

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
Experimental Aquaculture Lease Application
Suspended culture of mussels
Penobscot Bay, Islesboro

Islesboro Marine Enterprises
PEN F1x
Docket #2017-15-E

January 17, 2018

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Islesboro Marine Enterprises applied to the Department of Marine Resources (“DMR”) for an experimental aquaculture lease on 4.00 acres¹ located in Penobscot Bay, northeast of Flat Island, Islesboro, Waldo County, for the suspended culture of blue mussels (*Mytilus edulis*). DMR accepted the application as complete on October 5, 2017. No requests for a public hearing were received during the comment period, and no hearing was held. Two comments were received regarding the proposed lease site.

1. THE PROCEEDINGS

Notice of the application, and the 30-day public comment period were provided to state and federal agencies which were requested to review the project, as well as to riparian landowners, the Town of Islesboro and its Harbormaster, members of the Legislature, representatives of the press, aquaculture organizations, and others on the Department’s mailing list. Notice of the application and comment period were published in the *Courier Gazette* on October 23, 2017.

The evidentiary record before the Department regarding this lease application includes the application and the Department’s site report dated January 8, 2018, as well as the case file. The evidence from these sources is summarized below.²

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The purpose of the proposed lease site is to explore the commercial feasibility of cultivating blue mussels (*Mytilus edulis*) using suspended culture techniques. The applicant intends to deploy up to 12 mussel rafts arranged in three rows oriented in a north to south direction (App 10). Each raft will measure 40’ x 40’ and will contain 400 suspended ropes, which will be used to collect mussel spat and grow mussels to market size (App 4). Each raft will have a 40’ x 40’ net, with a 4” mesh size, that will surround the perimeter of each raft from above the water’s surface to below the depths of the ropes (App 11). The

¹ The corner coordinates provided in the application described an area of 4.03 acres in size. DMR staff reduced the boundaries to ensure the site was no greater than 4.00 acres in size. See page 4 of the site report for additional details.

² These sources are cited below, with page references, as CF (case file), App (application), SR (site report).

nets will be used to exclude Common eiders (*Somateria mollissima*) without causing mortality (App 11³). The applicant has consulted with the Maine Department of Inland Fisheries and Wildlife (MDIFW) about the netting (App 11). The applicant intends to mechanically harvest product from the site, year-round, on their 38' boat (App 4). Access to the proposed lease site will be from public piers located in Seal Harbor and Gilkey Harbor (App 3).

B. Site Characteristics

On December 20, 2017, DMR scientists visited the proposed lease site and assessed it and the surrounding area in consideration of the criteria for granting an experimental aquaculture lease. The proposed lease site occupies "subtidal waters off the west coast of Islesboro, between Seal and Flat Islands" (SR 2). Flat Island is owned by MDIFW (SR 2). The shoreline is mostly rocky with a small beach located on the island's eastern shore (SR 2). Seal Island, located to the north of proposed lease site, has a rocky shoreline which gives way to a forested upland (SR 2). Department staff observed one residential building, and a partially constructed pier, ramps, floats, and moorings along the island's eastern side.

At mean low water, the distance from the southwest corner of the proposed lease site to Flat Island, which is the nearest point of land is ~1,160 feet (SR 5). Water depths, correcting for mean low water, are ~48.8 feet at the northern corners and ~49.8 feet at the southern corners of the proposed lease site (SR 6). The bottom of the proposed lease site is characterized by mud (App 5). The proposed lease is in an area currently classified by the Department of Marine Resources Water Quality Classification program as "approved for the harvest of shellfish" (SR 6).

3. STATUTORY CRITERIA & FINDINGS OF FACT

Approval of experimental aquaculture leases is governed by 12 M.R.S.A. §6072-A. This statute provides that a lease may be granted by the Commissioner of DMR upon determining that the project will not unreasonably interfere with the ingress and egress of riparian owners; with navigation; with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in an area; with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; or with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured for the lease site.

A. Riparian Access

Per the site report and application, there are no riparian landowners within 1,000 feet of the proposed lease site (App 3, SR 6). On November 28, 2017, the Department received written comment from Edmund J. Bearor, Esq., which was submitted on behalf of David and Alexia Leuschen. The letter

³ See CF: Email from J. Perry (MDIFW, Environmental Review Coordinator) to DMR dated November 16, 2017.

indicates that the Leuschens are “the record owners of Seal Island” and that they “gain access to the Seal Island property via the southeastern shore of Seal Island, where they have a dock facility and multiple moorings.”⁴ The Leuschens contend that:

The ingress and egress of the riparian landowners of Seal Island will be unreasonably impacted by the shift in boat traffic northerly towards the southern tip of Seal Island, as a result of the currently proposed location of this lease application.⁵

However, at mean low water, the northwest corner of the proposed lease site is located ~1,350 from the nearest point of land on Seal Island (SR 5). The closest moorings observed by Department staff were located off the eastern shore of Seal Island and were ~1,637 feet from the northeast corner of the proposed lease site (SR 6). Staff also observed a partially constructed pier with ramp and floats off the eastern shore of the island (SR 6). During the site visit, there was an inflatable skiff and rowboat on the float (SR 6). The distance from the end of the pier to the northeast corner of the proposed lease site is ~1,867 feet (SR 6).

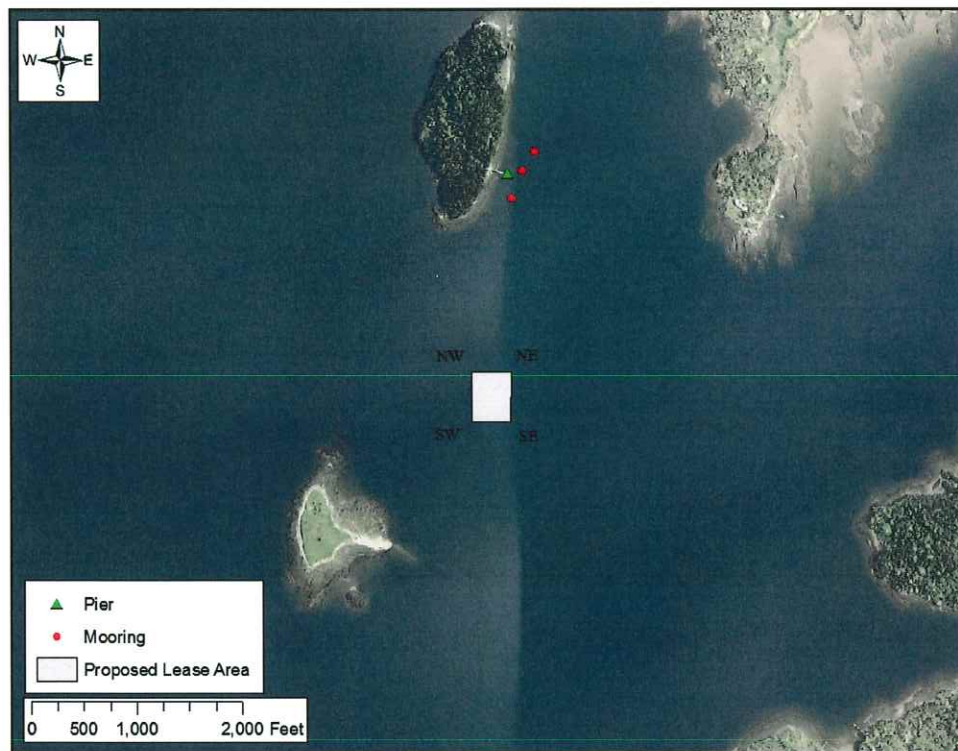


Figure 1: A vicinity map depicting the proposed lease site and the observed moorings and piers off the southeastern shore of Seal Island. Image taken from site report.

⁴ CF: Page 2 of a letter from Edmond J. Bearor, Esq. to A. Ellis.

⁵ Ibid.

Per the site report: “it is unlikely that the proposed lease will interfere with riparian ingress and egress to and from Seal Island due to its distance from this island” (SR 7). The Islesboro Harbormaster indicated that the proposed operations would not interfere with the ingress and egress of riparian landowners.⁶ The Leuschens’ claim that the proposed lease site will cause boat traffic to shift toward the southern tip of Seal Island creating unreasonable impacts to riparian ingress and egress is speculative. Even if boat traffic shifts, as the letter surmises, there will still be a reasonable navigable area between Seal Island and the proposed lease site to accommodate riparian ingress and egress.

It appears that activities at the lease site are unlikely to hamper riparian access to and from the shore.

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.

B. Navigation

A mooring field and publicly owned pier are located within Seal Harbor, which is ~2,500 feet to the east of the proposed lease site (SR 7). The main navigational channel that separates Flat Island and Islesboro Island is located more than 1,100 feet to the south of the proposed lease site (SR 7). The application indicates that boaters navigate between the northern tip of Flat Island and the southern tip of Seal Island (App 4). On November 27, 2017, the Department received a written comment from Melissa and Eric Jagger, who live year-round on Seal Island as the island managers.⁷ Their letter indicates that the proposed lease is located near a “heavily traveled channel” between Flat Island and Seal Island and that the proposed site could pose a navigational hazard.⁸ However, the Department’s assessment indicates the following:

Boats navigating between Flat Island and Seal Island will have more than 1,150 feet of navigable water to the west/southwest of the proposal and more than 1,050 feet of navigable water to the north of the proposal, with mean low water depths greater than or equal to those experienced when traveling between the two islands (SR 7).

Given the amount of navigable water around the proposed lease, it is reasonable to conclude that mariners could safely maneuver around the site. The Islesboro Harbormaster indicated that the proposal would not interfere with navigation in designated channels.⁹

It appears from this evidence that navigation in the area will not be unduly affected by the presence of the proposed lease site. The lease must be marked in accordance with DMR Rule 2.80.¹⁰

⁶ CF: Harbormaster questionnaire dated November 15, 2017.

⁷ CF: Letter from Melissa and Eric Jagger dated November 15, 2017.

⁸ Ibid. Page one, paragraph two.

⁹ CF: Harbormaster Questionnaire dated November 15, 2017.

¹⁰ **2.80 Marking Procedures for Aquaculture Leases**

- A.** When required by the Commissioner in the lease, aquaculture leases shall be marked with a floating device, such as a buoy, which displays the lease identifier assigned by the Department and the words SEA FARM in

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with navigation. The lease site must be marked in accordance with U.S. Coast Guard requirements.

C. Fishing & Other Uses

The site report notes: “due to the timing of MDMR’s site visit, fishing and other water-based activities that may occur on or near the proposed lease during the warmer months were not observed.” Though fishing and other water based activities were not observed, the applicant noted that lobster fishing occurs in the area from approximately June through November (App 4). The Islesboro Harbormaster indicated that there “might be 10-15 lobster traps affected and minimal effects to recreational fishing.”¹¹ The applicant discussed its proposal with local lobstermen,¹² and the Department did not receive any comments from lobstermen who fish in the area. Based on the absence of comments, it is reasonable to conclude that local lobstermen do not have any concerns with the proposal.

The application also indicates that “any part of the lease not covered by a raft is able to be used by both recreational and commercial fishermen/boaters (App 4).” There is ~50 feet of navigable area between the rows of rafts, which would allow transit for a variety of commercial and recreational vessels including kayaks, skiffs, and lobster boats (App 10). It appears from this evidence that the proposed lease site is unlikely to unreasonably affect fishing or other water dependent uses in the area.

Exclusivity. The applicant requests that lobster fishing around the mussel rafts be prohibited to avoid gear entanglement (App 4). Such a restriction is reasonable to enable the aquaculture project to be carried out while encouraging the greatest number of compatible uses of the area, as provided in 12 M.R.S.A §6072-A (15). A condition reflecting this restriction will be included in the lease.

Other aquaculture leases. The closest aquaculture site is located ~3.4 miles to the south of the proposed lease (SR 8).

Based on this evidence, it appears that the proposed lease will not unreasonably interfere with the operations of other aquaculture sites.

letters of at least 2 inches in height in colors contrasting to the background color of the device. The marked floating device shall be readily distinguishable from interior buoys and aquaculture gear.

- B.** The marked floating devices shall be displayed at each corner of the lease area that is occupied or at the outermost corners. In cases where the boundary line exceeds 100 yards, additional devices shall be displayed so as to clearly show the boundary line of the lease. In situations where the topography or distance of the lease boundary interrupts the line of sight from one marker to the next, additional marked floating devices shall be displayed so as to maintain a continuous line of sight.
- C.** When such marking requirements are unnecessary or impractical in certain lease locations, such as upwellers located within marina slips, the Commissioner may set forth alternative marking requirements in an individual lease.
- D.** Lease sites must be marked in accordance with the United State’s Coast Guard’s Aids to Private Navigation standards and requirements.

¹¹ CF: Harbormaster Questionnaire dated November 15, 2017.

¹² App: See page 4.

Therefore, considering the number and density of aquaculture leases in the area, I find that the aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area.

D. Flora & Fauna

Site Observations. Historical eelgrass (*Zostera marina*) cover data collected by DMR, in 2004, indicated that eelgrass was not present within the proposed lease site (SR 9). According to the cover data, the closest eelgrass bed to the proposed lease site was ~1 mile to the southeast. (SR 9).

Fisheries and Wildlife. Flat Island is located ~1,160 feet to the southwest of the proposed lease site (SR 9). The island is designated as a seabird nesting island, which means it is also significant wildlife habitat. DMR sent a copy of this lease application to MDIFW for their review and comment. In their review, MDIFW noted the following:

MDIFW has discussed with the applicant our concerns that placing suspended aquaculture in close proximity to known Seabird Nesting Islands (in this case Flat Island, which is owned by MDIFW for the protection of nesting sea birds) may create the opportunity for problems with eiders. As a result, MDIFW staff instructed that the applicant purchase netting that is suitable for excluding eiders without causing mortality. MDIFW will not issue depredation permits to lethally remove eiders in the event that they do begin to create issues with the aquaculture operations.¹³

MDIFW did not object to the location of the proposed lease, but instructed the applicant to install appropriate netting to avoid problems with eiders.¹⁴ The applicant intends to install the nets as recommended by MDIFW and described in section 2.A. of this decision.

Since the applicant intends to adhere to MDIFW recommendations regarding the installation of nets, it appears that the culture of blue mussels will not interfere with the ecological functioning of the area.

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

E. Public Use & Enjoyment

Per the site report, there are no public docking facilities or beaches within 1,000 feet of the proposed lease (SR 11).

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments.

¹³ CF: Email from J. Perry (MDIFW, Environmental Review Coordinator) to DMR dated November 16, 2017.

¹⁴ Ibid.

F. Source of Organisms

The applicant will source wild blue mussel seed from the proposed lease site (App 1).

Therefore, I find that the applicant has demonstrated that there is an available source of blue mussels (*Mytilus edulis*).

4. CONCLUSIONS OF LAW

Based on the above findings, I conclude that:

1. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.

2. The aquaculture activities proposed for this site will not unreasonably interfere with navigation.

3. The aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in the area.

4. Given that the applicant will install MDIFW recommended netting for eiders, the aquaculture activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

5. The aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments.

6. The applicant has demonstrated that there is an available source of blue mussels (*Mytilus edulis*).

Accordingly, the evidence in the record supports the conclusion that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072-A.

5. DECISION

Based on the foregoing, the Commissioner grants an experimental lease of 4.00 acres to Islesboro Marine Enterprises, for three years, the term of the lease to begin within twelve months of the date of this decision, on a date chosen by the lessee¹⁵; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.

This lease is granted to the lessee for the cultivation of blue mussels (*Mytilus edulis*) using suspended culture techniques. The lessee shall pay the State of Maine rent in the amount of \$100.00 per acre per year. Since this is an experimental lease with more than 400 sq. ft. of structures and no

¹⁵ DMR Rule 2.64 (14) provides:

“The term of the lease shall begin within 12 months of the Commissioner’s decision, on a date chosen by the applicant. No aquaculture rights shall accrue in the lease area until the lease term begins and the lease is signed.”

discharge, a bond or escrow account is required. The lessee shall post a bond or establish an escrow account pursuant to DMR Rule 2.64 (10) (D) in the amount of \$5,000.00, conditioned upon performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations.

6. CONDITIONS TO BE IMPOSED ON LEASE

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities, pursuant to 12 M.R.S.A §6072-A (15)¹⁶. Conditions are designed to encourage the greatest multiple compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the lease.

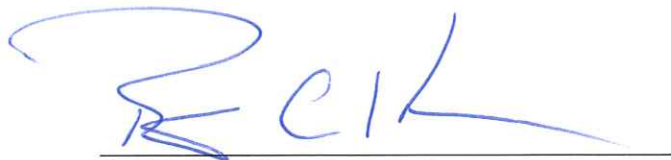
The following conditions shall be incorporated into the lease:

1. The lease site must be marked in accordance with U.S. Coast Guard requirements and DMR Rule 2.80.
2. Lobster fishing within the lease boundaries is prohibited, except by authorization of the leaseholder.
3. Other public uses that are not inconsistent with the purposes of the lease are permitted within the lease boundaries.

7. REVOCAION OF EXPERIMENTAL LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 M.R.S.A §6072-A (22) and DMR Rule Chapter 2.64 (13) that no substantial research has been conducted on the site within the preceding year, that research has been conducted in a manner injurious to the environment or to marine organisms, or that any conditions of the lease or any applicable laws or regulations have been violated.

Date: 1/17/18



Patrick C. Keliher, Commissioner
Department of Marine Resources

¹⁶ 12 M.R.S.A §6072-A (15) provides that:

“The commissioner may establish conditions that govern the use of the leased area and limitations on the aquaculture activities. These conditions must encourage the greatest multiple, compatible uses of the leased area, but must also address the ability of the lease site and surrounding area to support ecologically significant flora and fauna and preserve the exclusive rights of the lessee to the extent necessary to carry out the lease purpose. The commissioner may grant the lease on a conditional basis until the lessee has acquired all the necessary federal, state and local permits.”