

ORIGINAL

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NOV 16 2015

Maine Department of Marine Resources

C: APPLICATION COVER SHEET FOR AN EXPERIMENTAL LEASE

REVISED APPLICATION

1-14-16

Name: Chebeague Island Oyster Company LLC
Address: 12 Rose Point Road
City: Chebeague Island
County: Cumberland
State, zip: Maine 04017
Telephone: business 207 807 7258 home 207 846 0924 cell 207 807 7256
Email address: bob963@me.com

COMPLETE 1-14-16

Location of lease site: town Chebeague Island county Cumberland waterbody Casco Bay

Additional description off the northwest corner of Little Chebeague Island (e.g. south of B Island)

Total acreage requested (4-acre maximum): 30,100 square feet (just under 3/4 acre)

Growing Area # 13 Water Quality Classification clear (no classifications as of 11/5/2015)

Type of culture (circle): Bottom (no gear) Suspended (gear in the water and/or on the bottom) Net Pen (finfish)

Name of species to be cultivated, common and scientific names: eastern oyster (Crassostrea virginica)

Name and address of the source of seed stock, juveniles, smolts, etc., to be cultivated: Mook Sea Farm, 321 ME Route 129, Walpole, ME 04573

Amount of application fee enclosed: \$100.00 (\$100 payable to: Treasurer, State of Maine)

I hereby state that the information included in this application is true and correct and that I have read and understand the requirements of the Department's rules governing aquaculture.

Signature: Robert Ernest, Manger Chebeague Island Oyster Company, LLC Date: 9/8/2015

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

Part B. Requirements and Regulations

Aquaculture leases must comply with the following state and federal regulations

1. Essential Habitats and Eagle Nests

There are no essential habitats or eagle nests with 1/4 mile of the proposed site.
See "Nearest Essential Bird Nesting Habitat... .pdf attached.

2. Water Quality Classification

WL 13 (Approved section; no classifications on DMR document dated 11/5/2015)

3. Finfish Aquaculture

This lease application does not entail finfish aquaculture

4. Water Discharge

This lease will not entail any water discharge

Part D. Experimental Lease Application Information

Vicinity Map

We are requesting approval of a 30,100 SF (70' x 430') lease site, which will absorb our current LPA (WHET 1-14), on the northwest corner of Little Chebeague Island. It is at, or very close to, the mean intertidal line. The longer axis of the proposed site runs parallel to our existing LPA, and to the shoreline. Attached is a vicinity map, based on a NOAA chart, showing waters, shoreland, and lines of mean high and low water. True north and lease boundaries are also shown. The proposed site lies mostly in the intertidal zone; the northwesterly edge slightly overlaps the MLW line. This is driven by our operational plan of allowing the cages and bags to dry out on the low tide.

1. Coordinate Description

The coordinates of the site's four corners, taken on two separate GPS units, are as follows -

NW corner 70° 8' 41.95"W, 43° 42' 57.59"N

SW corner 70° 8' 47.22"W, 43° 42' 56.30"N

NE corner 70° 8' 41.6"W, 43° 42' 56.97"N

SE corner 70° 8' 47.12"W, 43° 42' 55.62"N

See Vicinity Map attached

2. Land Owners

There are no private riparian landowners within 1,000' of the proposed site. Little Chebeague Island lies in the towns of Chebeague and Long Island; it is owned by the Maine Bureau of Parks and Lands, as an undeveloped park where picnicking, camping and swimming are allowed, but no facilities are provided. We have corresponded with Gary Best at the Parks and Lands Bureau of the MDACF, and will send him a copy of this application.

The closest private riparian neighbors are on Great Chebeague, more than 1,500' from the proposed site. A Town of Chebeague tax map, showing the site location relative to riparian neighbors, is included with this application.

The site is accessible on foot at low tide only, via a sandbar from a small parking area associated with the Indian Point conservation area on Great Chebeague. There is parking for up to five vehicles at this area. At mid to high tide, the site is accessible by boat.

Town of Chebeague tax map I-09 showing the site relative to riparian neighbors, is attached.

3. Research Program and Operation

In 2013, Bob Earnest and David Whiston undertook a small oyster farming operation, out of interest in exploring aquaculture as an economic development driver on Great Chebeague. We started on a single LPA at the Whiston's dock in Chandler's Cove (LPA License WHIS-1-12), and then obtained a second LPA across the cove (WHIS-1-13). In 2014, Henry Whetham and Caitlin Gerber joined the operation, and two additional LPAs were obtained, one in Chandler's Cove and one on the northwest corner of Little Chebeague, contiguous to the proposed Experimental Lease. The operation has done most of its growing to date in floating cages and vexar bags (Oyster Ranch gear) but has also experimented with bottom cages in the intertidal zone. In 2015, the four participants in the venture incorporated as the Chebeague Island Oyster Company LLC (referred to hereafter in the application as CIO).

At this time, the principals in CIO wish to expand the operation, to further test and demonstrate the financial viability of growing oysters commercially on Chebeague. We are also looking to explore other culture methods to determine which are most effective and cost efficient.

Purpose and Design

We intend to experiment with various culture methods at a single location, to see what the most effective and efficient forms of growing are on a limited site footprint, in terms of space utilization and cost of gear. We are also interested in seeing if one method or type of method/gear yields better survival and growth rates, or animal quality (e.g. depth of cup, cleanliness, etc). We will experiment with various arrangements - floating cages, bottom cages, grow-out trays, and rack and bag arrays - and monitor and document conditions regularly during the course of each growing season. We will monitor differences in survival and growth rates among these various culture methods, and upper vs. lower shelves of bottom cages, and bottom vs. upper bags on racks, where predation is seen as a variable threat (survival and growth rates do not appear to vary materially between upper and lower shelves of floating gear, based on our three years LPA experience).

Species, Amount and Source of Seed

We are looking to grow American or Eastern oysters (*Crassostrea virginica*), and will likely continue to source seed from Mook Sea Farm. We may source from Muscongus Bay Aquaculture as well. We expect to start 500,000 seed per year.

Culture and Harvesting

CIO was conceived of as a marine enterprise to complement lobstering as an economic engine for Great Chebeague. As such, its founders have looked to coexist amicably with the lobstering community on the island. In this regard, CIO has resolved to limit the geographic footprint of the enterprise. We are focused on how to optimize aquaculture activity on a site that coexists with other community interests. We hope to successfully cultivate several million oysters - starting at 500,000 annually - on a site of less than an acre. This experimental lease is aimed at determining how best to achieve that.

In addition to the bottom cages already in use at our existing LPA on Little Chebeague, we anticipate experimenting with floating cages that will bottom out at low tide, bottom trays, and rack and bag arrays. We will access the site at low tide on foot, and will use a 17' Carolina Skiff (40 HP engine) and a 24' modified pontoon boat (30 HP engine) at mid- and high tides. Sorting and related activities are anticipated to be conducted onboard the pontoon. Harvesting will be done from the pontoon boat at mid- and high tides; some may be done on foot, at low tide, with vexar (ADPI) bags transferred to the pontoon or skiff.

As an experimental lease, we plan to try 3 different methods:

- Vexar bags in Oyster Ranch style cages, with floats
- Vexar bags in wire cage trays, with no floats
- Vexar bags attached to rebar frames (2 "C" forms welded to a center bar); also known as 'rack and bag'

All oysters will be removed from the site each winter; the animals will be overwintered at our other site in Chandlers Cove.

Length of Study

We expect to use the full three year term of the experimental license period to conduct our study. If one method of growing clearly emerges sooner than that, we will consider applying for a standard lease at that time.

Scientific or Commercial

This experimental study is for commercial purposes.

4. Existing Uses

At present, the site sees no commercial use (other than our existing lease WHET 1-14), and no observed recreational use. There are no homes, docks, moorings or navigation channels within 1,000' of the site. As previously noted, Little Chebeague is owned by the state as an undeveloped park for picnickers and campers arriving by boat, or on foot from Great Chebeague. Most of those activities occur on the opposite side of the island,

where a sandy beach attracts most visitors. Beach combers do walk the shoreline, a few hundred feet upland from the proposed site. Kayakers do pass by occasionally, at mid-tides and above (the location ranges from very shallow, to too shallow, for navigation at lower tides). While recreational fishermen are regularly seen fishing from boats near the sand bar, several hundred yards to the north, we have not observed any such fishing activity at/near the proposed site. Recreational clamming, and some commercial clamming, has been done on the sand bar - again several hundred yards away. Because of the very shallow nature of low water here (approximately 10" maximum, and that only at a celestially high low tide), sail and power boats very rarely venture into this area (we saw one power boat anchored overnight near the site, just once in 2015, but it was several hundred yards away).

5. Exclusive Use

We do not see any problem with kayaking around and over our proposed site, nor would we object to recreational fishing on the offshore side of the site (southwest). We don't observe nor anticipate sail or power craft upland from the site, likely due to the hazards of navigating at low water. We are not inclined to seek state regulation of such boat traffic.

6. Description of Proposed Lease Area

A. Environmental Characteristics

The proposed site covers a very small portion of a very large, very flat area extending out from the northwest shore of Little Chebeague (*see photos attached*). It lies in an area near and below the mean low water mark, and well up the beach from established eelgrass beds further offshore.

The bottom would reasonably be characterized as sand or hard mud. The site and surrounding area are home to hermit crabs (common), green crabs (common), periwinkles (common) and sand dollars (common). Shore birds - herring and black-backed gulls, terns, and great blue heron - are seen near the site. Worm tubes are regularly observed in vicinity of the site, species not known (no harvesting of worms is conducted in the area). At the sand bar, a few hundred yards from the site, mussel remnants are evidence of what was once a productive mussel area; almost none survive today. A few wild European oysters are found in tidal pools at this sand bar also. The nearest lobster traps are seen >500' west of the site, in deeper water. There are sprouts of rockweed attached to rocks widely scattered across the flats area and uphill. There are very small sprouts of eelgrass scattered widely around the area - again, estimated to cover less than 1% of the proposed site.

The current here runs parallel to the shore in a northeast-southwest direction, at roughly .77 knots. *An attached map* indicates the direction of ebb and flow.

Upland from the site, more small, medium-sized and large rocks dot the landscape. The shoreline beach is a mix of sand, gravel and rocks. There are beach grasses above the high tide line. Deciduous and evergreen trees (maple, birch and white pine) stand back

from the beach, increasingly being overgrown with bittersweet. Poison ivy is abundant on shore, as well.

CIO has been monitoring conditions at the proposed site since early summer, 2014. As noted above, there is very little eelgrass growing in the vicinity of the proposed site. Over 75 feet towards deeper water, one observes <10' x 10' patches of moderate eelgrass growth, widely dispersed. The proposed site was chosen as it has none of these patches; eelgrass coverage of the proposed site is estimated at less than 1%. An *attached map* shows the proposed lease site in relation to Chebeague's town documents relative to eelgrass; however, onsite observations show that the map is inaccurate, and that eelgrass beds are at least 75' from the closest point of the proposed lease.

There are a few other aquaculture enterprises nearby, though none within 1,000' of the proposed site. An *attached map* shows the location and estimated proximity of these kelp, mussel and oyster operations.

B. Environmental Impact

Growing and harvesting of oysters should have no adverse environmental impacts on the area (there will be no raking or dragging of gear in connection with harvesting).

7. Structure

Plan View - attached

Cross Section - attached

8. Discharge

There will be no discharge at or near the site.

9. Marking

The proposed site's four corners are currently marked with 5" toggle floats, to help identify the contours of the site for review purposes. Upon approval of the lease, these markers will be replaced with 7" acorn buoys, marked with SEA FARM and a contact phone number for CIO.

10. Escrow Account or Performance Bond

We have read MDMR Aquaculture Regulations 2.40 and we will either open an escrow account or obtain a performance bond as required; we anticipate structure (i.e. cages / trays / bags) of less than 400 square feet in year one. We assume this means a \$1,500 bond or escrow, and will adjust as required.

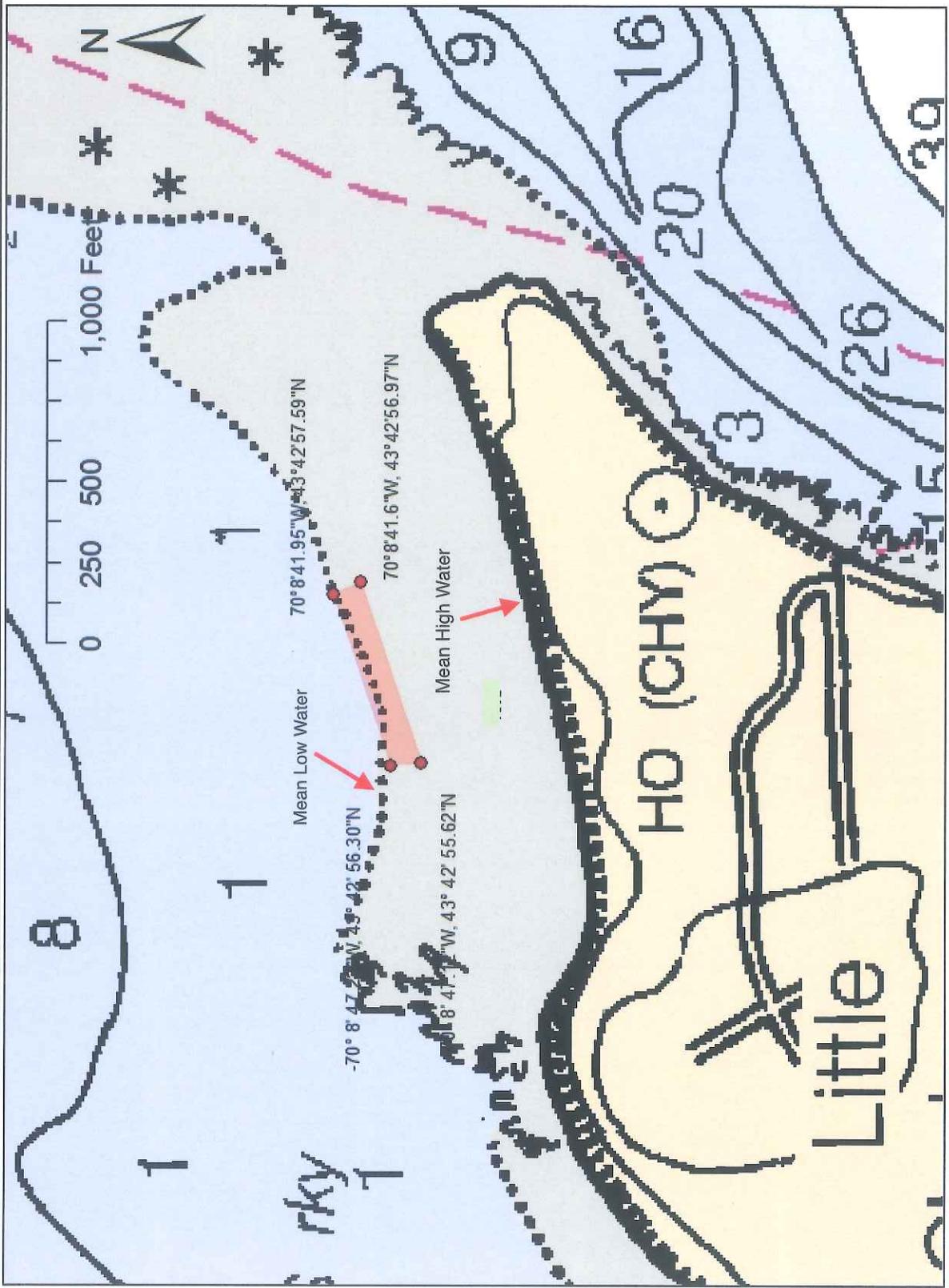
Signed,



date: 12/21/2015

Robert Earnest, member/manager
for Chebeague Island Oyster Company LLC

Vicinity Map from NOAA Nautical (2001)



Nearest Essential Bird Nesting Habitat to Proposed Lease Site



Image 2841: taken while standing at approximate center of proposed lease, facing S/SW (on a drainer tide).

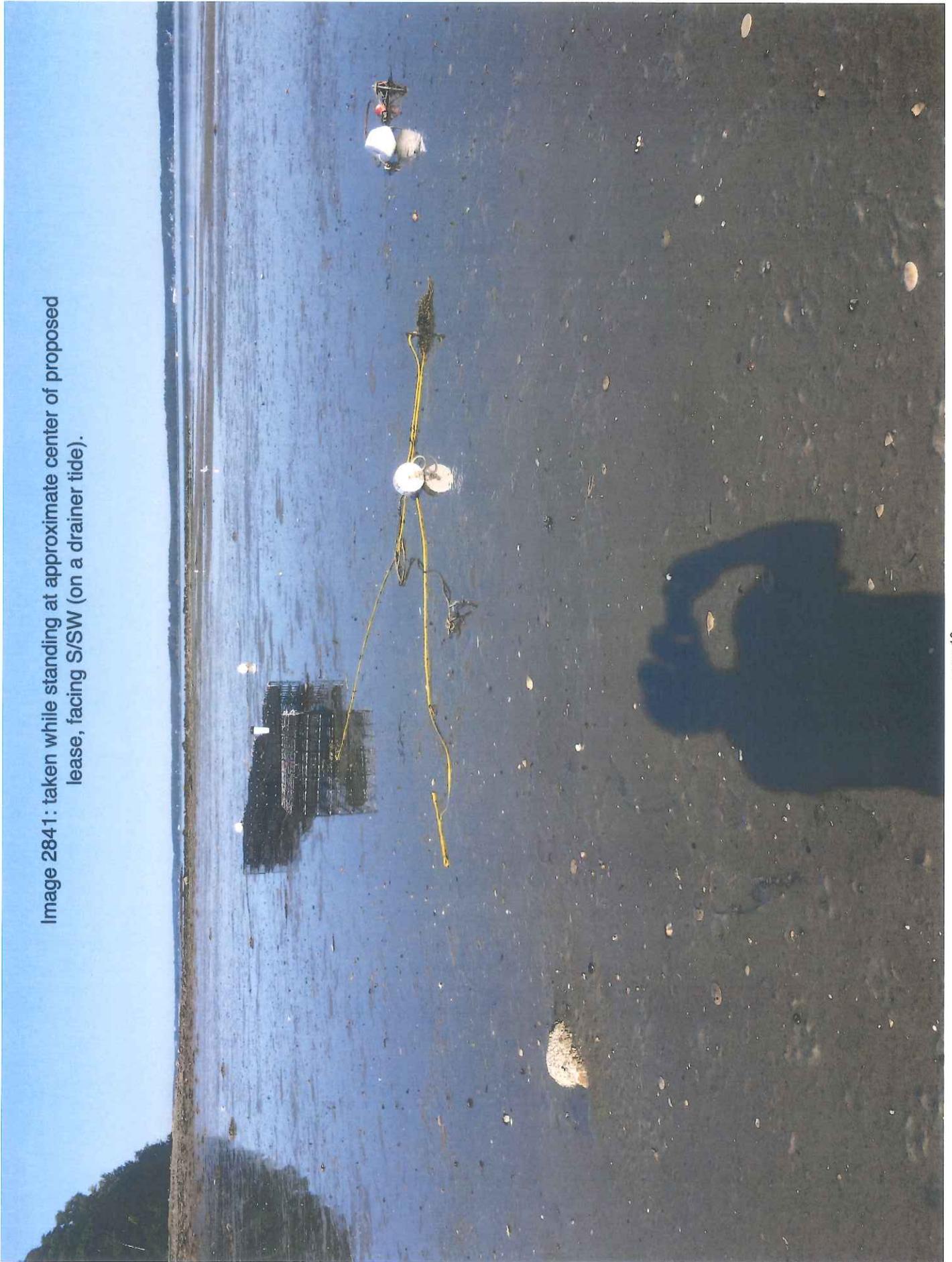
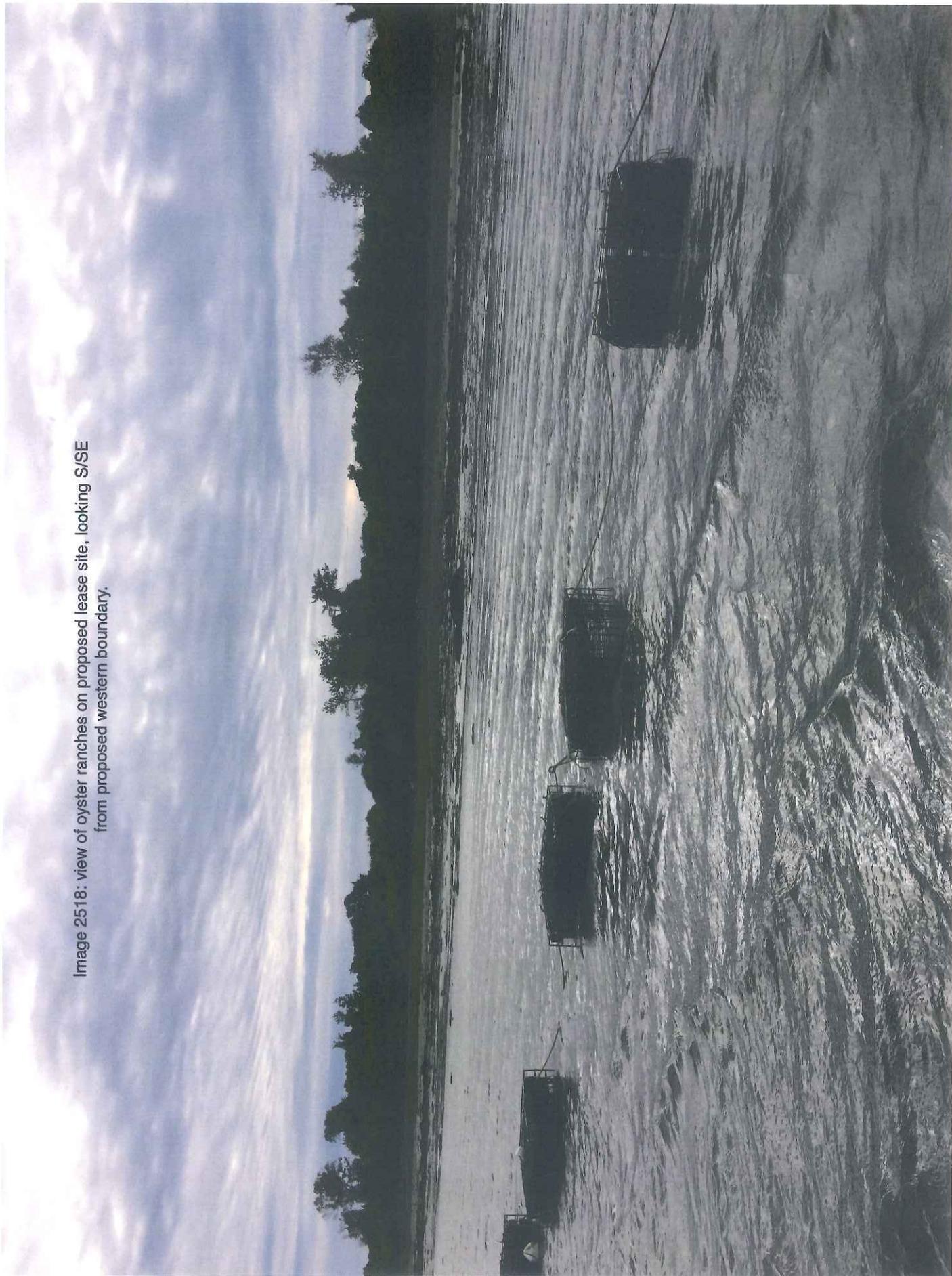


Image 2518: view of oyster ranches on proposed lease site, looking S/SE from proposed western boundary.



Ebb and Flood Tide Directions in Association with Proposed Lease Site



Proposed Chebeague Island Oyster Lease Site in Relation to Eel Grass

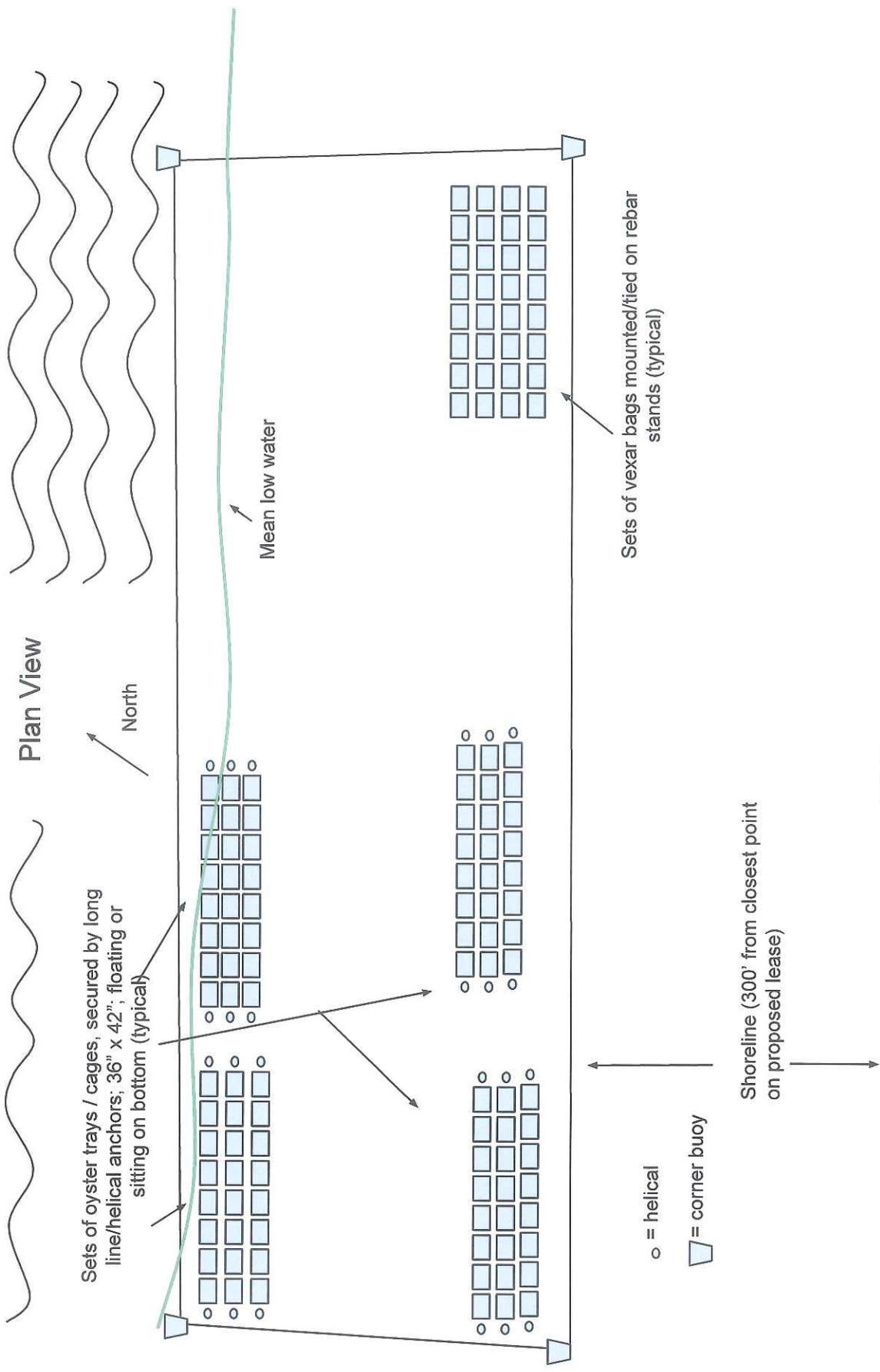


Chebeague Island Oyster 1000 foot Radius and Distance to other Seafarms



11

Eelgrass 50 - 75' minimum distance from proposed lease



Plan View

Sets of oyster trays / cages, secured by long line/helical anchors; 36" x 42"; floating or sitting on bottom (typical)

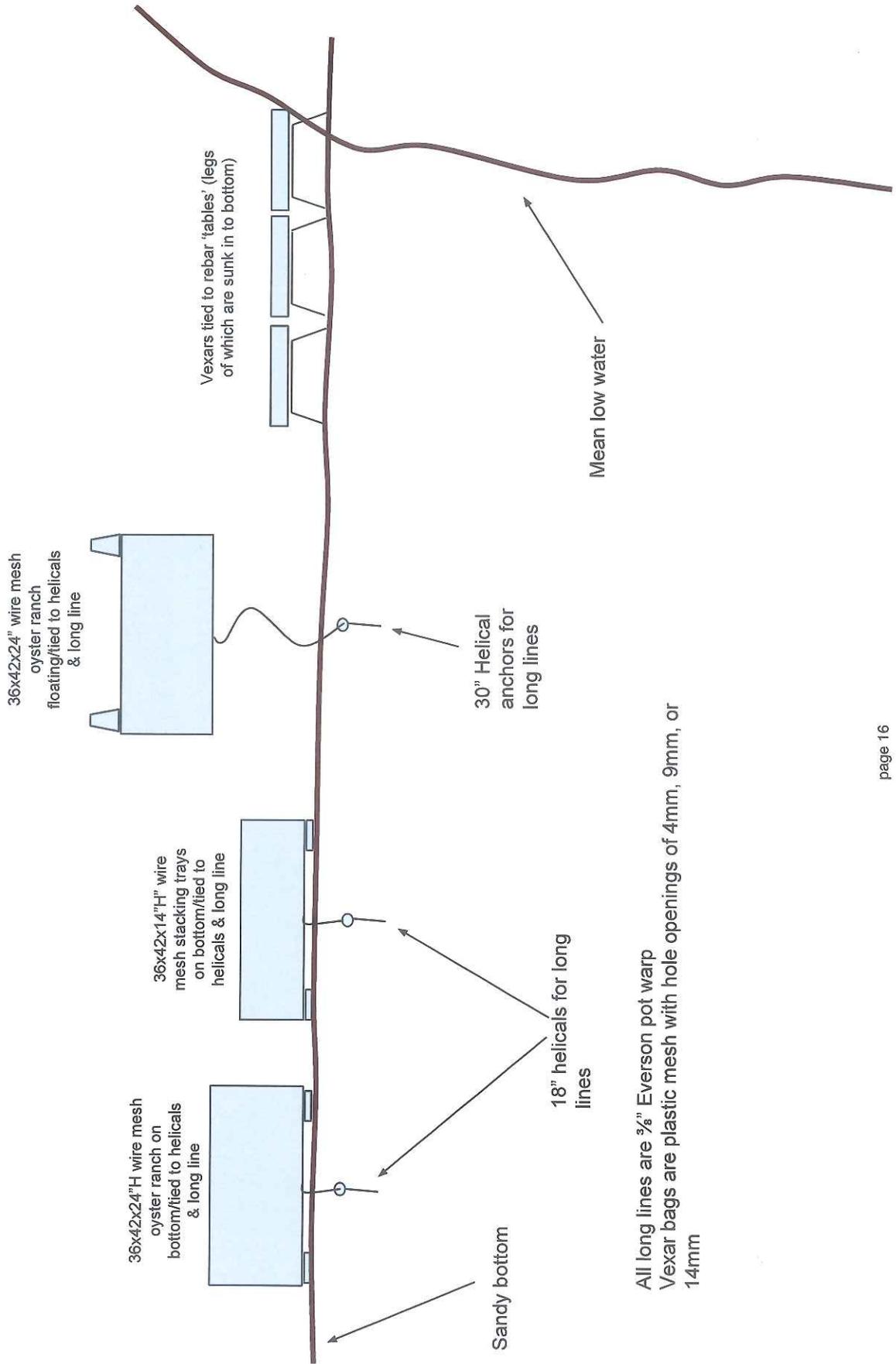
Mean low water

Sets of vexar bags mounted/tied on rebar stands (typical)

o = helical
▴ = corner buoy

Shoreline (300' from closest point on proposed lease)

Cross Section (typical)



All long lines are 3/8" Everson pot warp
 Vexar bags are plastic mesh with hole openings of 4mm, 9mm, or 14mm

January 13, 2015

To: Chebeague Island Oyster Company LLC

From: Town of Chebeague Island Selectboard

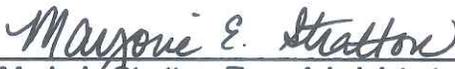
Re: Proposed Aquaculture Lease off the NW corner of Little Chebeague

From a letter titled Application Completeness Review from Hannah Dean at the DMR:
If the lease or any portion lies within the intertidal zone, the law requires you to obtain the consent of the municipal officers to the lease if the town has a shellfish ordinance (12 MRS §6072-A (11)). This consent would be demonstrated by a vote of the selectmen at a public meeting. Given that Chebeague Island has passed an ordinance "Shellfish Conservation in the Town of Chebeague Island, Maine" establishing a shellfish conservation program for the Town and its coastal waters, you will be required to obtain the consent of the municipal officers and provide documentation of this to us.

Statement from the Town Administrator:

The Selectboard of the Town of Chebeague Island has reviewed the attached lease application package of information, and has, in a publicly noticed regular meeting of the Selectboard, on 1/13/2016, voted to consent to this aquaculture lease.

Signed,



Marjorie Stratton, Town Administrator

1/13/2016

attached: lease application dated

cc: Town of Chebeague Shellfish Committee