Meeting Notice
Shellfish Advisory Panel
Wednesday September 2, 2020, 4:00PM

Virtual public meeting - Zoom webinar

MEETING AGENDA

<table>
<thead>
<tr>
<th>Agenda item</th>
<th>Recommended action(s)</th>
<th>ePacket Attachment(s)/links</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Aquaculture application 2019-10-047 (East Beach Oyster Co. LLC, Papa)</td>
<td>Provide recommendation to the CRMC/Council pursuant to RI Gen. Laws §20-10-5(d)</td>
<td>• Application out to public notice</td>
</tr>
<tr>
<td>2. Aquaculture application 2020-05-083 (Van Hemelrijk)</td>
<td>Provide recommendation to the CRMC/Council pursuant to RI Gen. Laws §20-10-5(d)</td>
<td>• Application out to public notice</td>
</tr>
<tr>
<td>3. Aquaculture application 2020-04-037 (Bowen)</td>
<td>Provide recommendation to the CRMC/Council pursuant to RI Gen. Laws §20-10-5(d)</td>
<td>• Application out to public notice</td>
</tr>
<tr>
<td>4. Shellfish harvest schedules for winter management areas</td>
<td>Discussion. Provide recommendation to the Council on harvest schedule changes.</td>
<td>• Current harvest schedules (Part 4 – Shellfish: sections 4.12.2(A), 4.12.2(E), and 4.12.2(G))</td>
</tr>
<tr>
<td>(Greenwich Bay, Bissel Cove, Bristol Harbor Shellfish Management Areas)</td>
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<tr>
<td>5. Providence River Transplant</td>
<td>Discussion on upcoming transplant scheduled for September 15th</td>
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<td>6. Any Other Matters</td>
<td>Discussion and/or recommendations for future actions</td>
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<tr>
<td>7. Adjourn</td>
<td></td>
<td></td>
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</tbody>
</table>

To join the webinar, click here. Or enter the following into your web browser: https://zoom.us/j/98106352056
To join by phone, call: 1-929-205-6099
Meeting ID: 981 0635 2056
Participant ID: Provided once you log onto webinar. If not logging onto webinar, simply wait on the line to be connected on the phone.

All RIMFC Species Advisory Panel meetings are open to the public.
For more information please contact Anna Gerber-Williams at (401) 423-1930.

* Aquaculture applications can be found at http://www.crmc.ri.gov/applicationnotices.html
* Posted to Sec. of State August 21, 2020
PUBLIC NOTICE

File Number: 2019-10-047 Date: October 21, 2019

This office has under consideration the application of:

East Beach Oyster Co. LLC
1176 Post Road
Wakefield, RI 02879

for a State of Rhode Island Assent to re-configure, expand and maintain: a bottom plant oyster farm in Ninigret Pond. The current site area is 10.69 acres. The reconfiguration would relinquish a portion of the existing site and expand the remaining portion of the site to create a farm of 15.6 acres.

<table>
<thead>
<tr>
<th>Project Location</th>
<th>Ninigret Pond</th>
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</thead>
<tbody>
<tr>
<td>City/Town:</td>
<td>Narragansett</td>
</tr>
<tr>
<td>Plat/Lot:</td>
<td>/</td>
</tr>
<tr>
<td>Waterway:</td>
<td></td>
</tr>
</tbody>
</table>

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 November 20, 2019.
APPLICATION FOR STATE ASSENT
To perform work regulated by the provisions of Chapter 279 of the Public Laws of 1971 Amended.

| Applicant’s Name: East Beach Oyster Co. LLC | File No (CRMC use only): 2019-10-047 |
| Mailing Address: 1176 Post Rd |
| City/Town: Wakefield | State: RI | Zip Code 02879 |
| Waterway: N. Niggert Pond | Est. Project Cost $ 200.00 | Fee/Costs: $ 50 |

Longitude/latitude of all corners of Proposed Aquaculture Project Location (preferably in decimal degrees):

| NW | 71° 40.53.00 / 41° 21.12.44 |
| NW | 71° 40.53.38 / 41° 21.01.69 |
| SW | 71° 40.52.86 / 41° 21.01.61 |
| NE | 71° 40.36.23 / 41° 21.14.21 |
| E  | 71° 40.35.71 / 41° 21.12.18 |
| SE | 71° 40.35.19 / 41° 21.09.74 |

Have you or any previous owner filed an application for and/or received an assent for any activity on this site? (If so please provide the file and/or assent numbers).

File # 2019-02-018

Is this application being submitted in response to a coastal violation?

Yes __________ No ______ X

If yes, you must indicate NOV or C&D Number

Is this site within a designated historic district? _____ No

Owner’s Signature (sign and print)

STORMTOOLS (http://www.beachsamp.org/resources/stormtools/) is a planning tool to help applicants evaluate the impacts of sea level rise and storm surge on their projects. The Council encourages applicants to use STORMTOOLS to help them understand the risk that may be present at their site and make appropriate adjustments to the project design.

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. Where variances or special exceptions are requested by the applicant, the applicant will be prepared to meet and present testimony on the criteria and burdens of proof for each of these relief provisions. 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. If the information provided to the CRMC for this review is inaccurate or did not reveal all necessary information or data, then the permit granted under this application may be found to be null and void. Applicant requires that as a condition to the granting of this assent, members of the CRMC or its staff shall have 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 the penalties of perjury.

PLEASE REVIEW REVERSE SIDE OF APPLICATION FORM
East Beach Oyster Co.  
Prepared on 9/14/2019

Written Description

This proposal is to reconfigure and expand our bottom culture lease #2015-5-107. Our request is to relinquish 900’ from the east end of the existing lease to ease the most heavily traveled north eastern corner and make navigation for other boaters more fluid. We also would like to shift the existing western border 400’ to the west. The reconfiguration of the lease will result in a total area of 15.6 acres which is a net expansion of 4.91 acres. On this site we will be bottom planting eastern oysters and hard shell clams. Periodically a boat will be on site either planting or harvesting. The harvesting techniques will include bullraking, dredging and diving. Between memorial day and labor day harvesting will be limited to weekdays. The shellfish will be graded and marketable product will be sold and sub market product will be returned to the site to be replanted. The site will be marked with 4 corner markers no larger than 12” and also one marker in the middle of each corner to make the border clear. The proposed area is a silty sand bottom ranging from 6’-8’ deep.
Operational Plan

The Proposed Shellfish farming operation will be raising oysters and clams from juvenile to market size on the bottom only. The seed will be purchased from a number of approved sources. The oysters will be raised up to about 1.5-2 inch on our cage lease. It will then be planted on the bottom where it will grow out to market size. The clam seed will be planted in the fall directly in the sand below the oysters and left there for grow out. Once the oysters reach market size, they will be sold to the Ocean State Shellfish Co-op located on Walts way in Narragansett. The market oysters and clams will be culled out by hand. The shellfish will be bull raked, dredged or harvested by diving.
Section 300.1

1) Q: Demonstrate the need for the proposed activity or alteration.
   A: The proposed activity consists of an expansion of an existing lease in the west end of Ninigret Pond. This site is desired for the cultivation of the eastern oyster, Crassostrea virginica. The East Beach Oyster Company LLC will use this additional acreage to not only continue healthy farming practices, but also insure healthy and responsible oyster husbandry in the pond.

2) Q: Demonstrate that all local zoning ordinances, building codes, flood hazard standards, and all safety codes, fire codes, and environmental requirements have or will be met.
   A: The proposed project will not impact the Land.

3) Q: Describe the boundaries of the coastal waters and land area that are anticipated to be affected.
   A: The proposed site is located in the west end of Ninigret Pond. The site is north of the sand flats and north of the East Beach Oyster Co. existing bottom culture lease.

4) Q: 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.
   A: The proposed activity will not impose any threat of erosion or deposition to the area or surroundings. The activities will be very low impact.

5) Q: Demonstrate that the alteration or activity will not result in significant impacts on the abundance and diversity of plant and animal life.
   A: The proposed activity will aid in the diversity and abundance of animal life by providing additional habitat and micro-ecosystems. The presence of oysters in this area will help mitigate the negative effects of Nitrogen run off from waterfront lawn fertilizer applications and septic systems in close proximity to the pond.

6) Q: 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.
   A: The proposed activity will not interfere with shoreline access or to the waters. The proposed operation is for bottom culture only which will not interfere with navigation of vessels.

7) Q: Demonstrate that the alteration will not result in significant impacts to water circulation, flushing, turbidity, and sedimentation
   A: The proposed operation will be very low profile and not affect circulation, flushing, turbidity or sedimentation.
8) Q: Demonstrate that there will be no significant deterioration in the quality of the water in the immediate vicinity as defined by DEM.  
A: The water quality will be improved by oysters' food filtration system and by the increase in biodiversity. Each oyster can filter up to 50 gallons of water a day, resulting in a cleaner pond. This can negate the skyrocketing nitrogen input (Lawn fertilizer and septic runoff) from more than ten waterfront homes. Adding oysters in the proposed site creates an ecosystem, which builds biodiversity. This, in turn, promotes bioturbation, aiding in sediment health.

9) Q: Demonstrate that the alteration or activity will not result in significant to the areas of historic and archaeological significance.
A: The proposed site is not of historical or archeological significance.

10) Q: Demonstrate that the alteration or activity will not result in significant conflicts with water-dependent uses and activities such as boating, fishing, swimming, navigation, and commerce, and...
A: The proposed activity will not interfere with navigation or recreational activities.

11) Q: Demonstrate that measures have been taken to minimize any adverse scenic impact (see section 330).
A: The proposed site will be marked with only a 12” buoy on each point. And due to the size of the area and distance between corners there will also a buoy between the corner markers to clearly mark the boundary.
Guidance Document for
Aquaculture Operations Plans

Anyone conducting aquaculture operations in RI must comply with all applicable CRMC regulations (Coastal Resources Management Program Section 300.11) and DEM regulations, as set forth in “Aquaculture of Marine Species in RI Waters.” Plans provided to the CRMC will be available for DEM review. Modifications to the permit must follow the CRMC process for modification of assent. Separate, individual plans shall be developed and submitted for each aquaculture site/facility (i.e., one for each lease site, one for each upweller location, etc.); provided, however, that if lease sites are contiguous, or part of a single, unified operation, the overall site can be covered by a single plan. Operations Plans shall address each of the items listed below, as applicable, following the format set forth below.

Note: All plans must be type written. This Microsoft Word document is intended to be used by licensees/operators as a template when preparing plans and may be modified as needed to fit the specific needs of the operator.

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: East Beach Oyster Co. LLC 1176 Post Road, Wakefield RI, 02879

2. **CRMC file number** for the facility; new applications will be assigned a file number by CRMC:

3. **DEM Aquaculture License number** (applicable if products are offered for sale); new applicants will need to obtain the DEM aquaculture license: 056

4. **Type of facility** (e.g., commercial lease site, upweller, experimental site, restoration site) and **nature of operation** (i.e., methodology used). Commercial oyster lease/bottom culture

5. **Location of facility** (include aerial or chart depicting exact location):
   - Town: Charlestown
   - Water body: Ninigret pond
   - Lat/long coordinates of facility: -71 39'33.94", 41 21'17.14"

RECEIVED
OCT 10 2019
COASTAL RESOURCES MANAGEMENT COUNCIL
6. Identification of all species of shellfish grown at the facility. Acknowledgement that the applicant will follow Biosecurity Board seed protocols should be included. Crassostrea Virginica and mercenaria mercenaria will be grown and all biosecurity board protocols will be followed.

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 water column including proximity to surface and bottom.). The proposed expansion will be for bottom culture only, see cross section in application.

8. Description of the methods and equipment used to identify and mark site. The site will be marked at each corner with a 12’ lobster pot buoy with the CRMC assent number visible.

9. DEM Shellfish Harvesting Classification at site. DEM6p

10. Description of practices and procedures used during the growth, harvest, storage, transportation, and sale of the cultured species. The oysters will be grown on the sand bottom and harvested with bull rakes and by hand. Once harvested, the oysters will be packed and iced and delivered to the dock where the Ocean State Shellfish Cooperative refrigerated truck will pick them up. Tags showing the harvest time, date and location will accompany all shellfish at time of transfer. All vibrio regulations will be met or exceeded during the sale of shellfish.

11. Procedures for maintaining records:

   For operations using seed acquired from out-of-state: A log will be taken and pathology reports will be reported and filed.

   Description of notification, disease certification, and labeling/tagging procedures: Pathology reports will be obtained and filed with CRMC before any transfer takes place. Upon harvest tags will accompany all product.

12. Procedures for maintaining records:

   For upwellers/seed-growing facilities in prohibited waters: All seed will be grown in certified waters.

   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, <25 mm for quahogs): The seed will be graded weekly minimum and will be brought to the sight once it reaches 9mm.
Re: East Beach Oyster CO. LLC public notice #2019-10-047

Dear Mr. Beutel:

The Rhode Island Department of Environmental Management (Department), through the Division of Marine Fisheries (DMF) and the Division of Fish and Wildlife (DWF), has received and reviewed the application submitted by East Beach Oyster Co. LLC for a proposed site reconfiguration and expansion of assent # 2015-05-107 from 4.91 acres to 15.6 acres total in Ninigret Pond for cultivating oysters (Crassostrea virginica) and hard shell clams (Mercenaria mercenaria) using bottom planting.

The DMF believes that the adverse impacts to marine fisheries and wildlife and their habitat from this prospective shellfish farm would be minimal. As such, the DMF does not have objections to this proposed site expansion as is outlined in the application.

The shallow waters adjacent to the saltmarshes of Ninigret Pond provide critical wintering habitat for a variety of waterfowl including American Black Ducks, Mallards, Bufflehead, Goldeneye, Redbreasted Mergansers and Canada Geese. Of particular concern is the potential for negative impacts on American Black Ducks (ABDU), a species of greatest conservation need (RI WAP 2015), whose 2015 estimated breeding population was 541,000, 11% below the 2014 estimate and 13% lower than the 1990-2014 average of 618,000 birds (USFWS 2015). Research into the drivers of ABDU populations is currently underway; however, some early indications suggest that habitat degradation or loss may be one explanation for the decreasing population.

The fact that this expansion is in an area of Ninigret pond that already has a high density of leases does not negate the negative impacts that it will have. Increased boat traffic and activities associated with the maintenance of the expanded lease will cause flushing and displacement of waterfowl resulting in higher energy expenditure during the winter period when energy conservation is critical for survival.
Additionally, federally threatened Piping Plovers nest and raise chicks on East Beach and forage with their chicks on the Ninigret Pond mudflats annually from April to September (Figure 2). Mudflats are a critical habitat for Piping Plover survival during the chick rearing stage (Elias et al. 2000). Evidence suggests that activity at similar aquaculture facilities can significantly deter Piping Plover and other shorebirds from foraging in adjacent areas (Burger et al. 2015).

Therefore, DFW requests that construction at the lease be performed outside of the three hours surrounding low tide from April 15th through September 15th in order to limit disturbance to foraging shorebirds. DFW additionally requests that from December 1st through March 31st annually, work on the lease occurs only between the hours of 10am and 2pm to minimize disturbance to wintering waterfowl.

The DMF and DFW believes that the adverse impacts to marine fisheries and wildlife and their habitat from this prospective shellfish farm would be minimal. However, in order to minimize impacts to migrating birds, DFW requests the following conditions be added to the lease: 1) construction at the lease be performed outside of the three hours surrounding low tide from April 15th through September 15th annually in order to limit disturbance to foraging shorebirds, and 2) from December 1st through March 31st annually, work on the lease occurs only between the hours of 10am and 2pm to minimize disturbance to wintering waterfowl.

The Divisions’ acceptance of the current proposal is specific to the location and specifications outlined in the application and the amendments listed above. The Department looks forward to working with the applicant in the future.

Sincerely,

Jason McNamee,
Chief of Marine Resource Management

Jay Osenkowski,
Deputy Chief, Wildlife
References


Rhode Island Wildlife Action Plan. 2015. Rhode Island Department of Environmental Management, Providence, RI, USA.

The extent of this closeup is indicated in white in the map below.

Figure 1. Proposed site shift and expansion
PUBLIC NOTICE

File Number: 2020-05-083 Date: June 10, 2020

This office has under consideration the application of:

Andrew Van Hemelrijk
167 Broadrock Road
South Kingstown, RI 02879

for a State of Rhode Island Assent to construct and maintain: a 0.55 acre primary site for an oyster farm using bottom cages and a 0.05 acre winter site for bottom cages.

<table>
<thead>
<tr>
<th>Project Location:</th>
<th>Point Judith Pond</th>
</tr>
</thead>
<tbody>
<tr>
<td>City/Town:</td>
<td>Narragansett</td>
</tr>
<tr>
<td>Waterway:</td>
<td>West side of Great Island</td>
</tr>
</tbody>
</table>

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 July 10, 2020.
APPLICATION FOR STATE ASSENT

To perform work regulated by the provisions of Chapter 279 of the Public Laws of 1971 Amended.

<table>
<thead>
<tr>
<th>Project Location</th>
<th>File No. (CRMC USE ONLY)</th>
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<td>2020-05-083</td>
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<table>
<thead>
<tr>
<th>Owner's Name</th>
<th>Plat:</th>
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<tbody>
<tr>
<td>Andrew Van Hemelryck</td>
<td></td>
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<table>
<thead>
<tr>
<th>Mailing Address</th>
<th>Lot(s):</th>
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<tbody>
<tr>
<td>167 Broad Rock Rd.</td>
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<table>
<thead>
<tr>
<th>City/Town</th>
<th>Contact No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Kingstown RI</td>
<td>(401) 741-6507</td>
</tr>
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<table>
<thead>
<tr>
<th>Email Address:</th>
<th>Email address:</th>
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<tbody>
<tr>
<td><a href="mailto:andrewvanhemelryck@gmail.com">andrewvanhemelryck@gmail.com</a></td>
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<thead>
<tr>
<th>Contractor RI Reg. #</th>
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<tr>
<td>Address</td>
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<th>Designer</th>
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<td>Address</td>
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<table>
<thead>
<tr>
<th>Name of Waterway</th>
<th>Estimated Project Cost (EPC):</th>
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<tbody>
<tr>
<td>Point Judith Pond</td>
<td>5,000</td>
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</tbody>
</table>

| Application Fee:                                        | 750.00                      |

Describe accurately the work proposed. (Use additional sheets of paper if necessary and attach this form.)

Application for aquaculture base to grow oysters & quahogs at 2 sites in Point Judith Pond.

Have you or any previous owner filed an application for and/or received an assent for any activity on this property? (If so please provide the file and/or assent numbers):

Is this site within a designated historic district? □ YES □ NO

Is this application being submitted in response to a coastal violation? □ YES □ NO

If YES, you must indicate NOV or C&D Number:

Name/mailing addresses of adjacent property owners whose property adjoins the project site. Accurate mailing addresses will insure proper notification. Applicant must initial to certify accuracy of adjacent property owners and accuracy of mailing addresses.

STORMTOOLS (http://www.beachsamp.org/resources/stormtools/) is a planning tool to help applicants evaluate the impacts of sea level rise and storm surge on their projects. The Council encourages applicants to use STORMTOOLS to help them understand the risk that may be present at their site and make appropriate adjustments to the project design.

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. Where variances or special exceptions are requested by the applicant, the applicant will be prepared to meet and present testimony on the criteria and burdens of proof for each of these relief provisions. 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. If the information provided to the CRMC for this review is inaccurate or did not reveal all necessary information or data, then the permit granted under this application may be found to be null and void.

Applicant requires that as a condition to the granting of this assent, members of the CRMC or its staff shall have 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 the penalties of perjury.

Owner’s Signature (sign and print)

PLEASE REVIEW REVERSE SIDE OF APPLICATION FORM

RECEIVED
MAY 28 2020
COASTAL RESOURCES MANAGEMENT COUNCIL
Andrew Van Hemelrijck
Aquaculture Lease Application
June 9, 2020
Operational Plan

CRMC File Number - 2020-03-029

DEM Aquaculture License number - 000121

Type of facility - 2 Commercial Lease Sites (one primary, one winter location)

GPS Lat/long coordinates
Primary Site
1 - 41.38845° N, -71.51172° W
2 - 41.38867° N, -71.51129° W
3 - 41.3883° N, -71.51095° W
4 - 41.38807° N, -71.51136° W

Winter Site
1 - 41.38725° N, -71.51301° W
2 - 41.38724° N, -71.51292° W
3 - 41.38701° N, -71.51295° W
4 - 41.38701° N, -71.51304° W

Proposed Species

Eastern Oysters (*Crassostrea virginica*),
Quahogs (*Mercenaria mercenaria*)

Summary

I plan to grow Oysters and Quahogs will at this site using several proven aquaculture methods including grow-out bags, cages, rack and bag systems, and direct bottom planting. Both of these species are native to the immediate area.

I have 5 years experience growing oysters in the immediate area both with a commercial viability permit at this location, and also with my parents Lisa and Chris Van Hemelrijck under their dockside permit. Both my parents and grandfather own property overlooking the site, and my family has lived on these 2 waterfront properties for 4 generations. I grew up directly in view of this area as a year round resident, allowing me to become very familiar with this location. I have also completed the Applied Shellfish Farming course at Roger Williams University with Dale Leavitt.

Low tide events (<.5ft below mean) might pose an issue in cold winters, and for this reason I am applying for a winter location in nearby deeper water as well. Cages will be
used at the winter site and will be placed on the sea floor remaining submerged by ~5ft of water at low tides. Gear at the primary site will be on the seafloor as well and will remain submerged in all but the lowest tides. Great care will be taken to ensure that the site appears orderly and presentable.

Design & Operation

Primary Site - Several different methods will be used at the primary site including grow out bags in various configurations, cages, and direct bottom planting. The water depth at this site ranges from a foot to a foot and a half at mean low tide, so all gear used will be designed to maintain a low profile. The site and all gear will be adequately marked with buoys to ensure it is not a navigational hazard. I plan to start small at first and work up to full operating capacity over about a 3 year period.

Grow out bags will be organized in trawls throughout the site. Two configurations will be used to keep the bags slightly elevated off the seafloor: 5" diameter PVC feet will be attached to bags, and racks will be constructed of 3" PVC with bags attached to the top. The bags with PVC feet will be clipped to lines and anchored to the seafloor with helice screws or weighted anchors, and the PVC racks will be driven into the sand. The maximum height of both of these configurations will be 8", and a maximum of 1500 bags will be used.

Cages with bays to hold grow out bags will be used in the Eastern corner of the site where the water is deepest. Cages are heavy enough to be placed as is on the sand with detachable buoys to mark and access these cages at higher tides. Cage heights will be 14 - 18", and a maximum of 80 cages will be used.

Oysters and quahogs will also be planted directly into the seafloor in the center of the site.

Winter Site - Cages from the primary site will be relocated to the winter site for the months of December through March each year. None of the other gear types will be used here, and a maximum of 80 cages will be used. The site and all gear will be adequately marked with buoys when gear is onsite.

Seed Stock Origin

Seed cultured in waters from within Point Judith Pond will be used whenever possible. In cases where seed must be sourced from other biosecurity zones it will be from an approved aquaculture facility and accompanied by a shellfish pathology report.

Seed stock from areas not approved for the harvest of shellfish will be recorded to track purchase data, marked using color-coded zip ties, and kept in marked trawls for 12 months before shellfish are offered for sale/consumption.
I don’t anticipate any significant effects on erosion or deposition processes in the area. The site does not abut the shore, and aquaculture sites in the area using the same or similar methods have not been shown to significantly impact these processes.

(5) demonstrate that the alteration or activity will not result in significant impacts on the abundance and diversity of plant and animal life.

The shellfish farming equipment I intend to use is known to create refuges for many marine species, attracting a variety of small fish and crustaceans, along with some commercially important species as well. Juvenile tautog, black sea bass, lobsters and others can often be found using Point Judith Pond shellfish farms for protection as they grow. If anything, an increase in abundance and diversity of plant and animal life is expected.

(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 does not border the shoreline or significantly interfere with access to this area of the pond. All proposed gear will be low-profile and kept tight along the seafloor to minimize any impact it may have.

(7) demonstrate that the alteration will not result in significant impacts to water circulation, flushing, turbidity, and sedimentation;

All grow-out gear is designed to allow the maximum flow of water to pass through the area because it is necessary for good shellfish growth, so the typical flow of water through the area will not be impeded. The gear I plan to use does not cause sedimentation, and activity at the site will have no net effect on turbidity.

(8) demonstrate that there will be no significant deterioration in the quality of the water in the immediate vicinity as defined by DEM;

Shellfish are filter feeders, and the species I intend to cultivate are known to improve water quality in the area where they are farmed. Shellfish farming is known to clarify water in the local environment and stimulate denitrification, combating harmful algae blooms and benefiting many local species including eel grass. No chemicals or feed of any kind will be used or needed in the operation of the farm.

(9) demonstrate that the alteration or activity will not result in significant impacts to areas of historic and archaeological significance;

The proposed site is not on or near any known sites of historic or archaeological significance.

(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, and;
Activity in the area will not be significantly affected by the proposed farm. This area is rarely used for recreational activities. It is a shallow area that most mariners avoid in all but the highest tides, and it does not contain shellfish in high enough concentrations to attract harvesters. The farm will not obstruct typical navigation in any significant way, and the ability of the public to access the site and surrounding area (by kayak, paddle board or on foot for example) will not be impeded.

(11) demonstrate that measures have been taken to minimize any adverse scenic impact (see Section 330).

Every effort will be made to ensure that the equipment is visually innocuous. All gear will be designed to be as minimal and low profile as possible and arranged in orderly rows to achieve this end.
Andrew Van Hemelrijck
Aquaculture Lease Application
June 9, 2020
Location Map

WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

CAUTION
Fixed and floating obstructions, both submerged and above water, may exist within the navigational soundings. Mariners are advised to proceed with caution.

Primary Site:
W - 41.38845° N, -71.51172° W
N - 41.38867° N, -71.51129° W
E - 41.3883° N, -71.51095° W
S - 41.38807° N, -71.51136° W

Winter Site:
NW - 41.38725° N, -71.51301° W
NE - 41.38724° N, -71.51292° W
SE - 41.38701° N, -71.51295° W
SW - 41.38701° N, -71.51304° W

*Taken from NOAA Chart #13219
Andrew Van Hemelrijck
Aquaculture Lease Application
June 9, 2020
Primary Site Plans

GPS Coordinates:
1 - 41.38845° N, -71.51172° W
2 - 41.38867° N, -71.51129° W
3 - 41.3883° N, -71.51095° W
4 - 41.38807° N, -71.51136° W

Dimensions:
146ft x 166ft
.55 acres

Mean Low Tide
RECEIVED JUN 10 2020
COASTAL RESOURCES
MANAGEMENT COUNCIL

True North
Andrew Van Hemelrijck
Aquaculture Lease Application
June 9, 2020
Primary Site Plans - Side View

Side View

---

Mean High Tide (4.4 ft.)

1ft. 4" 1.5ft. 4"
Grow Out Bags (Max Height 8")
Seafloor
Cages (14")
Cages (18")

166 ft
Andrew Van Hemelrijck
Aquaculture Lease Application
June 9, 2020
Winter Site Plans

GPS Coordinates:
1 - 41.38725° N, -71.51301° W
2 - 41.38724° N, -71.51292° W
3 - 41.38701° N, -71.51295° W
4 - 41.38701° N, -71.51304° W

Dimensions:
87ft x 25ft
.05 acres

True North
Andrew Van Hemelrijck  
Aquaculture Lease Application  
June 9, 2017  
Winter Site Plans - Side View

Side View

--- Mean High Tide ---

--- Mean Low Tide (~4-6ft) ---

2.5ft (min.)

Cages (14")

Seafloor

Cages (18")

25 ft

[Stamp: RECEIVED JUN 09 2020]
Primary Site

bottom planting

cages

grow out bags using various methods

Winter Site

cages

North

North
Grow-out Bags -

Lines Anchored to Seafloor

Feet to Elevate (attached to bags)

PVC Rack
Six bay bottom growing cage with shock cord retainers and reinforcing end caps on the feet. Cage 4 1/2" 8 gauge Aqua-Marine mesh, Feet 1 1/2" HD Lobster trap wire.

* 3 high by 2 wide are pictured, but 2 high by 3 wide will be used as well.
Photos -

Facing North, looking at Primary Site

Facing East, from Primary Site
Facing South, from Primary Site, Winter Site is on the right of the frame.

Facing West, from Primary Site, Winter Site is on the left of the frame.
From Little Comfort facing WNW. Winter site is on the right of the frame.
Benjamin Goetsch  
Aquaculture Coordinator  
Coastal Resources Management Council  
4808 Tower Hill Road  
Wakefield, RI 02879

Re: Van Hemelrijck 2020-05-083

Dear Mr. Goetsch:

The Rhode Island Department of Environmental Management (Department), through the Division of Marine Fisheries (DMF) and the Division of Fish and Wildlife (DWF), has received and reviewed the application submitted by Andrew Van Hemelrijck for a 0.55 acre site and a 0.05 acre winter storage site (total area of 0.6 acres), both in Point Judith Pond for cultivating eastern oysters (*Crassostrea virginica*). The primary site will use grow out bags in various configurations, cages, and direct bottom plant. Oysters will be placed in bottom cages for storage from December through March at the winter storage site.

Given the existence of the site for the last three years as a commercial viability permit and the absence of issues, the DMF believes that the adverse impacts to marine fisheries and their habitat from this prospective site would be minimal. As such, the DMF does not have objections to this application. However, the DMF would like the applicant to be aware that this area is sometimes used for recreational shellfishing.

The shallow waters of Point Judith Pond provide important wintering habitat for a variety of waterfowl including American Black Ducks, Mallards, Bufflehead, Goldeneye, Redbreasted Mergansers and Canada Geese. Should the lease be approved, DFW requests that from December 1st through March 31st annually, work on the winter storage lease occurs only between the hours of 10am and 2pm to minimize disturbance to wintering waterfowl.

The DMF and DFW’s acceptance of the current proposal is specific to the location (provided by the coordinates) and specifications outlined in the application. However, the DMF does request that coordinates be provided for both sites in decimal degree format with six digits after the decimal point. This level of precision is necessary to ensure that
the site is properly displayed in the DMF’s spatial database. These higher resolution coordinates should be included in the final assent if the site is approved.

Sincerely,

Jason McNamee,
Deputy Director, Bureau of Natural Resources
PUBLIC NOTICE

File Number: 2020-04-037  Date: April 17, 2020

This office has under consideration the application of:

John Bowen & Patrick Bowen
79 Shaw Road
Little Compton, RI 02831

for a State of Rhode Island Assent to create and maintain: a one acre oyster farm using bottom cages

<table>
<thead>
<tr>
<th>Project Location</th>
<th>Sakonnet River</th>
</tr>
</thead>
<tbody>
<tr>
<td>City/Town</td>
<td>Tiverton</td>
</tr>
<tr>
<td>Plat/Lot</td>
<td>/</td>
</tr>
<tr>
<td>Waterway</td>
<td>Sakonnet river</td>
</tr>
</tbody>
</table>

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 __May 17, 2020________________.
## APPLICATION FOR STATE ASSENT
To perform work regulated by the provisions of Chapter 279 of the Public Laws of 1971 Amended.

<table>
<thead>
<tr>
<th>Project Location</th>
<th>Sakonnet River, Tiverton</th>
</tr>
</thead>
<tbody>
<tr>
<td>File No. (CRMC USE ONLY)</td>
<td>2020-04-037</td>
</tr>
<tr>
<td>Owner's Name</td>
<td>John Bowen, Patrick Bowen</td>
</tr>
<tr>
<td>Mailing Address</td>
<td>79 Shaw Road</td>
</tr>
<tr>
<td>City/Town</td>
<td>Little Compton</td>
</tr>
<tr>
<td>State</td>
<td>RI</td>
</tr>
<tr>
<td>Zip Code</td>
<td>02837</td>
</tr>
<tr>
<td>Contact No.</td>
<td>617-719-7842</td>
</tr>
<tr>
<td>Email Address</td>
<td><a href="mailto:seanbow@yahoo.com">seanbow@yahoo.com</a></td>
</tr>
<tr>
<td>Contractor RI Reg. #</td>
<td>Address</td>
</tr>
<tr>
<td>Designer</td>
<td>N/A</td>
</tr>
<tr>
<td>Name of Waterway</td>
<td>Sakonnet River</td>
</tr>
<tr>
<td>Estimated Project Cost</td>
<td>EPC:</td>
</tr>
<tr>
<td>Application Fee</td>
<td></td>
</tr>
</tbody>
</table>

Describe accurately the work proposed. (Use additional sheets of paper if necessary and attach this form.)

Oyster aquaculture farm in Sakonnet River, Latitude/Longitude coordinates:

- Northeast Corner: 41.580836, -71.209611
- Northwest Corner: 41.580975, -71.210326
- Southeast Corner: 41.580122, -71.209876
- Northeast Corner: 41.580026, -71.209485

Have you or any previous owner filed an application for and/or received an assent for any activity on this property? (If so please provide the file and/or assent numbers): NO

Is this site within a designated historic district? □ YES □ NO

Is this application being submitted in response to a coastal violation? □ YES □ NO

If YES, you must indicate NOV or C&D Number:

Name/mailing addresses of adjacent property owners whose property adjoins the project site. Accurate mailing addresses will insure proper notification. _____________________________ Applicant must initial to certify accuracy of adjacent property owners and accuracy of mailing addresses. This application is for submerged state property.

STORMTOOLS ([http://www.beachsamp.org/resources/stormtools/](http://www.beachsamp.org/resources/stormtools/)) is a planning tool to help applicants evaluate the impacts of sea level rise and storm surge on their projects. The Council encourages applicants to use STORMTOOLS to help them understand the risk that may be present at their site and make appropriate adjustments to the project design.

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. Where variances or special exceptions are requested by the applicant, the applicant will be prepared to meet and present testimony on the criteria and burdens of proof for each of these relief provisions. 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. If the information provided to the CRMC for this review is inaccurate or did not reveal all necessary information or data, then the permit granted under this application may be invalid. Applicant requires that as a condition to the granting of this assent, members of the CRMC or its staff shall have 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 the penalties of perjury.

Owner's Signature (sign and print)

PLEASE REVIEW REVERSE SIDE OF APPLICATION FORM

11/2019
STATEMENT OF DISCLOSURE AND APPLICANT AGREEMENT AS TO FEES

The fees which must be submitted to the Coastal Resources Management Council are based upon representations made to the Coastal Resources Management Council by the applicant. If after submission of this fee the Coastal Resources Management Council determines that an error has been made either in the applicant's submission or in determining the fee to be paid, the applicant understands that additional fees may be assessed by the Coastal Resources Management Council. These fees must be paid prior to the issuance of any assent by the Coastal Resources Management Council.

The applicant understands the above conditions and agrees to comply with them.

[Signature] [4/13/2020]

[Print Name and Mailing Address]

79 Sharrow Road, Little Compton, RI 02837

/ajt 11/2019
CRMC AQUACULTURE APPLICATION FOR STATE ASSENT

Applicant Name and Mailing Address:

Applicant Name(s): John Bowen, Patrick Bowen  
Street: 79 Shaw Road  
City/Town: Little Compton  
State: RI  
Zip Code: 02837  
E-Mail: Seanbow@yahoo.com

CRMC File Number: 29-12-023

DEM License Number: Application Pending

Type of Facility: Commercial lease site

Location of Proposed Aquaculture Site (Waterway): Sakonnet River, Southwest of Seapowet Creek

Size of Proposed Aquaculture Site: 0.97 acres

Latitude /Longitude of Proposed Aquaculture Site:

Northeast Corner: 41.580836, -71.209611  
Northwest Corner: 41.580975, -71.210326  
Southwest Corner: 41.580122, -71.209876  
Southeast Corner: 41.580026, -71.209485

Signature of Requestor: [Signature]

Date: 4/3/20
1. Introduction.

John Bowen and Patrick Bowen are seeking State Assent from Coastal Resources Management Council for a shellfish aquaculture farm in Tiverton, RI. The site is located in the Sakonnet River, Southwest of Seapowet Creek. The site was chosen for a variety of reasons, including proximity to the nutrient rich Seapowet Creek tidal flow, depth, and lack of wild shellfish resource within the site.

Farming practices will focus on environmental sustainability, and utilize a low-profile approach. The growout gear utilized will not be visible from shore, even at low tide. Culture methods will suit the site and accommodate multiple stages of growth, consisting of top loading cages, with mesh bags affixed to the cages.

John Bowen and his brother Patrick Bowen will be primarily responsible for daily management of the farm, with their sons Samuel and Malcolm actively assisting in farm operation. John and Patrick have both completed the course, “Fundamentals of Shellfish Farming: Practical Tools, Tips, and Techniques”, presented by Roger Williams University and Cape Cod Cooperative Extension, and both have experience working on an oyster farm, dating back to the early 1980s. Additionally, John has a Bachelor’s Degree in Environmental Science, with Emphasis in Aquaculture from Unity College in Maine. It is their intention to be model stewards of the area, and they understand the responsibility and privilege of a shellfish aquaculture lease.

Changes to application as a result of recommendations from the Preliminary Determination Hearing, held February 17, 2020:

1. Tiverton Harbor and Coastal Waters Management Commission, DEM, and an objector had concerns regarding the shallow depth of the proposed site.
   In response to this, the location of the site was moved into deeper water (average MLW depth of two to four feet).

2. Tiverton Harbor and Coastal Waters Management Commission and DEM had concern regarding the location of the site in relation to the DEM Recreational Shellfish Area.
   In response to this, the site was moved to the west, and outside the bounds of the DEM Recreational Shellfish Area.

3. Concern was raised by DEM and CRMC regarding transporting oyster cages across and through the Sapowet Management Area public parking area.
   In response to this, the applicants will not transport oyster cages across the Sapowet Management Area public parking area. Installation (placement) and removal of the cages will be conducted by boat and/or private access to the shore.

As stated in the CRMC Preliminary Determination Report of Findings,

“The Commission, DEM, and the objector all stated that they would not have an issue with this farm if it was moved to deeper water adjacent to this site.”

John and Patrick Bowen (applicants) believe that the above changes to their initial application address the concerns resulting from the Preliminary Determination Hearing, and as expressed in the CRMC Preliminary Determination Report of Findings.
OPERTATIONAL PLAN:

1. **Name and Address:**
   John Bowen, Patrick Bowen
   79 Shaw Road
   Little Compton, RI 02837

2. **CRMC File Number:** 2019-12-023

3. **DEM Aquaculture License Number:** To be determined

4. **Type of Facility:** Commercial Aquaculture Lease Site

5. **Location of Facility:** Tiverton, RI, Sakonnet River, Southwest of Seapowet Creek. The dimensions of the site are: West Side: 330’, North Side: 200’, East Side: 300’, South Side: 110’. The site extends in a Southwest direction in a trapezoid shape. The proposed site is 42,212 square feet, or .97 acres.

   **Setbacks:**
   - 320’ from Northeasterly corner to Mean Low Water (MLW) (nearest point of the site)
   - 325’ from the Southeast Corner to Mean Low Water (MLW)
   - 410’ from a point on the SW corner of the Seapowet Bridge to the NE corner of the site
   - 500’ from a point on the SW corner of the Seapowet Bridge to the NW corner of the site.

   Longitude/Latitude of Proposed Aquaculture Site:
   - **Northeast Corner:** 41.580836, -71.209611
   - **Northwest Corner:** 41.580975, -71.210326
   - **Southwest Corner:** 41.580122, -71.209876
   - **Southeast Corner:** 41.580026, -71.209485

6. **Species Grown:** *Crassostrea virginica*. Eastern Oyster shellfish seed is to be purchased from a New England shellfish hatchery approved by DEM (Aquacultural Research Corporation, Dennis, MA; Fishers Island Hatchery, New York; Mook Sea Farms, Damariscotta, ME, or other approved
shellfish hatchery), in accordance with regulation. Only diploid seed will be deployed in the first year (and likely thereafter). It is the hope of the applicants that any oyster spawning which results from the farm will supplement the natural oyster recruitment in the area. Applicants are very much aware of the importance of agricultural biosecurity as applied to shellfish aquaculture, and will be fully compliant with Biosecurity Board protocols.

7. **Gear Description**: Predominant culture method will be top loaded wire cages, dimensions of 24” wide, 48” long, and 14” tall, with 2” runners to keep them elevated from the bottom (total cage height is 16” tall). The cages will be placed directly on the bottom. Cages are accessed through the top, will contain stacked trays (plastic or wire), and will be covered with a rigid wire cover, affixed with shock cord. The cages will be deployed in a series of ten (each ten cages referred to as a “trawl”), oriented such that the 48” sides of the cages are approximately 6” apart, each trawl spanning approximately thirty feet. The trawls will be secured with 5/8”x36’ helical anchors installed at each end, with a line (half inch diameter, three strand, twisted nylon rope, minimum breaking load (MBL) of 5,670 lbs) attached to the helical-anchors on each side, creating a lateral line around the trawl. Each cage will be secured to the lateral line on both ends.

Additionally, standard 18”x36” ADPI bags (rigid mesh plastic bags) will be secured directly to the cages using heavy-duty clips.

The first year 25,000 oyster seed will be purchased, and grown utilizing the culture methods described above. We anticipate harvest time to be approximately 18-24 months.

8. **Identifying Markers**
Each of the four corners of the farm will be marked with standard 11” pot buoys, each of which will be marked in 3” letters “CRMC”, and the File Number provided at the time of Assent. This will be done within ten days of CRMC Assent.

9. **DEM Shellfish Harvesting Classification:**

10. **Description of Practices and Procedures:**
As described above, *Crassostrea virginica*, Eastern Oyster shellfish seed is to be purchased from a regional shellfish hatchery approved by DEM (Aquacultural Research Corporation, Dennis, MA; Fishers Island Hatchery, New York, Mook Sea Farms, Damariscotta, ME, or other hatchery approved by DEM and CRMC), in accordance with regulation. We plan to use only diploid seed in the first year (and likely thereafter). The first year (and likely thereafter) larger seed size will be purchased, anticipating 5-7 mm size). The CRMC Aquaculture Coordinator will be notified of seed source and provided with a pathology report as required, at least five days prior to delivery of the seed.
11. Harvest, Storage, and Transportation:
It is anticipated that harvest time will be 18-24 months. Initially, oysters are expected to be sold to licensed Rhode Island Wholesale Dealers, rather than direct marketed, however the goal of the applicants is to attain proper licensure to sell shellfish locally. Harvesting and transporting oysters will be conducted with a focus on public health requirements, including icing, tagging, sanitation, and record keeping as required.

12. Time Table of Work
Farm work will take place predominantly at low tide (an hour before to an hour after), accessing the site using waders (or shorts during the summer months), and will consist of replacing bio-fouled plastic and wire trays inside the cages with clean trays, to reduce fouling and allow for better water flow over the oysters; splitting volumes of oysters into additional gear to maintain low densities; and culling/sorting oysters by size and quality. As oysters reach harvest size, they will be pre sorted for quantity, and pre bagged to reduce harvest time and allow for more rapid cooling during the summer months.

13. Record Keeping:
Records of all seed purchases (including origin, quantity, pathology reports, etc.), harvesting records, and operating records will be submitted to CRMC as required, and maintained by John Bowen, available for review as needed upon request. Annual reporting to CRMC with all required information will be conducted as required.

14. Procedures for maintaining records regarding upwellers in prohibited waters:
An upweller will not be used.

15. Procedure for maintaining records for operations using seed from prohibited waters:
Seed will not be obtained from prohibited waters.
Coastal Resources Management Program – Section 1.3.1(A) – Category B Requirements

1. **Demonstrate the need for the proposed activity or alteration:**
   John Bowen and Patrick Bowen are proposing an oyster farm in Tiverton, RI. The site is located in the Sakonnet River, Southwest of Seapowet Creek. This site was chosen based upon proximity to the nutrient rich Seapowet Creek tidal flow, water depth, and lack of wild shellfish resource within the site. Shellfish aquaculture, especially oyster culture, is increasing in Rhode Island, however, the East Bay is largely under-represented. This proposal utilizes a low profile approach to this nutrient extractive agricultural process in an environmentally sensitive area, and helps to maintain local, historical marine tradition.

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:**
   Permits required for the proposed lease will be obtained through RI CRMC pending approval of subsequent applications.

3. **Describe the boundaries of the coastal waters and the land area that is anticipated to be affected:**
   The proposed lease site is located in Tiverton, in the Sakonnet River, Southwest of Seapowet Creek. Latitude/Longitude of Proposed Aquaculture Site:
   - Northeast Corner: 41.580836, -71.209611
   - Northwest Corner: 41.580975, -71.210326
   - Southwest Corner: 41.580122, -71.209876
   - Southeast Corner: 41.580026, -71.209485
   The dimensions of the site are: West Side: 330’, North Side: 200’, East Side: 300’, South Side: 110’. The site extends in a Southwest direction in a trapezoid shape. The proposed site is 42,212 square feet, or .97 acres.

   **Setbacks:**
   - 320’ from Northeasterly corner to Mean Low Water (MLW) (nearest point of the site)
   - 325’ from the Southeast Corner to Mean Low Water (MLW)
   - 410’ from a point on the SW corner of the Seapowet Bridge to the NE corner of the site
   - 500’ from a point on the SW corner of the Seapowet Bridge to the NW corner of the site.

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:**
   All gear on the site will be temporary (not permanent), and designed to allow water to flow through, having minimal impact on erosion or deposition.
5. **Demonstrate that the alteration or activity will not result in significant impacts on the abundance and diversity of plant and animal life:**
Culture methods proposed are intended to be low-impact. The site should have no negative impact on the abundance or diversity of plant and animal life. To the contrary, aquaculture gear provides habitat structure and supports a diverse assemblage of juvenile fish, crabs, lobsters. Oyster grow-out cages provide valuable habitat for finfish and have been compared with artificial reefs as part of habitat restoration programs.*

*Tallman, Forrester; Transactions of the American Fisheries Society, May, 2007

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:**

**As a result of the Preliminary Determination Hearing and subsequent CRMC Report of findings, the coordinates of the proposed site have been moved into deeper water, and outside of DEM’s Recreational Shellfish Area.**
The site is located in the Sakonnet River, on the southwest side of Seapowet Creek. The water depth and coarse sand/gravelly bottom are not conducive to boating*, swimming**, or fishing, and there is no significant wild shellfish resource on the site. **The area SW of Seapowet Point is extremely shallow and cannot be safely navigated during low tides***. The area west of Seapowet and Fogland Points presents dangerous swimming conditions.** **Fishermen, shellfishermen and bathers typically use the area to the north of the Seapowet Creek. The lease site would still be possible for people to walk or wade through, or kayak through.

*TIVERTON HARBOR AND COASTAL WATERS MANAGEMENT PLAN: II(A)(3)(e)
** CODE OF ORDINANCES, TOWN OF TIVERTON, Chapter 14, Article II, Section 14-193

7. **Demonstrate that the alterations will not result in significant impacts to water circulation, flushing, turbidity, and sedimentation:**
The proposed gear is designed to be low-impact, not extending greater than 18” from the bottom. All gear is intended to allow water to flow freely, as it increases oyster growth. Oyster filtration has been found to reduce turbidity and increase water clarity. Turbidity or sedimentation caused by work on the farm should be minimal and temporary.
8. **Demonstrate that there will be no significant deterioration in the quality of water in the immediate vicinity as defined by DEM:**
   The proposed oyster farm will have no negative effect on water quality as defined by DEM (based on fecal coliform levels). Additionally, as estuarine nutrient loading is increasingly an ongoing global issue of concern, oysters are able to integrate nitrogen from algae in the water column within shell and tissue, which through harvesting, is removed from the system*, asserting an ecological benefit.

* Pollack, Yoskowitz, Kim, Montagna; *Plos One*, Volume 8, Issue 6, June 2013

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 or archaeological resources in the proposed site.

10. **Demonstrate that the alteration or activity will not result in significant conflicts with water dependent uses and activities such as recreational boating, swimming, navigation, and commerce:**

    **As a result of the Preliminary Determination Hearing and subsequent CRMC Report of findings, the coordinates of the proposed site have been moved into deeper water, and outside of DEM’s Recreational Shellfish Area.**

    The site is located in the Sakonnet River, on the southwest side of Seapowet Creek. The water depth and coarse sand/gravelly bottom are not conducive to boating*, swimming** or fishing, and there is no significant hardshell clam resource on the site. **The area SW of Seapowet Point is extremely shallow and cannot be safely navigated during low tides*. The area west of Seapowet and Fogland Points presents dangerous swimming conditions.** Fishermen, shellfishermen and bathers typically use the area to the north of the Seapowet Creek. The lease site would still be possible for people to walk or wade through, or kayak through.

** **CODE OF ORDINANCES, TOWN OF TIVERTON, Chapter 14, Article II, Section 14-193

11. **Demonstrate that measures have been taken to minimize any scenic impact:**
   The gear design is such that it will not be visible, even at low tide, with the exception of buoys at each of the corners, as required.
North
South
East
West
TYPICAL OYSTER CAGE GEAR LAYOUT

SECTION VIEW (SIDE)

24" x 48" x 16" WIRE CAGE w/ 3 LEVELS OF TRAILS
18" x 36" ADJ. OYSTER LINES CLIPPED TO TOP

2" RUNNERS BOTTOM OF CAGE

1/2 NYLON ROPE LATERAL LINE BOTH SIDES

AH3 MEAN LOW TIDE

20" CAGE LOCATION

20"

40"

BOYDEN OYSTER FARM
MARCH 2020
P. BOYDEN
Bowen Oyster Farm
March 2020
P. Bowen

Section View (End)
Typical Oyster Cage Gear Layout

- 24" x 48" x 16" Wire Case w/ 3 Levels Trays
- 18" x 36" Oyster Bag Clipped to Cage

24" runners on bottom
1/4" nylon rope lateral lines both sides of cages

5/8" x 36" helical anchor 40'-6" o.c.
Each end of 10 cage trawl

Scale: 1/8" = 1"
Section View
Typical Oyster Cage Gear Layout

Side View
Average Mean Low Tide
20' - 42''

24'' x 48'' x 16'' Wire Cage
w/ 5 levels of trays

18'' x 36'' Oyster bag clipped to cage
Cage clipped to nylon rope each end

End View
Average Mean Low Tide
20' - 42''

24'' x 48'' x 16'' Wire cages on bottom
w/ 3 trays each clipped to 1/2'' nylon rope

18'' x 36'' Oyster bags clipped to cases

5/8'' x 36'' Hedical anchors
40'' - 40''
SITE PLAN

SCALE: ¼" = 10'-0"

DEPTH CONTOURS @ MEAN LOW TIDE

BOWEN OYSTER FARM
MARCH 2020
P. BOWEN
SITE PLAN

SCALE: 1" = 10'-0"

DEPTH CONTOURS @ MEAN LOW TIDE

WITH PROPOSED GEAR LAYOUT

200'

41.580975, 71.210326

36"

4.5"

330'

30"

42"

48"

54"

110'

41.580024, 71.209485

41.580836, 71.209611
SITE CROSS SECTION

SCALE: 1/4" = 10'-0" (SAME AS PLAN VIEW)

MEAN HIGH TIDE

MEAN LOW TIDE

BOTTOM

MEAN LOW

1/2 54"

150'

MEAN LOW TIDE

MEAN HIGH TIDE

BOTTOM

MEAN LOW TIDE

MEAN LOW TIDE

(10) 24"x48"x16" WIRE CAGES

5/8" x 36" HELICAL ANCHOR. EACH END W/ LATERAL LINES

NORTH END
MEAN LOW TIDE
(SHALLIWEST)

1/2 12"


SOUTH END
MEAN LOW TIDE
(DEEPEST)

1/2 54"

BOWEN OYSTER FARM
MARCH 2020
P. BOWEN

SCALE: 1/16" = 10'-0" (2x PLAN VIEW)

MEAN LOW TIDE

MEAN HIGH TIDE

BOTTOM

MEAN LOW

1/2 54"

= 300'

= 120'

= 12"
RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF FISH AND WILDLIFE

Application for a Special Permit for Aquaculture
R.I.G.L. 20-10-12

Name: John Bowen, Patrick Bowen
CRMC Assent#: Applied For

Address: 79 Shaw Road
Little Compton, RI 02837

Assent Expiration Date: N/A
Assent Type: Commercial

Species to be cultured/possessed: Eastern oyster, Crassostrea virginica
(must coincide with terms of CRMC Assent)

Location where organisms will be held: Sakonnet River, Tiverton, RI
(must coincide with terms of CRMC Assent)

Land Based: NO
Open Water: YES
Bottom Culture: NO
Cage Culture: YES Number: 200 Approximate Size: 24”Wx48”Lx16”H
Raft Culture: NO
Other (describe): Standard 18”x36” ADPI bags secured to cages.

Lease: One lease site, applied for. Size: 0.97 acres

Type/description of markers used to identify site: Yellow pot buoys, 11” on each corner,
marked with CRMC Assent Number
(Must coincide with terms of CRMC Assent)

Will the cultured species always be maintained within the lease?: YES
Will they be moved (from upwellers, spat collectors, raceways, cages, etc. to grow-out
area) as part of culture: NO

Purpose for culture: Food Production
Is the end product to be sold?: YES
In-state: YES Out of State: NO
Live: YES Whole: YES Processed: NO

Source of organisms to be used for culture: Hatchery: YES
Name of Hatchery: Approved hatchery to be determined
Anticipated time of delivery to Rhode Island?: After CRMC Assent granted, when seed is available.

The aquaculturist must notify the D.E.M. Divisions of Fish and Wildlife and Enforcement of every shipment of animals for culture at least five days prior to entry into the state and each shipment must be accompanied by a certificate of disease inspection from a recognized laboratory appropriate to the species being raised.

Approximate size of organisms (seed, fingerlings, larvae, adults) to be imported into RI: 7mm

Approximate quantity anticipated to be received this (permit) year: 25,000

Other Conditions:

By submission of this application for issuance or renewal of a Special Permit for Aquaculture, the aquaculturist provides the Division of Fish and Wildlife and the Division of Enforcement with the authority to enter and inspect all aquaculture facilities which have been requested to be permitted. (R.I.G.L. 20-10-15). By submission of this application, the aquaculturist agrees to acquire and maintain all of the appropriate licenses and permits necessary to conduct the culture and seafood business within the State of R.I. and comply with all laws, rules, and regulations regarding the possession, sale, trade, transport, purchase, and barter of fish/shellfish and seafood products. Noncompliance of the conditions of this permit will result in forfeiture of this Special Permit for Aquaculture and possible prosecution.

Authorized Signature: [Signature]

(Date): 4/13/2020

Appendix D
Revised 03/18
Benjamin Goetsch  
Aquaculture Coordinator  
Coastal Resources Management Council  
4808 Tower Hill Road  
Wakefield, RI 02879

June 25, 2020

Re: Bowen and Bowen public notice #2020-04-037

Dear Mr. Goetsch:

The Rhode Island Department of Environmental Management (Department), through the Division of Marine Fisheries (DMF) and the Division of Fish and Wildlife (DWF), has received and reviewed the application submitted by John and Patrick Bowen for a proposed 1.1-acre aquaculture lease in Narragansett Bay for cultivating eastern oysters (Crassostrea virginica) using bottom cages.

The site was revised substantially between the Preliminary Determination (PD) and the Public Notice to mitigate a variety of concerns addressed at the PD meeting held on February 17, 2020. The revised lease has an area of 1.1 acres. The DEM commends the applicants for their revisions to the application, which address most of the concerns DMF staff presented at the PD meeting.

- The site was moved into deeper water to prevent exposure of cages and to avoid an area of known recreational shellfishing activity.
- The increase in depth reduces the likelihood of cages to be exposed at the surface, which may also reduce the risk of waterfowl depredation that aquaculture production is frequently affected by (Price & Nickum 1995, Varennes et al. 2013). If depredation does become an issue, please be aware that the DFW will not support moving deterrents, scarecrows, etc., as they will also displace non-target species from the lease and surrounding area. Lethal removal of depredating birds requires authorization from DFW and may not be supported. Additionally, installation of exclusion devices or deterrents will be considered lease modifications and will need to be approved, as some versions are known to have lethal implications for diving ducks (Varennes et al. 2013).
- While the prospective site still intersects with the recreational shellfishing area, the amount of overlap has been dramatically reduced and is less likely to cause use conflicts.
Furthermore, the applicants have also committed to not transport oyster cages across the Sapowet Management Area public parking lot as initially proposed. They will install and remove cages by boat or from private access to the shore.

Consequently, the DMF and DFW believe that the adverse impacts to marine fisheries and their habitat from this prospective site would be minimal. As such, the Divisions do not have objections to this application.

The DMF and DFW’s acceptance of the current proposal is specific to the location (provided by the coordinates) and specifications outlined in the application.

Sincerely,

Jason McNamee,
Deputy Director, Bureau of Natural Resources

References:
