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CDP No.: 9-21-0561 (HIOC)

February 11, 2021

Exparte

Received on 11/5/21

Ex Parte Communication Disclosure

Filed by: Katie Rice

Re: Hog Island/Arcata Bay Shelfish Farm CDP

Day/Time: October 29, 2021; 3 – 3:30 p.m.

Type of Communication: virtual/zoom meeting

Initiator of Communication: John Finger, Hog Island Oyster

Participants: Katie Rice, John Finger

Comprehensive Description of Communication Content:

HIOC currently has a CDP permit application under review by coastal staff for the development of approximately 39 acres of oyster aquaculture on leased, intertidal areas in Arcata Bay. John requested this meeting to provide me with an overview of the project, operations, and history of HIOC operations in Humbolt County. The attached project description provides a detailed narrative of the general overview that John provided me during our meeting.

Date: Katie Rice Signature: Nov. 5, 2021

HIOC Project Description for a new Shellfish Farm in Arcata Bay

April 24, 2020

Project Summary

Hog Island Oyster Company (HIOC) seeks permitting to develop approximately 39 acres of oyster aquaculture on leased, intertidal areas adjacent to the Mad River Slough in Arcata Bay. Culture methods would be intertidal longlines with SEAPA-style baskets or VEXAR tipping bags (with or without floats), and a small amount of off-bottom, “rack on pipe” culture. Harvested oysters would be processed at HIOC’s existing Mariculture Facility near Samoa and sold within HIOC’s restaurants and to other wholesale customers, both in California and out-of-state.

Project Site

HIOC has executed two lease agreements for approximately 110 acres of intertidal area in the northern part of Arcata Bay, adjacent to the Mad River Slough (*Figure 1*). The majority of this area (~90 acres) is leased from Security National Properties Holding Company, LLC. HIOC has also entered into a sub-lease exchange with Humboldt Bay Oyster Company (HBOC), granting HIOC approximately 20 acres to the northwest of Tract A in exchange for approximately 3 acres of culture area in the southern portion of Tract A. HBOC’s operation is not included as part of this application. The legal descriptions for HIOC’s lease and sublease are included in *Appendix A.* HIOC's lease boundaries would be clearly marked with a combination of 10' long 2" wide white PVC pipes that are marked vertically with the lease number and horizontally with two strips of reflective tape to mark corners.

Proposed Shellfish Species

Arcata Bay and the Mad River Slough have a long tradition of oyster aquaculture, dating back 100 years for the native oyster *Ostrea lurida* and to the 1950’s for Japanese oyster species *Crassostrea gigas* and *Crassostrea sikamea* (Barrett, 1963). HIOC proposes to grow species already cultivated in Arcata Bay, with a primary focus on *C. gigas*. HIOC’s permitted hatchery and nursery operations located in Samoa will provide a steady supply of locally produced seed for these three species.

Figure 1: Project Map and Vicinity

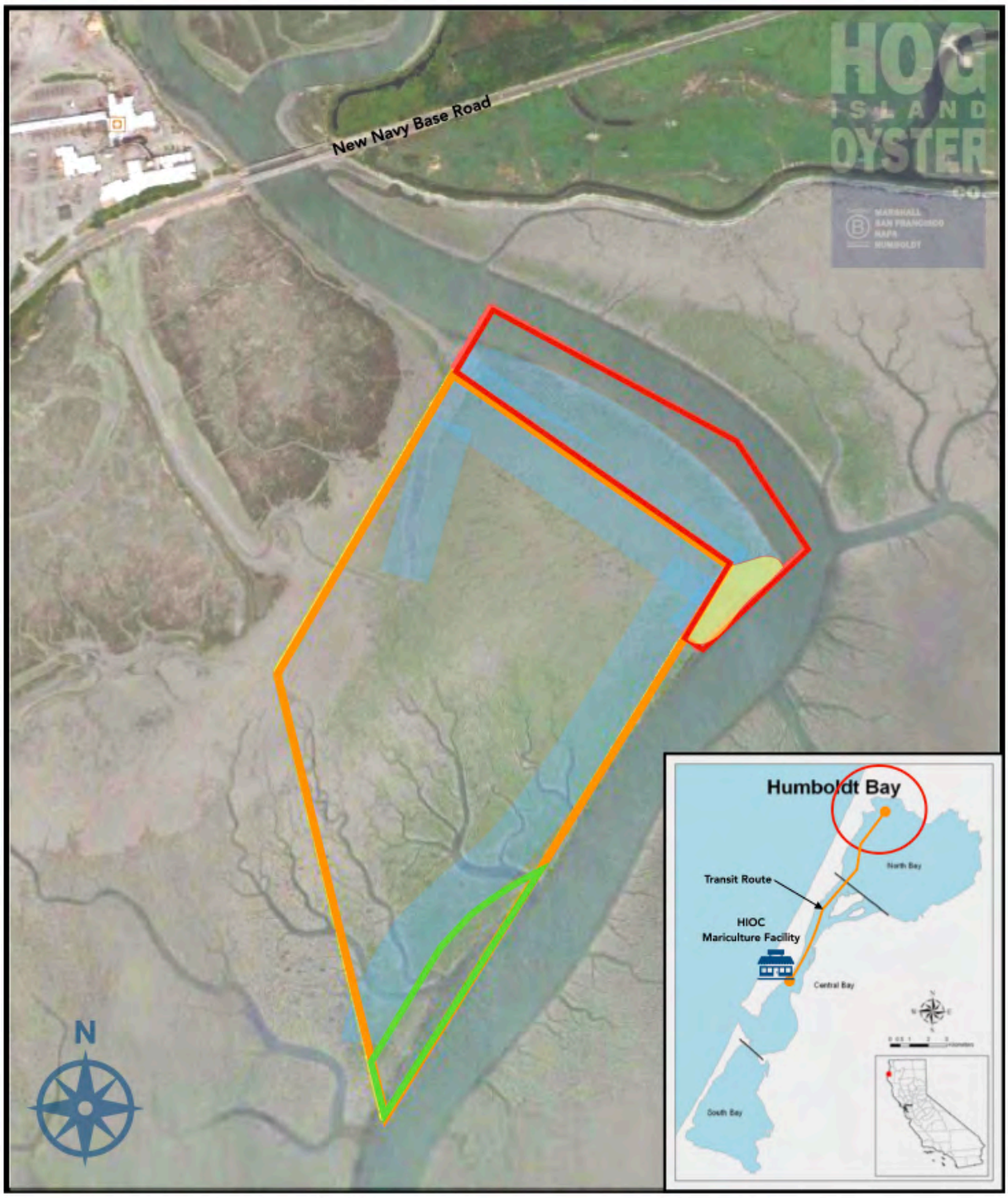

Figure 1: Leases and proposed culture areas

Proposed Cultivation Methods and Installation Activities

Intertidal Longline Systems. The primary culture method would be intertidal longlines equipped with either "tipping bags" or SEAPA-type culture baskets (with or without floats). HIOC proposes approximately 25 acres of longline culture. Longline systems have emerged as a very low impact method for shellfish culture, allowing farm labor to maintain gear and animals with minimal impact to the surrounding benthic environment (Rumrill and Poulton, 2004; Dumbauld and McCoy, 2015). Longlines are typically 100' to 300' long with anchor posts at both ends and supporting posts typically every 8'. There are spaces of approximately 30" to 60" between lines and an additional space of 15' between grouped sections of 4 lines *(Figure 2)*. The anchor posts are typically galvanized steel pipe, T-stakes or other suitable materials and are used to maintain line tension. The supporting posts in between are typically made of schedule 80 2" PVC. Long lines can be 1' to 4' in elevation above the ground. Lines between the posts are plastic coated with a steel core. Covering that inner line is an outer sleeve that reduces wear. Long lines can hold either bags or baskets, with or without floats. Longline support post and anchors (end post) are driven using sledge hammers, 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. Material used in end posts has a serviceable life of at least 15 years.

Tipping bags attached on longlines are made of durable VEXAR and are typically 2'x3' with ½" 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 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" poly line. SEAPA baskets are typically 2' -4' long by 1.5' in diameter and are made of HDPE. After stocking the bags or baskets with oysters they are transported to the growing areas via boat. The boat runs alongside the longlines and bags/baskets are clipped directly onto the line. Additional details and images on the installation of intertidal longline systems can be found in *Figure 2*.

The typical production cycle includes "planting out" baskets of seed oysters, bi-weekly to monthly checks on equipment condition and shellfish growth and health, and harvest. To maintain optimal stocking densities baskets are periodically collected, returned to HIOC's mariculture facility, graded, and redistributed to additional baskets. Harvest simply involves a final collecting of baskets, which are processed, graded, and prepared for distribution at HIOC's facility. Depending on the species harvest may take anywhere from one year (*C. gigas*) to 2 or 3 years (*C.sikimea* and *O. lurida*) after plant out.

Figure 2: Intertidal Longline Details

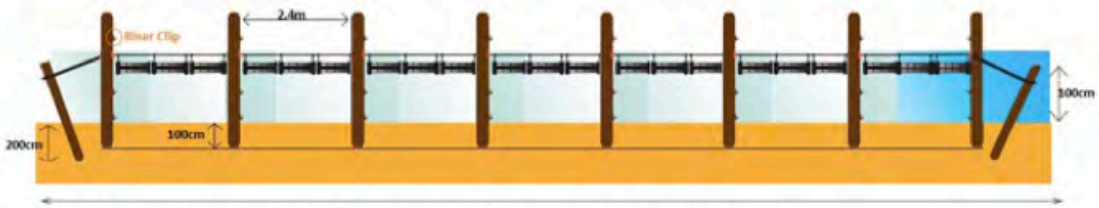

Figure 2.1: Idealized schematic of longline construction, spacing, and post placement

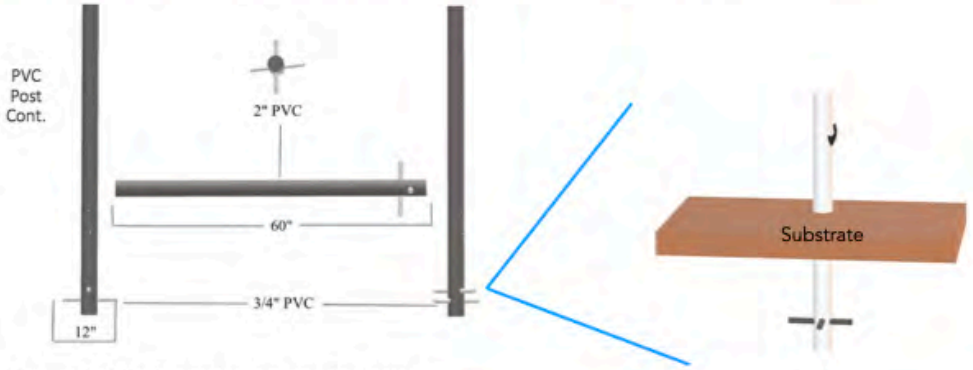

Figure 2.2: Anchor system and spacing details

Figure 2.3: Tipping bags on longlines at low tide (Washington)

Figure 2.4: SEAPA baskets deployed on longlines in Australia (inset SEAPA basket detail)

Rack on Pipe System

HIOC also proposes approximately 5 acres of “rack on pipe” systems *(Figures 3 and 4)*. Typically, racks consist of a 2’x 8”½ ’ rebar frame to which 4, ½” VEXAR mesh bags measuring typically 2’x3’ are attached. After racks are stocked with oysters they are placed into the rows by boat during a high tide. On the next low tide series (usually the same or following day), the racks are organized and placed into the notch on their 4 PVC pipe legs. PVC pipe legs are typically 12” to 24” above grade. A row of racks is typically 100’ to 300’ long with 2.5’ between each rack (front to back). Rows of racks run parallel to each other. There are typically two rows of racks with 3’ of space between them (left to right) and then a 12’ to 15’ space until the next two rows. Racks are monitored and tipped monthly during their grow-out period. On a quarterly basis after initial planting racks can be culled and graded. The harvest of racks entails the crew removing the racks from their PVC legs and placing them on a boat for transport, usually done with 2’ to 3’ of water to allow the boat to come up alongside the rows of racks for easier handling by the crew. All culling and grading would take place at HIOC’s Samoa facility. Final harvest of racks is typically 9 to 12 months after the initial planting date.

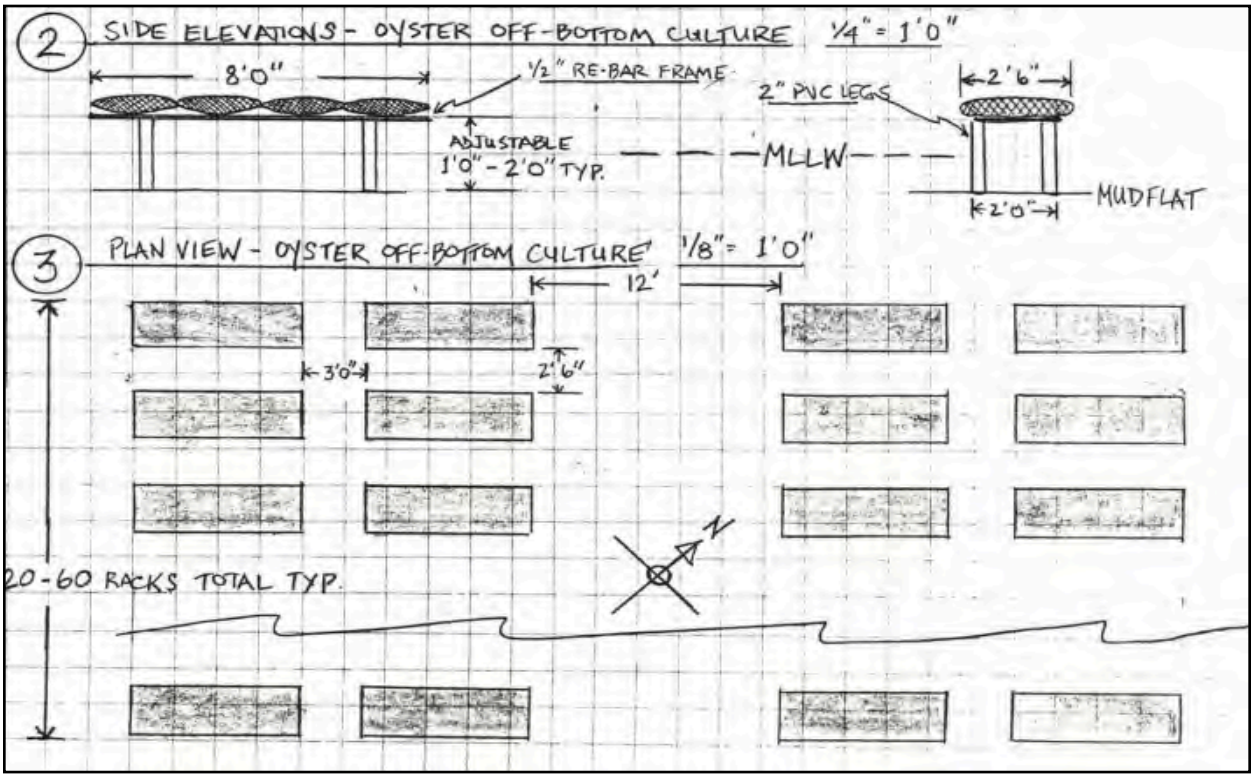

Figure 3: Sketch drawing of plan and layout for “rack on pipe” culture system

Figure 4: Rack on Pipe example from Tomales Bay

Planting, Harvest and Maintenance Activities

HIOC's planting, harvest and maintenance activities would be carried out on these lease areas either during low tides when cultivation gear is exposed and HIOC staff can walk within the culture areas or via skiffs (in the case of accessing culture areas at higher water levels). To move staff, shellfish and equipment between cultivation areas and the HIOC mariculture facility at Samoa, HIOC would make use of a variety of different outboard motor powered, flat bottomed skiffs. Maintenance activities on HIOC's lease areas will include periodically flipping, shaking, inspecting and collecting cultivation equipment (cultivation baskets, racks) for sorting. This activity is carried out primarily using hand labor and tools.

Vessel Use and Transit Route

HIOC's would make use of several vessels, including low draft, 20' -24' skiffs and possibly a custom 40' vessel equipped with a hydraulic crane for assisting in planting and harvest operations during higher tides. HIOC estimates that these vessels make up to two daily trips between HIOC's Samoa Facility and this new lease (see *Figure 1* for route map).

Table 1. Proposed Best Management Practices (BMPs)

Marine Debris	HIOC will develop and implement a marine debris management plan. At the time of harvest of each cultivation area, HIOC shall carry out a thorough inspection to locate and remove any loose, abandoned or out of use equipment and tools. All floating bags and baskets will be marked or branded with HIOC's name and phone number.
Eelgrass (*Zostera marina)*	Installation of racks, longlines, and other aquaculture gear shall not occur within 10 horizontal feet of native eelgrass (*Zostera marina*). This shall not prevent continued cultivation in areas where eelgrass moves into the project site.
Vessel Motors and Other Motors	HIOC uses highly efficient 4-stroke outboards and other motors (e.g., gas-powered motor for clam rake) that uses National Marine Fisheries Service-approved fish screens. All motors are muffled to reduce noise.
Vessel Maintenance and Fueling	HIOC maintains all vessels used in culture activities to limit the likelihood of release of fuels, lubricants, or other potentially toxic materials associated with vessels due to accident, upset, or other unplanned events. HIOC uses marine grade fuel cans that are refilled on land, and HIOC carries oil spill absorption pads and seals wash decks or isolates fuel areas prior to fueling to prevent contaminants from entering the water.
Vessel Anchors	HIOC will anchor vessels outside of eelgrass beds.
Vessel Routes	HIOC has established a vessel route to access its leases (see Figure 1) that avoids known submerged aquatic vegetation (SAV).
Pacific Herring (*Clupea pallasii*)	In any cultivation beds within or adjacent to eelgrass areas (in the event that eelgrass moves into the project site), HIOC will conduct visual surveys for Pacific herring spawn prior to conducting activities during the herring spawning season (October to April). If herring spawn is present, HIOC will suspend activities in the areas where spawning has occurred until the eggs have hatched and spawn is no longer present (typically 2 weeks).
Fish and Wildlife	During vessel transit, harvest, maintenance, inspection, and planting operations, HIOC will avoid approaching, chasing, flushing, or directly disturbing shorebirds, waterfowl, seabirds, or marine mammals.
Cultural Resources	HIOC will comply with the Harbor District Protocol agreed upon between the Harbor District and the Blue Lake Rancheria, Bear River Band of Rohnerville Rancheria, and Wiyot Tribes regarding the inadvertent discovery of archaeological resources, cultural resources, or human remains or grave goods.

REFERENCES

Barrett, EM., 1963. The California oyster industry. Fish. Bull. 123:2–103

Dumbauld BR, McCoy LM, 2015. Effect of oyster aquaculture on seagrass Zostera marina at the estuarine landscape scale in Willapa Bay, Washington (USA). Aquacult Environ Interact 7:29-47.

Rumrill, S. and Poulton, V., 2004. Ecological Role and Potential Impacts of Molluscan Shellfish Culture in the Estuarine Environment of Humboldt Bay, CA. Western Regional Aquaculture Center Annual Report.

APPENDIX A: LEGAL DESCRIPTIONS

EXHIBIT 'A'

LEGAL DESCRIPTION
Page 1 of 2

A Parcel of tide land situated in the Southwest one-quarter of Section 35, Township 6 North, Range 1 West, Humboldt Meridian, County of Humboldt, State of California, being a portion of Parcel A and Parcel B of Mariculture Lease Agreement between Kuiper Mariculture, Inc., and Humboldt Bay Harbor Recreation and Conservation District, dated July 29, 1988, being more particularly described as follows:

Beginning at the Northeast corner of State Tide Land Survey #122 on file with Humboldt County Records, also being Tract A per Special Warranty Deed recorded January 18, 2005 at Instrument # 2005-1828-5, Humboldt County Records, from which the West one-quarter corner of said Section 35 bears N 81°52'15" W, 4953.38 feet;

Thence, South 33°14'33" West, along the east line of said Tract A for a **Basis of Bearing**, 532.85 feet;

Thence, South 56°45'27" East, 93.05 feet;

Thence, North 46°19'20" East, 674.35 feet;

Thence, North 28°30'55" West, 278.86 feet;

Thence, South 33°14'33" West, 255.97 feet, to the **Point of Beginning**;

The parcel described herein containing 2.93 acres of land, more or less, also being subject to easements of record if any.

The bearings and distances described herein are based on the California Coordinate System (CCS83) NAD 83, Zone 1 (Epoch 2010) Grid, multiply the distances herein by the combination scale factor 1.00010110322 to achieve ground level distances.

END OF DESCRIPTION

This Legal description prepared on February 12, 2020 by:

Stephen K. Drake, PLS #9244

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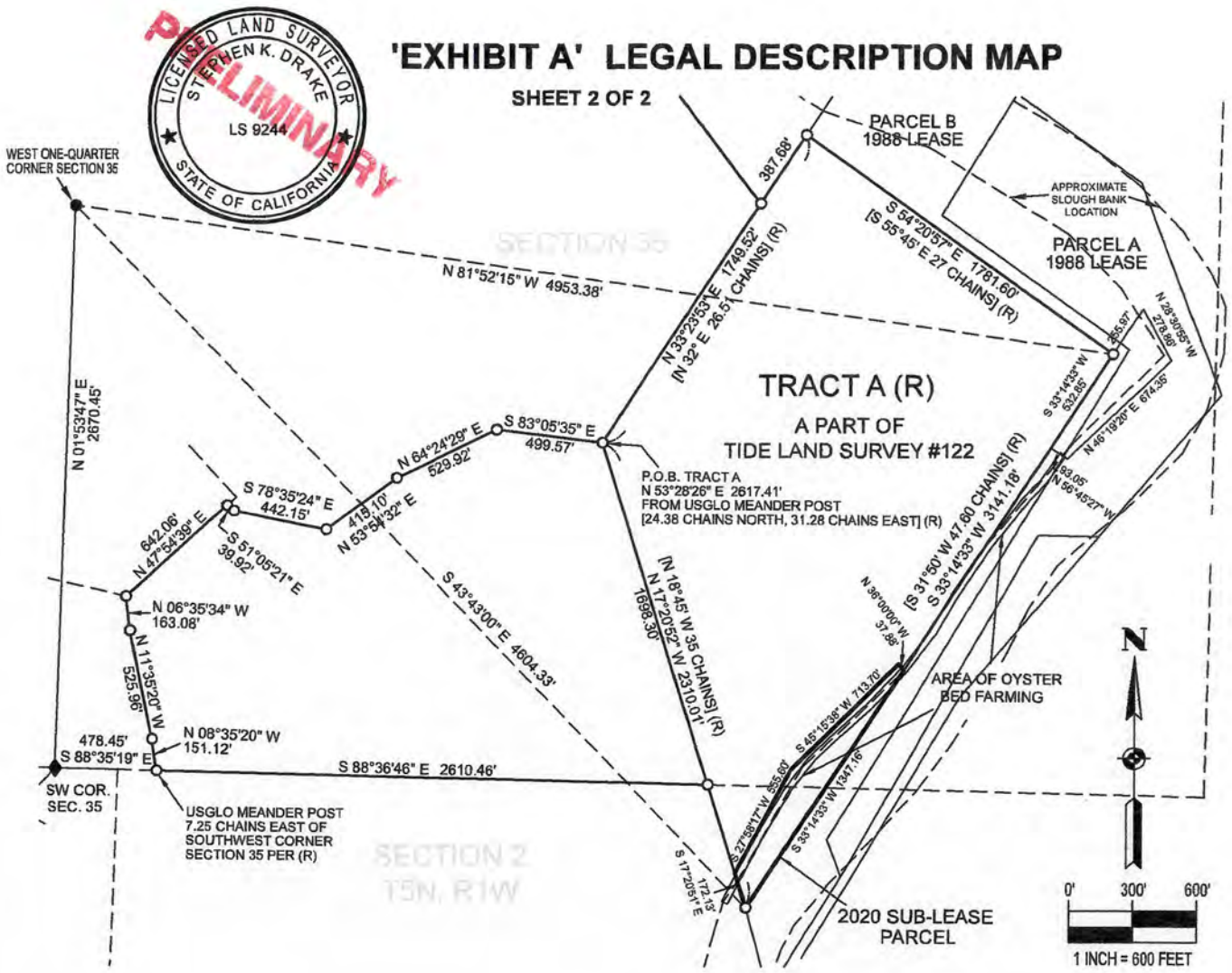
503002768 v2

'EXHIBIT A' LEGAL DESCRIPTION MAP

SHEET 2 OF 2



Legal Description for HBOC sub-lease exchange:

EXHIBIT 'A'

LEGAL DESCRIPTION
Page 1 of 3

A Parcel of tide land situated in the Southwest one-quarter of Section 35, Township 6 North, Range 1 West, Humboldt Meridian, County of Humboldt, State of California, being a portion of Parcel A and Parcel B of Mariculture Lease Agreement between Kuiper Mariculture, Inc., and Humboldt Bay Harbor Recreation and Conservation District, dated July 29, 1988, being more particularly described as follows:

Beginning at the Northeast corner of State Tide Land Survey #122 on file with Humboldt County Records, also being Tract A per Special Warranty Deed recorded January 18, 2005 at Instrument # 2005-1828-5, Humboldt County Records, from which the West one-quarter corner of said Section 35 bears N 81°52'15" W, 4953.38 feet;

Thence, South 33°14'33" West, along the east line of said Tract A for a **Basis of Bearing**, 524.83 feet;

Thence, South 54°33'09" East, 94.14 feet;

Thence, North 46°19'20" East, 741.40 feet;

Thence, North 32°25'31" West, 692.01 feet;

Thence, North 57°58'48" West, 1410.64 feet, to the west line of said lease Parcel B;

Thence, South 33°23'59" West, 373.90 feet, along the west line of said Parcel B to the north line of said Tract A;

Thence, South 33°14'33" East, 1781.60 feet, more or less, to the **Point of Beginning**;

The parcel described herein containing 20.14 acres of land, more or less, also being subject to easements of record if any.

The bearings and distances described herein are based on the California Coordinate System (CCS83) NAD 83, Zone 1 (Epoch 2010) Grid, multiply the distances herein by the combination scale factor 1.00010110322 to achieve ground level distances.

END OF DESCRIPTION

This Legal description prepared on February 20, 2020 by:

Stephen K. Drake, PLS #9244

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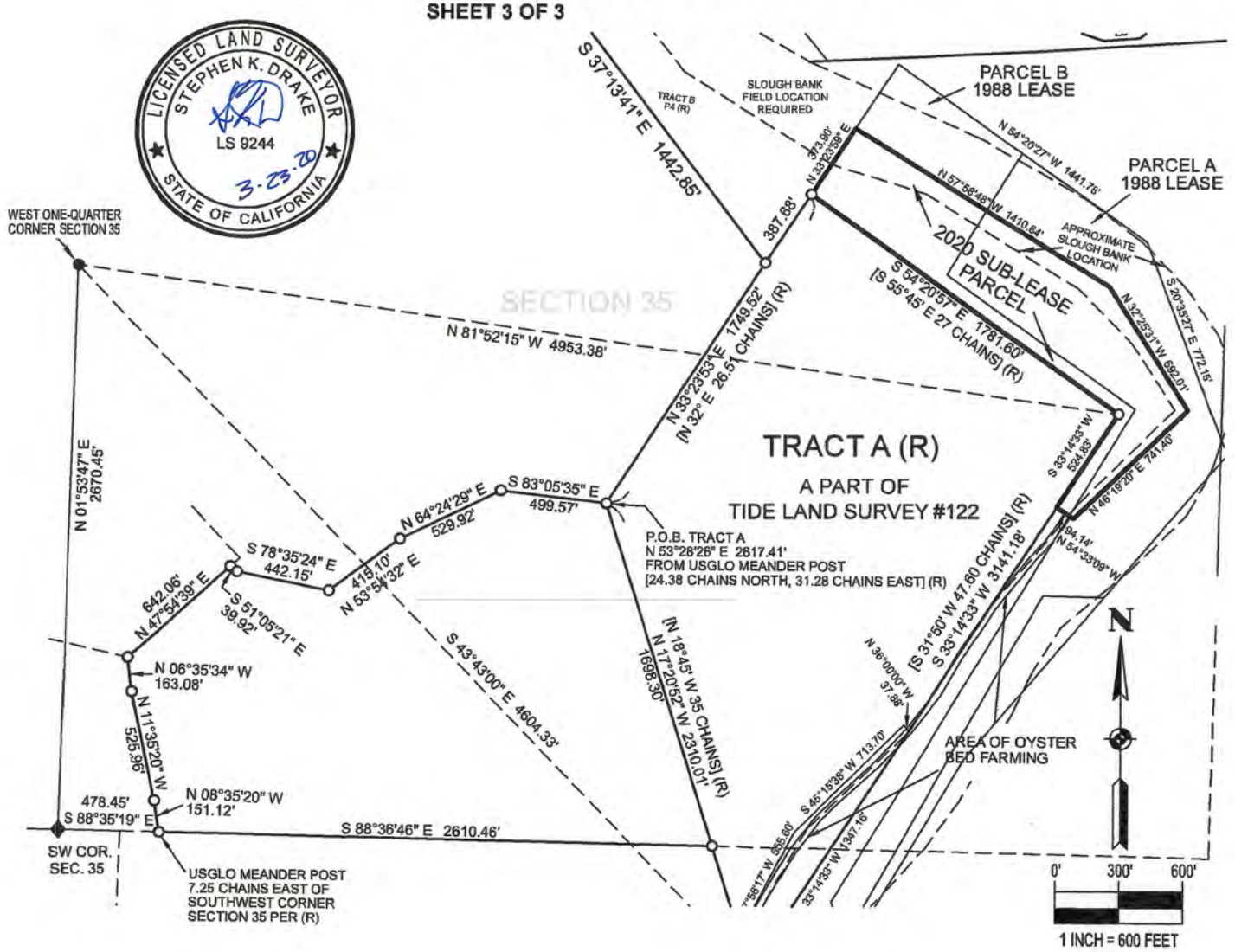
503002768 v2

'EXHIBIT B' LEGAL DESCRIPTION MAP

SHEET 3 OF 3



CONFLUENCE
ENVIRONMENTAL COMPANY

N

0 280 560
Feet
Meters
0 70 140

Eelgrass (Z. marina) (2020)
Eelgrass Buffer (5m)
MHHW and HAT
MLLW
Aquaculture Growing Area Lease
Sub-lease Area
Proposed Longline (27 Acres)
Rack and Bag (3 Acres)

Document Path: J:\Hog Island Oyster Company_001286\Humboldt CEQA Permitting_001286.001\GIS\Working\Proposed_Culture_Activities_August_10_Eelgrass.mxd --- 9/9/2021 by phil bloch