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Maine Department of
Marine Resources

Deemed Complete
June 2, 2015

ORIGINAL

C: APPLICATION COVER SHEET FOR SUSPENDED CULTURE

Name: Bar Harbor Oyster Co, LLC

Address: 105 Seabury Dr

City: Bar Harbor

County: Hancock

State, zip: Maine, 04609

Telephone: business 207-479-1575/ 207-812-0885 home 207-288-0661 cell

Email address: barharboroyster@yahoo.com

Date of Pre-application meeting: 11/07/2014

Date of Scoping Session: 01/20/2015

	<u>town</u>	<u>county</u>	<u>waterbody</u>
Location of lease site:	<u>Bar Harbor</u>	<u>Hancock</u>	<u>Thomas Bay</u>

Additional description (e.g. south of B Island) East of Israel point, West of Thomas Island –Mt. Desert Narrows region

24.5

Total acreage requested: 24.5
(100-acre maximum)

Lease Term requested: 10 year
(10-year maximum)

Name of species to be cultivated, common and scientific names: '

American/Eastern Oyster (Crassostrea Virginica)
European Oyster (Ostrea Edulis)

Name, address and phone number of the source of seed stock, juveniles, smolts, etc., to be cultivated:

We currently anticipate buying seed stock from Muscongus Bay Aquaculture Contact: Tonie Simmons
P.O. Box 204 Bremen, ME 04551

Phone - 207-529-4100 Fax - 207-529-4104

tonie@theoysterstore.com

\$1,500 application fee enclosed: yes

Suspended Lease Application- Bar Harbor Oyster Co. LLC
Thomas Bay, Bar Harbor, ME

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:  _____ Date: 02/13/15 _____

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.

D. APPLICATION INFORMATION REQUIREMENTS

1. SITE LOCATION

- a. Vicinity Map- Use a NOAA or USGS Topographic map to show the waters and shorelands within the general vicinity of the lease tracts depicting the lease area.

Attached as Appendix #1.A.1 is NOAA chart #13318 depicting the waters and shore lands within the general area of the lease site. The proposed lease site is outlined and consists of 2 separated tracts.

- b. Plan View

Attached as Appendix #1.B.1 is the plan view showing the following...

1. Entire lease boundary.
2. Depth contours, mean low water and mean high water on all land adjacent or nearest site.
3. Primary ebb and flood directions.
4. True north with arrow.
5. Scale used.
6. There are no existing Federal projects, navigational channels, any structures, weirs, existing aquaculture leases within 2000 feet or state or federal beaches, parks, conserved lands or docking facilities within 1000 feet.
7. Coordinates for each of the 2 lease sites are attached as Appendix # 1.B.2

c. Aerial photo

If available, please provide an aerial photograph of the proposed lease area. Mark the boundary of the lease area with dimensions and true north arrow. The photo must have been taken during the twelve-month period prior to the filing of the application, preferably between July 1 and September 1, and the date on which it was taken must be noted. Note: this requirement is for the USACOE permit only.

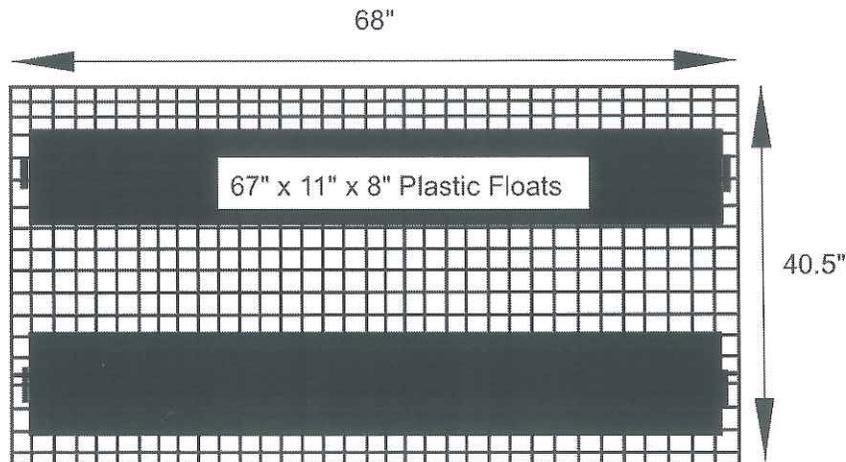
Attached as Appendix #1.C.1 is an aerial photo of the area.

2. SITE DEVELOPMENT

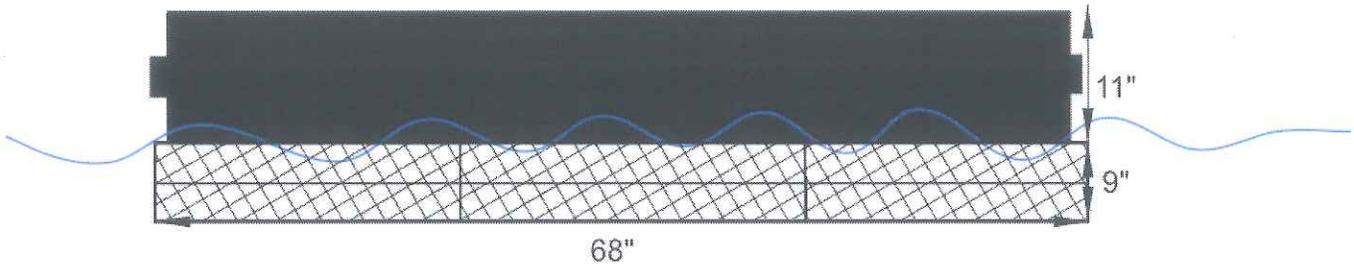
This section is intended to provide accurate plans depicting the physical structures to be placed on the proposed operation.

We intend to use the OysterGro system: cages which are 68”L x 40.5”W x 9”D. These are constructed with heavy-duty vinyl coated wire similar to lobster traps. Each cage will hold 6 mesh bags each on 2 levels separated by a wire shelf. We intend to use 900-gram weight box bags. The cages are held buoyant by 2 each, 67” x 11” x 8” black plastic floats with threaded caps on both ends. We intend to use OysterGro cages supplied by Ketcham Traps. Ketcham has made recent improvements to the original OysterGro cages. They are now building them from a larger mesh wire, which reduces the amount of overall surface area and therefore reduces the amount of biofouling. They also install a shelf between the 2 layers of bags, which improves water flow throughout the 2 layers.

a. Single Structure Schematic - Top View

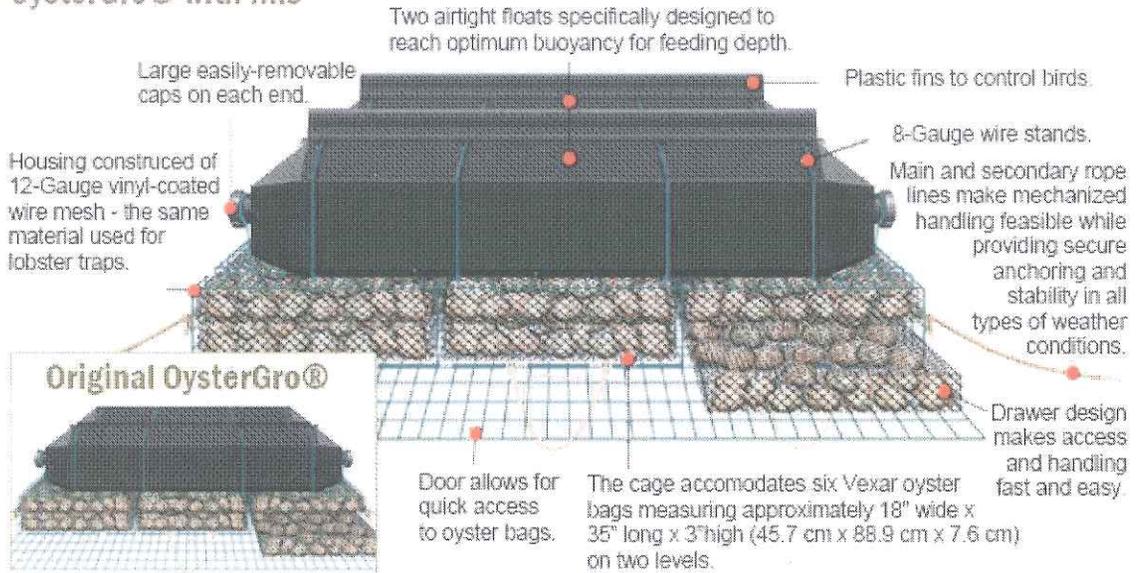


b. Single Structure Schematic- Cross Section



...2.b. Single Structure Schematic - Cross Section Continued

OysterGro® with fins



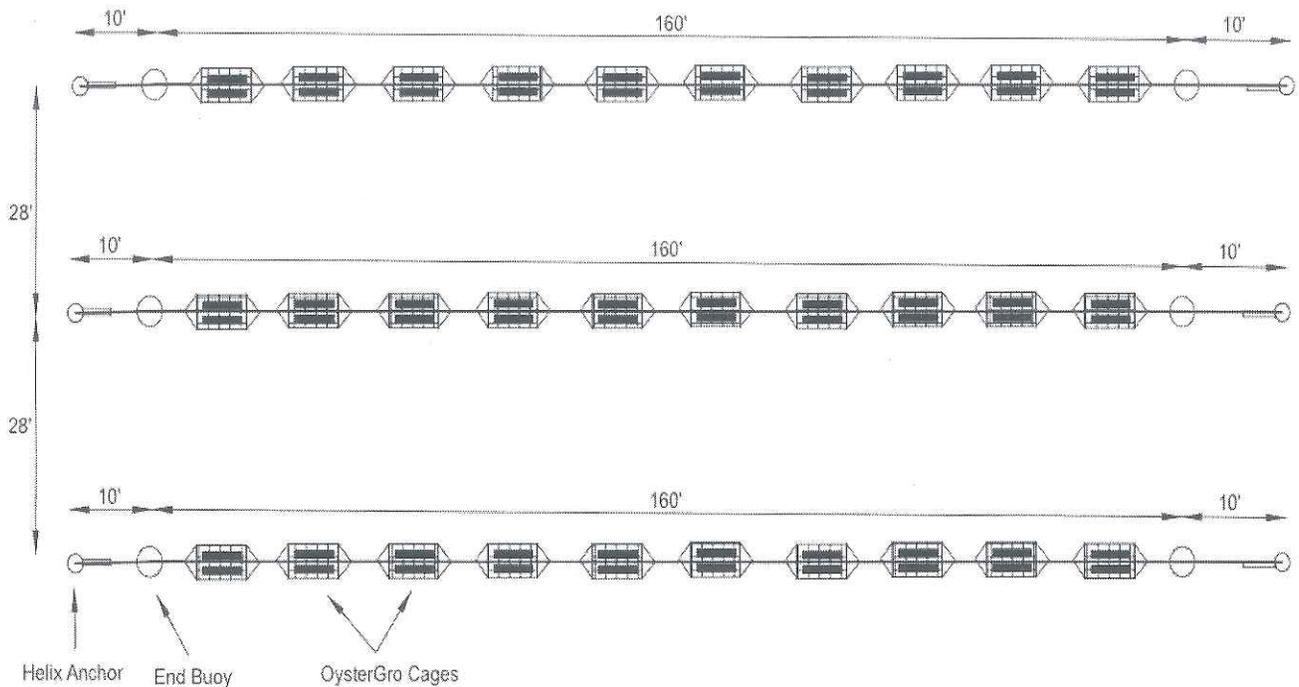
(photo credited to www.oystergro.com)

c. Maximum Structure and Mooring System Schematic - Top View

Provide a schematic of the maximum structures to be used on site, as well as the mooring system to be use. Provide dimensions, materials, etc. Please note that all moorings must be contained within the lease site.

The OysterGro system we plan to use will be set in short strings with 10 cages per string. The cages will be connected in these strings with 3/8" sinking line. There will be a 28-30' clearance between each line to leave ample space for navigation and room for tending cages. Each string will be 160' long. Each end of the 160' longline will be anchored with a 7" diameter x 5' long helix anchor, which has a breaking strength of 12,000lbs. A diagram of the proposed longline string is shown below.

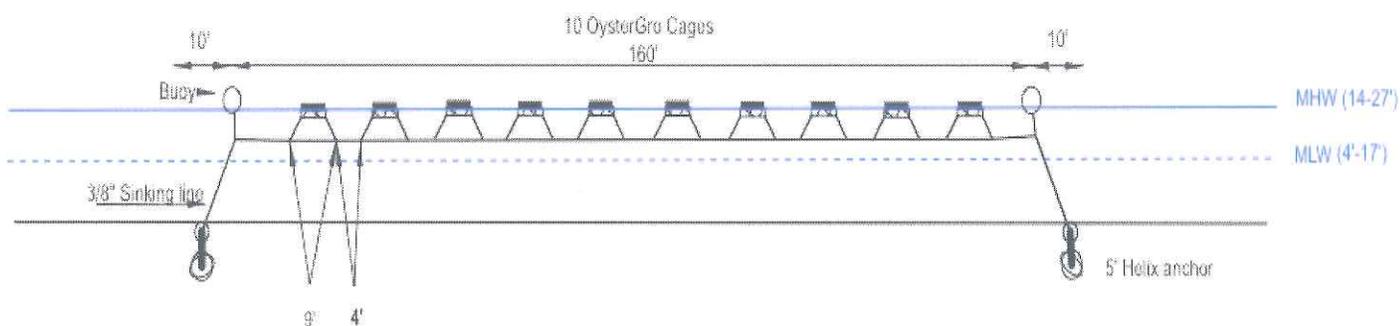
Our goal is to raise 1 million market-size oysters annually. To meet this goal, we will need approximately 170 cages the first year, 500 total cages the second year, and 1240 cages in rotation on the third year. This amount of gear will easily fit on the proposed lease site. The number of cages we estimate using, even at maximum capacity, leaves us plenty of open space between each line and does not inhibit other small boat activity. Strings of cages in such minimal density will be less visually obtrusive; it also ensures minimal bottom shading, which may aid in the restoration of eelgrass. Furthermore, it grants us the space needed for sinking cages in deeper areas to avoid ice damage in the winter. See Appendix #2.C.1 for a chart showing maximum possible cage density on this site. Please note, Bar Harbor Oyster never intends to work the proposed lease site to maximum capacity.



d. Maximum Structure and Mooring System Schematic - Cross Section

Provide a cross section schematic of the maximum structures to be used on site, as well as the mooring system to be use. Provide dimensions, materials, etc. Include depths from structure(s) to seafloor relative to MLW and MHW.

Below is a drawing representing the cross-sectional view of our intended longlines of 10 OysterGro cages.



e. On-Site Support Structures

1. Describe structures such as barges, sheds, etc., to be located on-site. Provide a schematic and indicate the dimensions, including height above sea level, materials, etc.

On the lease site we plan to have one floating upweller/ work float moored during growing season. The Float will measure roughly 24' x 12' x 4' and will be constructed of pressure treated lumber, flotation will be provided by black plastic flange mount dock floats. The float will have 2 bays for holding shellfish silos with a total capacity of over 1 million oyster seed. An axial flow pump will provide water flow for the upweller; a 1/2hp DC motor powers this pump. A bank of deep cycle batteries, charged via a charge controller and an array of 1200-1500 Watts of solar panels, will run the DC motor. The solar panels will be mounted to the top of the shelter on the work platform. See Appendix#2.E.1 for a top view of the shellfish raft and Appendix #2.E.2 for a side view of the raft.

2. Describe the storage and use of oil, gasoline or other hazardous material on this facility. If petroleum products are to be used, provide a spill prevention plan.

No hazardous materials or fuels/lubes are stored on the nursery float. In place of traditional hydraulic fluid we will use JAX Magnaplate 60 biodegradable hydraulic fluid. This natural alternative is vegetable based and completely environmentally safe.

3. Describe the type and location of any sanitary facility.

Our residence will be used as the primary facility. We live extremely close to the lease site. There is often a portable facility at the Hadley Point boat launch that will be our next best option. There will also be a dedicated 5-gallon bucket with lid on site for emergencies.

- f. Mooring System Adequacy

Provide a description of the mooring system's ability to withstand severe storms, surge, equipment break-up, etc. If the system has been specifically engineered for the site, provide a copy of any engineering analysis that is available.

We intend to use the most advanced gear and mooring systems on our site. The OysterGro cages will be securely fastened on both ends with a 7" diameter X 5' length helical anchor, each with a breaking strength of 12,000lbs. In the event of a major hurricane we will have the capacity to quickly sink all of our gear, where it can securely weather the storm. The helical anchors have been used extensively with OysterGro cages and have had great success in a variety of weather conditions. There is no significant surge on the proposed site and we have the advantage of being extremely protected from most weather conditions.

- g. Equipment Layout

Provide schematic or photographic renderings of the generalized layout of the equipment as depicted from two vantage points on the water. Provide the locations of the two vantage points

Attached as Appendix #2.G.1 is a photograph from Bouctouche Industries in Canada depicting a series of 10-cage longlines, very similar to what we are proposing. In this photo you are looking down the lengths of the longlines.

Attached as Appendix #2.G.2 is an up-close photo of 2 OysterGro cages; one is in the normal growing position and one is the flipped and drying position.

Attached as Appendix #2.G.3 is another view of the OysterGro longline setup we intend to use on our site. This photo shows a vantage point perpendicular to the longlines

- h. Gear Color

Provide the color of the gear and structures proposed to be used at the lease site.

The top floats on all the OysterGro cages will be black. The upweller float, and house will be constructed of pressure treated timber, with black plastic dock floats. The solar panels will be black. All the rope/line on the site will be natural colored. Buoys and markers will be white.

i. Marking

According to Department rules, all lease sites are to be marked with a floating device, such as a buoy, which displays the lease identifier assigned by the Department and the words "SEA FARM" in letters of at least 2 inches in height in colors contrasting to the background of the device. The marked floating devices shall be displayed at each corner of the lease area that is occupied or at the outermost corners. If such marking requirements are unnecessary or impractical in your proposed location, provide information as to why that is so and suggest alternate markings.

Lease tract boundary corners will be marked with white plastic Go-Deep buoys, labeled "SEA FARM".

3. OPERATIONS

a. Production Activities

1. List and describe your proposed activities including the number and type of vessels that will service the proposed site, frequency and duration of vessel traffic, cultivation techniques, monitoring schedule, transport schedule, predator control methods, (net) cleaning and maintenance (methods, frequency and location), harvest schedule, harvest technique and processing methods.

On our site we will have one 15' welded aluminum work-skiff. This will be used mostly as transportation back and forth to the site and also used for flipping the cages to prevent fouling. This vessel will be moored off-site at Hadley Point. We intend to build a welded aluminum cage that hangs over the side of the skiff. The cage will serve as platform for a worker to stand in. With hip waders, the waterline will fall at the waistline of the worker, allowing someone to comfortably flip the cages from a standing position. See image; Appendix#3.A.1

We plan to build a larger skiff mimicking a 20' Carolina Skiff, except made of welded marine grade aluminum. This new vessel will also be used for crew/product transport, flipping cages and will also have a ramp and hauler to raise OysterGro cages. If granted the lease, we will also build a pontoon style work barge which we will use to service our cages, tumble and grade oysters, and as a general work platform on the site. The dimensions of this vessel will be around 24' x 10'. We would like to keep the pontoon barge and the 20' skiff moored on site. All vessels will be powered by low emission and quiet 4-stroke outboard engines. All vessels will be maintained in excellent condition. Any maintenance the vessels require will be done off-site, except for emergency repairs.

We will be using Hadley point as a waterfront access point for our operations. Vessel traffic will mostly be limited to us traveling to our site and working our gear. While working our gear, one OysterGro cage at a time, we will slowly move down our strings of cages. During this process our engines will be idling or even off.

Since the oyster-growing season is short we intend to frequent the site mainly from April to November. During these months we would like the freedom to access our site 6 days a week during daylight hours. During the winter months our intention is to sink the OysterGro cages to the bottom for seasonal storage. Our presence at the site would be extremely limited from November through May. Aside from occasional harvesting and maintenance there will be little or no activity during winter months. Our proposed site freezes heavily in the winter; there will be no visible gear and operations will cease.

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When weather permits, in early spring, the first step will be raising our cages from the ocean floor to the surface. From this point on, the most frequent occurring operation will be flipping the raised cages to expose them on the surface to sunlight. This process prevents the growth of unwanted marine organisms (bio-fouling) on our cages. We expect that in order to prevent biofouling we will need to flip each cage every 7-14 days. Each cage will then need to remain in a flipped position for 24 hours. We expect that flipping our cages at this frequency will sufficiently prevent biofouling. Therefore, we do not intend to use other, more extreme methods, to control unwanted marine growth.

Another common operation on our site will be tumbling and grading oysters. This process will be done from our pontoon barge. It involves raising the cages to the barge, feeding the oysters into the tumble grader, and reassigning like-sized oysters back into cages. This operation increases the efficiency of the site as oyster growth is most productive when oysters are caged with similar-sized cohorts. All of the oysters will be tumbled, washed, and graded once a month.

In order to prevent damage, or loss of gear, and to be good stewards of the lease site, we intend to check on gear Monday-Saturday in the growing season, during normal work hours.

We do not intend to use any predator control methods aside from the inherent protective nature of the OysterGro cages.

2. Describe the start-up and projected maximum production on a 12-month basis. Also state the maximum stocking density.

The first year, and every year, we intend to start 1 million seed oysters in our on-site upweller. By mid-summer of our first season, the seed should be large enough to move into the OysterGro cages. For 1 million seed we will need 170 OysterGro cages on site—representing roughly 1,000 Vexar bags, at a density of 1,000 oysters per bag.

The second year we will start 1 million seed oysters in the upweller. By mid season, these will be ready to occupy another 170 cages. Our existing 1 year-old stock will now occupy 330 OysterGro cages. These 330 cages will now hold 1,980 Vexar bags. As the oysters grow we will cut the density of each bag in half—allowing room for more growth. In year two, each Vexar bag will hold 500, 2 year-old oysters. By the end of the second season there will be a total of 500 cages on site.

The third year we will start 1 million seed oysters in the upweller. By mid season, these will be ready to occupy another 170 cages. Our 1 year-old oyster stock will fill 330 cages, and 1,980 Vexar bags. The 2 year-old oysters will now fill 740 cages, as densities again are cut to 225 oysters per bag, or the equivalent of 4,440 Vexar bags. By the end of the third season we will have reached our intended maximum capacity with 1240 OysterGro cages (7440 Vexar bags) onsite.

According to OysterGro Systems the maximum stock density for our proposed lease site is 6 million seed oysters. With a 3-year growth cycle, this has the potential to produce 2 million market-size oysters annually. We do not intend to work this site to maximum capacity. We prefer to keep our gear more spaced and plan to only work with 3 million seed oysters; our goal being producing 1 million market-sized oysters on our third, and every year thereafter.

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3. Provide documentation that the equipment that will be used on the lease site is the best available technology for the proposed activity.

The OysterGro system is the best available technology for this type of suspended oyster culture, and has been extremely successful in the maritime provinces of Eastern Canada. The OysterGro system is endorsed by Prince Edward Island Aquaculture Alliance, New Brunswick Professional Shellfish Growers Association, and East Coast Shellfish Growers Association.

4. Describe the anticipated number and type of employment opportunities created by the project at start-up and proposed maximum production. Note: this requirement is for the USACOE permit only.

If approved, we expect that in the first season we will be able to run the site with 2 people. If successful, we anticipate hiring an additional seasonal hand in both the second and third year. We expect the most to ever have working onsite will be 4 people, with an additional onshore employee for marketing, delivery etc.

b. Noise and Light

1. Provide the type of powered equipment, if any, that will be used on site, including, but not limited to boats, barges, power washers, generators, upweller motors, harvesting or seeding equipment, and feeding equipment. Vessels moving to and from the site are considered exempt from the noise impact consideration.

Powered equipment on the site includes the three previously mentioned motor vessels. A 15' skiff with a 60 HP Yamaha 4-stroke will move us around the site and take us to and from, it will also be used for flipping cages. We also intend to run a 20' flat-bottom skiff with 60 HP 4-stroke outboard: this skiff will utilize a silent electric pot hauler to raise cages. This 20' Skiff will also be used for cage flipping and harvesting oysters.

In addition, we will have a pontoon deck-barge on site to be used as the main mobile work platform and for tumbling and grading oysters. The pontoon barge will also have a quiet 4-stroke outboard motor. The barge will be equipped with a Honda hydraulic power unit, which will be used to run the tumble grader and hauler. The hydraulic pack will be bolted to the vessel with rubber isolators to reduce any vibration noise. Additionally, there will be a small house built over the Honda motor with Sound Down noise-suppressing insulation. The Honda engine will be equipped with an additional muffler, to further reduce noise. This engine is air cooled so it cannot be completely covered but we can install the newest style of noise suppressing air baffles; this will enable it to run properly and quietly. While running the barge we will work down each string of cages, pulling individual cages onboard via a small roller-ramp. The oysters will be removed from the cages and bags and fed into the oyster tumbler. The function of the tumbler is to grade oysters by size. We will then systematically re-bag them in similar size grades. The tumbler grader will make a light clinking sound from the oysters gently tumbling down the grading tube. There will be slight engine noise from the Honda. The Honda hydraulic pack will power a nearly silent hydraulic hauler motor and a centrifugal water pump for washing down.

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The final piece of powered equipment that will be on site will be the solar-powered upweller. This will be roughly a 24' x 12' floating dock with a small house structure on it. The top of the structure will house the solar panels, which keep the deep cycle batteries charged as they run the upweller pump. The pump will be an axial flow, high volume, low-pressure pump, which will circulate water for the oyster seed. The upweller's powered equipment will be virtually silent.

2. Indicate generally when, how often and for how long this equipment will be used (i.e. daily, weekly, only during harvesting).

Our 15' and 20' work-skiffs will be used on a daily basis (except Sundays) for transport, flipping cages, maintaining cages and lines and harvesting. The pontoon barge will be moored on-site and will be used primarily for tumbling and grading oysters. This will be used for about one week every month. At the beginning and end of each growing season the pontoon barge will be used to raise and sink the cages.

The upweller will be moored on-site for each growing season and will be removed before the end of fall. This will serve as a work platform during the growing season but will only run as a functional upweller for about 2 months each growing season.

3. Specify what will be used to reduce the noise level from the powered equipment, i.e., mufflers, etc. You do not need to provide decibel or frequency ratings unless they are known or provided by the equipment manufacturer.

Aside from the minimal noise from the 4-stroke outboard engine on our skiffs the only significant noise-maker would be the Honda engine that powers the hydraulics. As previously mentioned we will be significantly muffling this noise by having a sound-down engine box with sound muffling air intake baffles. We will also be adding an additional muffler to the Honda's exhaust system.

4. Provide the number, type (whether the fixtures are shielded), wattage and location of lights, other than those used for navigation or marking, that will be used at the proposed lease site.

There will be no lights used on site, all work will take place during daylight hours.

5. Indicate under what circumstances you might work at your site beyond daylight hours.

We would only work onsite beyond daylight if, and only if, there is a serious malfunction of gear, or personal injury, which requires immediate attention and extends into those hours.

c. Upland Facilities or Holdings

Describe shore side facilities or holdings to be used for various activities including feed transport, processing, etc.

Our transport skiff will be moored at Hadley Point and all harvests and equipment will depart or make landfall from there. We have a nearby 40'x40' work shop on our property for land-based maintenance and construction.

d. Current Operations

Describe your existing water-based facilities and operations.

Currently, we have no affiliated water-based facilities or operations. However, both co-founders of Bar Harbor Oyster Company are concurrently applying for 4 LPAs within this proposed lease site in Thomas Bay. If granted, we each plan to have cages within the vicinity by summer 2015.

4. ENVIRONMENTAL CHARACTERIZATION

The MDMR aquaculture lease regulations specify applicants may do more than one site evaluation, but one evaluation must be completed between April 1 and November 15, dates inclusive.

a. Environmental Characterization

Provide the environmental evaluation used to select the proposed lease tract(s). Descriptive information shall include but not be limited to: bottom characteristics (include but not limited to sediment types, distribution and topography), resident marine and upland flora and fauna (species are very abundant, common, rare), tide levels, current speed and direction.

This proposed lease site has many ideal characteristics for farming oysters. Each site sits in a range of 4-17 feet of water at low tide. In the shallower regions the bottom is silty mud and in some of the deeper sections there are small, scattered gravel patches. The proposed southern tract has depths of 4-17 feet at low tide. The eastern border of the southern tract overlays a channel, which runs between Thomas Island and Israel point. The proposed northern plot has a more level topography with depths ranging from 4-10 feet. The northern plot lays more closely to the northwest side of Thomas Island.

The waters in Thomas bay are conveniently protected from the prevailing south-westerly winds. The fresh and temperate water of Northeast Creek and the abundance of plankton that flows with it feed the proposed site. Historically, this site has had very few problems with red tide, even when blooms have affected other areas in Frenchman Bay.

There are few other marine organisms that inhabit our proposed lease site, they include: mussels, green crabs, periwinkles, and herring gulls but little else.

The tides on our proposed site rise and fall roughly 10 feet. On the southern tract the current runs in a NW—SE direction, on the northern tract the current runs closer to a N—S direction. The current speed is estimated to run at 1-2 knots.

5. AREA RESOURCES

a. Shellfish Beds, Fish Migration Routes and Submerged Vegetation Beds

Provide a description of shellfish beds, fish migration routes and other marine resources in the surrounding area. Note the presence and extent of any submerged aquatic vegetation beds, i.e. eelgrass, within the proposed lease area. Provide a map of these resources if available from the local municipality or state agencies.

There are no known shellfish beds within the proposed boundaries of the site. Historically there was an abundance of mussels in this area but very few patches currently remain. There are no major fish migrations in the area or other commercial fisheries in this area.

There are no known eelgrass beds in the area presently. Historically, there have been abundant eelgrass beds inside of Thomas Bay; however, today there is no eelgrass within the boundaries of the proposed site. See below map from Maine DMR showing location of any remaining eelgrass in the Mt Desert Narrows area. Currently, Frenchman Bay Partners is working on eelgrass restoration close by. We are supportive of this effort and our proposed site does not overlay the restoration areas. We hope that our oyster population will eventually aid in the clarification of Thomas Bay, thus allowing eelgrass populations to more easily rebound.



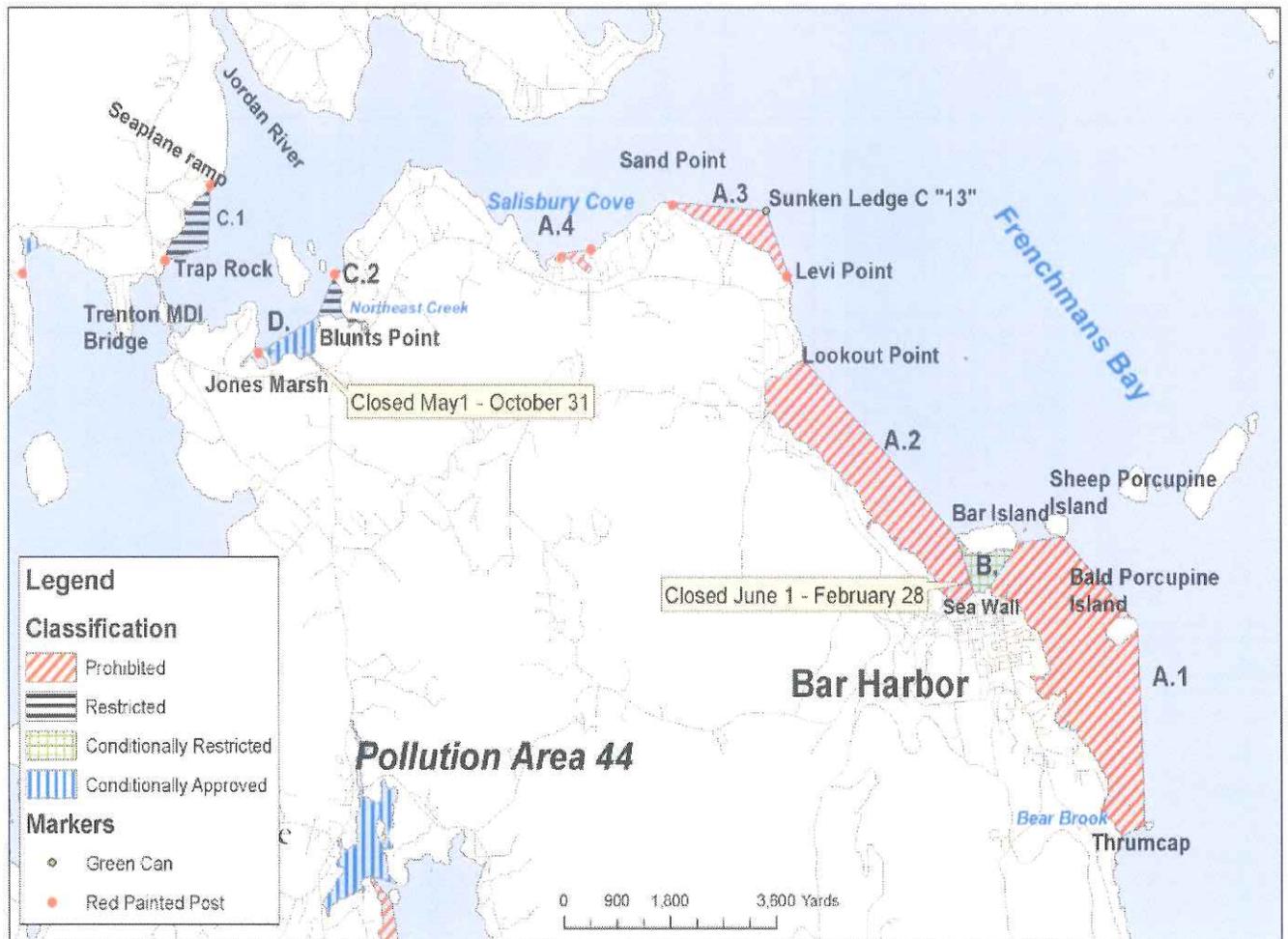
<http://www.maine.gov/dmr/rm/eelgrass/maps/8-bluehill-frenchman.pdf>

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Provide the shellfish growing area classification for the area of the proposed lease. The classifications are available at either the town office or from the Public Health Division of DMR. Contact information is available at the DMR website: www.maine.gov/dmr/rm/public_health

The proposed lease site is classified as an open area for shellfish.

Maine Department of Marine Resources
 Area No. 47
 Northern Mount Desert Island and vicinity (Bar Harbor and Trenton)



OFFICES AT 2 BEECH ST., BAKER BUILDING, HALLOWELL, MAINE
<http://www.Maine.gov/dmr>

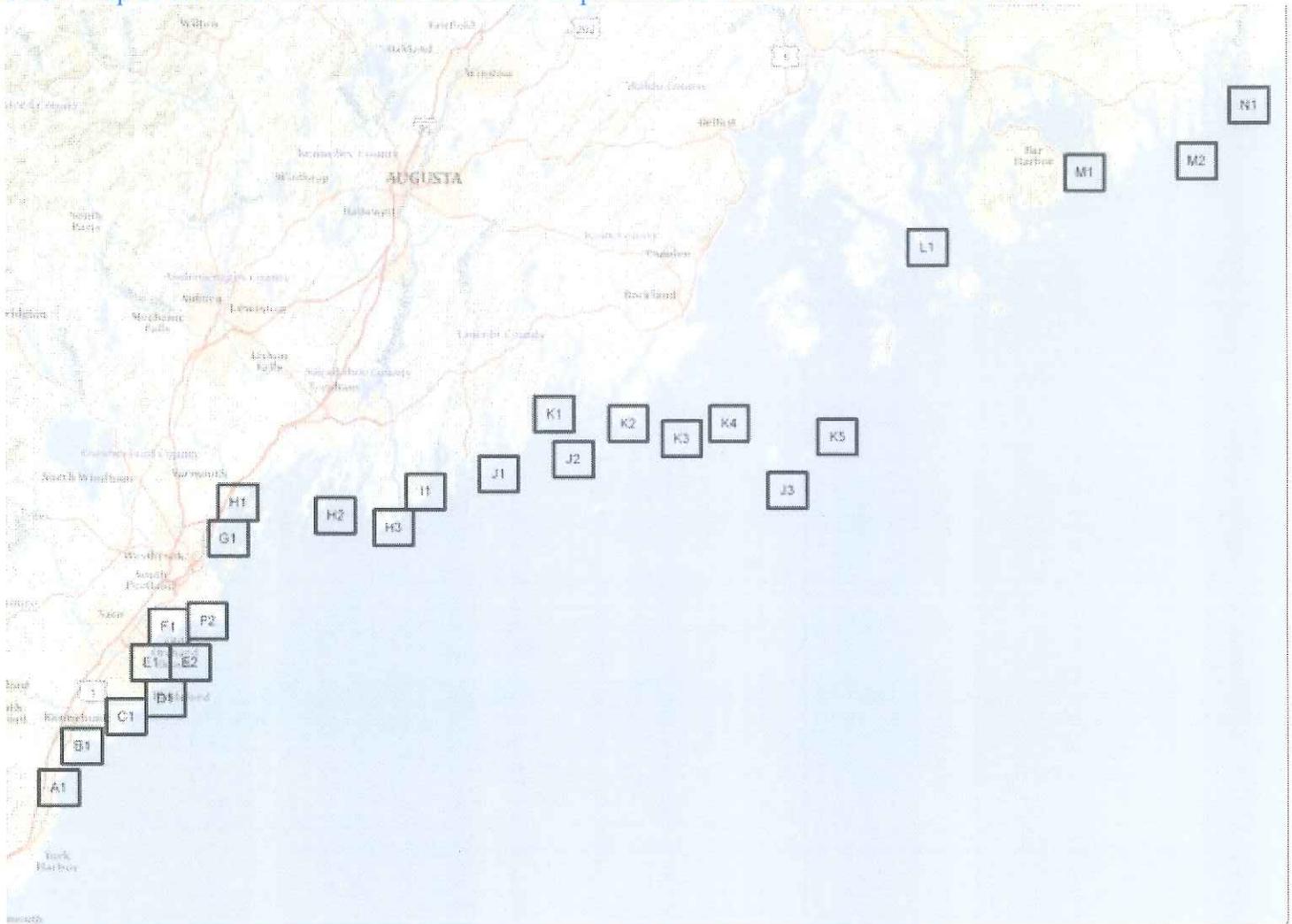
PHONE: (207) 624-6550

FAX: (207) 624-6024

b. Essential Habitats/Endangered Species

Under the Maine Endangered Species Act a state agency or municipal government shall not permit, license, fund, or carry out projects occurring partly or wholly within an **Essential Habitat** without the approval of the Commissioner of MDIFW. Applicants are strongly encouraged to contact the Environmental Coordinator, Maine Inland Fisheries and Wildlife, 284 State Street, State House Station 41, Augusta, Maine 04333; Telephone (207) 287-3286. Applicants are requested to provide a signed statement to confirm the proposed lease **either** does not fall within the boundary of an Essential Habitat or that the applicant has contacted MDIF&W and by preliminary review MDIF&W will grant approval for the MDMR to issue an aquaculture lease within part or all of the boundary of a designated Essential Habitat.

The proposed lease site does not fall within or near any boundary of an essential habitat. See below map of essential habitats from the Maine Department of Inland Fisheries and Wildlife.



Attached as Appendix #5.B.1 is a signed statement from John Perry of Maine Department of Inland Fisheries and Wildlife. John states that his Department “has not mapped any Essential Habitats or inland fisheries habitats that would be directly affected,” by our project. John mentioned that we should be aware of a nearby eagle’s nest on Israel Point . A second matter potentially concerning the area is a Tidal Wading Bird and Waterfowl Habitat. We have included in our application a map that marks these habitats as Appendix #5.B.2. We conclude that our site does not intersect with the 660-foot protective buffer on the eagle’s nest. Bar Harbor Oyster is also confident that our proposed lease site is in deep enough water as to not affect the intertidal wading of birds. We are willing to work with MDIFW to limit our impact on birds that may use the intertidal flats surrounding our proposed site.

6. SURROUNDING AREA USE

a. Riparian Property

1. Provide a tax map, chart, or topographic map showing the location(s) of the lease tract(s), the waters, shorelands and general vicinity of the lease tract(s). Property lines must be clearly marked. Mark the entire lease boundary on the map or chart.

See Appendix #6.A.1, #6.A.2 and #6.A.3

2. List the names and addresses of every riparian owner of land within 1000 feet of the lease tract(s) and the location of their property marked as shown on the map. The map and list of riparian owners must be certified by the tax collector or clerk of the municipality in which the lease tract is located as being an accurate copy of this information as maintained by the municipality.

Attached as Appendix #6.A.4 is a list of the riparian owners of land, and their addresses, certified by the town Clerk. Please refer to your records for the original copy. There have been no changes to the riparian owners list since submission to the DMR.

3. The written permission of every riparian owner whose land to the low mark will actually be used to access the lease site or upon which the lease activities will take place.

There are no riparian owners who fit this description. The only access to the lease site is by boat.

4. A description of riparian owner's current use of lease site for purposes of access to riparian owned land.

Currently no riparian owners use any part of the proposed lease site, for access or any other purpose.

b. Existing Uses

1. Describe the navigational or other uses of the area(s) by type (recreational or commercial), volume, time (seasonal patterns of use), duration (in the vicinity), direction of traffic, amount of activity.

Currently, there is very little use of Thomas Bay, which is another reason it appeals to us as an aquaculture site. There is some seasonal recreational use of the bay: occasional kayakers and a rare recreational motorboat. Inner Thomas Bay, not within the reaches of our site, is occasionally used for the harvesting of bloodworms. There was a temporary mussel spat collector on the north end of Thomas Island in 2014. There is a diminishing wild mussel fishery in the Mt. Desert Narrows area; it is well removed from our proposed lease site and very small scale. There is no other commercial or recreational activity to speak of.

2. Describe the degree of exclusive use required by the proposed lease and the impact on existing or potential uses of the area.

We welcome the use of kayaks and small recreational boats on our site as long as people do not tamper with our gear and equipment.

3. If available, provide the name and address of individuals, ie. mooring owners, fishermen, draggers, etc. who actively use the proposed site. Note: this requirement is for the USACOE permit only.

There are no existing moorings on the proposed site. Peter Richardson, a riparian landowner on Thundermist Road, stated he had a mooring within the lease site. The mooring is now lost and has not been used for over 10-15 years. If we discover his mooring stone while installing anchors we will attach a buoy marker for him and we are willing to allow him to use it within our lease site if he wishes.

There is no known lobster fishing that takes place in Thomas Bay either in or around our lease site. We have observed a couple lobster buoys in the region but they are far removed in deeper water. No lobstermen attended the public scoping session in January 2015.

There has been some wild mussel dragging historically. No mussel draggers attended the public scoping session in January 2015. We have been told that any draggers that have recently worked in the area work for Ralph Smith of Moosabec Mussels, P.O. Box 267, Jonesport, ME 04649.

7. TECHNICAL CAPABILITY

Provide information regarding professional expertise such as a resume or documentation of technical expertise and practical experience necessary to accomplish the proposed project.

Jesse Fogg, member of Bar Harbor Oyster Company, is a graduate of Maine Maritime Academy. Jesse grew up working as a lobsterman in Bar Harbor. He has been working on the waterfront in a variety of capacities his entire life. Currently Jesse is a licensed marine chief engineer. Since his graduation from MMA in 2007 he has worked on fishing and fish processing vessels in Massachusetts, Norway, Scotland, Ireland, Mauritania and currently Alaska. His work has involved understanding a variety of fisheries and the technical aspect of fishing and processing. He is currently employed by Alaskan Leader Fisheries, as the chief engineer on a longliner out of Dutch Harbor. The vessel he works on is a 184' new build called Northern Leader, which he helped to design, build and commission. The Northern Leader is one of the most fuel-efficient commercial fishing vessels in the world. It is powered by the most sophisticated and advanced diesel-electric propulsion systems. Jesse has designed and fabricated much of the processing equipment on board. A goal of Bar Harbor Oyster Company is a dedication to bringing environmentally friendly and technically savvy advancements to the aquaculture industry in Maine. The skill set and knowledge Jesse has employed in his work experience will easily transfer to the technical capabilities required for this project.

Joanna Walls, member of Bar Harbor Oyster, is a graduate of College of the Atlantic. Her studies at COA include fisheries and their management, oceanography, education and marine ecology. Her background in these fields has given her the skills and understanding required to work with the delicate systems of marine life and in collaboration with other community members. Joanna has work experience on the water in several capacities. She has been employed as a sternman on a number of small fishing vessels in Maine, worked as a teachers' assistant on tall ships in the Caribbean, sailed across the Mediterranean and the Atlantic, and most recently has been working on sail and motor yachts in Maine, the Caribbean and places in between. Both Jesse and Joanna have knowledge and experience with small boat operations, line handling, weather patterns, and basic seamanship.

8. FINANCIAL CAPABILITY

a. **Financial Capability**

Provide documentation to prove the applicant has the necessary financial resources for the proposed project. For example, the applicant may provide copies of bank statements or other evidence indicating availability of the unencumbered funds or other proof that equipment and seed stock are available to the applicant. See MDMR Aquaculture Regulations chapter 2.10(3)(9).

See attached bank statement from Bar Harbor Oyster Co. LLC. Appendix #8.A.

Suspended Lease Application- Bar Harbor Oyster Co. LLC
Thomas Bay, Bar Harbor, ME

- b. Cost Estimates
Provide documentation of accurate and complete cost estimates of the proposed aquaculture activities.

Initial cost estimate

OysterGro Cages: \$22,100

Vexar Bags: \$5100

Anchors, rope, buoys: \$3040

Seed(1,000,000): \$7000

Misc. Costs and consumables: \$1000

Lease Fee: \$2450

Total Initial: \$40,690

Annual Operating Expenses

Seed: \$7000

Fuel and supplies: \$3000

Labor: \$10,000

Lease Fee: \$2450

Total Annual Expenses: \$22,450

- c. Other Lease Interests and Multiple Ownership
List all other aquaculture leases held by the applicant or in which the applicant has a financial interest.

Bar Harbor Oyster Co LLC has no other aquaculture leases, nor do the 2 founding members have any existing aquaculture leases. Both founding members, Joanna Walls and Jesse Fogg, intend to file for 4 LPA's concurrent with this standard lease application.

- d. Other Lease Interests and Multiple Ownership Continued
If the applicant is a corporation, submit information as requested under A (Corporate Applicants). If the applicant is in a partnership, submit information as requested under B (Partnership Applicant). MDMR Aquaculture Regulations chapter 2.12(1)-(3).

A. Corporate Applicants

1. The date and State in which Incorporated and a copy of the Articles of Incorporation;

Bar Oyster Company, LLC was incorporated in the state of Maine in July of 2014. The corporation has two members each with 50% interest. See Appendix #8.D.1 for copy.

Suspended Lease Application- Bar Harbor Oyster Co. LLC
Thomas Bay, Bar Harbor, ME

2. The names, addresses, and titles of all officers;

Jesse Fogg, member

105 Seabury Drive, Bar Harbor, ME

Joanna Walls, member

105 Seabury Drive, Bar Harbor, ME

3. The names and addresses of all directors;

N/A

4. Whether the corporation, or any stockholder, director, or officer had applied for an aquaculture lease for Maine lands in the past, and the outcome or current status of that application or lease;

The corporation, nor any member, stockholder, director or officer has applied for an aquaculture lease in the past.

5. The names and addresses of all stockholders who own or control at least 5% of the outstanding stock and the percentage of outstanding stock currently owned or controlled by each such stockholder;

There are no additional stockholders.

6. The names and addresses of stockholders, directors, or officers owning an interest, either directly or beneficially, in any other Maine aquaculture leases, as well as the quantity of acreage from existing aquaculture leases attributed to each such person under MDMR Aquaculture Regulations chapter 2.12(3);

None

6. Whether the corporation or any officer, director, or shareholder listed in item 5 above has ever been arrested, indicted, convicted of, or adjudicated to be responsible for any violation of any marine resources or environmental protection law, whether state or federal.

No member or any affiliate of BHOC LLC has ever been arrested, indicted, convicted or adjudicated to be responsible for any violation of any marine resources or environmental protection law, federal nor state.

9. OTHER REQUIREMENTS

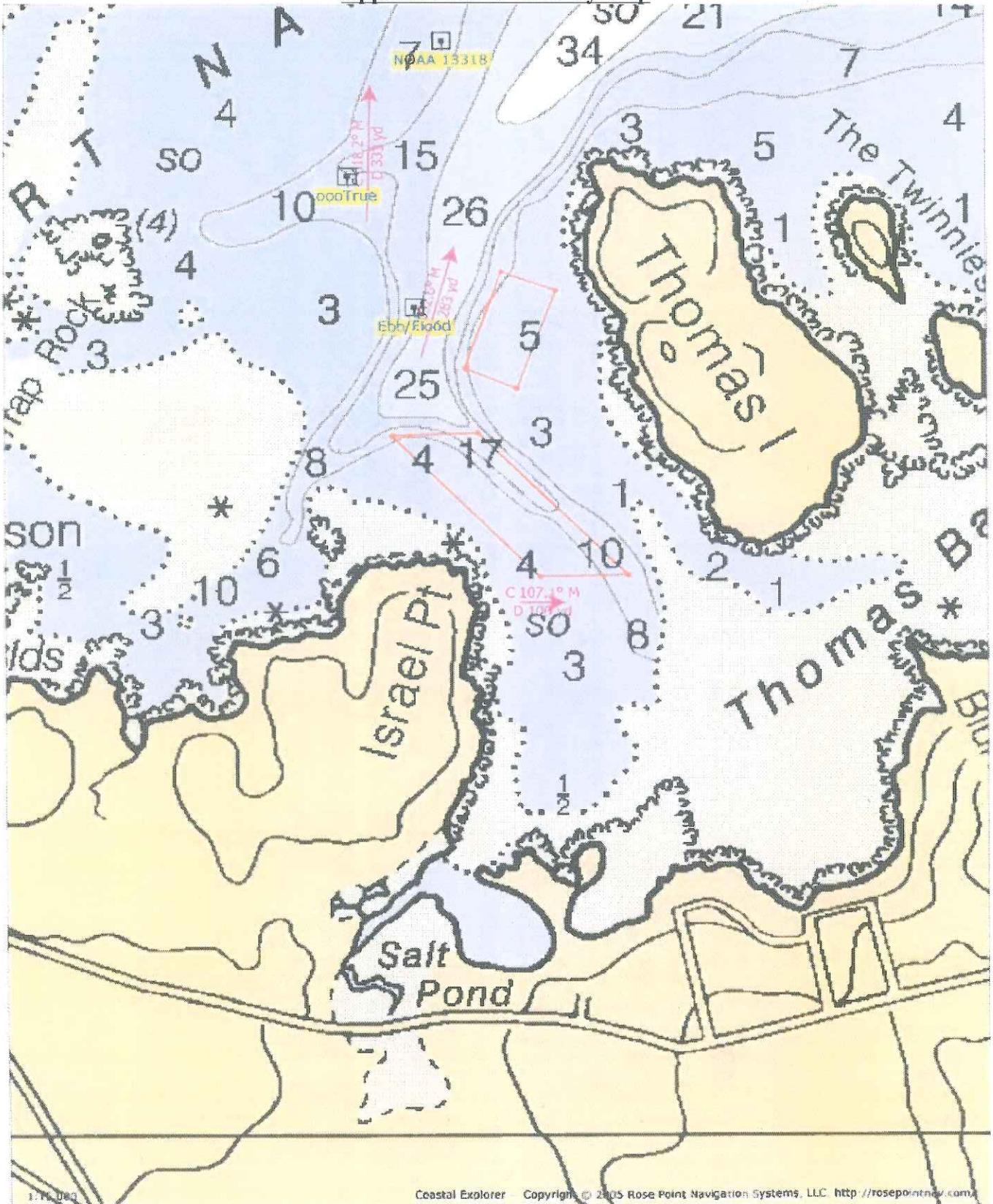
The following items must accompany the application:

- a. Performance Bond

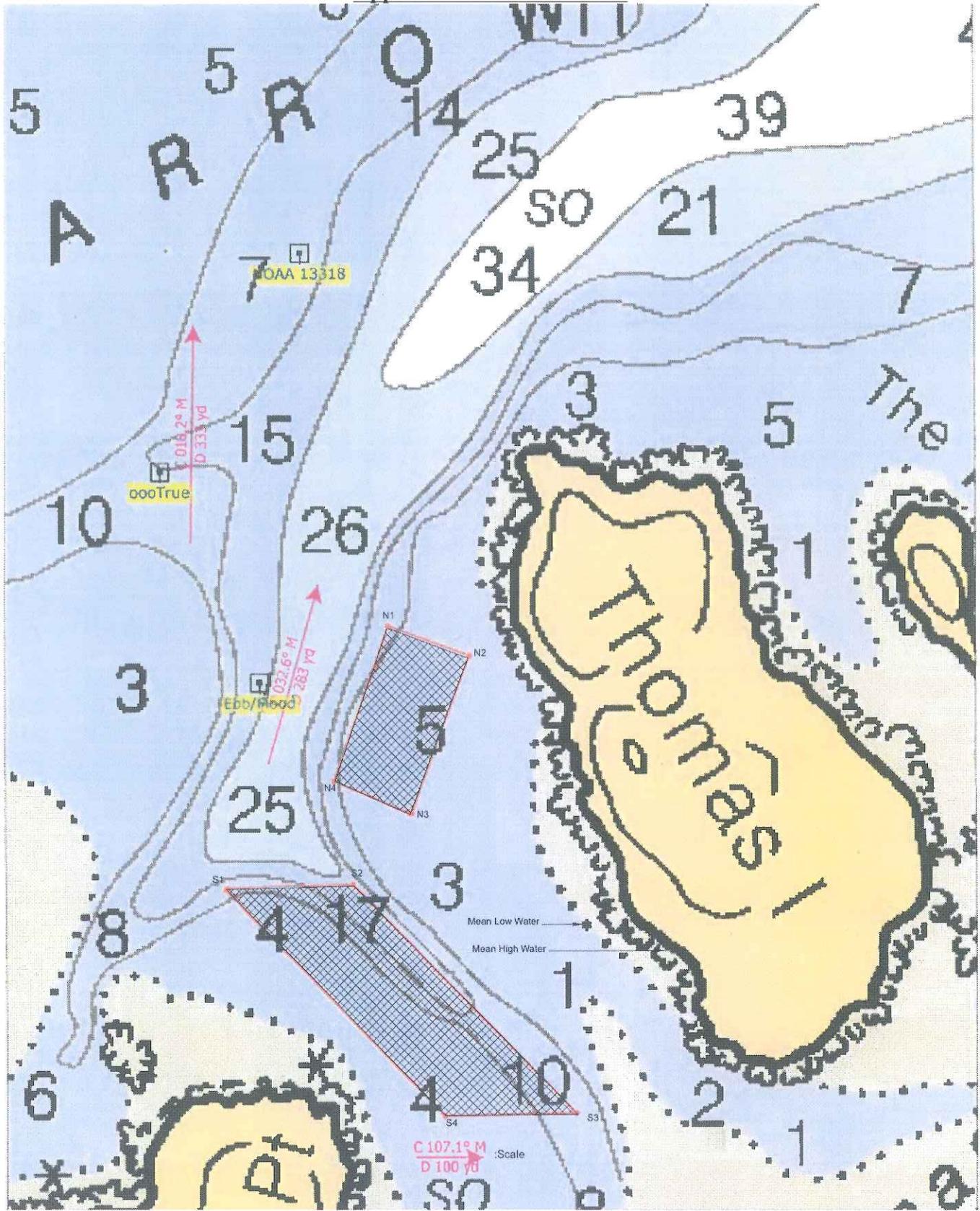
Documentation confirming that the applicant has read MDMR Aquaculture Regulations chapter 2.40 and that upon issuance of a lease by the MDMR the lessee will either open an escrow account or obtain a performance bond determined by the nature of the aquaculture activities proposed as follows –

Bar Harbor Oyster Company has read and understands MDMR Aquaculture Regulations, chapter 2.40 and we will be obtaining a bond of \$5,000.

Appendix #1.A.1- Vicinity Map



Appendix #1.B.1- Plan View



Appendix # 1.B.2- Coordinates for Tracts on Plan View

Bar Harbor Oyster Co.
Lease Coordinates

North Lease

N1: 44° 26.0561N / 68° 20.877W
N2: 44° 26.0311N/ 68° 20.8042W
N3: 44° 25.9152N/ 68° 20.8552W
N4: 44° 25.9398N/ 68° 20.9353W

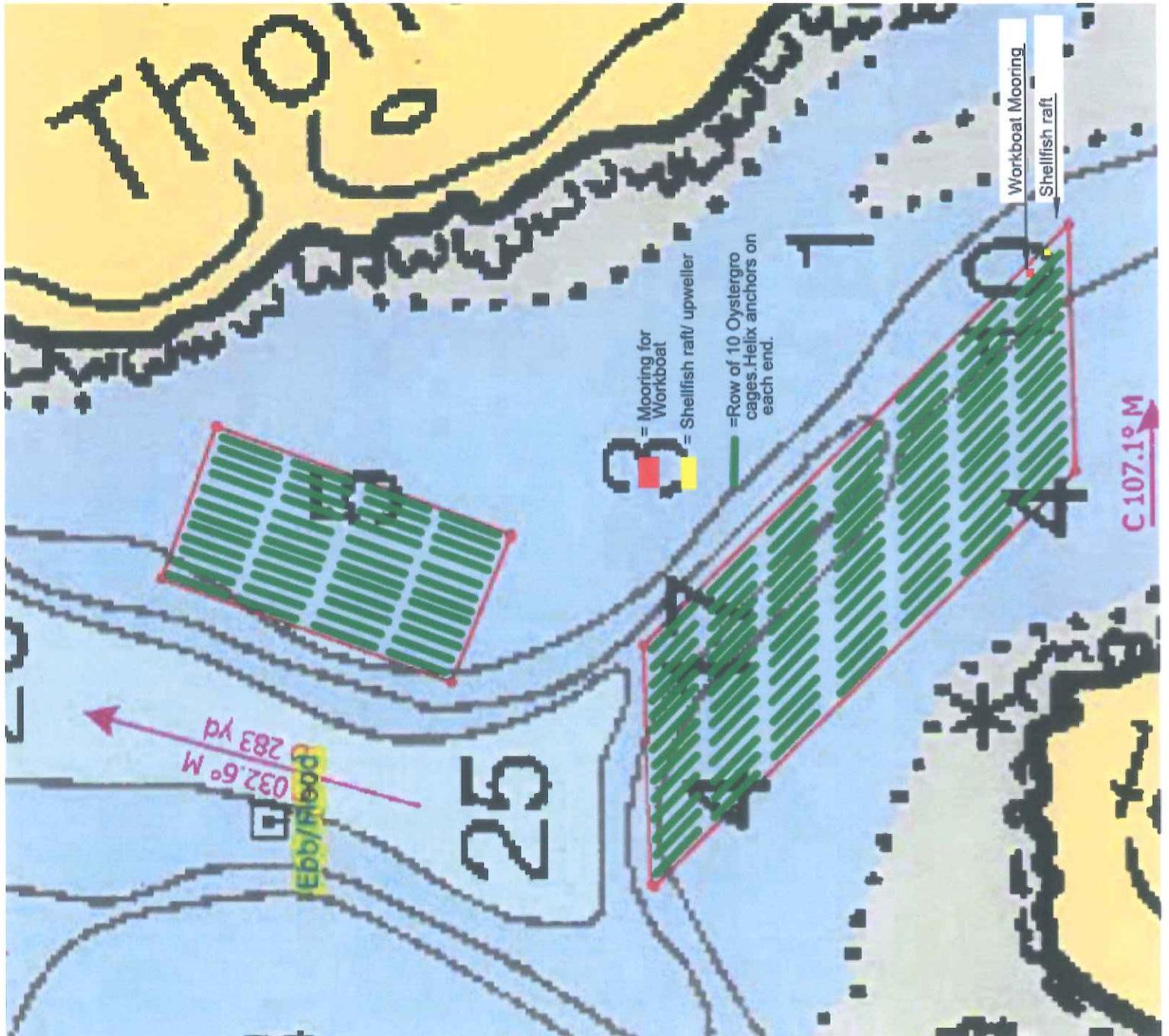
South Lease

S1: 44°25.859N/ 68° 21.055W
S2: 44°25.859N/68° 20.913W
S3: 44° 25.670N/68° 20.682W
S4: 44° 25.670N/68° 20.816W

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Appendix 1.C.1- Aerial Photo

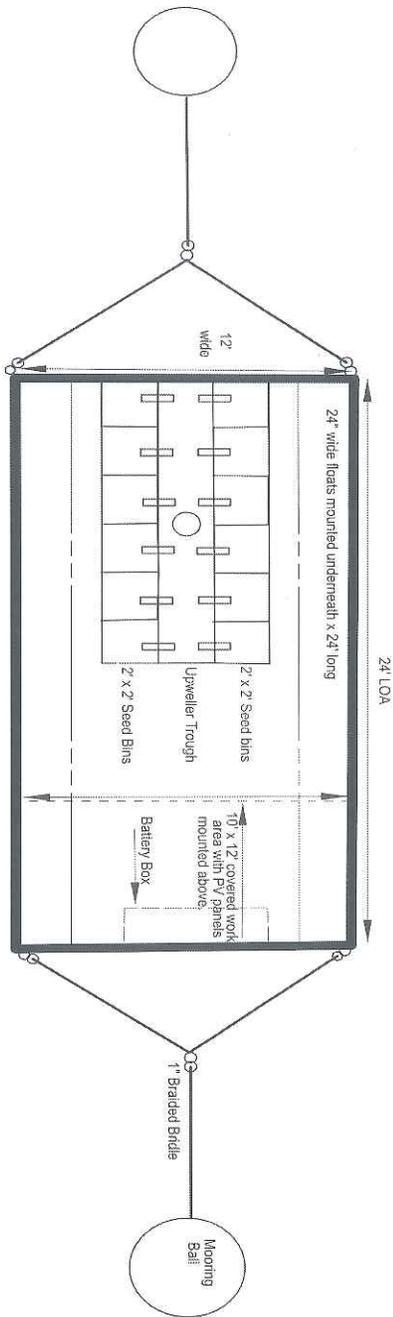




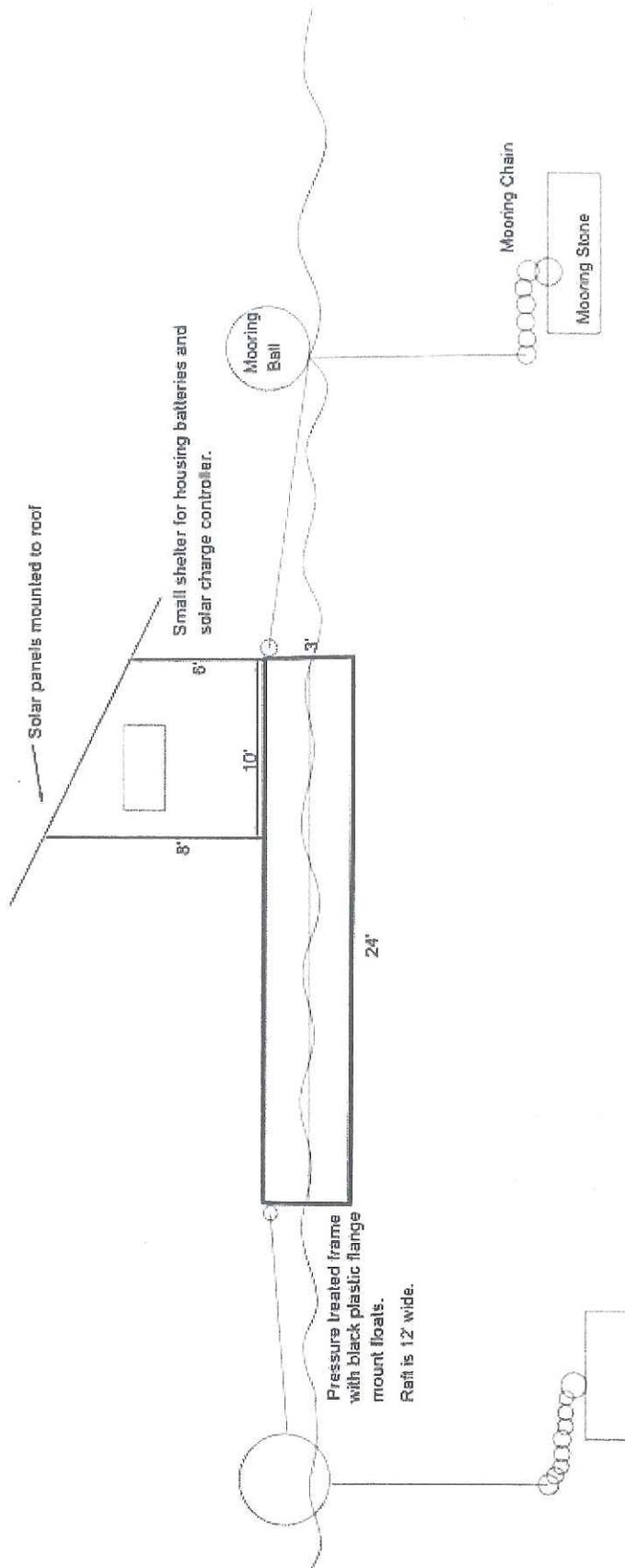
Suspended Lease Application- Bar Harbor Oyster Co. LLC
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Appendix #2.C.1-Maximum Structure-Top View

Appendix #2.E.1- On-Site Support Structures (Top View)



Appendix #2.E.2- On-Site Support Structure (Side View)



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Appendix #2.G.1



Photograph from Bouctouche Bay Industries. Shows 10 OysterGro cages assembled in longline very similar to what we are proposing.

Appendix #2.G.2



Photograph from Bouctouche Bay Industries. Shows the OysterGro cage in both growing position(closest cage) and also the drying position(further cage).

Appendix #2.G.3



Photograph from Bouctouche Bay Industries. Shows longlines of OysterGro cages from a view perpendicular to the longline.

Appendix #3.A.1



Photograph from Bouctouche Bay Industries.

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Thomas Bay, Bar Harbor, ME

Appendix #5.B.1



STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
284 STATE STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041

CHANDLER E. WOODCOCK
COMMISSIONER

February 12, 2015

Joanna Walls
Bar Harbor Oyster CO, LLC
105 Seabury Drive
Bar Harbor, ME 04609

RE: Information Request – proposed oyster cultivation lease site, Bar Harbor

Dear Joanna:

Per your request, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and fisheries habitat concerns within the vicinity of the *proposed oyster cultivation lease site* in Bar Harbor.

Our Department has not mapped any Essential Habitats or inland fisheries habitats that would be directly affected by your project.

Endangered, Threatened, and Special Concern Species

Bald Eagle

The project search area appears to intersect with the 660-foot protective buffer of a bald eagle nest. Bald eagles are federally protected by the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and the Lacey Act under the U.S. Fish and Wildlife Service (USFWS), and are listed in Maine as a Species of Special Concern. The USFWS has management authority over eagles; therefore, we recommend that you contact the USFWS Maine Field Office at 207-866-3344 for guidance to avoid or minimize impacts to this species. However, as MDIFW staff works closely with the USFWS on the protection of this species, we also recommend that you contact MDIFW raptor specialist Erynn Call (207-941-4481) for further guidance.

Significant Wildlife Habitats

Tidal Waterfowl and Wading Bird Habitat

This project appears to be located within, or immediately adjacent to, Tidal Wading Bird and Waterfowl Habitat (TWWH), a Significant Wildlife Habitat under Maine's Natural Resources Protection Act. This area is important for wading birds, waterfowl and shorebirds. TWWHs provide important feeding and/or breeding habitat for diverse waterfowl and wading bird species. Birds utilize intertidal mudflats

PHONE: (207) 287-5202

FISH AND WILDLIFE ON THE WEB:
www.maine.gov/ifw

EMAIL ADDRESS:
ifw.webmaster@maine.gov

Suspended Lease Application- Bar Harbor Oyster Co. LLC
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Appendix #5.B.1

Letter to Joanna Walls
Comments RE: proposed oyster cultivation lease site, Bar Harbor
February 12, 2015

to forage for aquatic invertebrates, a primary food source. Without project details such as actual project layout, operations, and use of intertidal zone, it is difficult to determine what impacts your proposal may have on this important habitat. We recommend that you contact Wildlife Biologist Kelsey Sullivan with MDIFW's Bird Group Research and Assessment Section (207-941-4474) to discuss project details and methods to avoid or limit impacts to these wildlife resources.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

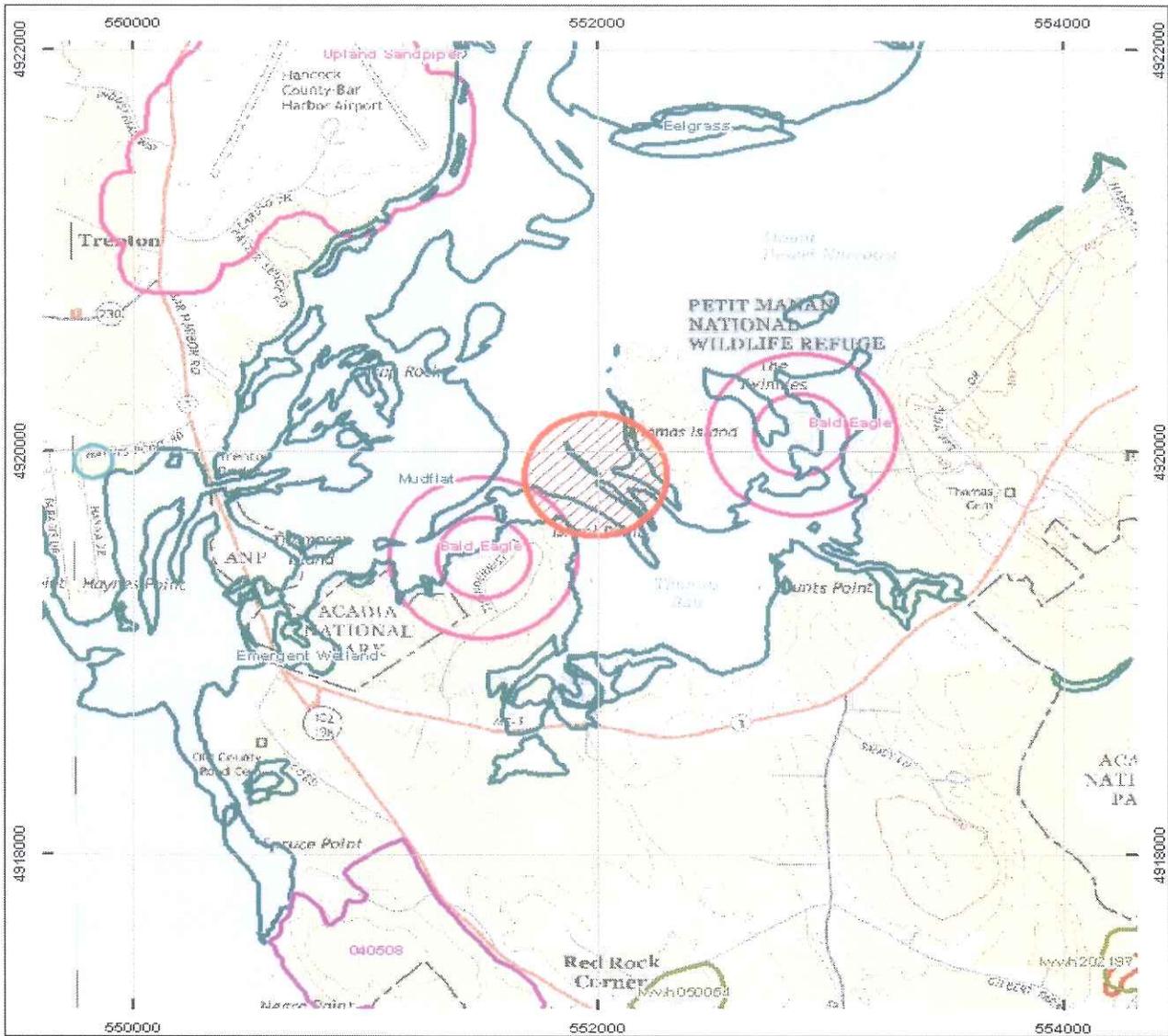
Best regards,



John Perry
Environmental Review Coordinator

Suspended Lease Application- Bar Harbor Oyster Co. LLC
 Thomas Bay, Bar Harbor, ME

Appendix #5.B.2

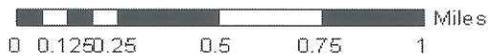


Environmental Review of Fish and Wildlife Observations and Priority Habitats

Project Name: ER Tool Test (Version 1)



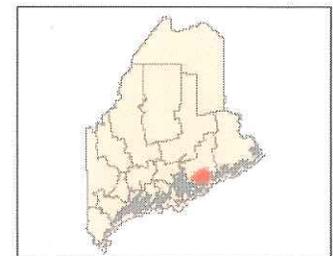
Maine Department of Inland Fisheries and Wildlife



Projection: UTM, NAD83, Zone 18N

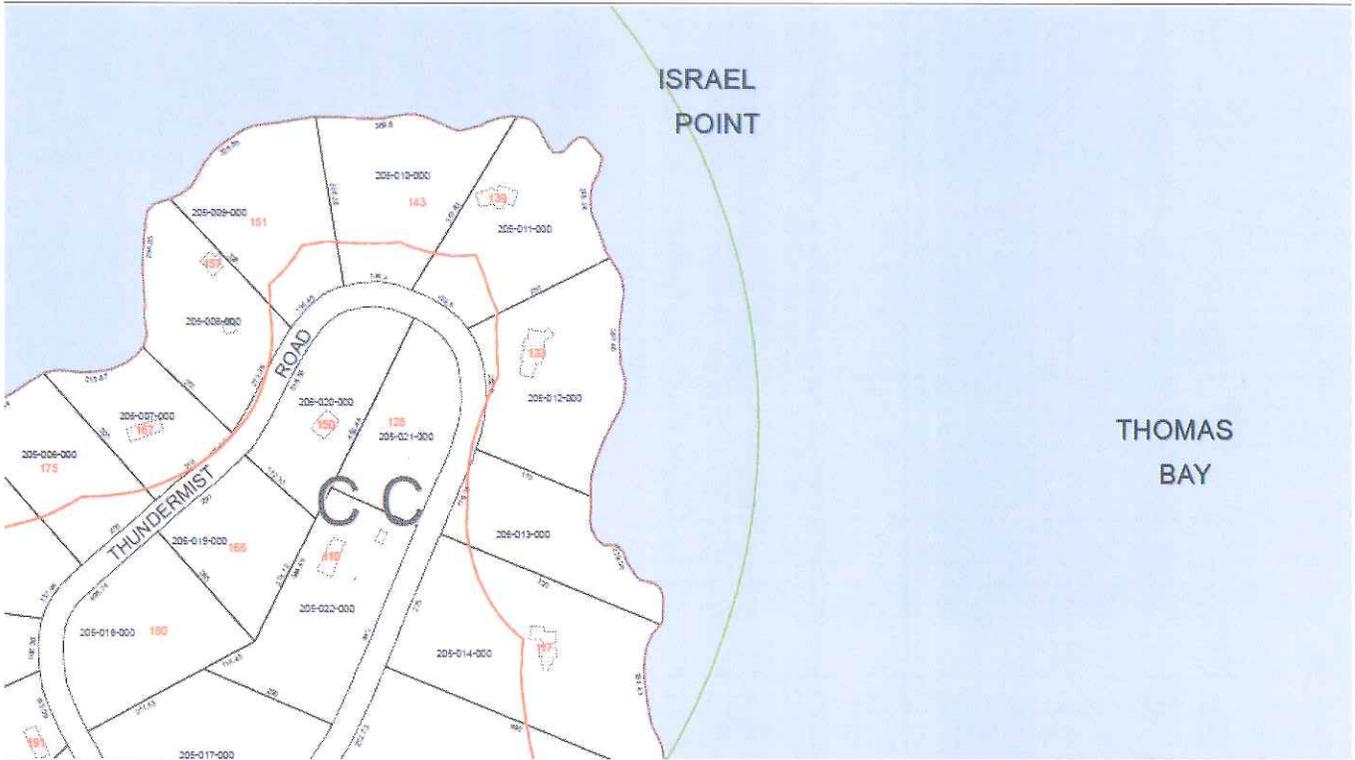
Date: 2/12/2015

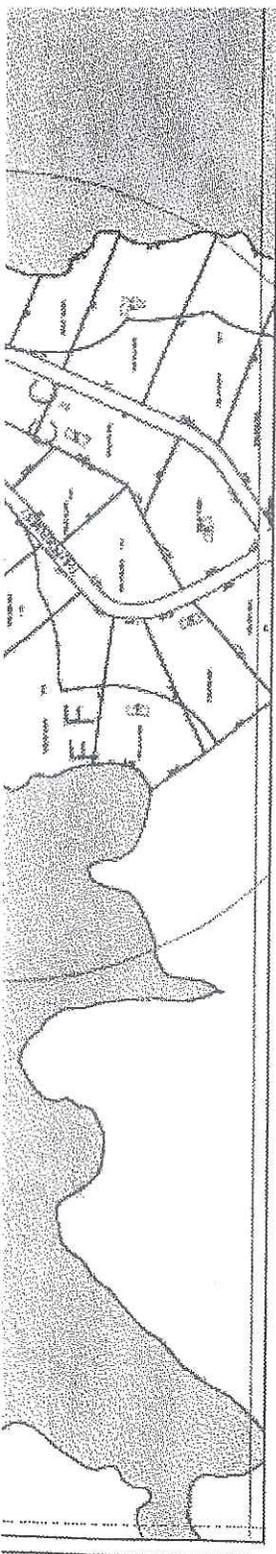
Project Points	Deer Winter Area	Roseate Tern
Project Lines	WRC p-fw	Rippling Plover/Least Tern
Project Polygons	Cooperative DWAs	Aquatic ETSc (25 mi review)
Project Seabird Areas	Seabird Nesting Islands	Rare Mussels (5 mi review)
	Shorebird Areas	Maine Heritage Fish Waters
	Inland Waterfowl/Wading Bird	Arctic Char Habitat
	Shoreland Zoning WWH	E. Brook Trout Joint Venture Subwatershed Classification
	Tidal Waterfowl/Wading Bird	Redfin Pickerel/Swamp Darker Habitats (buffer 100ft)
	Significant Vernal Pools	Special Concern-occupied habitats (100ft buffer)
	Environmental Review Polygons	Wild Lake Trout Habitats



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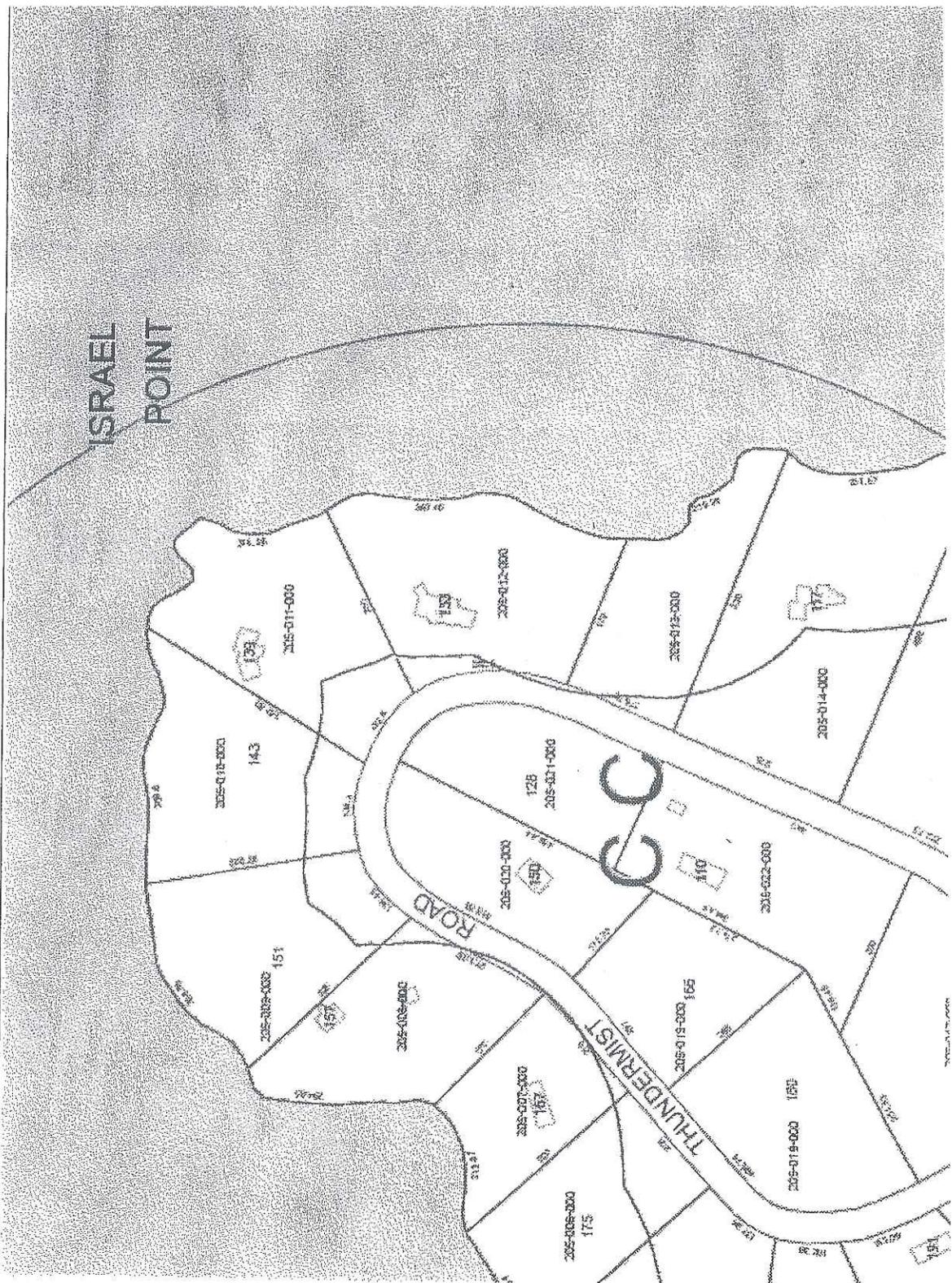
Appendix #6.A.2






משרד התכנון והבנייה
 The Planning and Building Authority
 תכנון, שטחים, ובינוי מחדש. This is a
 preliminary plan. It is not a final plan.
 This plan is for informational purposes only and is not a guarantee.

Scale: 1:50,000



Enlargement of Appendix #6A2

Suspended Lease Application- Bar Harbor Oyster Co. LLC
Thomas Bay, Bar Harbor, ME

Appendix #6.A.4



MAINE DEPARTMENT OF MARINE RESOURCES

Aquaculture Administrator, 21 State House Station, Augusta, ME 04333-0021 (207) 624-6550

- RIPARIAN OWNERS LIST -

For LPA license applications

THIS LIST MUST BE

***** CERTIFIED *****

On this list, please show the current owners' names and mailing addresses for all shorefront parcels within 1,000 ft. of the proposed license site. Ask the Town Clerk to complete the certification form below. If the parcels are within more than one municipality, provide a separate, certified, riparian list for each municipality.

TOWN OF:

MAP # LOT # Landowner name(s) and address(es)

See attached sheets

Appendix #6.A.4

CERTIFICATION

I, Patricia A Gray, Town Clerk of Bar Harbor, certify

that the names and addresses of the property owners listed above are those listed by this municipality and are current as of this date.

SIGNED: Patricia A Gray DATE: 12/10/14 SEAL:

Suspended Lease Application- Bar Harbor Oyster Co. LLC
Thomas Bay, Bar Harbor, ME

Appendix # 6.A.4

Bar Harbor Oyster Co. LLC.
105 Seabury Dr
Bar Harbor, ME
04609

Riparian landowners for proposed lease site in Thomas Bay. (Shorefront within 1000' of the proposed site)

Peggy Richardson AM Trustee
139 Thundermist Rd
Bar Harbor, ME 04609

Carolyn Blake ET ALS Trustees
16 Bucklin Rd
Trenton, ME 04605
(133 Thundermist Rd)

Maine Coast Heritage Trust
1 Bowdoin Mill Island, Suite 201
Topsham, ME 04086
(Thomas Island)

Bert C. Roberts III
8850 Blue Sea Dr.
Columbia, MD 21046
(143 Thundermist Rd)

Patricia T. Keller
444 W Sunset Rd.
Barrington, IL 60010
(151 Thundermist Rd)

(Indicates physical address of riparian parcel)

Appendix #8.D.1

MAINE
LIMITED LIABILITY COMPANY

STATE OF MAINE

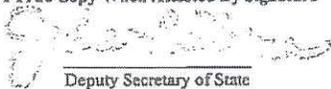
CERTIFICATE OF FORMATION

File No. 20150321DC Pages 2
 Fee Paid \$ 175
 DCN 2142103600021 DLLC
 FILED
 07/28/2014



Deputy Secretary of State

A True Copy When Attested By Signature



Deputy Secretary of State

Pursuant to 31 MRSA §1531, the undersigned executes and delivers the following Certificate of Formation:

FIRST: The name of the limited liability company is:
Bar Harbor Oyster Company LLC
(A limited liability company name must contain the words "limited liability company" or "limited company" or the abbreviation "LLC," "LLC," "L.C." or "LC" or, in the case of a low-profit limited liability company, "L3C" or "l3c"—see 31 MRSA 1508.)

SECOND: Filing Date: (select one)
 Date of this filing; or
 Later effective date (specified here): _____

THIRD: Designation as a low profit LLC (Check only if applicable):
 This is a low-profit limited liability company pursuant to 31 MRSA §1611 meeting all qualifications set forth here:
A. The company intends to qualify as a low-profit limited liability company;
B. The company must at all times significantly further the accomplishment of one or more of the charitable or educational purposes within the meaning of Section 170(c)(2)(B) of the Internal Revenue Code of 1986, as it may be amended, revised or succeeded, and must list the specific charitable or educational purposes the company will further;
C. No significant purpose of the company is the production of income or the appreciation of property. The fact that a person produces significant income or capital appreciation is not, in the absence of other factors, conclusive evidence of a significant purpose involving the production of income or the appreciation of property; and
D. No purpose of the company is to accomplish one or more political or legislative purpose within the meaning of Section 170(c)(2)(D) of the Internal Revenue Code of 1986, or its successor.

FOURTH: Designation as a professional LLC (Check only if applicable):
 This is a professional limited liability company* formed pursuant to 13 MRSA Chapter 22-A to provide the following professional services:

(Type of professional services)

Suspended Lease Application- Bar Harbor Oyster Co. LLC
Thomas Bay, Bar Harbor, ME

Appendix #8.D.1

FIFTH: The Registered Agent is a: (select either a Commercial or Noncommercial Registered Agent)

Commercial Registered Agent CRA Public Number: _____

(Name of commercial registered agent)

Noncommercial Registered Agent

Douglas B. Chapman

(Name of noncommercial registered agent)

109 Main Street, Bar Harbor, Maine 04609

(physical location, not P.O. Box – street, city, state and zip code)

(mailing address if different from above)

SIXTH: Pursuant to 5 MRSA §105.2, the registered agent listed above has consented to serve as the registered agent for this limited liability company.

SEVENTH: Other matters the members determine to include are set forth in the attached Exhibit _____, and made a part hereof.

****Authorized person(s)**

Dated July 25, 2014



(Signature of authorized person)

Jesse Foag

(Type or print name of authorized person)



(Signature of authorized person)

Joanna Walls

(Type or print name of authorized person)

*Examples of professional service limited liability companies are accountants, attorneys, chiropractors, dentists, registered nurses and veterinarians. (This is not an inclusive list – see 13 MRSA §723.7)

**Pursuant to 31 MRSA §1676.1.A, Certificate of Formation MUST be signed by at least one authorized person.

The execution of this certificate constitutes an oath or affirmation under the penalties of false swearing under 17-A MRSA §453.

Please remit your payment made payable to the Maine Secretary of State.

Submit completed form to:

Secretary of State
Division of Corporations, UCC and Commissions
101 State House Station
Augusta, ME 04333-0101
Telephone Inquiries: (207) 624-7752

Email Inquiries: CEC.Corporations@Maine.gov