



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: 2012-01-002

Date: August 3, 2023

This office has under consideration the application of:

**Azure and Karl Cygler
The Cove Oyster Company, LLC
91 Point Judith Road, Ste 26; Unit 347
Narragansett, RI 02882**

for a State of Rhode Island Assent modification: to add Sugar Kelp (*Sacharina latissimi*) to the list of approved species for this aquaculture site which will be grown seasonally on three suspended five-line arrays from November to May annually. Note: No additional surface gear is proposed other than the 4 buoys per array and all arrays and associated buoys will be removed at the end of the season by May 15th each year.

Project Location:	The Cove
City/Town:	Portsmouth
Waterway:	The Cove

Plans of the proposed work are attached and can be requested at Cstaffl@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. Notice of the time and place of such hearing will be furnished to 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 September 2, 2023.

Please email your comments/hearing requests to: cstaffl@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



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REQUEST FOR ASSENT MODIFICATION

Assent/Permit Number: A2012-01-002 (including extensions) Expiration Date: May 8, 2027
Name of Assent Holder: Azure and Karl Cygler, The Cove Oyster Company, LLC
Location of Project: The Cove/Blue Bill Cove, near Spectacle Island
City/Town: Portsmouth, RI Plat: _____
Lot: _____

Name of Present Owner: Azure and Karl Cygler
Mailing Address: 91 Point Judith Road, Suite 26, Unit 347
City/Town: Narragansett State: RI
Zip: 02882
Phone Number: _____ Email Address: _____
Abutters: Jordan Viera, Breakwater Oyster Co.

I hereby certify that the names and addresses of adjacent property owners whose property adjoins the project site are accurate and current as of the date of application. If said names and addresses are found to be not accurate and/or current, any subsequent Assent may become Null and Void. Signed: Azure Cygler

Describe the proposed modification(s): _____
Addition of winter-only kelp aquaculture within the existing lease area. NOTE: No additional surface gear is being proposed. Kelp lines will suspend underwater and be anchored at each end of the arrays. Again, NO SURFACE GEAR IS BEING REQUESTED, except necessary buoys.

Reason: I have been growing kelp in Narragansett Bay for 2 seasons and would like to expand that operation to meet market need using existing lease footprint. Given the current concerns by some over aquaculture expansion, I propose using my existing lease and will utilize kelp growing methods that impose NO SURFACE GEAR.

What state of construction is the project in: I have all the existing gear to set kelp growlines, outplant in the late fall, harvest in the spring, and remove all growlines after May 15 each year. This modification will not change any navigation or other water uses at all, as it will be within the existing lease footprint.

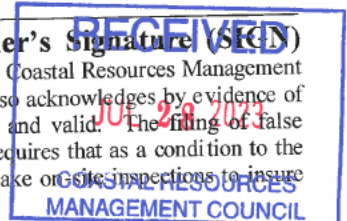
Azure Cygler

Azure Cygler

Owner Name (PRINT)

Owner's Signature (SIGN)

Note: The applicant acknowledges by evidence of their signature that they have reviewed the Rhode Island Coastal Resources Management Program, and have, where possible adhered to the policies and standards of the program. The applicant also acknowledges by evidence of their signature that to the best of their knowledge the information contained in the application is true and valid. The filing of false information can result in the Coastal Resources Management Council revoking State Assent. Applicant requires that as a condition to the granting of this assent, members of the CRMC or its staff shall be access to the applicant's property to make on-site inspections to insure compliance with the assent. This application is made under oath and subject to penalties of perjury. 5/00



Operations Plan
Modified to include request to grow sugar kelp
Cygler – 07/21/2023

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.

Azure and Karl Cygler
91 Point Judith Road
Suite 26, Unit 347
Narragansett, RI 02882

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.

File Number: A2012-01-002

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.

AQUA23000175

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 site. The nature of the operation is to cultivate eastern oysters and hard clams (quahogs) for commercial operation. Operations include raising seed from 2-3mm to saleable size. Grow-out method will utilize submerged cages. Quahog seed will be bottom set in designated areas within the lease site.

Modification is to grow sugar kelp in the winter season only. Kelp gear will be suspended horizontal lines that are anchored at the corner buys and stretch across the lease area. Outplanting of kelp and installation of the kelp growing gear will be in October/Nov annually and harvest will be through May 15th annually.

5. **Location of facility** (include aerial or chart depicting exact location)

- a. *Adjacent town:* Portsmouth, RI
- b. *Water body:* The Cove in Island Park
- c. *Lat/long coordinates and size of facility:*

41.635594 N; 71.227667 W
41.636003 N; 71.226489 W
41.635717 N; 71.225203 W
41.635142 N; 71.226475 W

6. **Identification of all species of shellfish** grown at the facility. Acknowledgement that the applicant will follow Biosecurity Board seed protocols should be included.

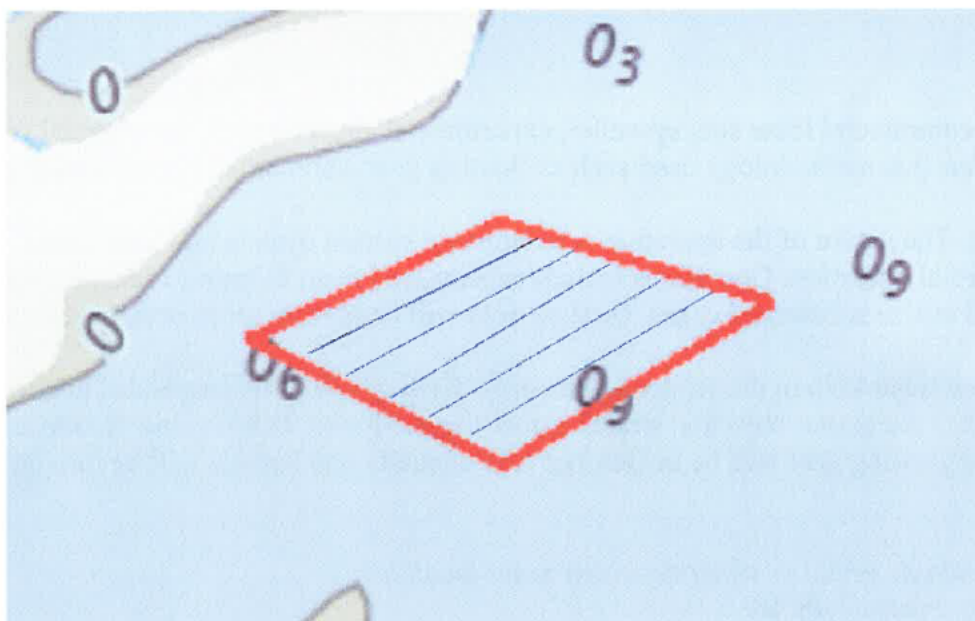


Eastern oysters and hard clams (quahogs). We acknowledge and will adhere to all Biosecurity Board protocols at all stages of the aquaculture operation.

Modification seeking to grow sugar kelp will include purchase of kelp seed from Greenwave or other seed producer that is securing seed from areas designated acceptable by RI CRMC.

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.*

There will be no “facility” used at this time. Oysters will be grown using cage culture methods. Cages/trays will be attached to trawl lines spaced evenly throughout the lease site. Various cage culture methods will be assessed to determine best growth. Wire mesh cages may be used, holding 3,000 oysters (capacity, not necessarily optimal stocking density) and hold 6 bags in a 2 bags wide by 3 bags high configuration. Maintenance on the farm will be performed via an 18-foot powered pontoon barge as equipped (Hull ID: DVN603900683). Spat collectors will be used to retain the spat from the site. Various seed will be used to offset growth gaps that may exist (all approved and adhering to the Biosecurity Board requirements). Maximum # cages: 300. Bags will be 100x40 cm and 100x50cm reinforced, assessed annually and optimized/adjusted based on growth rates. See attached site diagram.

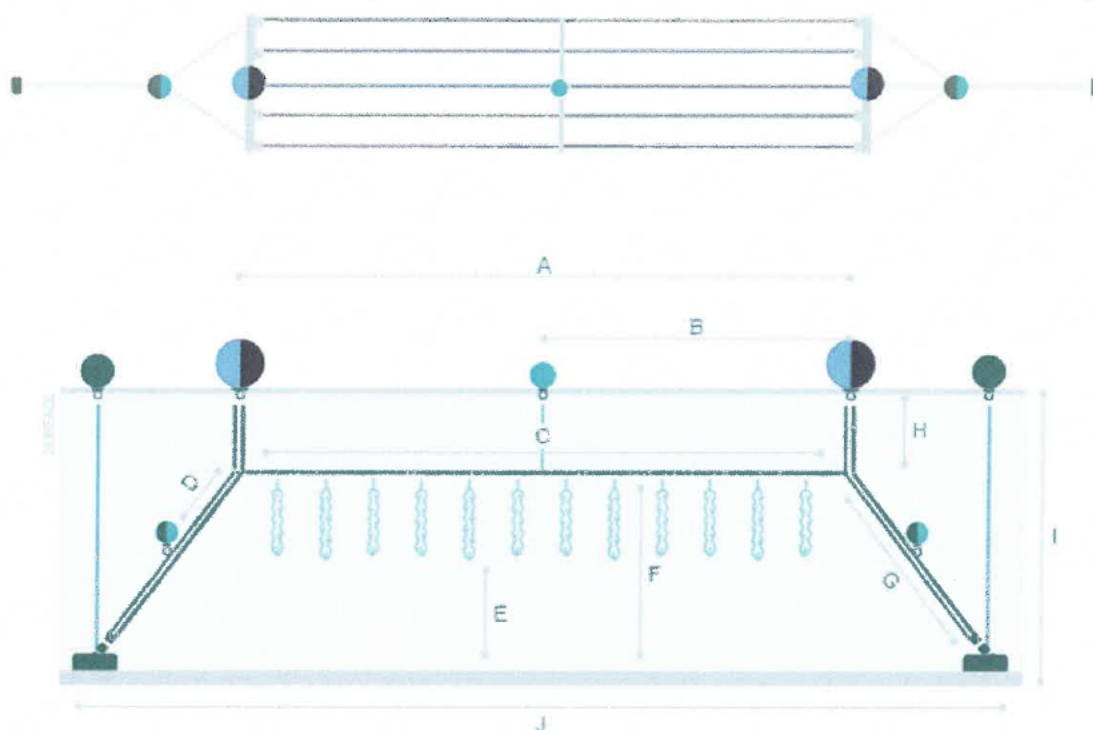


Wire mesh cage diagram.

Depths in feet at MLLW (6-9 feet). Depths at high tide (9.5 – 12.5 feet). Approx. 60 cages per line set (may be less depending on growth in this water body that has limited flow.) These lines set represent maximum numbers. Water temperature and water samples will be taken to assess nutrient and chlorophyll levels.

3

Modification will include of maximum of four 5-line array kelp growing systems. Each array will be anchored at one end of the farm and the other. Arrays are 10 feet wide and 200 feet long (see diagram). Anchors will be either helical screw anchors or mushroom anchors, either of which will be acceptable in low-flow conditions of the cove.



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).

Best Management Practices for growers (revised by East Coast Shellfish Grower's Association) will be followed, including "behavior" and activities that both optimize oyster growth and consider the needs of surrounding coastal concerns. Farm will be visited weekly to monthly in spring, summer and fall. Occasional visits to farm in the winter (assessable from shore), especially after storms, will ensure farm is compliant and in place. Cages will be placed on the bottom during the winter with little to no visible features (i.e. buoys). During the spring, summer and fall, shellfish will be hauled out via pot hauler on the pontoon during frequent maintenance and tending the grow-out process. The pontoon features a tumbler for use in farm maintenance. Tumbling, sorting, re-assigning oysters to proper mesh size cages, then return to the water and removal of market-ready products will occur during the farm checks. Cages will be cleaned via power washing on site as needed. Quahogs will be harvested via scuba or bull rake.

Modification: Kelp is a winter-only crop. After outplanting, farm will be checked weekly on small skiff. Harvest will be via skiff in April/May and all gear removed by May 15th. No additional surface gear will be used.

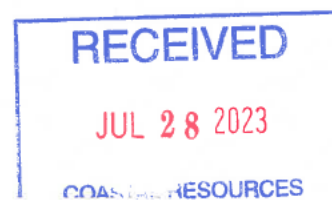
9. Description of the **methods and equipment used to identify and mark site**.

The four corners of the lease area will be marked with spar or standard pot buoys, bearing the proper CRMC specific site identifiers, with relevant lease information (file number, contact number, CRMC, etc.). Lettering will be in bold 3 inch characters in accordance with R.I.G.L. 20-10-9.

Modification: Existing methods for marking the site (described above) will be maintained. No changes requested.

10. **DEM Shellfish Harvesting Classification at site.**

GA4.



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.*

Growth – Seed purchased from licensed/approved seed distributors. All seed will be obtained from seed suppliers with accompanying pathology reports. Any seed obtained from closed waters will be tracked and monitored for a period of no less than 12 months using a numbered tagging system, as required by law. This will be done with specifically marked bags and cages with reference numbers and following through to grow out and harvest. All records will be available to CRMC and DEM as needed/requested. Nursery phase until grow-out which will utilize cage culture as described in #7 and #8 above. Trawl lines will be evenly spaced throughout lease site, with frequent growing season checks to ensure adequate growth and optimized stocking levels, removing cages as needed.

Modification: Sugar kelp seed will be obtained from approved seed suppliers such as GreenWave. Seed spools will be out-planted when seed is ready (between November and Dec. each year).

Harvest – Spring through late fall, weekly orders will be harvested using the 18 foot pontoon vessel. During these times and between harvest days, farm maintenance will occur. Any and all notifications, disease certifications and labelling/tagging protocols will conform to the current RI state requirements. The harvest vessel is properly constructed and operated to prevent contamination etc. of the stock. As this is a pontoon vessel, there is no risk of bilge water coming into contact with the stock. Stock will be washed at the time of harvest. Harvest of oysters and quahogs annually from Sept.15 – June 30, max time between harvest and delivery will not exceed 12 hours. From July 1 – Sept. 14, shading will happen immediately and delivered to a dealer within 5 hours. All other Temperature Control measures will also be adhered to.

Modification: Kelp will be harvested intermittently during the winter growing season, starting in February, with final and full harvest occurring in April, finishing no later than May 15th. All kelp growing gear will be removed by May 15th each year. All harvested kelp will be immediately cooled and either delivered fresh or processed, according to RI Department of Health regulations. Note: No regulations exist for fresh/wet weigh kelp, only for processed (dried or frozen) kelp.

Storage – All oysters will be stored on the lease site until harvested. Record keeping shall be in accordance with the RI state requirements and laws; records will include but not be limited to: frequency of grading, harvesting, placement of cages, etc. All state Vibrio Control measures and DOH requirements will be strictly adhered to. All container used will be clean, in accordance to the RI laws, 250-RICR-40-00-1, “Handling Shellfish”.

Modification: No kelp will be stored on site.

Transportation – Product will be sold to licensed DOH dealers and restaurants. All state Vibrio Control measures and DOH requirements will be strictly adhered to. All product will be tagged using durable, waterproof tags sanctioned by DOH. The tags will contain: license #, harvest date/time (at start); location, assent #, type of shellfish, approx. quantity, and the following statement: **THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY OR IS RETAGGED AND THEREAFTER KEPT ON FILE FOR 90 DAYS.**

Modification: Harvested kelp will either be delivered directly to customers or to an established intermediary for processing.

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.*
- b. *Description of a plan for re-submergence after air drying before harvest.*

Not applicable.

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

Approximately 200,000 – 300,000 oysters can be grown on the lease. Given the low flow environment, this will be tested in 2023 and 2024 growing season to ensure optimal growth and stocking. Applicant has been working in fisheries and aquaculture since 1999 and currently operates a kelp farm (winter only) in Narragansett Bay.

Modification: This will be the first time growing kelp in this location, so yield is not precise. Based on my previous kelp cultivation experience in a different location, it is estimated that with three 5-line arrays, the yield can be between 10,000-15,000 pounds (wet weight) of fresh kelp. I have 2 seasons of experience in the east passage growing kelp on 5-line array systems. This site is significantly easier, logistically, due to calm waters and shallow site. Through current colleagues and network of kelp farmers, I will have additional advice on shallow water cultivation techniques, proven in New York and Plymouth MA.

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.*

All equipment that is not being utilized (in the water) will be stored offsite. All gear will be tagged and marked to identify farm name and owner contact info. Lease will be marked with corner pot buoys, labelled according to CRMC and state requirements. During the winter season, cages will sit on the bottom (surface buoys removed) to ensure less scour and safety in the event of cove freezing. Prior to predicted storm events, site will be checked (visually from the adjacent public access shoreline) and monitored during and post-storm. As needed, skiff will be deployed to care for or adjust gear storage. In the event of moved or surfaced gear, or in case cages/bags are transported to nearby shoreline, these will be removed promptly.

Modification: All kelp growing gear will be labeled with lease number and my phone number. Site and gear will be checked weekly via small skiff deployed at the location access area. In the event of storms, more frequent shoreside checks will occur. Any gear that is displaced (although highly unlikely due to sheltered location) will be immediately removed and either repaired and replaced or removed entirely if damaged significantly.

15. *Procedures for **maintaining records**:*

- a. *For operations using seed acquired from **out-of-state**:*
 - i. *Description of notification, disease certification, and labeling/tagging procedures:*

All out of state seed purchases will go through the approval of the Biosecurity Board pending disease certifications from the hatchery used.

16. *Procedures for **maintaining records**:*

- a. *For upwellers/seed-growing facilities in prohibited waters:*



- i. *Description of procedures, including frequency of grading (with particular reference to requirements that seed must be removed before it exceeds maximum “seed” size threshold, i.e., <32 mm for oysters, <20 mm for quahogs):*

Not applicable to this operation.

17. Procedures for *maintaining records*:

- a. *For operations using seed from prohibited waters, or operations using shellfish obtained from a third party that originated as seed from prohibited waters:*
 - i. *Detailed description of demarcation methods and record-keeping practices used at the lease site to ensure that animals have been cultured at least six (6) months in approved waters, prior to sale, including:*
 1. *Detailed record-keeping practices specifying date, source, average size, and amount of seed; and*
 2. *Protocols and associated record keeping for tracking product, e.g., use of tagged/numbered cages and/or bags, use of marked trawls, and/or use of marked, segregated portions of lease sites.*

Not applicable.

- b. Description of the process for notifying the third party that (a) seed came from prohibited waters, (b) the date of that transfer, and (c) the remaining time needed to maintain the animals in approved waters prior to sale.

ORIGINAL SITE PLANS

Applicants: Thomas & Lisa Boulenger
 Portsmouth, RI. (The Cove)

RECEIVED
 MAR 25 2012
 G.R.M.C.

N.W. P.

N.E. P.

41.635717 (Lat)
 71.225203 (Long)

41.636003 (Lat)
 71.226489 (Long)

Legend

- ① - Lease Boundary Marker
- Lease Boundary Line
- ▲ - Trawl Anchor
- - 45" x 40' x 24" Cage
- () - 19' x 39' Cage Capacity
- Nursery Area
- MLW (Mean Low Water)
- Trawl (Sinking Line)
- Spot Collectors

Note: 200' MLW Clearance
 Maintained from
 Shoreline

41.635594 (Lat)
 71.227667 (Long)

S.W. P.

5'-6" MLW ±

Deann B. T. Boulenger 3/4/12

Scale 1/8" = 100'

41.635142 (Lat)
 71.226475 (Long)

S.E. P.

5'-3" MLW ±

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JUL 28 2023

COASTAL RESOURCES
 MANAGEMENT COUNCIL

Cygler lease – Modification to grow kelp – Submitted July 2023

1.3.1(A)

Category B written requirements:

a. Demonstrate the need for the proposed activity or alteration

Sugar kelp cultivation has been occurring in RI waters for approximately the past 10 years (Blaney lease). Many ocean farms in the region and nation are advancing technology for efficiently growing sugar kelp so there is a community of practice. As our understanding of the ecosystem benefits of kelp cultivation (i.e. reducing local acidification, habitat creation, capturing carbon, nitrogen, and phosphorus, and more) grow, there is more interest and demand at the market level. This is met with farmer innovation, which expands existing markets and is opening new ones (i.e. bioplastic creation from kelp, animal feed using kelp that reduced methane emissions). As a way to contribute to this growing sector that advanced smart blue economy growth in RI, I would like to grow kelp on my existing lease footprint, which minimized use conflicts that may arise with a new lease proposal for kelp. In addition, the presence of sugar kelp only in the winter months can further reduce any potential shared use concerns that might exist in proposing a new lease.

b. 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 §§ 1.3.1(B), (C), (F), (H), (I), (K), (M), (O) and (Q) of this Part; for projects on state land, the state building official, for the purposes of this section, is the building official;

Given that I am proposing a lease modification (not requesting a new lease), all existing lease/assent provisions will be met.

c. Describe the boundaries of the coastal waters and land area that is anticipated to be affected;

All kelp cultivation will happen well within the existing lease boundaries.

d. 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;

Sugar kelp cultivation has been shown to in fact improve environmental conditions such as creating storm buffers to the shore, creating habitat, and reducing acidification, all while capturing runoff like Nitrogen and Phosphorus. There have been no scientifically or anecdotally recorded negative impacts to the shore or erosion effects that I have encountered.

e. Demonstrate that the alteration or activity will not result in significant impacts on the abundance and diversity of plant and animal life;

Sugar kelp cultivation has in fact been proven to enhance the habitat in the cultivation area.

f. 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 existing lease where the modification is being proposed is adjacent to the RIDEM's Gull Cove Access area. All boats, kayakers, and other water users can and have demonstrated safe use of the area on a regular basis.

g. Demonstrate that the alteration will not result in significant impacts to water circulation, flushing, turbidity, and sedimentation; h. Demonstrate that there will be no significant deterioration in the quality of the water in the immediate vicinity as defined by DEM;

Sugar kelp has been shown to improve water quality and reducing local acidification. There are also demonstrated research that co-cultivation of shellfish and kelp, as would occur here, has additional benefit to the water quality through filtration and other ecosystem benefits.

i. Demonstrate that the alteration or activity will not result in significant impacts to areas of historic and archaeological significance;

As the modification will occur within the existing and permitted lease footprint, no impacts will occur.

j. 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, and;

The existing lease where kelp cultivation is being proposed has been in operation since 2012 (with 2 lease transfers), and no impacts have been shared with other uses. Also, the proposed modification will be in the winter only where uses are reduced overall.

k. Demonstrate that measures have been taken to minimize any adverse scenic impact (see § 1.3.5 of this Part).

1.3.1(K)(3):

Additional Category B Requirements

a. Applicants proposing to undertake any aquaculture project shall:

(1) Describe the location and size of the area proposed;

Provided in modification documents.

(2) Identify the species to be managed or cultivated within the permitted area and over which the applicant shall have exclusive right;

Sugar kelp, oysters, hard clams

(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; and

Commercial use

(4) Provide such other information as may be necessary for the Council to determine:



(AA) The compatibility of the proposal with other existing and potential uses of the area and areas contiguous to it, including navigation, recreation, and fisheries;

Given the modification is within the existing lease footprint that has existed since 2012, there are no anticipated impacts.

(BB) The degree of exclusivity required for aquacultural activities on the proposed site;

As with existing activities on the lease, anyone in any way can utilize the space for other activities.

(CC) The safety and security of equipment, including appropriate marking of the equipment and/or lease area;

All kelp cultivation gear will be marked with buoys, providing the proper CRMC and lease info.

(DD) The projected per unit area yield of harvestable product;

It is anticipated that with three 5-line arrays, yield of sugar kelp can be between 10,000 and 20,000 pounds (wet weight) each spring. However, this is a new and more shallow site than I have previously worked in so it might be less.

(EE) The cumulative impact of a particular aquaculture proposal in an area, in addition to other aquaculture operations already in place;

Sugar kelp cultivation has proven positive environmental impacts. Oyster and clam cultivation will continue, as per the existing assent, in the spring/summer/fall.

(FF) The capability of the applicant to carry out the proposed activities; and

I have 2 seasons of kelp cultivation experience, specifically using 5-line array systems. I have existing customers and new market channels awaiting product for the 2024 and beyond season. I have completed GreenWave courses, Social Enterprise Greenhouse business development courses, and have been working in aquaculture in different ways for the past 10 years.

(GG) The impact of the proposed activities on the scenic qualities of the area.

The only visual change will be the presence of small black buoys to uplift the arrays. This will be ONLY in the WINTER MONTHS. All kelp and all gear will be removed by May 15th of every year.

10/18/11

BOULANGER AVANCEMENT

NOTE C
Numerous mooring buoys
are located in this area.

See Outside Back Cover
for Facilities Listing.

match plot line

See pages 9 for Note B
Fish traps
(see note 11)
NO. DISCHARGE ZONE
(see note 2)

41° 36.2'
71° 13.0'

41° 36.9'
71° 17.8'

41° 37.8'
71° 16.3'

See Next Page for
Map of the Area

MAILED

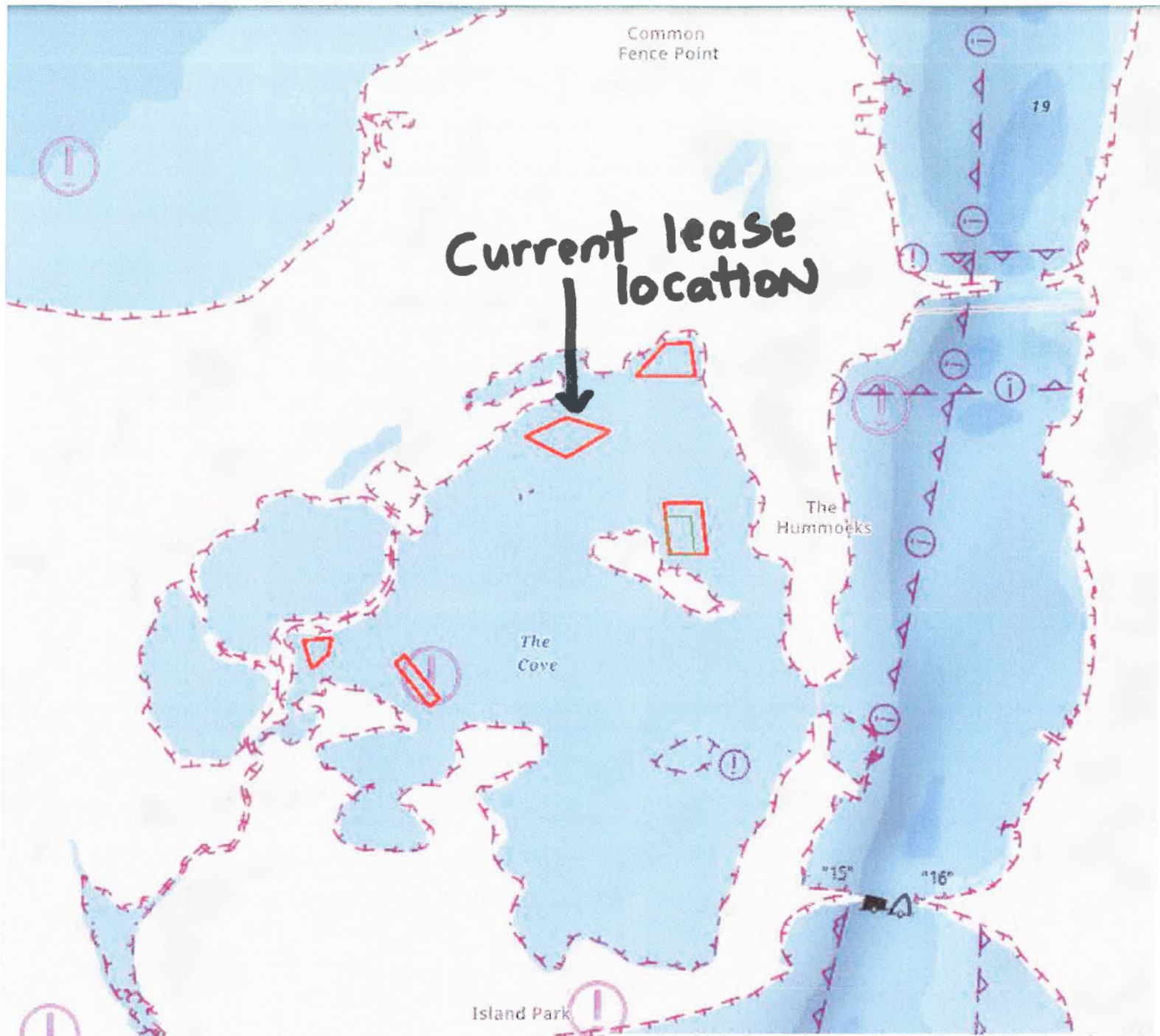
BRISTOL
TOWER

10 G "17" O.G.

see page 2

10 G "7" FIG 4





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JUL 28 2023

COASTAL RESOURCES
MANAGEMENT COUNCIL

ORIGINAL SITE PLANS

Applicants: Thomas & Lisa Boulanger
Barnstable, RI. (The Cove)

N.E. H.

41.635717 (Lat)
71.225203 (Long)

5'-6" MLW

RECEIVED
JUL 28 2023
COASTAL RESOURCES
MANAGEMENT COUNCIL

RECEIVED
MAR 28 2012
C.R.M.C.

N.W. H.

41.636003 (Lat)
71.226489 (Long)

Legend

- ① - Lease Boundary Marker
- Lease Boundary Line
- ▲ - Trawl Anchor
- - 45' x 40' x 24" Cage
(Cage Capacity 6-19 x 39)
- - Poly Mesh Bags
- ▨ - Nursery Area
- ***** - MLW (Mean Low Water)
- □ - Trawl (Sinking Line)
- ||||| - Spot Collectors

Note: 200' MLW Clearance
Maintained from
Shoreline

S.W. H.

41.635594 (Lat)
71.227667 (Long)

5'-6" MLW

Debra B. T. Boulanger 3/4/12

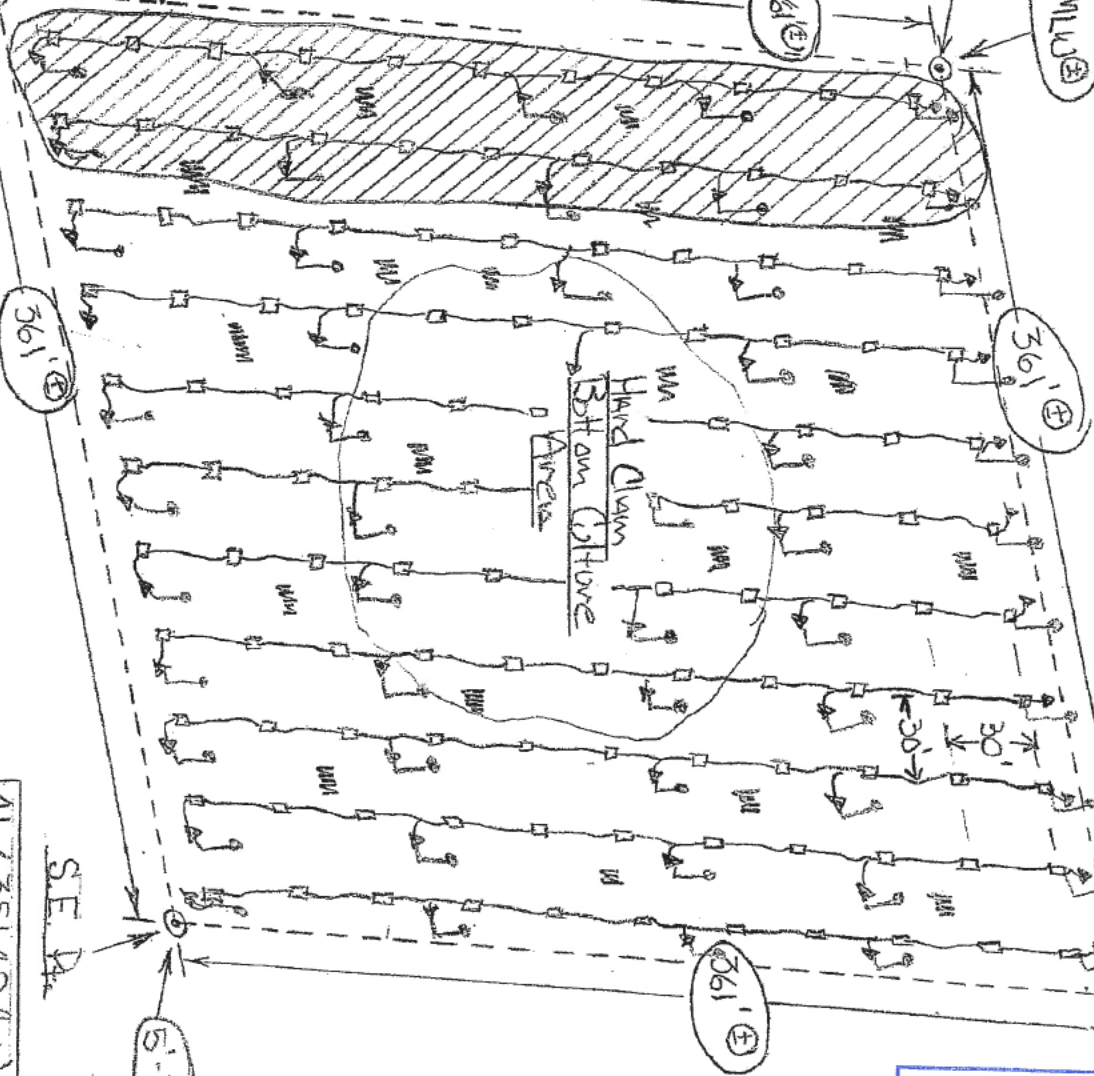
41.635142 (Lat)
71.226475 (Long)

Scale 1" = 100'

A-1

S.E. H.

5'-3" MLW



True

NW Pt.

41.636.003 (Left)
71.226.489 (Long)

5-4' MLW

NE Pt.

41.635.717 (Left)
71.225.203 (Long)

5-6' MLW

OYSTER ENGE STORAGE

Anchor
Anchor line
10' spreader bar
10' spreader bar
Growlines, 5 per array, 200' each.

Note: 200' MLW Clearance
Maintained from
Shoreline

SW Pt.

41.635.594 (Left)
71.227.667 (Long)

5-8' MLW

SE Pt.

41.635.142 (Left)
71.226.475 (Long)

5-3' MLW

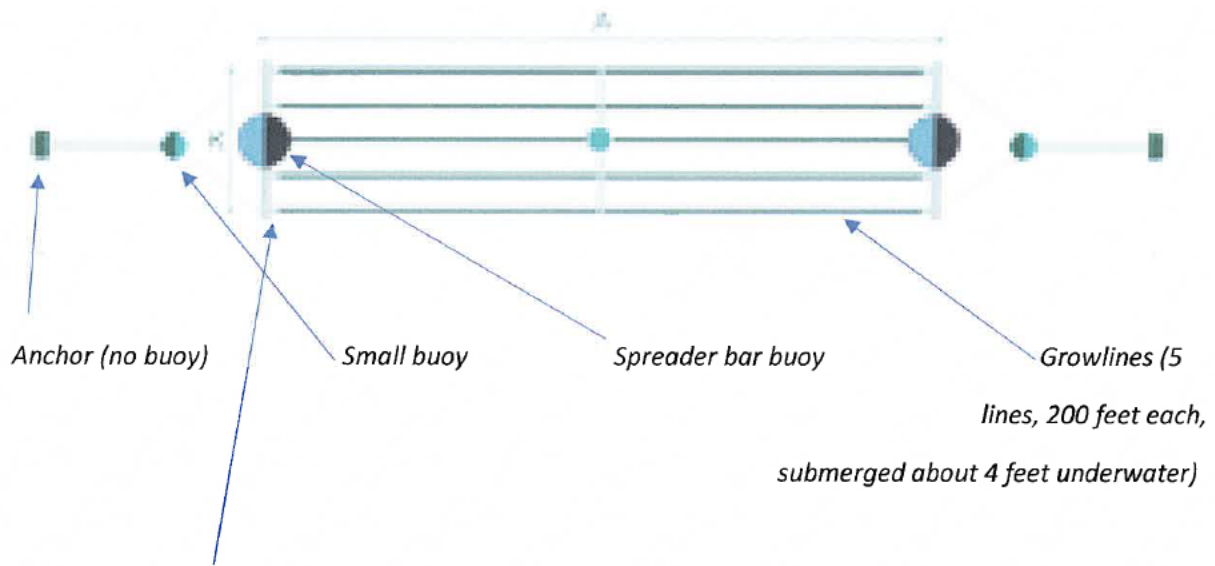
Scale 1/2" = 100'

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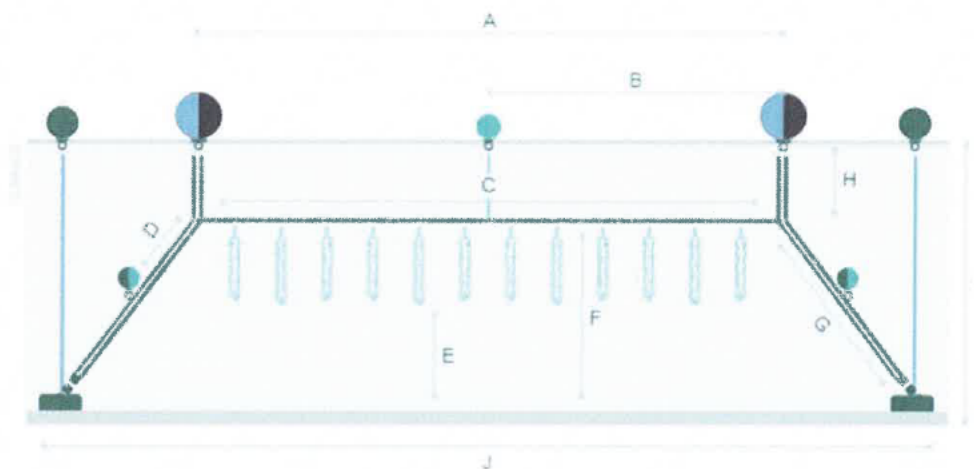
JUL 28 2023

COASTAL RESOURCES
MANAGEMENT COUNCIL

Key:



Spreader bar (10 feet long)



Cross section of the gear



NOTE:

- 1) There will be 4 buoys at each array. These are necessary to support the spreader bar and the anchor line buoy. All efforts will be made to decrease visual impact, including making the buoys small and black.
- 2) All empty cages will be removed and stored off-site. Other cages with oyster stock will be moved in the winter kelp growing season to the inshore (north west and north east part of the lease). This will create room for the kelp arrays.

