



State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-2069

PUBLIC NOTICE

File Number: 2024-07-016 Date: July 30, 2024

This office has under consideration the application of:

Kyle Reichman
7 Chestnut Street
Newport, RI 02840

for a State of Rhode Island Assent to construct and maintain:

a three-acre shellfish aquaculture farm consisting of twenty long-lines for the use of low-profile floating baskets (FlipFarm), suspended lantern nets, and bottom cages for the cultivation of eastern oysters and bay scallops. Further details may be found in the attached plans.

Project Location:	Dutch Harbor
City/Town:	Jamestown
Waterway:	Narragansett Bay, West Passage
Related files:	D2023-11-055

Plans of the proposed work can be found attached or requested at Cstaff1@crmc.ri.gov.

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 **August 30, 2024**.

Please email your comments/hearing requests to: cstaff1@crmc.ri.gov; or mail via USPS to: Coastal Resources Management Council; O. S. Government Center, 4808 Tower Hill Road, Rm 116; Wakefield, RI 02879.

/lat

Intro

The enclosed application is for an approximately 3.0-acre lease to farm Atlantic Oysters (*Crassostrea virginica*) and Bay Scallops (*Argopecten irradians*). There will be a proposed 100-foot channel to buffer the abutting farms and to allow sufficient space for water dependent uses, activities, and access to the shoreline (see figures 1, 2, and 3).

The site will consist of 20 long lines, 18 of which will support approximately 5,265 FlipFarm bags for growing Atlantic Oysters (*Crassostrea virginica*) from seed to market size (3 inches), for commercial sale. FlipFarm bags will be flipped periodically allowing for air drying, which controls biofouling. There will be 1 10mm hurricane line which will support a maximum of 50 lantern nets for growing Bay Scallops (*Argopecten irradians*), for commercial sale. The 10mm hurricane line will also support a maximum of 110 split bags, that will hold market oysters before sale, during cooler months, as well as a maximum of 120 tumblers for seed growth before being dispersed throughout the Flip Farm bags. Lastly a long line will hold a maximum of 30 bottom cages, that will be used for Atlantic Oysters (*Crassostrea virginica*) growth, Bay Scallops (*Argopecten irradians*) growth, and for soaking market size Atlantic Oysters (*Crassostrea virginica*), during warmer months, to allow for flushing (see figures 4-7).

All shellfish will be hand sorted and harvested on the water using best practice methods outlined in the *Best Practices for the East Coast Shellfish Aquaculture Industry*, revised for 2023 (source: http://www.crmc.ri.gov/aquaculture/BestPractices_ECSAI.pdf). Once landed the shellfish will be tagged and prepared for shipping. During warmer months slurries will be used to rapid chill the oysters before being tagged and prepared for transportation. Shellfish will be chilled to 50°F (source: <https://www.issc.org>) or less in coolers and transported to local area restaurants.

Operations Plans

1. Name and mailing address of individual, firm, partnership, association, academic institution, municipality, or corporation who is principally responsible for the aquaculture operation or activity; if corporation, specify and include names of all owners/partners.
Kyle Lee Reichman
7 Chestnut St.
Newport, RI 02840
2. CRMC file number for the facility; new applications will be assigned a file number by CRMC. Additionally, list any past CRMC file numbers related to the current application.
2023-11-055
3. DEM Aquaculture License number (applicable if products are offered for sale); new applicants will need to obtain the DEM aquaculture license after an aquaculture assent is issued.
TBD
4. Type of facility (e.g., commercial lease site, upweller, experimental site, research, commercial viability) and nature of operation (i.e methodology used such as floating gear, submerged cages, bottom gear etc.).
Commercial lease with floating gear, specifically FlipFarm as well as bottom cages (primarily used

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for soaking markets during warmer months). Tumblers will be used to store seed until large enough for FlipFarm bags. Split bags will be used for storing market oysters during cooler months.

5. Location of facility (include aerial or chart depicting exact location)
See included images and maps (figure 1, 2, and 3)
 - a. Adjacent town:
Jamestown
 - b. Water body:
Dutch Harbor
 - c. Lat/long coordinates and size of facility:
Northwest 41.511003N -71.389856W
Northeast 41.510425N -71.388944W
Southwest 41.510152N -71.390832W
Southeast 41.509573N -71.389909W
6. Identification of all species of shellfish grown at the facility. Acknowledgement that the applicant will follow Biosecurity Board seed protocols should be included.
Atlantic Oysters (*Crassostrea virginica*) and Bay Scallops (*Argopecten irradians*)
7. Description of types of structures, gear and methods used at the facility (e.g., rafts, pens, cages, tanks, upwellers, docks) and their locations on the site. Include a sketch/site plan that details a cross-section of structures as they appear in the water column including proximity to surface and bottom with a depth profile at mean low water and mean high water. Include maximum number of cages proposed and the size of the cages proposed.
(See figure 4-7)
8. Describe a plan for how the site will be built out, accessed, and maintained. Including the expected level of activity (seasonal, weekly, and/or daily).
The site will be assessed via vessel daily.
9. Description of the methods and equipment used to identify and mark site. Highflyer radar buoys will be used at each of the four corners of the lease.
Highflyer radar buoys will be used at northern corners of the site. Solar navigational lights placed on the southern corners. Highflyers and lighted buoys will be secured using helical anchors coupled with 1" polypropylene rope. Corner markers will be visually checked regularly, and a diver will check anchors annually or as needed.
10. DEM Shellfish Harvesting Classification at site.
The proposed lease is located in approved waters (approved 7B).
11. Description of practices and procedures used during the growth, harvest, storage, transportation, and sale of the cultured species. Including any offsite activities necessary for the operation.
Oyster seed will be purchased from commercial hatcheries (example: Muscongus Bay Aquaculture) or from local farms (example: Aquidneck Island Oyster Company). If purchased seed is outside the farm's biosecurity zone, a pathology report will be provided with notice to an aquaculture specialist. Oyster seed will be placed in Flip Farm gear and grown to market size. A



detailed farm map will be used to track the seeds origin.

12. For operations that will use floating gear:

- a. Description of the mitigation or deterrent measures that will be used to minimize the potential pollution impact of birds and/or mammals.
Market oysters will be held in bags, in bottom cages during warmer months. During cooler months the market oysters will be stored in split bags attached to a long line. Market oysters will soak for a minimum of seven days prior to harvesting. A detailed farm map will be used to track date of last handling.
- b. Description of a plan for re-submergence after air drying before harvest.
Bottom cages will be used to soak market oysters during warmer months and split bags during cooler months, for a minimum of seven days.

13. Indicate the projected per unit area yield of harvestable product and the applicant's capability to carry out the proposed activities

The projected yield for the proposed lease is estimated to be 300,000 oysters and 50,000 bay scallops annually.

14. Description of a plan for safety and security of equipment, including appropriate marking of equipment and lease area. Incorporate a storm preparedness and response plan that accounts for the safety and security of all aquaculture equipment and any measures that will be taken in the event of a significant storm or other adverse weather conditions impacting the site.

Each Flip Farm bag will be labeled with the farm's CRMC lease number, name, and phone number of lease holder. In the event that one of the bags breaks free from the farm, this contact information can be used to contact the lease holder. After weather events the farm will be inspected to ensure that all gear is accounted for.

15. Detailed records of seed purchases will be kept by lease holder for review by CRMC upon request. CRMC will be notified prior to seed purchases and supplied with the appropriate documentation including: the origin of the seed (hatchery name and location), spawn date, number purchased, date of delivery, mean size of seed and pathology report(s).

Detailed records of seed purchases will be kept by lease holder for review by CRMC upon request. CRMC will be notified prior to seed purchases and supplied with the appropriate documentation including: the origin of the seed (hatchery name and location), spawn date, number purchased, date of delivery, mean size of seed, and pathology report(s) with notice to aquaculture specialists.

16. Seed originating from upwellers in prohibited waters will be segregated from other seed on the lease for a minimum of 6 months prior to being dispersed throughout the farm. A detailed farm map will be used to track the seeds origin.

Seed originating from upwellers in prohibited waters will be removed from upwellers before reaching 32mm in size. It will be segregated from other seed on the lease for a minimum of 6 months, prior to being dispersed throughout the farm. A detailed farm map will be used to track the seeds origin.

17. A detailed farm map will be used to track the seeds origin. Seed from prohibited waters will be segregated from other seed on the lease for a minimum of 6 months. These maps will include the

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origin of the seed (hatchery name and location), spawn date, number purchased, mean size, date of delivery and pathology report(s).

A detailed farm map will be used to track the seeds origin. Seed from prohibited waters will be segregated from other seed on the lease for a minimum of 6 months. These maps will include the origin of the seed (hatchery name and location), spawn date, number purchased, mean size, date of delivery and pathology report(s) with notice to an aquaculture specialist.

Category B Requirements

1. Demonstrate the need for the proposed activity or alteration.
The applicant is applying for a commercial lease to farm Atlantic Oysters (*Crassostrea virginica*) and Bay Scallops (*Argopecten irradians*) to meet the demand for local, sustainably sourced, healthy seafood. Shellfish farming is a net-positive for the environment, as it improves water quality by removing algae, red tide, organic matter, and excess nutrients such as nitrogen from the water column as they grow. Additionally, shellfish create habitat for other species, improves the water quality for vegetation such as eel grass, has very low impact on the ocean, and is an economic driver for the community. (source: <https://www.fisheries.noaa.gov/feature-story/global-study-sheds-light-valuable-benefits-shellfish-and-seaweed-aquaculture#:~:text=Shellfish%20and%20seaweed%20farms%20are,create%20habitat%20for%20other%20species.>)
2. Demonstrate that all applicable local zoning ordinances, building codes, flood hazard standards, and all safety codes, fire codes, and environmental requirements have or will be met; local approvals are required for activities as specifically prescribed for nontidal portions of a project in Sections 1.3.1(B), 1.3.1(C), 1.3.1(F), 1.3.1(H), 1.3.1(I), 1.3.1(K), 1.3.1(M), 1.3.1(O) and 1.3.1(Q) of this part; for projects on state land, the state building official, for the purposes of this section, is the building official.
Lease holders in Dutch Harbor have been successfully farming this body of water for over 11+ years while abiding by all local ordinances.
3. Describe the boundaries of the coastal waters and land area that is anticipated to be affected.
The applicant does not anticipate any coastal waters or land areas to be affected. The proposed lease is located amongst 6 other aquaculture farms and is located 750 feet off the closest shoreline.
4. Demonstrate that the alteration or activity will not result in significant impacts on erosion and/or deposition processes along the shore and in tidal waters.
The proposed lease is located in 20-25 feet of water. The methods and manners that will be used have not been shown to impact or cause erosion to the shoreline.
5. Demonstrate that the alteration or activity will not result in significant impacts on the abundance and diversity of plant and animal life.
The proposed lease was selected with the assistance of the DEM and is not in an area with vegetation (Eel Grass). Aquaculture farms have been proven to have a positive impact on the environment and the waters that surround them, promoting native, vegetation growth in addition to other species.

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 leases borders are within 100 feet of the existing aquaculture farms leaving a channel and sufficient space for all boaters to access the shoreline.
7. Demonstrate that the alteration will not result in significant impacts to water circulation, flushing, turbidity, and sedimentation.
The proposed floating gear will have little to no impact on the water circulation, flushing, turbidity, and sedimentation.
8. Demonstrate that there will be no significant deterioration in the quality of the water in the immediate vicinity as defined by DEM.
Oysters are known to filter seawater for nitrogen and sediment, which makes the water clearer and allows seagrasses to thrive by providing better access to sunlight. Oyster reefs can protect beach habitats from tidal currents and even provide housing for fish, crustaceans, and other marine life.
9. Demonstrate that the alteration or activity will not result in significant impacts to areas of historic and archaeological significance.
There are no known historic and archaeological areas within the proposed lease.
10. Demonstrate that the alteration or activity will not result in significant conflicts with water dependent uses and activities such as recreational boating, fishing, swimming, navigation, and commerce.
There will be a proposed 100-foot channel bordering the proposed lease allowing sufficient space for water dependent uses, activities, and access to the shoreline.
11. Demonstrate that measures have been taken to minimize any adverse scenic impact.
FlipFarm gear has a very low profile to the surface of the water minimizing the scenic impact to the area.

Additional Category B Requirements

1. Describe the location and size of the area proposed.
The proposed lease is approximately 3 acres in size and is located in waters where aquaculture already exists.
2. Identify the species to be managed or cultivated within the permitted area and over which the applicant shall have exclusive right.
Atlantic Oysters (*Crassostrea virginica*) and Bay Scallops (*Argopecten irradians*) will be cultivated on this lease.
3. Describe the method or manner of management or cultivation to be utilized, including whether the activities proposed are experimental, commercial, or for personal use.
The shellfish grown on the lease will be for commercial sale.

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4. Provide such other information as may be necessary for the Council to determine.

a. The compatibility of the proposal with other existing and potential uses of the area and areas contiguous to it, including navigation, recreation, and fisheries. (In addition, please provide the following necessary information as required in the 1000' Contiguous Area Map:

- o list of all property owners within 1000':

Watson Farm
455 North Road
Jamestown, R.I. 02835
401-423-0005

- o list of all approved aquaculture leases within 1000':

Brad Boehringer
Rock Rhode Oyster Co./Walrus and Carpenter Oyster Co.
83 State Street
Narragansett, RI 02882
401.447.7119
rockyrhodeoysterco@gmail.com

Nicholas Papa
East Beach Oyster Co.
401.649.0117
eastbeachoysterco@gmail.com

Adam Silkes
American Mussel Harvesters, Inc
165 Tidal Drive North
East Kingstown, RI 02852
401.294.8999
adam@americanmussel.com

- o List of CRMC designated ROW(s) within 1000':

N/A

- o CRMC water use types within 1000':

Type 4

- o Any shoreline(s) within 1000' which have been preserved for conservation, recreation and/or public access through easements, purchased by the state or municipality, or are owned by a land trust or state-recognized conservation organization.)

N/A

b. The degree of exclusivity required for aquacultural activities on the proposed site. (In support of this requirement and in accordance with 1.3.1(K)(b), the applicant must include a plan demonstrating reasonable public ingress and egress to and from the proposed site

for traditional water activities such as boating, swimming, and fishing. The ingress/egress plan may be notated on a copy of the site plan or other map.)

There will be a proposed 100-foot channel bordering the proposed lease allowing sufficient space for water dependent uses, activities, and access to the shoreline.

- c. The safety and security of equipment, including appropriate marking of the equipment and/or lease area.

Flip Farm gear is secured by helical anchors on either end of the long line ensuring the gear stays in place.

- d. The projected per unit area yield of harvestable product.

An estimated 450,000 oysters per acre per year and 250,000 scallops per year.

- e. The cumulative impact of a particular aquaculture proposal in an area, in addition to other aqua culture operations already in place. (At minimum, applicants should consider the impact of any other aquaculture operation within 1000' of the proposed site.)

The three abutting farm owners have been notified of the application.

- f. The capability of the applicant to carry out the proposed activities.

The applicant has experience working on three different farms in separate bodies of water, including Dutch Harbor. Currently working on a farm in the Sakonnet River using Flip Farm gear.

- g. The impact of the proposed activities on the scenic qualities of the area.

The proposed farm is nestled within the existing aquaculture in the area. The use of the lowest profile gear on the market will have minimal impact to the existing landscape.

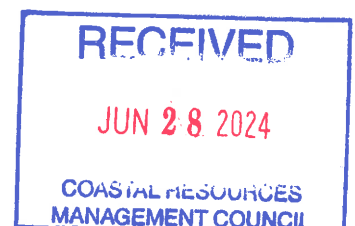
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Describe all activities related to the action that may affect ESA-listed species/designated critical habitat and provide sufficient detail to allow for identification of consequences to individuals of all species that may be affected (including direct consequences and those that may occur indirectly (e.g. effects to habitat or prey)). This detailed description should include activity levels, frequency, duration, location, and intensity and should reflect the best available information on the activities and how the activities are likely to be carried out.

- a. List all expected federal (e.g., USACE EPA, USCG) and state permits required for the action. Rhode Island state aquaculture lease.

- b. Anticipated start date, duration of project, seasonality (if any), end date

The farm will be worked 4-5 days a week, year-round.



c. If seasonal, describe whether gear remains deployed in the off-season, is partially removed, or is removed completely. Describe the reasons the activities are planned as seasonal. For example, are there growing season restrictions or an initial phase with plans to move toward full year activity at a later time, etc. Gear will remain in the water year-round.

d. Description of the natural and anthropogenic characteristics (oceanographic environment, habitat features, shipping lanes, fishing grounds, etc.) of the action area. The lease will be located amongst 6 other aquaculture leases/farms in Dutch Harbor, Jamestown. There is both recreational and commercial activity within Dutch Harbor. Having the leases clustered in one area minimizes the risk of interaction with the general public's usage of the space.

i. Include relevant seasonal, geographic, etc. information for each characteristic. Less activity during the winter months.

ii. Include information about currents, depths, tidal influence, etc. The farm is located in 20-25' of water. Dutch Harbor experiences average currents along with tide fluctuation. The lines of the farm will fluctuate with the tide and the bags are designed to move with wave action.

e. Describe any geophysical and geotechnical surveys that may occur prior to construction (e.g., site selection) and continuing through all operations. Provide information on equipment to be used, sound source levels, distances to isopleths of interest, etc. (if applicable, see noise section below). N/A

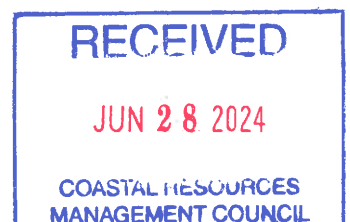
f. Describe species to be grown/raised. Indicate the source of the gametes, fish or seedstock (e.g., North American Atlantic salmon, American oysters, European oysters,) and any certification of origin and disease status. Describe species size, dimensions, weight when harvested. If species are clustered together, such as a mussel drop line, describe estimated dimensions and weight of individuals and of the overall cluster. Both Atlantic Oysters (*Crassostrea virginica*) growth and Bay Scallops (*Argopecten irradians*) will be grown on the lease. Oyster seed will be purchased from commercial hatcheries (example: Muscongus Bay Aquaculture) or from local farms (example: Aquidneck Island Oyster Company). If purchased seed is outside the farm's biosecurity zone, a pathology report will be provided with notice to an aquaculture specialist. Detailed records of seed purchases will be kept by lease holder for review by CRMC upon request. CRMC will be notified prior to seed purchases and supplied with the appropriate documentation including: the origin of the seed (hatchery name and location), spawn date, number purchased, date of delivery, mean size of seed, and pathology report(s) with notice to aquaculture specialists. Market oysters are approximately 3 x 2" in size and weigh approximately 1.2 ounces per piece.

g. Describe the location and size of project area, and portion of area in which gear will be deployed. The lease will be 3 acres consisting of 20 lines, 18 of which will be occupied by Flip Farm, 1 will be a troll line with approximately 20 bottom cages and 1 10mm hurricane line in which lantern nets will be suspended for growing scallops.

h. Describe the gear design. Gear descriptions should be detailed, include figures/photos/engineering diagrams wherever possible, and include: (see figure 4 - 7)

i. Type of gear deployed FlipFarm, bottom cages, and lantern nets.

ii. Number of vertical/horizontal lines (rope length, diameter, material, breaking strength), including any marker buoys. A total of 44 vertical lines anchored by helical anchors will support a total of 20 horizontal lines using 1" polypropylene rope ([LINK](#)).



iii. Buoyancy compensation to maintain structure and floatation. Each 1" polypropylene line will have a large, buoy (16 x 18", 75 pounds of flotation) above the anchors. Each individual FlipFarm bag has its own integrated float.

iv. Anchoring systems, including foundations type. Helical anchors

v. Any anti-predator gear that may be used N/A

vi. Any deterrents that may be used N/A

vii. Gear spacing/distance between gear components/zone of passage Each line will have approximately 20' of separation.

i. Describe the process used to install the gear Individual anchors are installed on the seafloor. Lines are then suspended to the surface where the buoys will be attached. Lines from each buoy will extend across the farm (approximately 410') and attached to a buoy on the opposite end of the farm. FlipFarm bags will be strung on each line in three sections consisting of roughly 90 bags in each.

i. If rip-rap or other material such as oyster shells are being placed on shoreline or bottom, provide a description of type of material and how it will be placed (e.g., small rocks by hand, dredge, etc.)

N/A

ii. Large vessels and equipment needed to set anchors etc. (include potential size and estimated max number of vessels). A small vessel will be used to ferry a diver out the farm.

j. Describe the harvesting systems to be used Harvesting will be executed by boat (30-foot aluminum). FlipFarm bags will be drawn onto the deck and emptied.

k. Describe the gear maintenance plan Gear will be inspected daily as we work the farm. Anchors will be inspected annually or more often if needed.

l. Describe how the gear will be removed after the permit is expired or the permitted activity otherwise ceases (i.e., decommissioning plan) If the farm ceases operations, all gear will be removed from the site, including anchors.

m. Identify all proposed conservation measures (e.g., best management practices, measures to reduce entanglement) and permit conditions for avoidance or minimization of effects that are to be considered part of the proposed action, including specific information about when and how these would apply and the anticipated reduction in take (e.g., capture, vessel strike) or severity of take. This should include any proposed monitoring or reporting measures. Highflyer radar buoys will be used at northern corners of the lease. Solar navigational lights will be placed on the southern corners. Highflyers and lighted buoys will be secured using helical anchors coupled with 1" polypropylene (LINK). Corner markers will be visually checked regularly, and a diver will check anchors annually or as needed.

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LINKS

High flyer: <https://ketchamsupply.com/product/hi-flyer/>

Bottom cage: <https://ketchamsupply.com/product/oyster-cages-condos/>

Buoys: <https://ketchamsupply.com/product/plastic-buoys/>

Solar navigational buoy: <https://lakelite.com/solar-buoys-nav-lights/marker-buoy-with-solar-navigation-light/>

Hurricane line: <https://ketchamsupply.com/product/zapco-storm-line/>

1" Superpro line: <https://orioncordage.com/product/superpro-proprietary-co-polymer/620-3-strand-superpro>

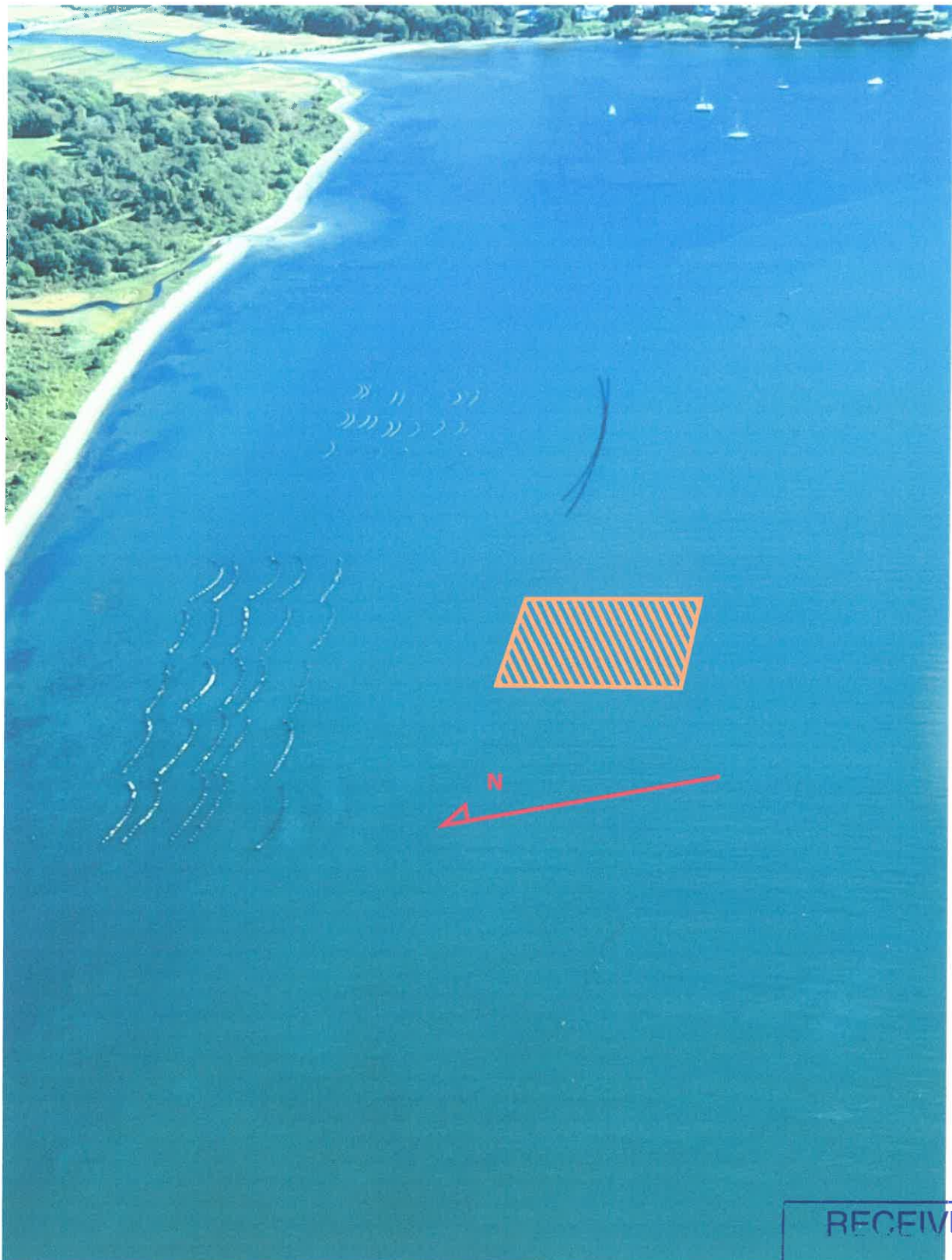
FlipFarm: <https://www.flipfarm.com>

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Figure 1

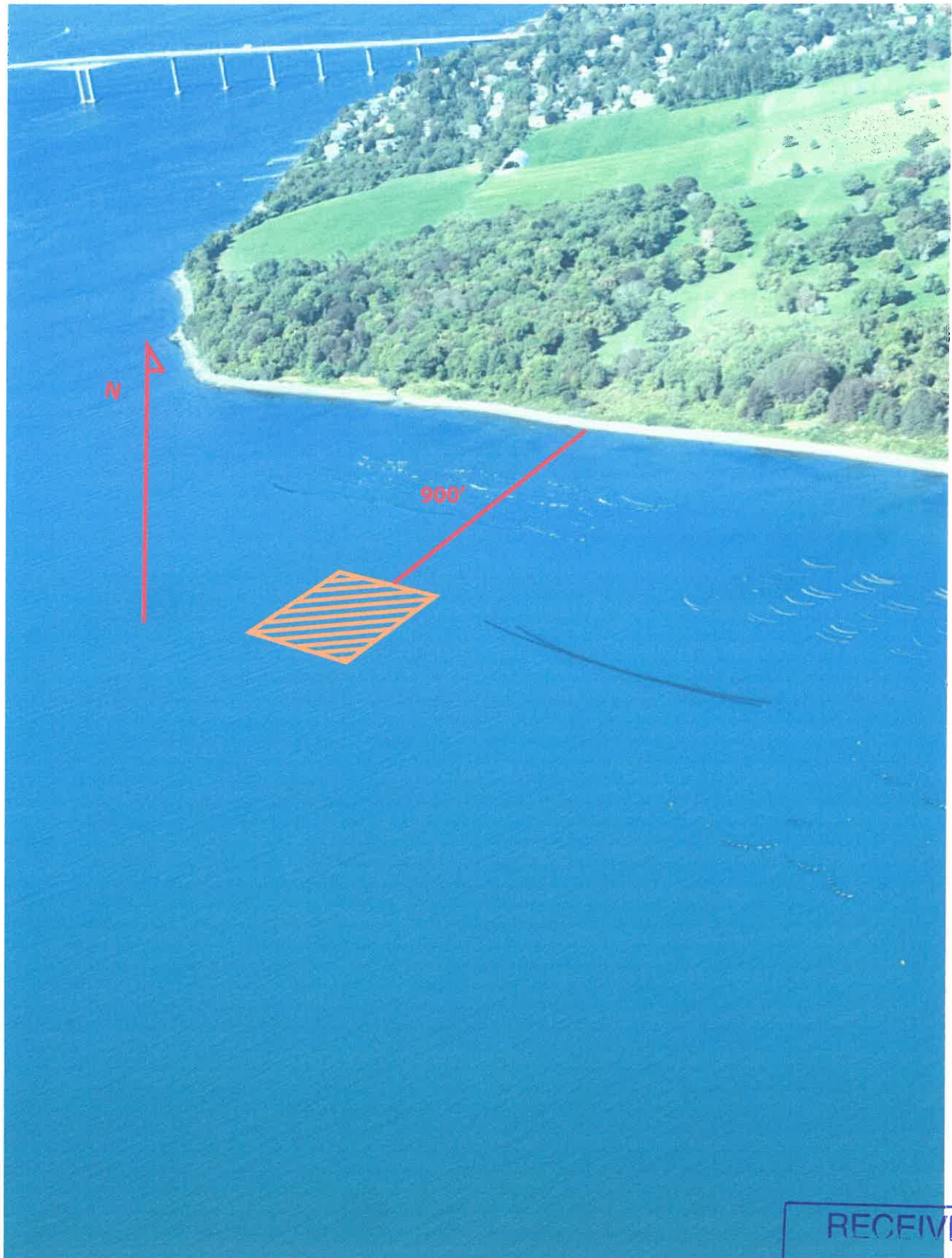


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Figure 2



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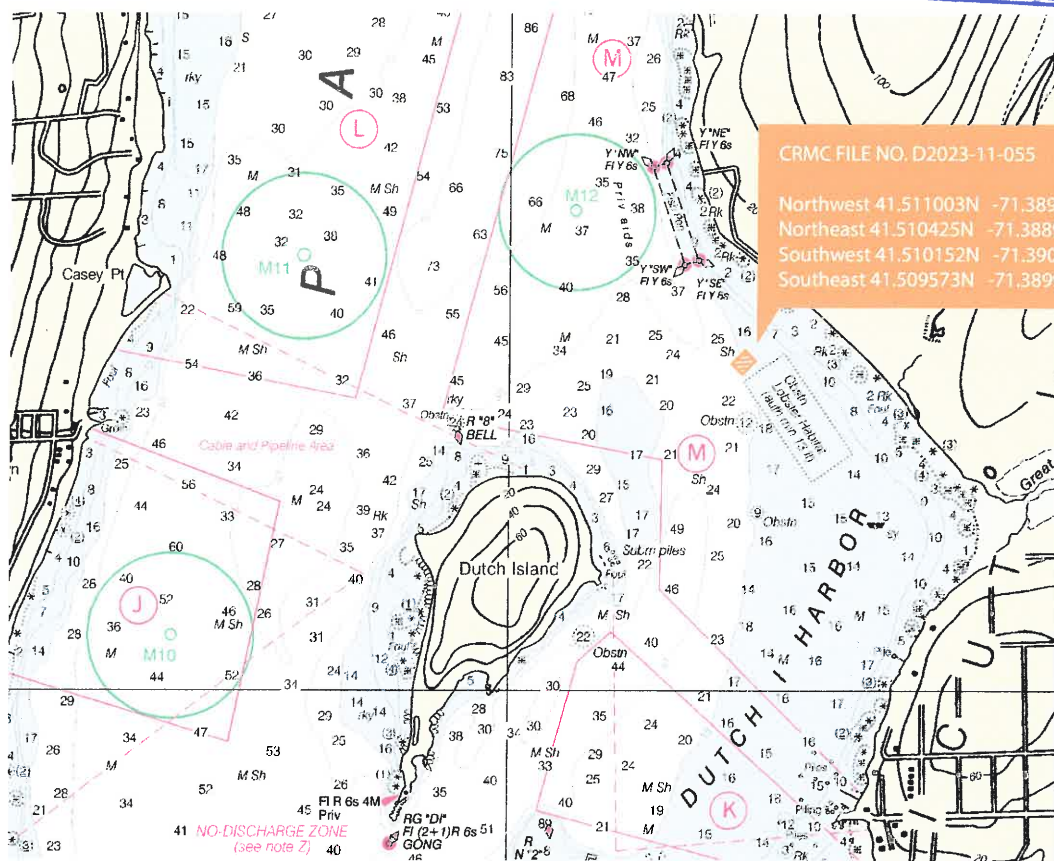
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Figure 3



CRMC FILE NO. D2023-11-055

Northwest 41.511003N -71.389856W
Northeast 41.510425N -71.388944W
Southwest 41.510152N -71.390832W
Southeast 41.509573N -71.389909W



Figure 4



Flip Farm Bag
29.25"L X 10.5"W X 11"H



Tumbler
36"L x 10.5"R



Split Bag
40"L x 20.5"W



Lantern Net
80"L x 20"R



Bottom Cage
48"L x 36"W x 12"H

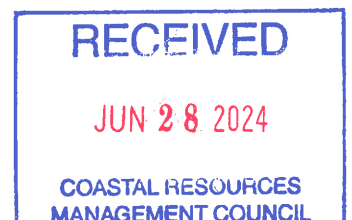
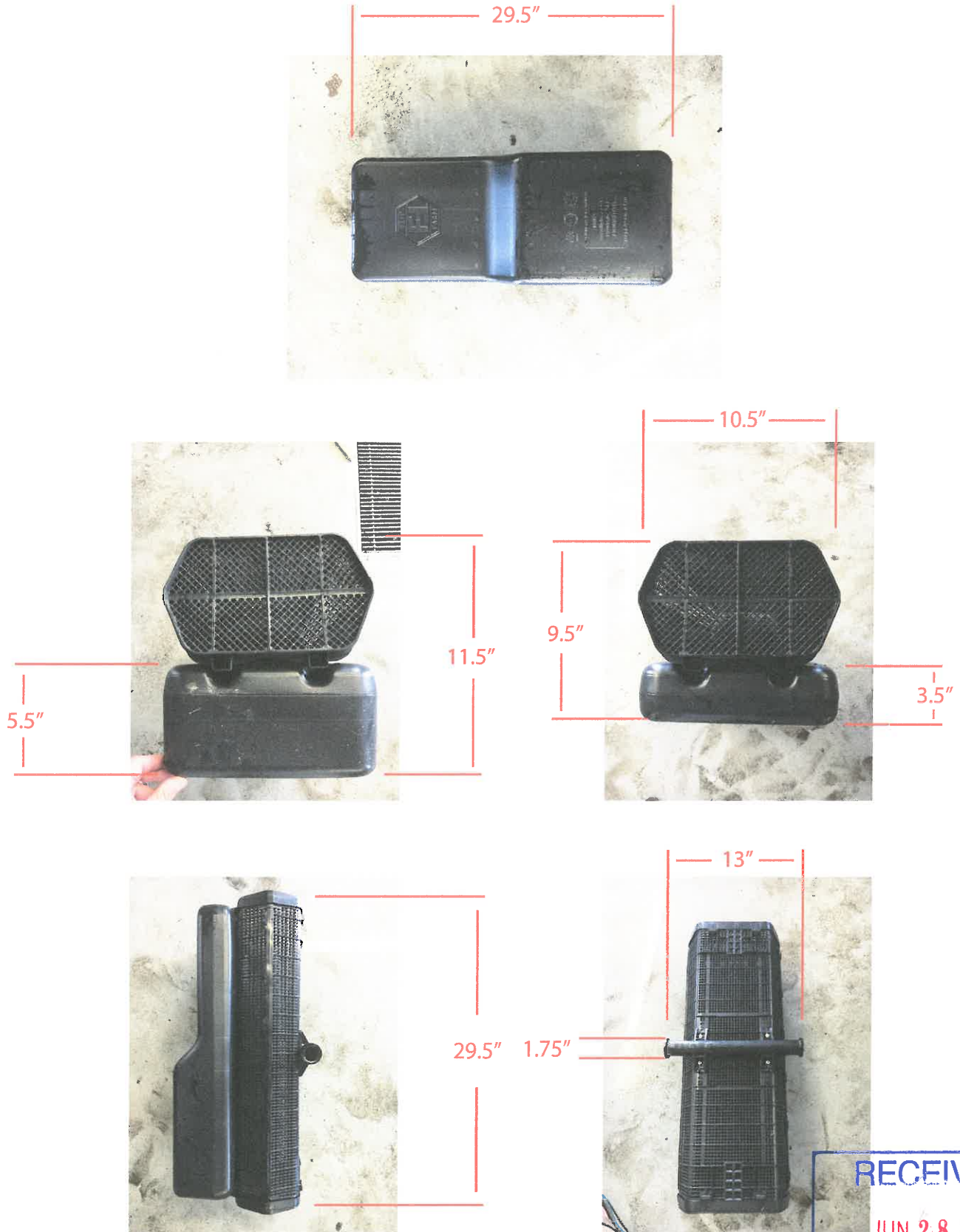


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Figure 6
BUOY TYPES USED



Go Deep 7.5" x 20" HD buoy
(lattern nets)



Round Marker Buoys
16" x 18", 75 pounds of flotation
(ends of each string)



Marker Buoy with Solar Navigation Light
4.3" H x 5" R
(southern corners of the lease)



12 foot high flyer
(northern corners of the lease)



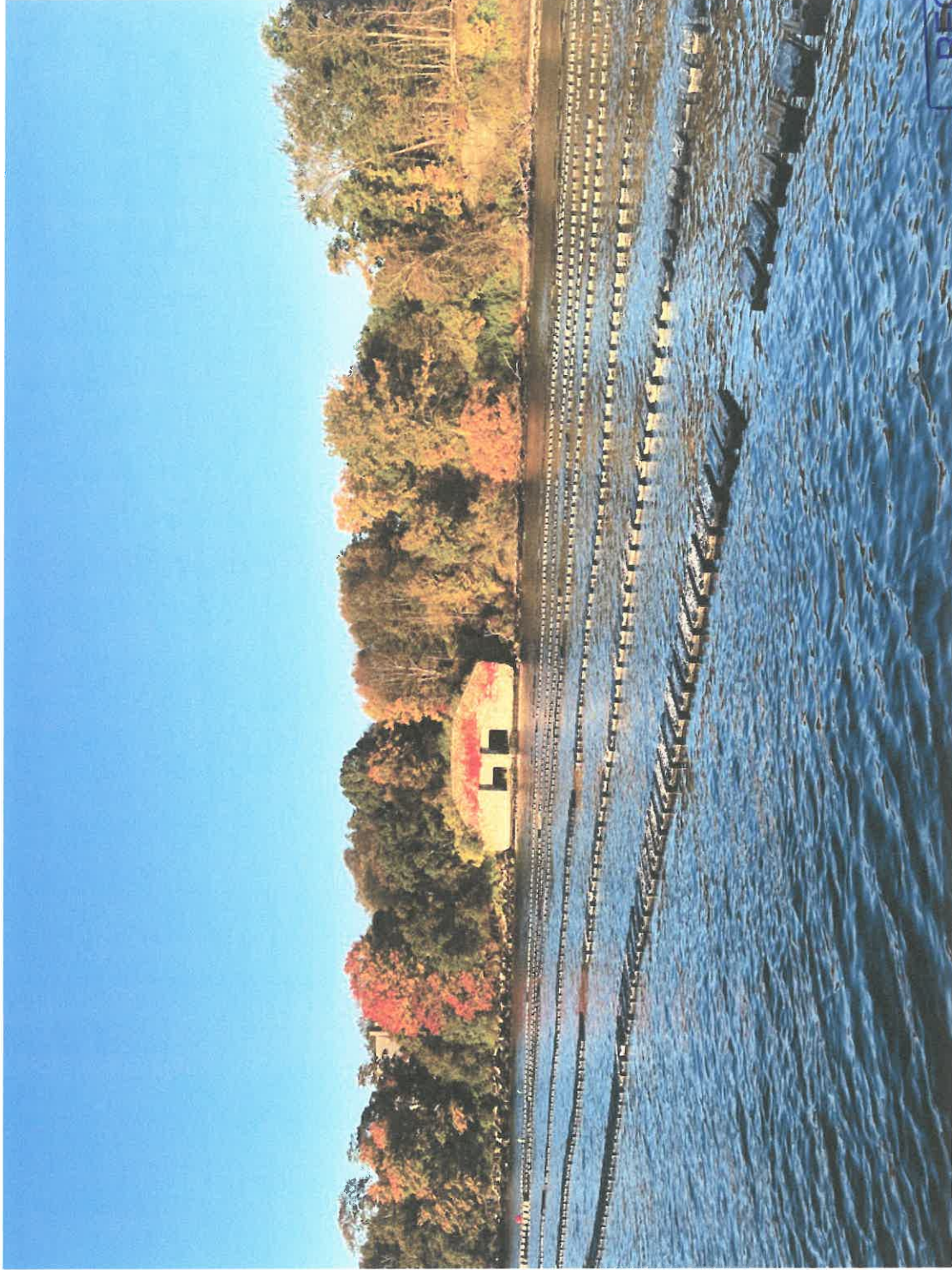


Figure 7

Local farm using Flip Farm gear

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