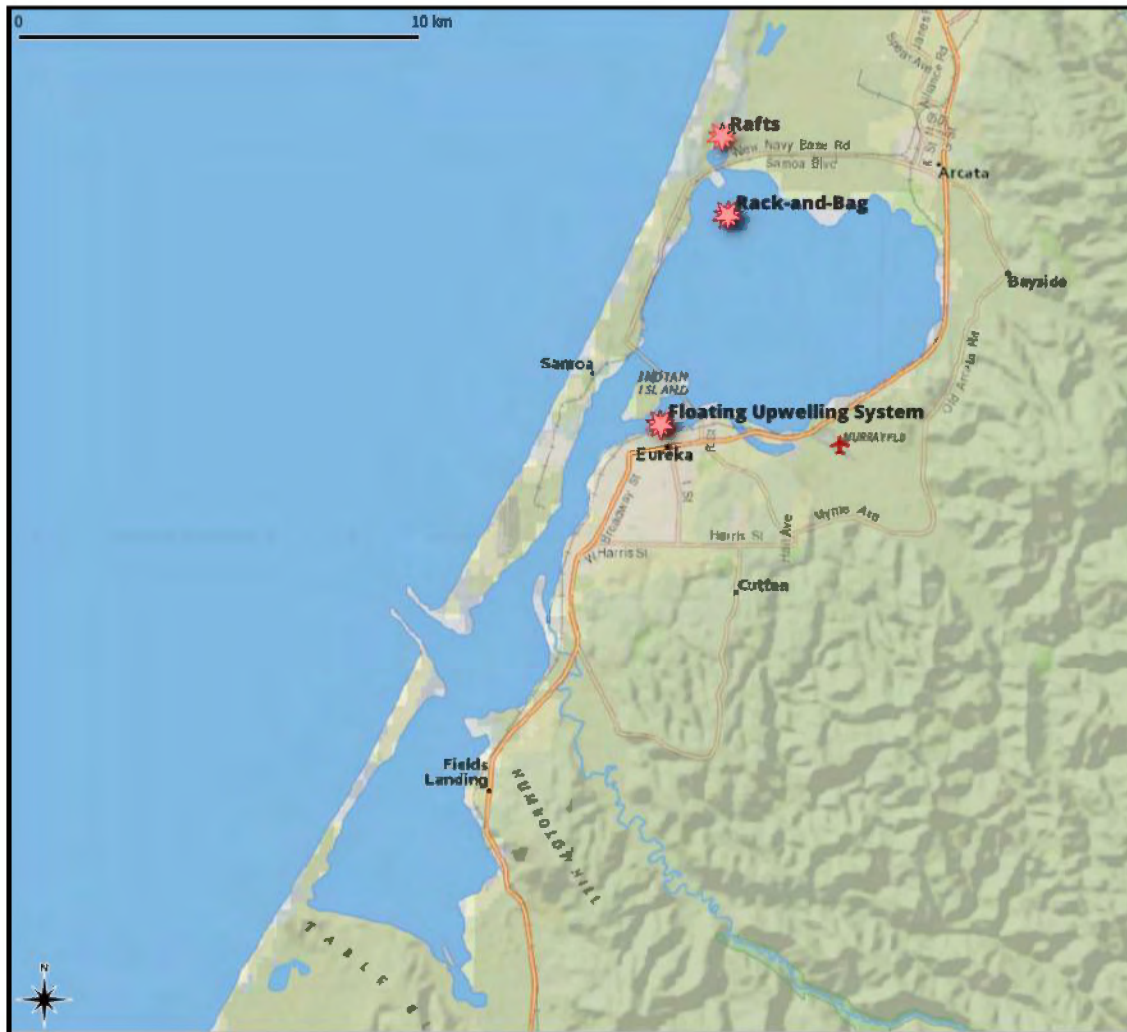


Figure 1. Location of Humboldt Bay Oyster Company’s existing rafts, rack-and-bag and floating upwelling system culture.

Floating Upwell System Culture

The FLUPSY is located at Woodley Island Marina (Figures 1 and 2). It consists of a 20' X 30' picture frame flotation raft with tanks suspended through the open center (12' X 24') (Figure 3). It has a 14" profile above the water's surface and 42" below it. The FLUPSY draws water through 1 mm mesh-bottom bins utilizing a 1-horsepower propeller pump. The pump continuously evacuates water from a center trough creating a draft through 10 seed bins (30"L X 30"W X 36"D) arranged piggybacked on the trough's outer edge. Water drawn up through the bins and out through the trough delivers a constant supply of clean water and phytoplankton for seed oysters to feed on, contributing to accelerated, uniform growth.



Figure 2. Location of existing floating upwelling system at Woodley Island Marine, Eureka, California.



Figure 3. HBOC's floating upwelling system operated at Woodley Island Marina, Eureka, CA.

FLUPSY bins are lifted and rinsed three times each week to flush silt, stir the seed bed, and assess growth and density. As seed grows it is sorted by hand screens and split volumetrically to keep like-sized groups together and reduce seed densities in each bin. HBOC cycles approximately 2.5 - 3 million seed oysters through the FLUPSY annually. Seed is introduced to the FLUPSY at 1.5 - 2mm in size. As seed achieves 6-10mm it is graduated and

moved to rafts in Mad River Slough as further described below.

Raft Culture

The raft nursery is in Mad River Slough (Figures 1 and 4). Up to fifteen 16' X 20' nursery rafts (Figures 5 and 6) have the capacity to hold 24 modules each of stacked plastic Nestier trays that are 24" wide, 24" long and 3" deep. The rafts are used within the 9.2 acre area shown in Figure 4. The trays are secured with ropes and suspended 4' into the water column from the surface. Seed is evenly distributed in each tray then stacked 12 to 14 trays tall, roped together and suspended in the water to feed on plankton that passively flows through the mesh lined trays with the tides.



Figure 4. Existing raft culture in Mad River Slough.

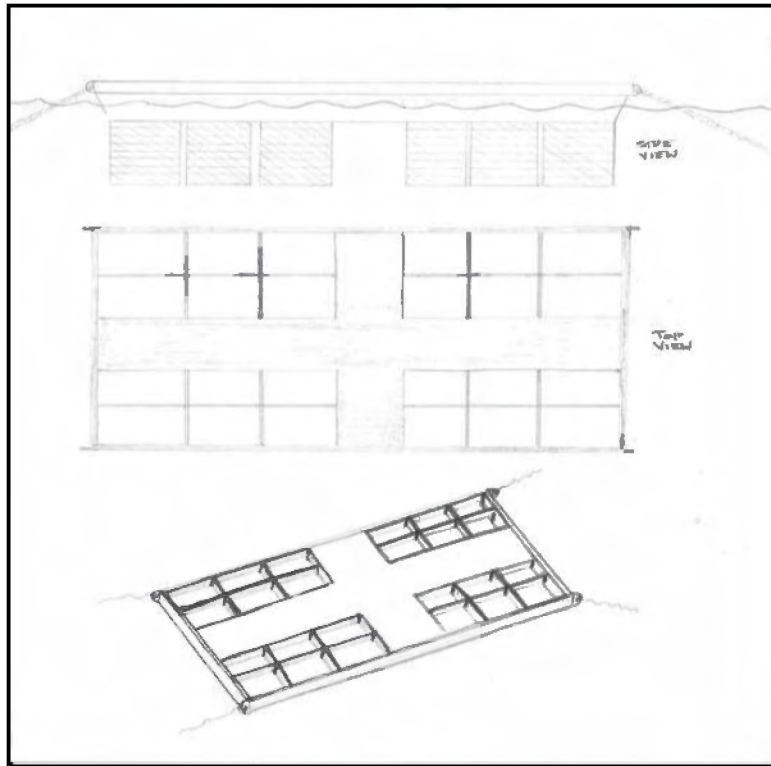


Figure 5. Nursery raft design.

Rafts are held in place using concrete anchors, $\frac{3}{4}$ " rope, and heavy gauge hardware. Three groups of three rafts each are strung together and anchored on each end. Three solid-deck platform rafts serve as sorting space, temporary storage for empty trays and ropes, and a work area to load seed into trays and dump seed out when it reaches adequate size to load into mesh bags.



Figure 6. Rafts in Mad River Slough

The trays are lifted out of the water once a week for inspection and rinsing of accumulated silt (Figure 7). To conduct this regular maintenance a crane barge is pushed from raft to raft with a work skiff. The hydraulic crane lifts the modules from their raft spots and places them on the deck of the raft so they can be disassembled **and rinsed with bay water**.



Figure 7. Plastic Nestier Trays with nursery raft size seed.

If continued oyster seed growth is needed then the modules are retied and placed back in the water until the following week. If the seed has grown enough or exceeded healthy densities, they are dumped out of the trays and loaded into 1/8" mesh polyethylene bags (2'X3') to be planted in the intertidal part of the farm using rack & bag methods as described below.

RACK & BAG CULTURE

Figure 8 shows the area in Mad River Slough where oysters are currently farmed and areas where expansion is proposed. HBOC is seeking approval for the existing rack & bag culture method and/or the longline culture method described below within the Existing Rack and Bag Culture area (17.8 acres) and proposed Expansion Area 1 (3.1 acres) and Expansion Area 2 (10.8 acres). Oyster seed leaves the nursery rafts and is loaded at densities of about 1.5 liters per mesh bag for growout. Three oyster bags are strapped onto racks that keep the oysters off the bay bottom. Each rack is 6' long, 32" deep and 18" tall and constructed of 1/2" welded steel rebar (Figure 9). Elevating the bags off bottom reduces benthic impacts, minimizes oyster siltation and aids in maximizing water flow to the oysters for faster, more uniform growth. Bags are secured with large rubber straps with stainless steel wire hooks.



Figure 8. Existing and proposed expansion areas of rack & bag culture. Longline culture is also proposed as a potential method within these areas.

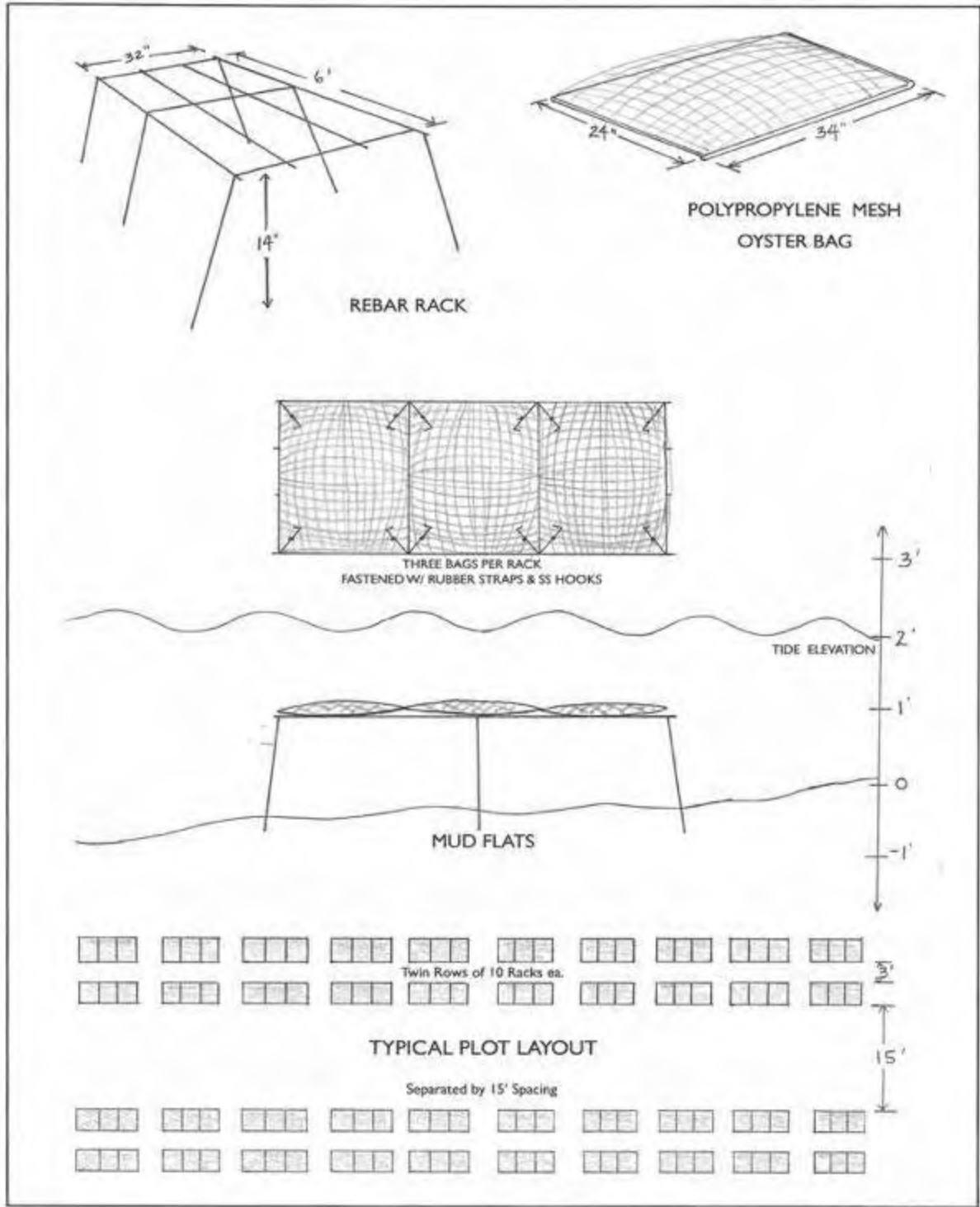


Figure 9. Rack & bag method used to culture oysters to market size on the Humboldt Bay Oyster Company farm.

Oyster harvesting is performed during low tides with a small (approximately 20') flat bottom skiff with dropping bow doors. Bags are transported to an onshore facility three miles up Mad River Slough for rinsing and sorting, packing, icing and shipping. Culled oysters that don't make the grade or are too small are reloaded into bags and returned to the growing area for additional growout. Final packing, icing and shipping/delivery takes place onshore in Arcata. From there the oysters are either delivered by truck to local accounts or taken to a trucking company for distribution out of area to fish counters, restaurants, and oyster bars. Humboldt Bay Oyster Company currently has 874 rebar racks that at full capacity can hold 2,622 oyster bags to grow 3/4" seed oysters and market sized oysters for the half shell market.

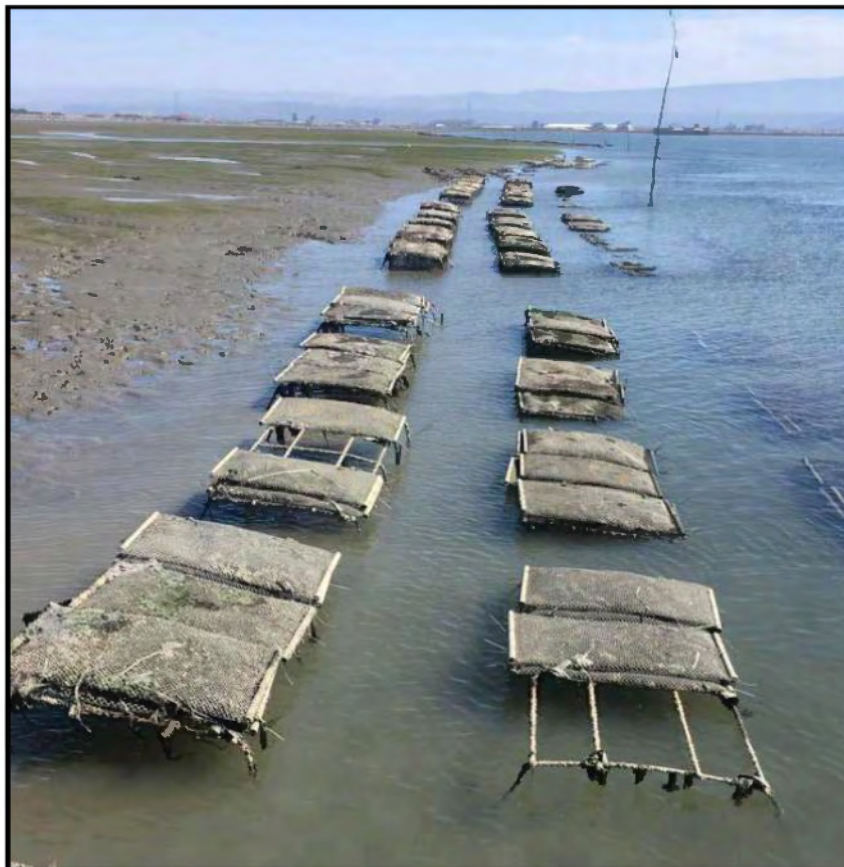


Figure 10. Rack and Bag Culture on the channel edge.

Intertidal Longline Culture

The proposed intertidal longline method includes either SEAPA-type culture baskets (Figure 11) or tipping bags (Figure 12). These intertidal longline systems may be deployed with or without floats that harness tidal energy to “tumble” the oysters. HBOC proposes the use of intertidal longlines within existing rack & bag culture areas and within the proposed expansion areas (Figure 8).



Figure 11. Intertidal longline systems with SEAPA-style baskets at low tide (photo from Hog Island Oyster Company operations in Tomales Bay, CA).

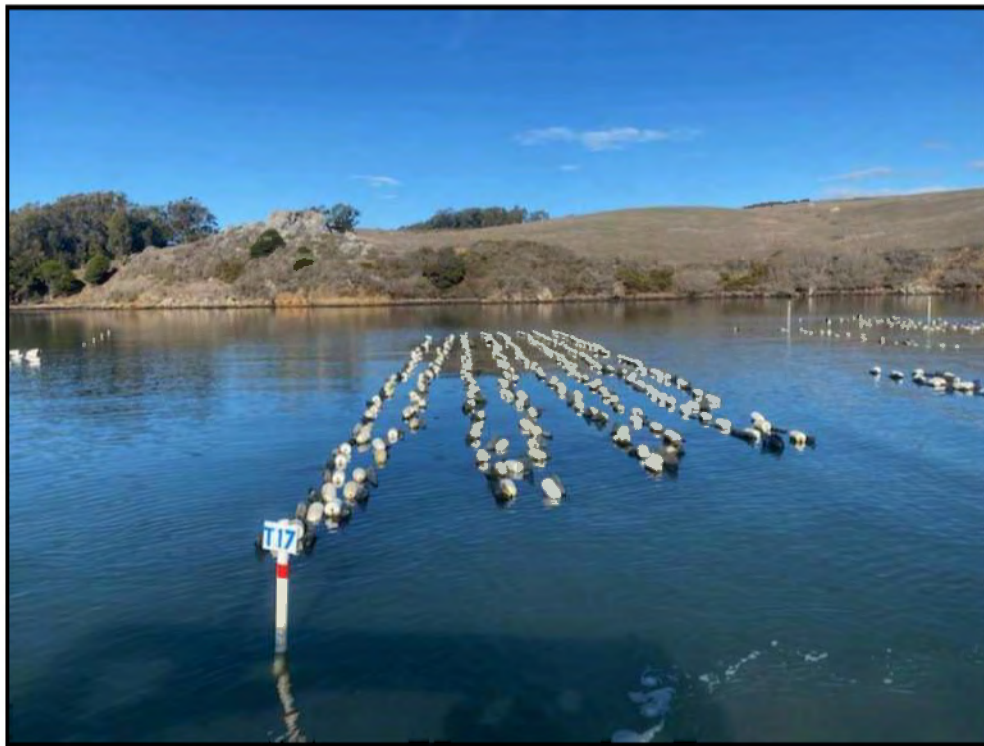


Figure 12. Tipping bags with floats at high tide (photo from Hog Island Oyster Company operations in Tomales Bay, CA).

Intertidal Longline systems will be 100 to 300 feet long, where possible, with anchor posts at both ends and supporting posts typically every 8 feet. Individual lines will be spaced at approximately 3 feet, with an additional space of 15 feet between grouped blocks of 4 lines to provide space for boat access. The anchor posts are proposed to be galvanized steel pipe T-stakes, or other suitable materials, and are used to maintain line tension. The supporting posts in between are proposed to be made of schedule 80, 2-inch PVC. Intertidal longline systems will be 1 foot to 4 feet in elevation above the ground. Lines between the posts will be plastic coated with a steel core. Covering that inner line will be an outer sleeve that reduces wear.

Intertidal longline systems can hold either bags or baskets, with or without floats. Longline support posts and anchors (endposts) are driven using sledgehammers, hand-held post pounders, and/or a gas or pneumatic hand-held post pounder. Posts are removed by first loosening them by twisting with a pipe wrench and then tying a clove hitch around pipes and pulling them out using a boat-mounted crane.

Tipping bags attached on longlines are made of durable VEXAR and are typically 2-foot by 3-foot with 1/2-inch mesh. These bags are attached to the line using a stainless-steel snap hook or plastic clip that connects to a plastic bearing. Bags attached to long lines may have a small crab float attached to them opposite of the attachment to the long line. Floats are attached to the bag using 3/8-inch poly line. SEAPA baskets are typically 2-foot by 4-foot by 1.5-foot in diameter and are made of HDPE. After stocking the bags or baskets with oysters they are transported to the growing areas via work vessel. The vessel runs alongside the longlines and bags/baskets are clipped directly onto the line. Additional details of intertidal longline systems can be found in Figure 13.

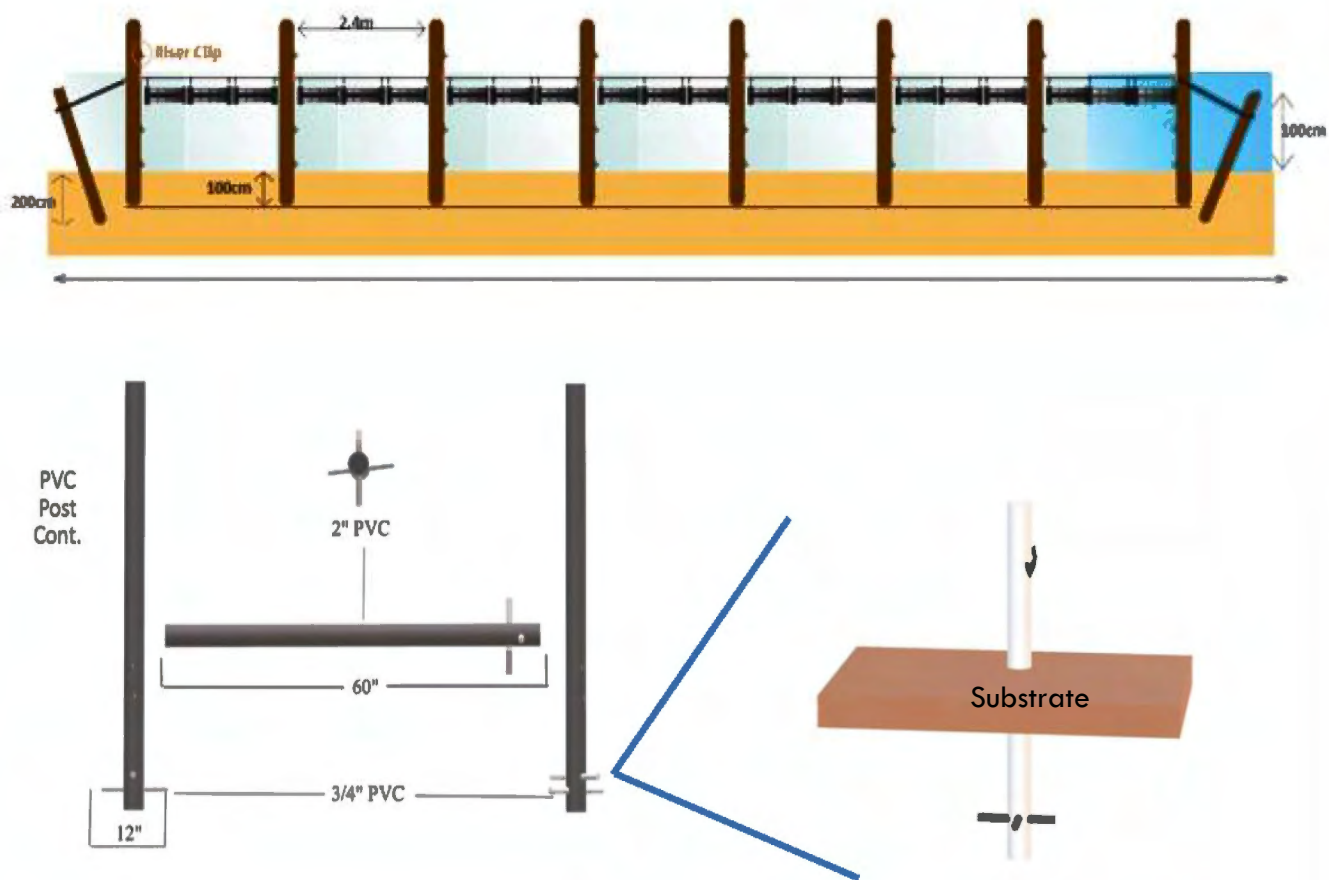


Figure 13: Longline Schematic with Anchor System and Pole Spacing between Anchors