



Oliver Stedman Government Center
4808 Tower Hill Road; Suite 116
Wakefield, RI 02879
401-783-3370

PUBLIC NOTICE

File Number: 2014-01-007

Date: January 7, 2014

This office has under consideration the application of:

East Beach Farms LLC
73 Wolf Rock Road
Exeter, RI 02822

for a State of Rhode Island Assent to construct and maintain: a 0.75 acre oyster farm in Quonochontaug Pond using bottom cages, wire trays, and floating cages. Location map attached.

| | |
|-------------------|--------------------|
| Project Location: | Quonochontaug Pond |
| City/Town: | Charlestown |
| Plat/Lot: | |
| Waterway: | Quonochontaug Pond |

Plans of the proposed work may be seen at the CRMC office in Wakefield.

In accordance with the Administrative Procedures Act (Chapter 42-35 of the Rhode Island General Laws) you may request a hearing on this matter.

You are advised that if you have good reason to enter protests against the proposed work it is your privilege to do so. It is expected that objectors will review the application and plans thoroughly, visit site of proposed work if necessary, to familiarize themselves with the conditions and cite what law or laws, if any, would in their opinion be violated by the work proposed.

If you desire to protest, you must attend the scheduled hearing and give sworn testimony. A notice of the time and place of such hearing will be furnished you as soon as possible after receipt of your request for hearing. If you desire to request a hearing, to receive consideration, it should be in writing (**with your correct mailing address, e-mail address and valid contact number**) and be received at this office on or before February 7, 2014.

CRMC Mailing List for East Beach Farms LLC
CRMC File Number 2014-01-007

East Beach Farms LLC
73 Wolf Rock Road
Exeter, RI 02822

CRMC (2014-01-007)
O. S. Government Center
4808 Tower Hill Road
Wakefield, RI 02879

East Beach Farms LLC
73 Wolf Rock Road
Exeter, RI 02822

CRMC (2014-01-007)
O. S. Government Center
4808 Tower Hill Road
Wakefield, RI 02879

CRMC Application Review Sheet

File Number: 2014-01-007
Owner Name: East Beach Farms LLC
Site Address: Quonochontaug Pond, Charlestown
Plat: Lot:

Administrative Review

Reviewer: WJM
Completed on _____
 Application Complete
 Application Deficient
 FONSI
 Enforcement compliance _____

Missing
 _____ Application
 _____ Fee
 _____ ISDS
 _____ Proof of Ownership
 _____ Building Permit
 _____ Site Plans

EXTENSION (Enforcement review)

Notes _____

Team Review for Acceptance

Application Deficient

- Deficiency Letter Required
- Notified Via Phone Call – waiting for _____

| | | | | | |
|--|---------------------|----|-----------------------|------------------------------|----------------------------|
| <input checked="" type="checkbox"/> Application Accepted Date <u>1/7/14</u> | Assigned To: | | Date Completed | Denial Recommendation | Management Sign-off |
| | Engineer | | | | |
| | Biologist | | | | |
| | Geologist | | | | |
| | Aqua | DB | | | |
| | Dredge | | | | |
| | Other | | | | |

Category: B

Project Type: 44

Water Type: 2

Water Area: Quonochontaug Pond

PGP Category: 1 2 IP Public Access 355 Public Access Easement

Short Project Description: Grow eastern oysters using three types of gear

0.75 acres

East Beach Farms, LLC (owned and operated by James Arnoux) currently leases three sites totaling 4.5 acres in Ninigret Pond for shellfish aquaculture. East Beach Farms is seeking to diversify its operations geographically with an application for a 0.75 acre commercial aquaculture lease in Quonochontaug Pond at the site of the currently held commercial viability lease (CRMC # 2012-10-066).

Upon receiving approval from CRMC for the commercial viability site on May 28, 2013, approximately 10,000 oyster seed were planted in two cages on July 30, 2013. Subsequent site visits four weeks later revealed growth rates that were almost 200% greater by volume than comparable seed in Ninigret, and 180% greater on the second visit on October 10, 2013. Several oysters had already achieved marketable size (3") by the second site visit. The site has clearly exceeded expectations as a commercially viable site. During these three site visits, there were no conflicts with recreational users witnessed nor was there any eelgrass present within the proposed site.

The proposed site will be used to grow eastern oysters (*Crassostrea virginica*) using three types of gear: wire trays, bottom cages, and "Oystergro" floating cages. Submerged bottom cages with Vexar mesh bags will be used for the initial planting of oyster seed after purchase. After 6-10 weeks, seed will then be placed in Oystergro floating cages for a period of several months prior to being transferred to submerged wire trays for final grow-out. The use of Oystergro cages will be a critical step in controlling fouling organisms, accelerating growth, and shaping the oysters. Oystergro cages will eliminate the need for mechanized tumblers and power washers due to their unique design which (1) allows wave action to constantly tumble and shape the growth of the oysters, and (2) allow for periodic air drying of the oysters and bags to kill fouling organisms. Once the seed is properly shaped and free of fouling, it will be transferred to 1" mesh wire trays for final grow-out prior to harvest. The overall farm design proposed is an attempt to limit the overall size of the lease while maximizing efficiency using my previous experiences combined with the Oystergro cages.

Harvesting will be accomplished by hand picking oysters directly from the wire trays aboard a 20' work skiff. As a member of the Ocean State Shellfish Cooperative, all oysters will be sold to the Cooperative where they are shipped weekly to distributors, several of which are located in Rhode Island.

The proposed site will have a dedicated section (10% of the lease area) to be used for oyster restoration projects in Quonochontaug Pond, in conjunction with the Nature Conservancy ("TNC"). It is expected that TNC will be performing spat-on-shell oyster restoration work in Quonochontaug Pond in the future. East Beach Farms may be contracted to assist in the future restoration project(s) by growing the oysters on the proposed site for the summer prior to being placed in the Quonochontaug spawner sanctuary.

Access to the site will be accomplished via the state boat ramp at the Quonochontaug breachway using a 20' work skiff or, on a very limited basis, via the breachway using East Beach



Farms' vessel moored in Ninigret Pond. Using the layout proposed, it is expected that the site will require two visits per week to maintain the gear and harvest. All work will be performed within the lease area either by wading or working aboard the work skiff. Gear used for the farm will be stored at a commercial boat storage facility in Charlestown when not in use on the lease.

The proposed timetable to begin activities is May - June 2014, at which point the bottom cages will be deployed first with seed. The first floating cages would then be deployed in August 2014 as the seed volume and size grows. The stackable wire trays would be added as needed in the fall of 2014. The first sales would be anticipated to begin in the summer of 2015.

SECTION 300.1 B Requirements:

(1) *Demonstrate the need for the proposed activity:* The proposed lease site is sought primarily to diversify the business' exposure to weather, disease, and predation risks that exist in Ninigret Pond where the current leases are held. The number and size of the farms adjacent to the main lease (CRMC # B2009-07-028 located on the south side of Ninigret Pond) has grown in recent years, increasing disease, predation, and fouling organisms that impact this lease. These issues are expected to be less acute in Quonochontaug Pond because there are currently no aquaculture sites present.

(2) *Demonstrate all local building codes and local ordinances will be met:* No land-based or non-tidal activities will be used in conjunction with the proposed lease.

(3) *Describe the boundaries of the coastal waters and land areas anticipated to be affected:* The proposed lease will be adjacent to an area of exposed boulders in the northeastern corner of Quonochontaug Pond, or approximately 1000 feet west of the intersection of Briarwood Drive and West Beach Road in the town of Charlestown. The CRMC classification for the waters is Type II (Low Intensity Use), as is all of Quonochontaug Pond. The adjacent shoreline has one residence located on 5740 Post Road (Map 3 - Lot 152 as shown on the Charlestown assessor's map) and zoned open space. Based upon previous site visits, existing trees and vegetation appear to obstruct most of the views of the proposed lease from this residence except when viewed from the corresponding dock. There is also a mooring field about 1500 feet to the southeast of the proposed site which will be unaffected by the proposed location.

(4) *Impacts to erosion and/or deposition processes:* The structures used are common to the industry and will not impact erosion and/or deposition processes along the shore and tidal waters. All bottom cages and trays will be submerged and not rise higher than 13.5" from the bottom. The floating cages (while securely moored) will move slightly according to wave and tidal action and will not impede these processes.

(5) *Impacts to the abundance and diversity of plant and animal life:* Shellfish aquaculture has been proven to enhance marine habitat and diversity in the area it occupies. No eelgrass or other submerged aquatic vegetation has been observed within the proposed site. Birds,



including threatened species such as piping plovers and least terns have been observed on my current leases in Ninigret Pond and appear to be unharmed by the presence of the gear. As proposed, noise impacts will be limited to hand labor and a small four-stroke outboard motor, which should not cause adverse impacts to wildlife.

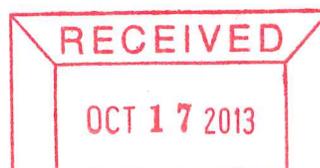
(6) *Demonstrate that the alteration will not unreasonably interfere with, impair, or significantly impact existing public access to, or use of tidal waters and/or the shore:* The proposed site was chosen in large part due to its' location distant from the most actively used parts of the pond (i.e. the breachway, Bill's Island, Ski Beach, etc.). A second reason for the proposed site location is due to its' proximity directly adjacent to a large boulder field. These boulders preclude most boating activity in the area, thus limiting activity to kayaks and similar small recreational craft. The height of the submerged cages and trays will not affect such users, as at there will be at least 10.5" of water above the structures at mean low water. The floating cages will be positioned on the eastern side of the lease in closest proximity to the exposed boulders adjacent to the site, and will be spaced to allow for passage in between each row. Access to and from the shore will not be impeded by the lease; there is a minimum of 105' between the northeast boundary of the lease and the shoreline. Public access to the pond in the vicinity of the site appears to be limited due to the distance from public roads and/or parking.

(7) *Impacts to water circulation, flushing, turbidity, and sedimentation:* The proposed structures are designed to allow for the greatest flow of water to promote feeding and growth of the oysters. Structures will be arranged in roughly SW-NE rows to allow for predominant wind and tide directions to flow unimpeded through the site.

(8) *Demonstrate that there will be no significant deterioration of water quality in the immediate vicinity:* Shellfish aquaculture has been proven to increase water quality due to the filtering action of shellfish. The site will be accessed using a small work boat with a four-stroke engine equipped with a fuel spill kit. Fueling will be done prior to launching to prevent potential fuel spills.

(9) *Demonstrate that the activity will not result in significant impacts to areas of historic or archaeological significance:* There are no known historic or archaeological resources within the proposed site. If any were discovered, the location of aquaculture gear will not impact their existence. The gear could be shifted within the site as requested.

(10) *Demonstrate the activity will not result in significant conflicts with water-dependent uses:* As noted in item (6) above, the proposed site was chosen largely due to its' distance from known areas of heavy recreational use. There are no mooring fields, navigation channels, or boating facilities nearby that will be significantly impacted. Fishing, swimming, and kayaking will not be restricted by the presence of aquaculture gear or farm operations. Due to the adjacent submerged and exposed boulders, the area is typically avoided by power boaters. However, those that do wish to transit the area can easily pass the site to the west. In addition, commercially harvestable densities of shellfish do not appear to be present within the proposed site (only several quahogs have been found during my previous visits at levels that would not

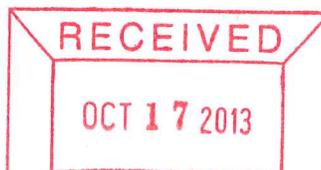


support a commercial harvest). For those that have previously used the proposed site for shellfishing, there will be similar areas to shellfish on all four sides of the lease.

(11) *Demonstrate that measures have been taken to minimize adverse scenic impacts:* The design and gear chosen for this site have been carefully considered to minimize all impacts, including scenic impacts. The bottom cages and trays will not be marked by buoys in order to reduce visual impacts. The floating cages that are proposed were chosen after consideration of their advantages over bottom cages. These advantages include eliminating the need for a power washer and/or motorized tumbler to prepare seed for the final growout in bottom trays and reduced fuel costs needed to "swap" fouled gear with clean gear. This will result in a quieter and more sustainable operation. The visual impacts of the floats is lessened by the presence of the nearby boulders and the lack of nearby homes with direct views. The floating cages will be sunk (by removing caps on the end of the molded floats) during the months of November - March to further reduce their visual impact and protect the gear from winter ice damage.

OPERATIONAL PLAN FOR PROPOSED SITE:

1. *Name and address:* East Beach Farms, LLC, 73 Wolf Rock Road, Exeter, RI 02822
2. *CRMC lease #:* Currently commercial viability lease # 2012-10-066
3. *Aquaculture Permit:* DEM Aquaculture License # 000052
4. *Type of facility:* Commercial shellfish aquaculture lease site utilizing rack-and bag, tray, and floating cage methods.
5. *Location:* The proposed lease site is located in northeast corner of Quonochontaug Pond, Charlestown, RI.
6. *Species cultured:* Eastern oysters (*Crassostrea virginica*) to be grown at facility. Seed is either to be transferred from CRMC permitted upweller #1994-10-099 located in Ninigret Pond and/or purchased from approved source(s) pending pathology certifications and permission from the Biosecurity Board. Current hatcheries used to supply seed for the company's other sites include Fishers Island Oyster Farm (NY), Oyster Seed Holdings (VA), and Rob Krause (RI).
7. *Structures used at facility:* Bottom cages (77.5" x 41.5" x 13.5" height) , stackable wire trays (36" x 24" x 12" height), and floating "Oystergro" cages (67.5" x 36" x 9" submerged height).
8. *Lease markers:* Four 12" round white buoys with 3" CRMC lease numbers are to be used to mark the lease corners. One 6" x 12" sign with a caution symbol will be used to indicate the



presence of submerged gear.

9. *DEM Water Classification*: Lease is located in approved waters.

10. *Contamination Prevention*: All fueling will be done prior to launching using approved portable containers. All equipment and sorting surfaces to be washed daily with a deckhose and sanitized once per week with a mild bleach solution. Temperature control of shellstock is to be achieved by same-day wet storing of all product in crates until time of departure from the lease, followed by use of shade, and immediate pick-up of shellstock within 1 hour of removal from water by the Ocean State Shellfish Cooperative's refrigerated truck (of which East Beach Farms is a member of).

11. *Methods to transition shellfish through growth*: Shellfish will be transitioned to each of the three gear types proposed by the use of a manual tumbler/sorter aboard the work vessel. The bottom cages will be used to hold all seed less than 1.5" in length (less than 1" mesh retained screen), the floating cages will hold seed 1.5" - 2.5" (1" mesh retained screen), and the wire trays will hold all seed greater than 2.5" (1.5" mesh retained screen). Bags and trays will be rotated between the lease and the storage site to control biofouling - no pressure washing will be used. The floating cages will control biofouling of seed prior to transitioning seed to trays. Harvesting will be performed by picking oysters directly from the wire trays on a weekly basis and sold to the Ocean State Shellfish Cooperative.

12. *Record keeping*: Records are to be maintained daily using a spreadsheet application operated by cell phone. Each trawl of cages or line of trays is given a unique designated number (i.e A1, A2, B1, B2, etc.) to form a basic grid system. The following information is recorded each time the particular line of gear is hauled: hatchery where seed originated from, size grade, and date last hauled. For any seed originating from uncertified waters, the notes shall include an asterisk and the month/year the seed was planted in certified waters on the lease (example: Row A1 = Muscongus 5/12* 1" grade, hauled 7/01/12). A handwritten logbook is also used as a back-up to record the original planting dates and subsequent location of all seed purchased from uncertified waters.

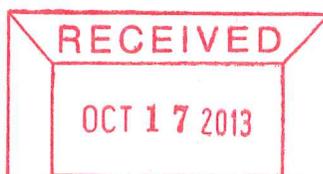
13. *Record keeping for seed purchased outside of RI*: Any out-of-state seed purchases are made only after the approval of the Biosecurity Board pending disease certifications from the relevant hatchery. Record keeping for seed purchases is outlined above in item #12.

14. *Seed in upwellers located in prohibited waters*: No upweller located in prohibited waters will be used in conjunction with this lease.

15. N/A at this time, seed is purchased from approved waters. If seed is purchased from prohibited waters in the future, record keeping practices will continue as described in item 12, and the operational plan shall be updated and resubmitted. Additional measures would include marking gear with labeled Tyvek tags to record the cage/tray number that corresponds to the



record keeping log (i.e. A1, A2, etc.).



NW CORNER : $41^{\circ} 21' 03.8''$ N / $71^{\circ} 42' 44.8''$ W
NE CORNER : $41^{\circ} 21' 02.7''$ N / $71^{\circ} 42' 43.0''$ W
SE CORNER : $41^{\circ} 21' 01.3''$ N / $71^{\circ} 42' 44.3''$ W
SW CORNER : $41^{\circ} 21' 02.3''$ N / $71^{\circ} 42' 46.3''$ W



RECEIVED
OCT 17 2013

NW CORNER: $41^{\circ} 21' 03.8'' N / 71^{\circ} 42' 44.8'' W$
NE CORNER: $41^{\circ} 21' 02.7'' N / 71^{\circ} 42' 43.0'' W$
SE CORNER: $41^{\circ} 21' 01.3'' N / 71^{\circ} 42' 44.3'' W$
SW CORNER: $41^{\circ} 21' 02.3'' N / 71^{\circ} 42' 46.3'' W$

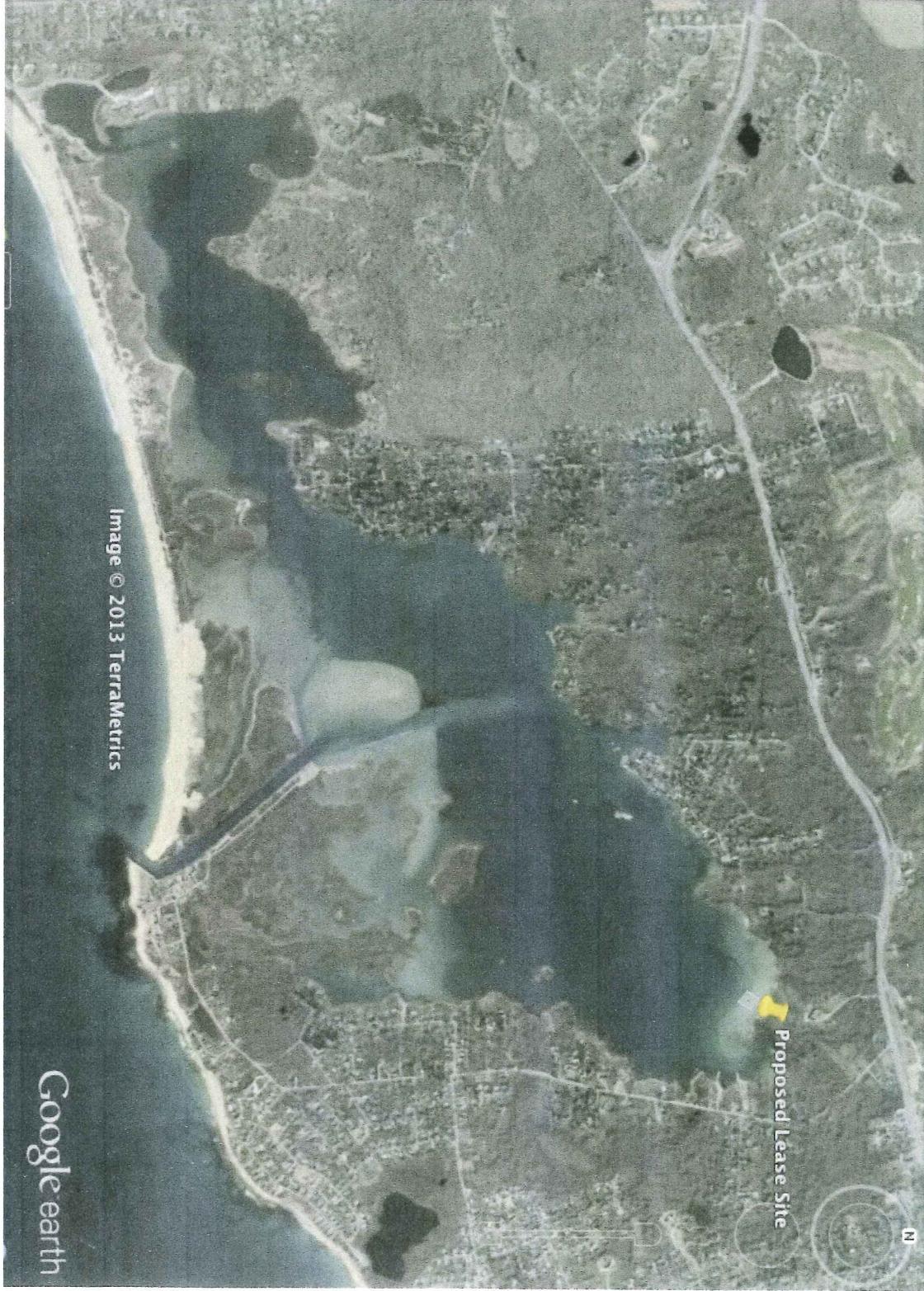


Image © 2013 TerraMetrics

Google earth

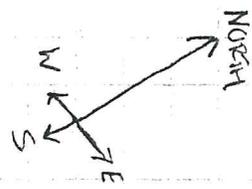
RECEIVED
OCT 17 2013
C.R.M.C.

APPLICANT: EAST BEACH FARMS, LLC

DATE: 10/15/13

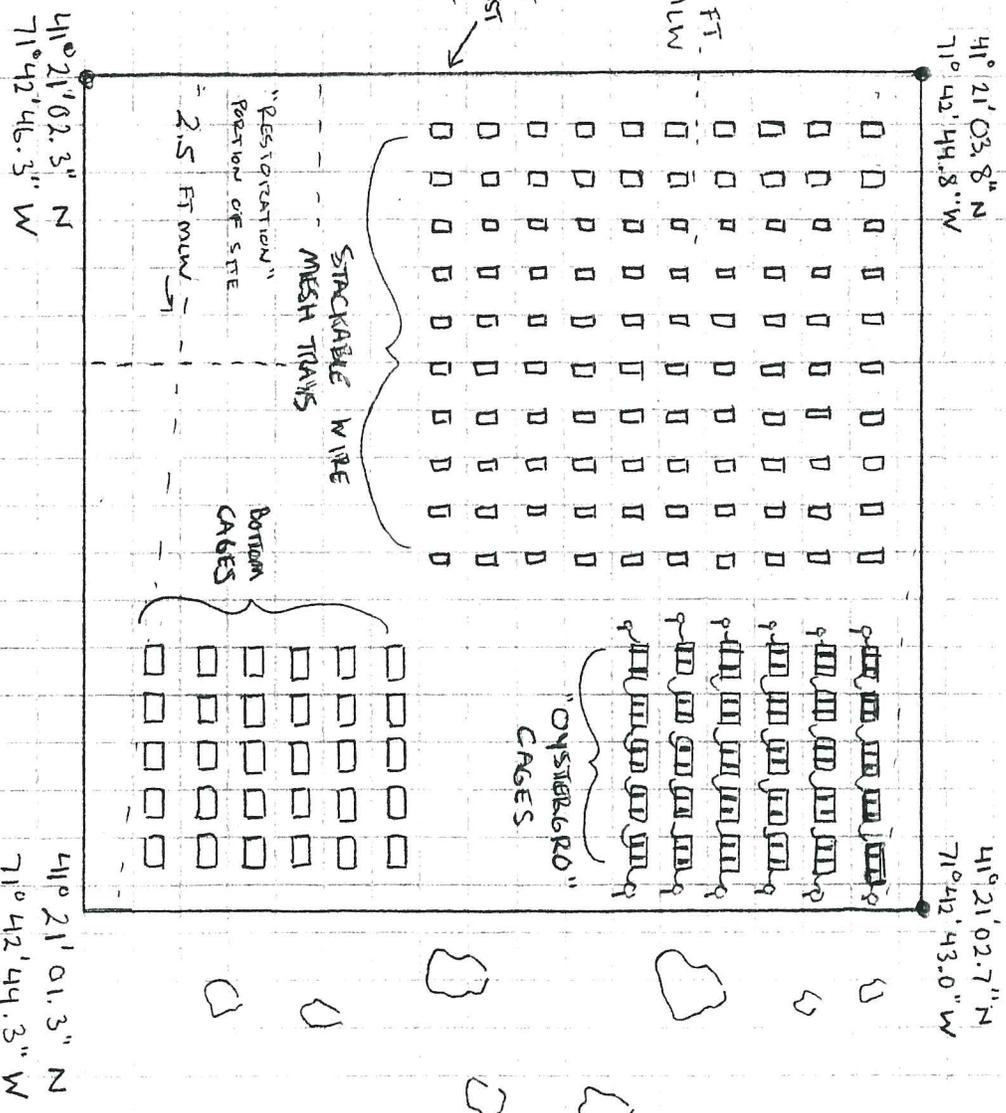
SITE PLAN

SCALE: 0 10 20 40 FEET



300 FEET TO NEAREST RESIDENTIAL DOCK

2 FT. MLW



105 FT. TO NEAREST STRUCTURE FROM CORNER BUOY

BOULDERS



- NOTES:
- 1 "OYSTER/RO" CAGES SECURED WITH 1" ROPE TO 24" GALVANIZED HELIX ANCHORS AT EACH END
 - 2 BOTTOM CAGES AND STACKABLE TRAYS TO BE CONNECTED BY SINKING LINE (NOT SHOWN)

"OYSTERGLO" FLOATING CAGE



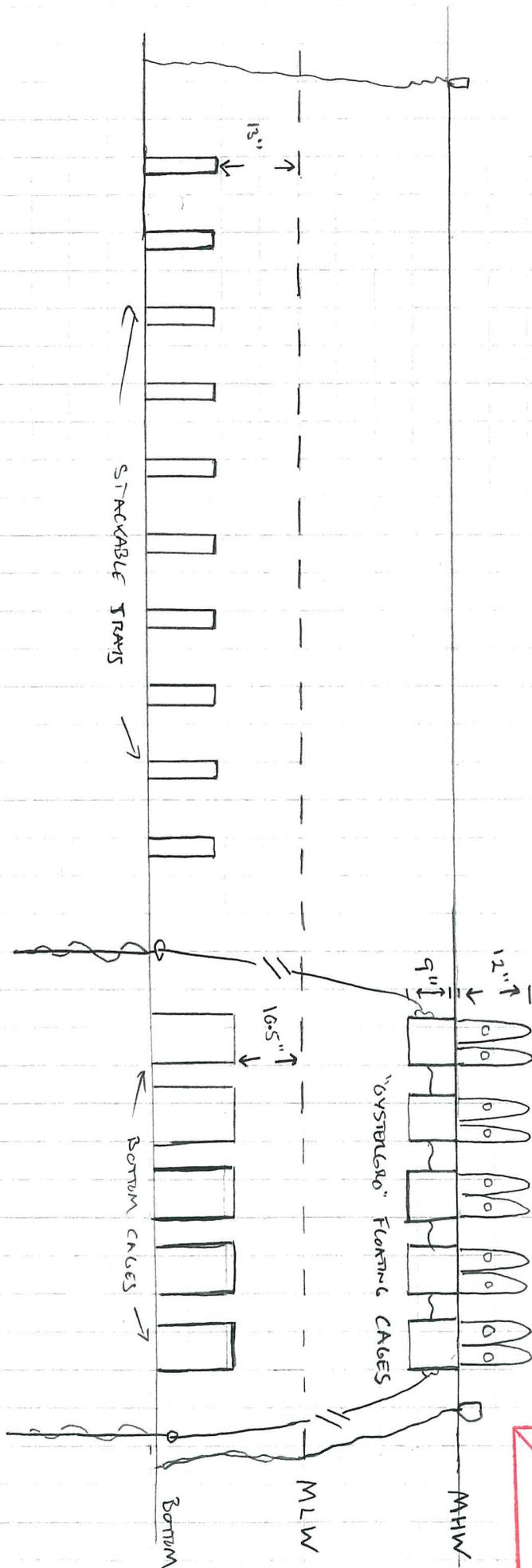
RECEIVED
OCT 17 2013
C.R.M.C.

APPLICANT: EAST BEACH FARMS, LLC
DATE: 10/15/13

CROSS SECTION OF GEAR LAYOUT (ENTIRE SITE)

HORIZONTAL SCALE: 0 5 10 20 FEET
VERTICAL SCALE: 0 1 2 FEET

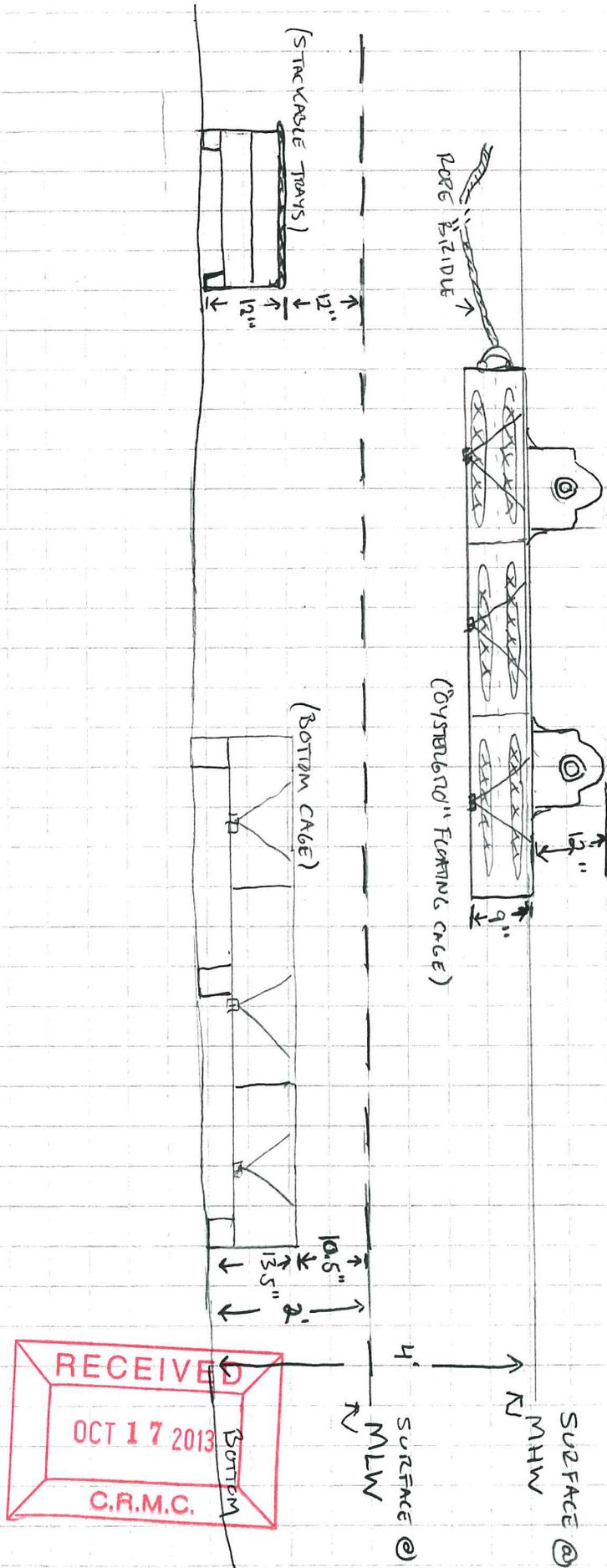
* SCALES UNEQUAL TO SHOW ENTIRE CROSS SECTION OF SITE



APPLICANT: EAST BEACH FARMS, LLC
DATE: 10/15/13

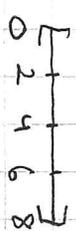
CROSS SECTION OF GEAR LAYOUT

SCALE 0 6 12 24 INCHES

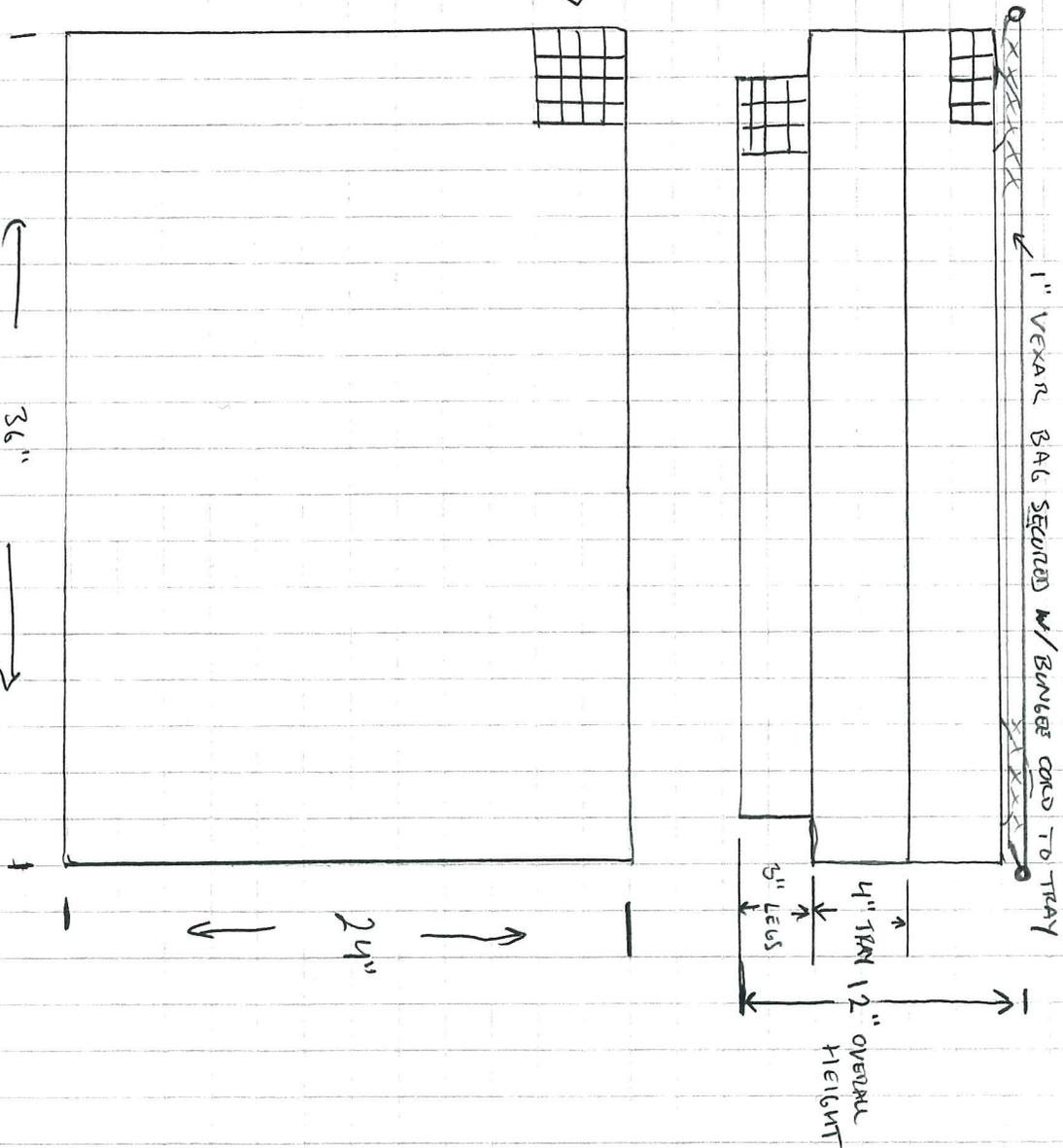


APPLICANT: EAST BEACH FARMS, LLC
DATE: 10/15/13

"STACKABLE WIRE TRAYS"

SCALE  INCHES

TRAYS CONSTRUCTED
OF 1" x 12 GAUGE
VINYL COATED
WIRE MESH



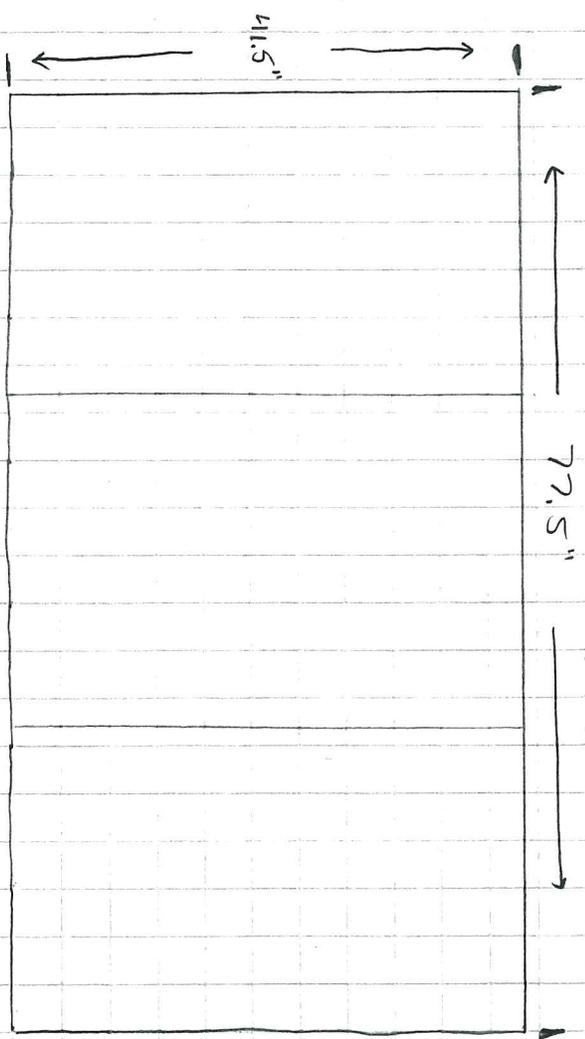
RECEIVED
OCT 17 2013
C.R.M.C.

APPLICANT: EAST BEACH FARMS, LLC
DATE: 10/15/13

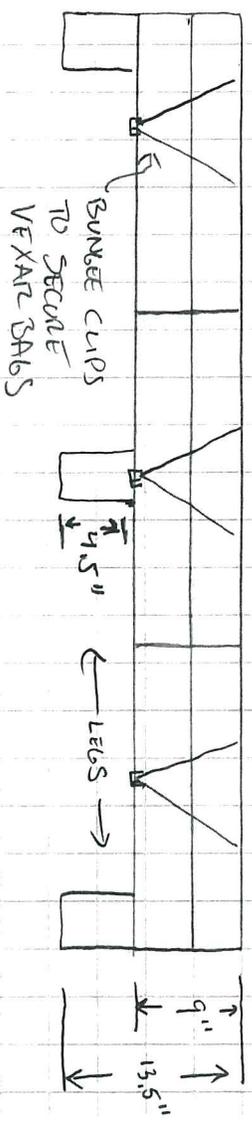
SCALE [0 4 8 12 16] (INCHES)

"BOTTOM CAGE"

TOP VIEW



SIDE VIEW



- 8 GAUGE VINYL
- COATED WIRE
- 3 SHELVES WIDE X
- 2 SHELVES HIGH



APPLICANT: EAST BEACH FARMS
DATE: 10/15/13

12" OYSTERCAGE

SCALE
0 4 8 12 16 INCHES

