

**STATE OF MAINE
DEPARTMENT OF MARINE
RESOURCES**

Mussel Bound, Incorporated
EAST TIX

Experimental Aquaculture Lease Application
Suspended culture of blue mussels
Northwest of Thomas Island, Frenchman Bay

May 26, 2020

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Mussel Bound, Incorporated applied to the Department of Marine Resources (DMR) for a three-year experimental aquaculture lease northwest of Thomas Island in Frenchman Bay, Bar Harbor, Hancock County, Maine. The proposed lease is 3.41 acres¹ and is for the suspended cultivation of blue mussels (*Mytilus edulis*).

1. THE PROCEEDINGS

DMR accepted the application as complete on June 13, 2019. Notice of the application and the 30-day public comment period were provided to state and federal agencies, riparian landowners, the Town of Bar Harbor and its Harbormaster, and others on DMR's mailing list. Notice of the application and comment period was published in the July 25, 2019 edition of the *Mount Desert Islander*. During the comment period, DMR did not receive any requests for a public hearing, and no hearing was held. DMR science staff conducted a site assessment on October 9, 2019 and the site report was issued on March 26, 2020. The evidentiary record regarding this lease application includes the application, DMR's site report, and the case file. The evidence from each of these sources is summarized below.²

2. DESCRIPTION OF THE PROJECT

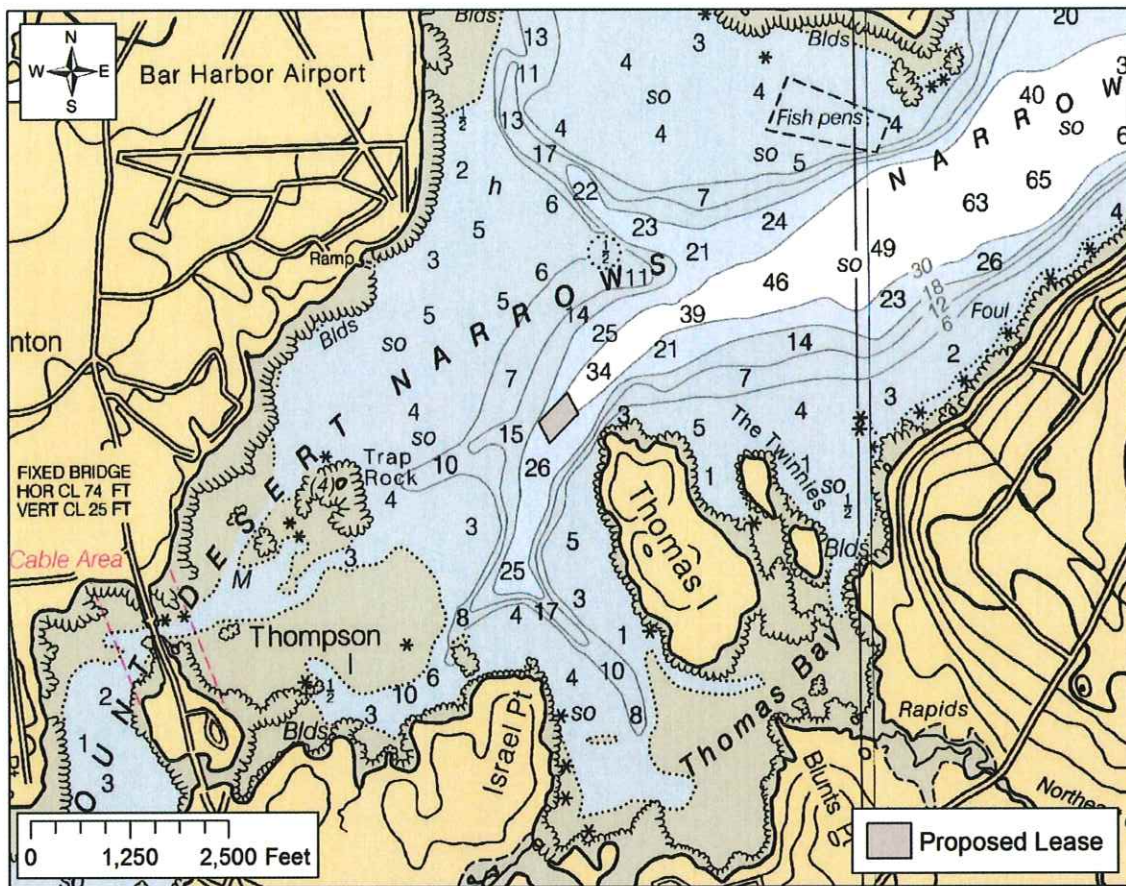
A. Site Characteristics

The proposed lease occupies subtidal waters northwest of Thomas Island in Frenchman

¹ The applicant originally requested 3.58 acres, but DMR calculations based on the provided coordinates indicate that the proposed site is 3.41 acres.

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

Bay (SR 2). The Thomas Island shoreline is characterized by a rocky intertidal that leads to forested uplands (SR 2). The shoreline along Thomas Island to the southeast of the proposal is undeveloped, but residential properties are present along Israel Point to the south, and both commercial and residential properties, including the Hancock County-Bar Harbor Airport, are present along the shoreline to the north (SR 2). Correcting for tidal variation, depths at the proposed lease site ranged from ~35.6-42.7 feet at high water at the time of depth collection, and ~24.2-31.3 feet at mean low water (SR 6). At approximate mean low water, the east corner of the proposed site is ~390 feet to the nearest point on Thomas Island (SR 7). Figure 1 shows the location of the proposed lease and the surrounding area.



Figure

1: Proposed lease site and surrounding area. Image taken from site report.

B. Proposed Operations

The applicant is proposing to culture blue mussels using 3 repurposed circular plastic fish pens, known as polar circles, each measuring 70 meters in circumference. Longlines, spat

collection dropper lines, and associated buoys are deployed within each polar circle (App 15-16). External nets are affixed to the outside of each polar circle to protect the mussel spat that settle on the dropper lines from predators (App 16, 20). The applicant has proposed to deploy the polar circles on the site from spring through the early winter, while the longlines, spat collecting lines and buoys would be deployed May-November each year, and the predator nets would be deployed on each polar circle from September-November each year (App 14). Only 4 corner markers and 10 concrete moorings would remain on site year-round (App 14). According to the application, trips to the site for seeding and routine maintenance would occur weekly (App 6), but no harvesting would occur on site, and the circles would be towed to an alternative site for the winter (App 8).³ Mussel Bound, Inc. has a permit from the U.S. Army Corps of Engineers (ACOE), to conduct similar activities, minus the use of predator nets, within the area of the proposed lease (App. 36, SR 2).

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 water related uses of the area, taking into consideration other aquaculture uses in the 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 there is an available source of organisms to be cultured on the lease site.

A. Riparian Access

The proposed site is located northwest of Thomas Island in Frenchman Bay, and, at the time of DMR's site assessment, there were no docks within the vicinity of the proposal (SR 8). The Thomas Island shoreline nearest the proposed lease is undeveloped, and direct access to the island is limited to vessels that can land on shore (SR 8). Larger vessels wishing to access Thomas

³ Applicant indicates polar circles will be towed to a site near Bartlett Landing for the winter. Mussel Bound, Inc. has a pending application with DMR for an aquaculture lease east of Bartlett Island.

Island would need to anchor offshore of the island and land instead with dinghies, skiffs, or hand powered vessels such as kayaks. According to Maine Coast Heritage Trust, the owner of Thomas Island, the island is great for kayaking, picnicking, and camping, and is “most easily accessed by boat along its northeast shore.”⁴ The proposed lease would not hinder access to the northeastern shore of Thomas Island (SR 8). At low tidal stages, more than 390 feet of navigable area would separate the northwestern shore of Thomas Island and the lease, if granted (SR 8). Vessels approaching the island from the north or west may be required to navigate around the lease, if granted (SR 8). Other than Thomas Island, the closest shorefront properties are over 2,000 feet away from the proposed lease (SR 8).

During DMR’s visit to the site, eleven moorings balls were observed in the vicinity of the proposed lease (SR 9). Seven of those were identified by the same yellow marker balls and are seemingly associated with the existing polar circles and activities of the applicant (SR 9). To the north and northeast of the proposal, The Bar Harbor Whale Watch Company has four large storm moorings issued by the U.S. Army Core of Engineers. The closest of these moorings is 297 feet to the north (SR 9). In response to the Harbormaster questionnaire sent out by DMR, Charlie Phippen, Harbormaster for the Town of Bar Harbor, indicated that the applicant has registered moorings within the boundaries of the proposed lease site, and that the lease should have no impact on riparian ingress and egress⁵.

DMR did not receive any comments from the owner of Thomas Island about their ability to navigate to the Thomas Island shore or other access points. Based on the evidence, and lack of comments, it is reasonable to conclude that riparian ingress and egress will not be unduly affected by the proposed application.

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

B. Navigation

The proposed lease is located more than 390 feet to the northwest of Thomas Island, and the nearest other shorelines and tidally exposed mudflats are more than 2,000 feet away (SR 9). The proposed lease is situated in a deep-water channel that leads into Thomas Bay, and at mean

⁴ <https://www.mcht.org/preserve/thomas-island/>

⁵ CF: completed harbormaster questionnaire signed by Charlie Phippen on July 22, 2019.

low water, a minimum of 300 feet, with depths of at least 12 feet, would be available for navigation around the entirety of the proposed lease (SR 9). According to the site report, vessels transiting through Mount Desert Narrows and Thomas Bay are more likely to be constrained by the extensive mud flats and shoal water at low tidal stages than by the proposed lease (SR 9). Boaters wishing to access Thomas Island from the north or west may have to alter course around the proposed lease, if granted (SR 9). However, the location of the proposed activities does not appear to prohibit access to Thomas Island. The applicant indicates that there is limited boating in the area due to the large mud flats restricting the size of vessels, but that there is some kayaking (App 9).

The Bar Harbor Harbormaster indicated that the proposed aquaculture activities should not have a significant impact on navigation in the area because the polar circles have been in place already.⁶ During the review period, DMR did not receive any comments pertaining to navigation. Based on the evidence and lack of public comment it appears that navigation will not be unduly affected by the proposed application.

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with navigation.

C. Fishing & Other Uses

Fishing. The application indicates that there is limited lobstering and no recreational fishing in the area of the proposed lease (App 9). During DMR's site visit on October 9, 2019, fourteen lobster buoys were observed within the vicinity of the proposed lease, and one vessel was observed hauling traps nearby and within the proposed lease area (SR 10). The site report notes that a moderate amount of commercial lobster activity, indicated by the presence of trap buoys, was noted in the channel to the north and east of the proposed site (SR 10). DMR did not receive any comments from lobster fishermen in response to this aquaculture application.

DMR staff did not observe any recreational fishing on their visit to the site in October 2019. As noted in the site report, recreational fishing activity is likely most prevalent during the summer months, and while the proposed lease should not restrict hook and line fishing in the area, there is the potential for occasional entanglement in the proposed predator nets (SR 10). Per Charlie

⁶ CF: completed harbormaster questionnaire signed by Charlie Phippen on July 22, 2019.

Phippen, Harbormaster for the town of Bar Harbor, “There are very few recreational fishing vessels in the area. There are commercial fishing vessels that fish seasonally in the area for lobster.”⁷

During the review period, DMR did not receive any comments about lobster fishing or other fishing activities. Because the applicant has not requested any exclusive use of the lease site (see below), lobstermen would not be prohibited from setting traps in or around the proposed lease site, and space remains available outside the boundaries of the proposed lease for lobstering. Based on the evidence, and lack of public comments, it is reasonable to conclude that commercial and recreational fishing will not be unduly affected by the proposed application.

Exclusivity. The applicants are not requesting exclusive use of the proposed lease site (App 10).

Other aquaculture uses. There are four aquaculture leases, and two Limited Purpose Aquaculture (LPA) licenses within 1 mile of the proposed lease (SR 10). Lease EAST TB is the closest aquaculture activity to the proposed site and is held by Bar Harbor Oyster Company, LLC for the suspended culture of American oysters. Lease EAST HP and EAST OP2 are located ~3,450 feet and ~4,025 feet, respectively, from the proposed lease site and are both held by Acadia Aqua Farms for the bottom culture of blue mussels. Lease EAST OP, held by Mooseabec Mussels, is located ~3,535 feet from the proposed lease site and is also for the bottom culture of mussels. The two active LPAs are located more than 1,490 feet to the east of the proposed lease and are for the suspended culture of American oysters. Figure 2 shows the location of the proposed lease site and nearby aquaculture activity. DMR did not receive any comment about the proposed lease and potential impact to other aquaculture uses in the area.

⁷ CF: completed harbormaster questionnaire signed by Charlie Phippen on July 22, 2019.

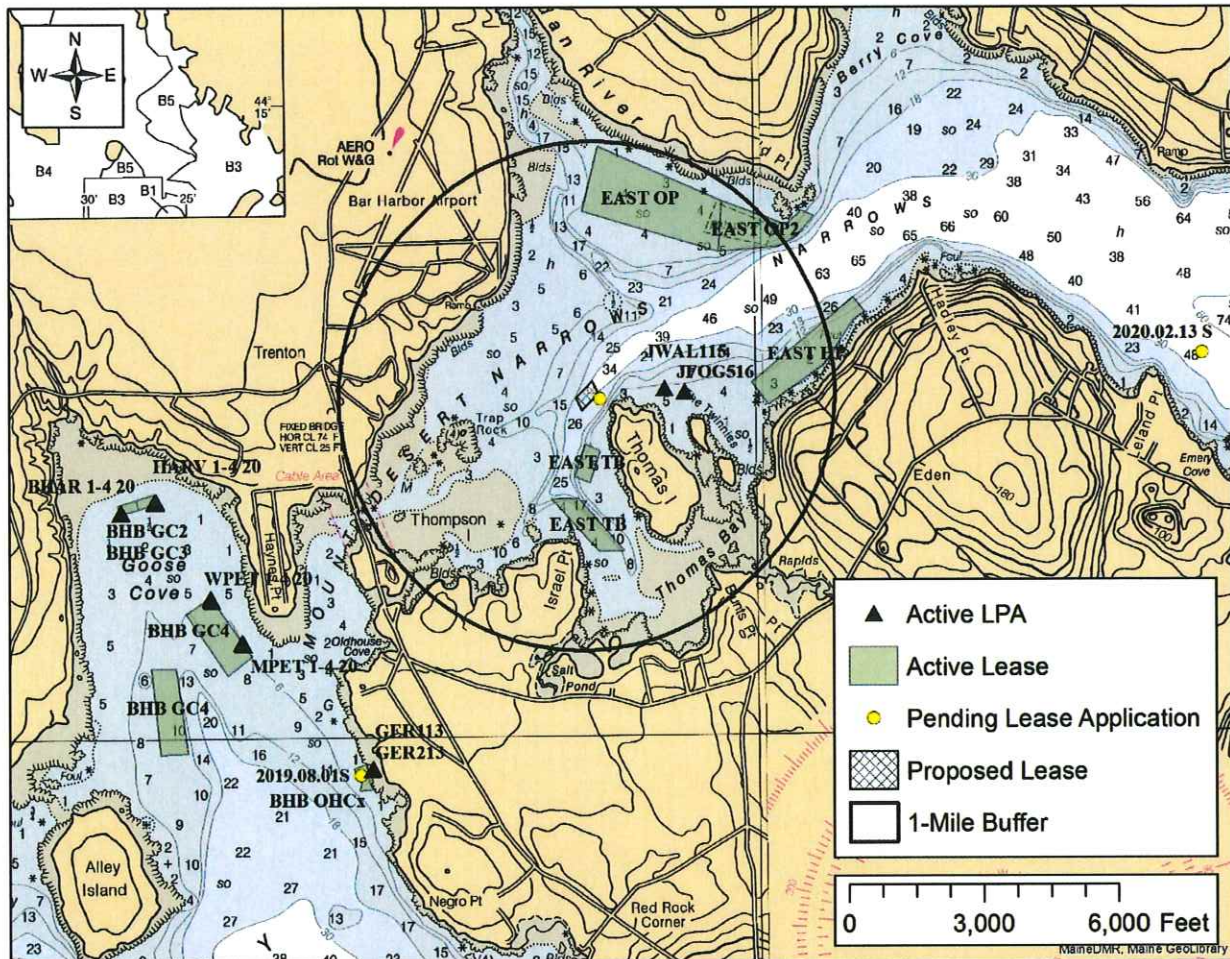


Figure 2: Aquaculture leases and licenses within one mile of the proposed lease. Image taken from site report.

Other water-related uses. During the review period, DMR did not receive any comments detailing other water-related uses that are not already contemplated in other sections of this decision. Based on the absence of public comments, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on other water-related uses of the area.

Therefore, considering other aquaculture uses of the area, the activities proposed for this site will not unreasonably interfere with fishing or other water related uses of the area.

D. Flora & Fauna

DMR did not conduct an underwater assessment of the proposed lease site, but the applicant reports that the bottom is comprised of soft mud, and that crabs, sea stars, and blue mussels are present in limited numbers (App 11). The applicant is proposing to culture blue mussels using suspended spat collection. Based on the depth measurements collected by DMR

staff, and the proposed gear layout (App 16), the predator nets and spat collector lines would be suspended ~5-20 feet above the bottom at mean low water (SR 11) and unlikely to cause direct physical disturbance to the bottom.

Historical eelgrass (*Zostera marina*) data collected by DMR in 2008, show that the closest observed eelgrass to the proposed site was more than 2,400 feet to the northeast (SR 11). The proposed lease, if granted, is unlikely to negatively impact these eelgrass beds (SR 12).

Data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) indicate that the proposed lease is located within Tidal Wading Bird and Waterfowl Habitat, and the closest bald eagle nest to the proposal is located more than 2,700 feet to the southeast (SR 12). DMR sent a copy of the application to MDIFW for their review and comment. MDIFW indicated that “minimal impacts to wildlife are anticipated for this project.”⁸

Based on the evidence, it is reasonable to conclude that the proposed lease will not have an unreasonable impact on the ecological function of the area.

Therefore, 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, “the proposed lease is not within 1,000 feet of any beach, park, docking facility, or conserved lands owned by federal, state, or municipal governments” (SR 13). As discussed in previous sections of this document, Thomas Island, which is privately owned by Maine Coast Heritage Trust, is located approximately 390 feet to the southeast of the proposed lease. However, access to the island would not be prohibited by the proposed lease, if approved.

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

F. Source of Organisms

The applicant intends to source stock via wild spat settlement on spat collector lines that would be deployed on the site.

⁸ CF: Email from R. Settele to C. Burke on March 25, 2020

Therefore, the applicant has demonstrated that there is available source of stock to be cultured for the lease site.

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. 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 stock to be cultured for the lease site.

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 the requested experimental lease of 3.41 acres to Mussel Bound, Inc., 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 lessee⁹; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.

⁹ DMR Rule 2.64 (14) provides:

This lease is granted to the lessees for the cultivation of blue mussels (*Mytilus edulis*). The lessees 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 discharge, a bond or escrow account is required. The lessees shall post a bond or establish an escrow account pursuant to DMR Rule 2.64 (10) (s) 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

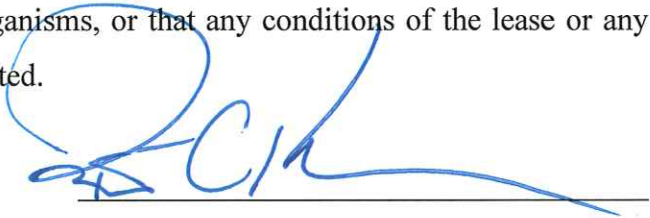
The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities, pursuant to 12 MSRA §6072-A (15).¹⁰ Conditions are designed to encourage the greatest multiple compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purpose of the lease. No conditions have been imposed upon this lease.

7. REVOCATION OF EXPERIMENTAL LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 MRSA §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.

Dated: _____

5/26/2020


Patrick C. Keliher, Commissioner
Department of Marine Resources

"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."

¹⁰ 12 MRSA §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."