

**STATE OF MAINE
DEPARTMENT OF MARINE
RESOURCES**

Experimental Aquaculture Lease Application
Bottom Culture of shellfish
Mouth of Harraseeket River, Freeport,
Cumberland County

**Chad Coffin
HAR MPx**

August 4, 2021

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Chad Coffin applied to the Department of Marine Resources (DMR) for a three-year experimental aquaculture lease located west of Moore Point, at the mouth of the Harraseeket River, in Freeport, Cumberland County, Maine. The proposed lease is 1.61¹ acres and is for the bottom culture of American/eastern oysters (*Crassostrea virginica*), and northern quahogs/hard clams (*Mercenaria mercenaria*). DMR accepted the application as complete on October 8, 2020.

1. THE PROCEEDINGS

Notice of the application and the 30-day public comment period were provided to riparian landowners within 1,000 feet of the proposed site, state and federal agencies, the Town of Freeport and its Harbormaster, and others on DMR's mailing list. Notice of the application and comment period was published in the November 12, 2020 edition of *The Northern Forecaster*. During the comment period, DMR did not receive any public comments or requests for a public hearing, and no hearing was held. The evidentiary record regarding this lease application includes the application, DMR's site report dated May 21, 2021.²

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The applicant proposes to culture American oysters and hard clams using bottom culture techniques. Aside from the required corner buoys that would mark the area, no gear is proposed for the site (App 1). Seed is proposed to be directly deployed on the site, and harvested by hand, rake, snorkel, dive, and drag (App 8). According to the application, the small drag measures 34"x 10" (App 8). No power equipment is proposed for the site, and the applicant intends to service the site throughout the year (App 8). During times when the applicant is seeding the

¹ Applicant requested 1.62 acres. DMR calculations indicate the area is 1.61 acres.

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

site, which is proposed to occur over a period of 2 weeks during the spring, and up to 3 weeks in the summer and fall, they expect to be on the site daily (App 7). The applicant expects to harvest from the site approximately 3 days per week throughout the year, however harvesting during the summer and fall may occur daily (App 7).

B. Site Characteristics

The proposed lease site is in subtidal waters between Moore Point, Pumpkin Knob, and Pound of Tea Island at the mouth of the Harraseeket River in Casco Bay (SR 2). The nearby shoreline is comprised of ledge and sandy beaches, while the uplands are residential and lightly forested (SR 2). A tidally exposed sandbar, located north of the proposal, connects Pumpkin Knob to Moore Point during lower tidal stages (SR 2).

DMR visited the site on November 19, 2020 and on May 4, 2021. During DMR's visit on May 4, 2021, depths at the corners of the proposed lease ranged from approximately 10 inches to 2.5 feet (SR 6). Correcting for tidal variation derives depths that would be approximately 4-5 inches lower at mean low water, indicating that the proposed lease is located entirely within subtidal water, although some portions may be exposed during negative tides (SR 6). The bottom of the proposed site is composed of shell hash, shell rubble and sand (SR 13).

According to the site report, Pumpkin Knob is the closest land from the proposal (corner 1), at approximately 20 feet away at mean low water (SR 9). The tidally exposed sandbar, and Moore Point are approximately 35 and 30 feet away from proposed corners 2 and 9 (SR 9). Figure 1 identifies the proposed lease boundaries and nearby points on land.

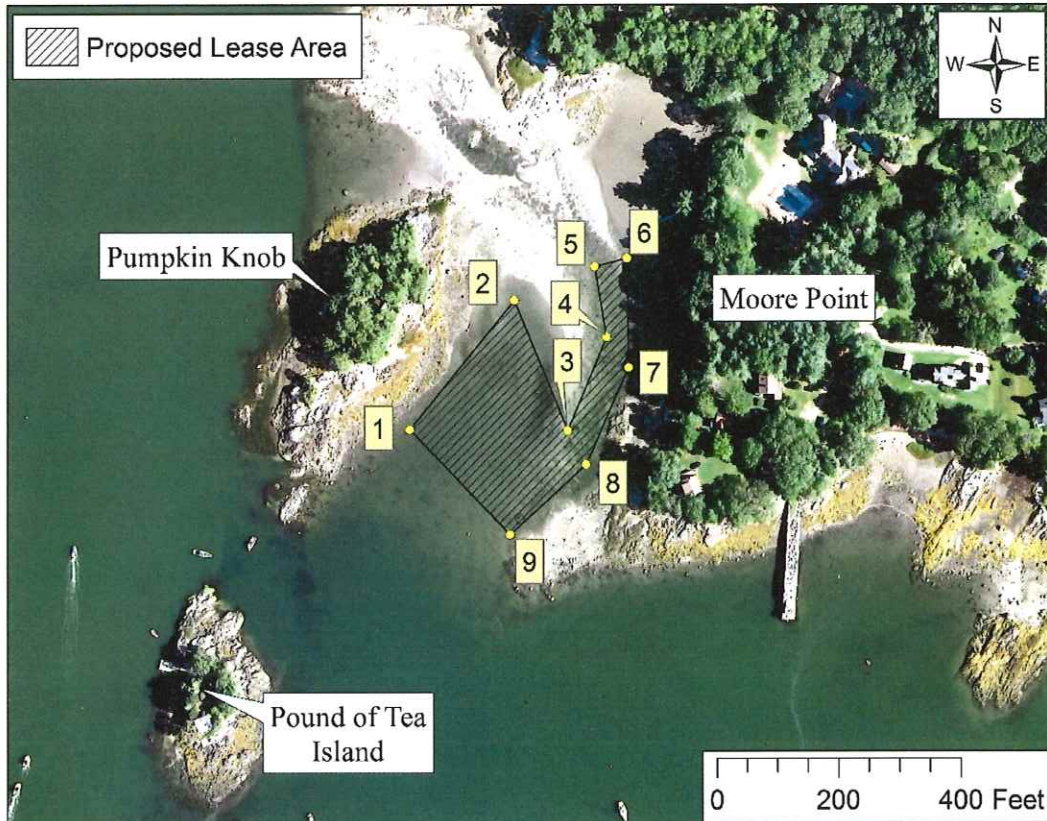


Figure 1: Proposed lease area. Image taken from DMR's site report.

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 that there is an available source of organisms to be cultured on the lease site.

A. Riparian Access

The proposed lease is located at the mouth of the Harraseeket River between Moore Point, Pumpkin Knob, and Pound of Tea Island. During DMR's visit to the site on May 4, 2021, staff observed eight houses along the Moore Point shoreline adjacent to the proposal, one house

on Pumpkin Knob, and one on Pound of Tea Island (SR 9). Two sets of stairs were observed leading from Pumpkin Knob to the shoreline of the cove in which the proposed lease is located, and five sets of stairs were observed on the Moore Point shoreline (SR 9). Approximately 15 feet away from the proposed lease, DMR staff observed a moored float and ramp, that appeared to be staged to attach to one of the observed sets of stairs. Based on a review of aerial imagery from 2013, it appears that when the float and ramp are installed, they are approximately 65 feet from the proposed corner 6 (SR 9).

Given the number of stairs and houses observed by DMR, it appears that riparian owners access and use the water and/or the shoreline surrounding the proposed lease. However, because no gear is proposed for the site, the ability of riparian owners to access their properties should not be prevented by the proposal. Outside of when the applicant is actively seeding or harvesting the site, no impact to riparian ingress and egress is expected (SR 9). No comments were received from any riparian landowners during the comment period for this application. As such, there is no indication that riparian landowners have concerns about the proposed activities, or their ability to access their properties should the lease be approved. Provided the applicant is courteous of any riparian access points when they are seeding or harvesting the site, proposed activities should not impede riparian access.

Based on the lack of public comments, the evidence presented in DMR's site report, and because the proposed lease is for bottom culture only with no gear, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on riparian ingress and egress.

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 at the mouth of the Harraseeket River in shallow waters between Moore Point, Pumpkin Knob, and Pound of Tea Island (SR 10). DMR's site report notes that while the Harraseeket River experiences heavy boat traffic, the proposed lease is located within a shallow cove, outside the main navigation channel (SR 10). Given the shallow depths of the site, transit through the area is likely limited to depth appropriate vessels. The site report notes that depth appropriate vessels are likely to travel through the proposed lease area occasionally (SR 10). The application stated that the proposed activities should not interfere with recreational boating, and that the applicant has not observed kayaking within the proposed

area but that it is possible it occurs during summer months (App 9). Because the applicant is not proposing to deploy any gear, there should be minimal impact to navigation. As was discussed as it related to riparian access, navigation would likely only be impacted when the applicant is actively working on the site or during times of harvesting with a drag. During most times, if the applicant and others wishing to navigate within the cove are courteous and cautious of one another, multiple vessels should be able to operate within the cove at one time (SR 10).

During the comment period, DMR did not receive any comments related to navigation within or near the proposed site. Based on the lack of public comments, and the evidence in the site report, it is reasonable to conclude that navigation in the area 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. During DMR's visits to the site on November 19, 2020 and May 4, 2021 no fishing activity or fishing gear was observed within the cove where the proposal is located (SR 10). Lobster and bait fishing activities occur in nearby areas within deeper water, outside of the cove where the proposal is located, and are unlikely to be impacted by the proposal (SR 10).

DMR staff did observe wild European oysters (*Ostrea edulis*) throughout the proposed lease, and there were dense beds located within the deeper sections of the proposal (SR 10). Northern quahogs (*Mercenaria mercenaria*) were also observed within the proposed lease boundaries, but at much lower density than European oysters (SR 10). While the applicant is not proposing to culture European oysters, he has requested that the commercial dragging of shellfish be prohibited within the boundaries of the site (App 10). According to DMR's site report, drag harvest is a standard method used for harvesting European oysters, especially during winter months, so the commercial harvest of European oysters by drag could be hindered if the proposed lease is granted. However, the applicant is not requesting exclusive use of the site, so the hand harvest of European oysters from the site would still be permitted, and no comments were received from shellfish harvesters regarding the proposed activities. Because the applicant is proposing to culture northern quahogs, the commercial harvest of this species from within the boundaries of the site would be prevented if the lease is granted.

DMR also observed American oysters within the proposed lease. However, while the European oysters observed on the site were described as being wild, the American oysters

observed were cultchless and did not appear to be wild but sourced from a hatchery and spread within the site intentionally (SR 10). The site report indicated that the American oysters observed were planted in the site by the applicant (SR 10). Razor clams were also observed near the proposed corner 2, but harvest of this species would not be prevented by the proposed lease activities (SR 10). The application stated that no commercial fishing has been observed within the proposed lease area, and that while they are not aware of recreational fishing in the area, this activity would be compatible with the proposed activities (App 9). Feedback from DMR's Bureau of Public Health that details communications between the Bureau of Public Health and the Freeport harbormaster indicate that while there is occasional shellfish harvesting in the proposed lease area, it doesn't seem like it will interfere with wild harvest of oysters as they appear to not be attached or cemented down, and it is not a significant area for any shellfish harvesting.³ While comments from the Bureau of Public Health indicate that there is no concern with the proposed lease interfering with wild shellfish harvest because oysters did not appear to be wild, DMR's site report did observe wild European oysters within the boundaries of the site. However, no comments were received from any commercial or recreational fishermen during the comment period, and the comment from the Bureau of Public Health indicates that the area is not significant for wild shellfish harvesting, so there does not appear to be concern regarding the impact the proposed aquaculture activities may have on commercial fishing.

Based on the lack of public comments, and the evidence in the record, it is reasonable to conclude that the proposed aquaculture activities will not unreasonably interfere with fishing.

Exclusivity. The applicant has requested that only commercial dragging of shellfish be prohibited within the proposed lease boundaries, but that all other uses including lobstering, swimming, kayaking, recreational boating, and recreational fishing would all be compatible with the proposed operation.

Other aquaculture uses. At the time of DMR's site report, there were 28 Limited Purpose Aquaculture (LPA) licenses and 4 pending lease application within 1 mile of the proposal. The closest LPAs to the site are permitted for the suspended culture of shellfish and are over 1,700 feet away from the proposed lease site. Since the publication of the site report, one of the pending lease applications, located in Recompense Cove to the northeast of the proposal has recently been granted for the suspended culture of shellfish.

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

³ CF: Email from K. Kanwit to C. Burke on August 20, 2020

there are no concerns regarding the effects the proposed lease may have on other water-related uses of the area.

Therefore, considering the 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

Historical eelgrass (*Zostera marina*) data collected by the Maine Department of Environmental Protection, in partnership with the Casco Bay Estuary Partnership, indicate that in 2018, the closest eelgrass bed was located less than 20 feet to the southwest of the boundary of the proposed lease between corners 1 and 9 (SR 14). During DMR's visit to the site on May 4, 2021 no eelgrass was observed within the boundaries of the proposed site, or near the boundary of corners 1 and 9 (SR 14). As such, and because no gear is proposed for the site, no reduction to the proposed lease is recommend at this time. However, rake and drag harvesting activities could harm eelgrass beds, and should only occur within the proposed lease boundaries. In addition, if eelgrass beds were to establish within the proposed lease area, given the shallow nature of the site, they would be observable from the surface at lower tidal stages, and should be avoided by harvesters (SR 14).

On May 4, 2021 DMR staff observed European oysters (*O. edulis*) in abundance within the proposed lease site, as well as periwinkles and barnacles. Also observed, were cultchless American oysters (*C. virginica*). Rockweed (*Fucus sp.*), razor clams (*E. leei*), hard clams (*M. mercenaria*), and blue mussels (*M. edulis*), were also observed by DMR staff (SR 13). During DMR's visit to the site in November 2020, longtail ducks (*Clangula hyemalis*) were observed within the vicinity of the proposed lease, and during the May 2021 visit, herring gulls (*Larus smithsonianus*), eider ducks (*Somateria mollissima*), double crested cormorants (*Phalacrocorax auritus*), a mourning dove (*Zenaida macroura*), a kingfisher (*Megasceryle alcyon*), an osprey (*Pandion haliaetus*), and a great blue heron (*Ardea herodias*) were observed within the vicinity of the proposed lease (SR 13). According to data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), the proposed lease overlaps with Tidal Wading Bird and Waterfowl Habitat, which is defined as Significant Wildlife Habitat by Maine's Natural Resource Protection Act (SR 14). DMR sent the application to the MDIFW for their review and comment, and they indicated that "minimal impacts to wildlife are anticipated for this project."⁴

⁴ CF: Email from R. Settele to C. Burke on November 6, 2020.

No public comments were received regarding the flora and fauna in the area. Based on the evidence that the proposed lease does not interfere with significant wildlife, and because no other comments were received regarding the flora and fauna in the area, it appears that the proposed aquaculture activities for this lease site will not interfere with 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

There are no beaches, parks, or docking facilities owned by municipal, state, or federal government within 1,000 feet of the proposed lease site. The proposal is however, located approximately 1,100 feet from intertidal land associated with Winslow Park and Campground, a municipally owned facility. In addition to camping facilities, there is also a public boat ramp and dock that is accessible from mid to high tidal stages and is located just under a mile to the southwest of the proposed lease area (SR 15). However, because the applicant is proposing bottom culture only, and because of the distance between the proposed site and the campground, it is unlikely the proposed activities would interfere with the use of the facility (SR 16). No comments were received regarding the proposal and the proximity to Winslow Park and Campground.

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 American/eastern oysters from Mook Sea Farms in Walpole, Maine, Muscongus Bay Aquaculture in Bremen, Maine, and the Downeast Institute in Beals, Maine. Hard clams will be sourced from Muscongus Bay Aquaculture and the Downeast Institute. These sources are approved by DMR.

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 1.61 acres, to Chad Coffin 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 lessee;⁵ 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 American/eastern oysters (*Crassostrea virginica*), and hard clams (*Mercenaria*

⁵ 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.”

mercenaria), bottom 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 no discharge and no structures, a bond or escrow account is not required.

6. CONDITIONS TO BE IMPOSED ON LEASE

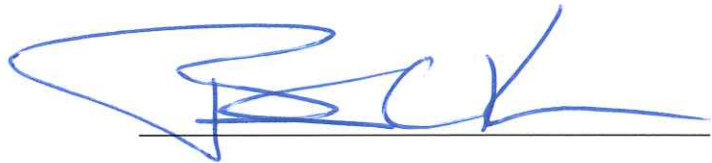
The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities, pursuant to 12 MSRA §6072-A (15)⁶. Conditions are designed to encourage the greatest multiple compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purpose of the lease. No conditions have been imposed on 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: _____

8/4/21



Patrick C. Keliher, Commissioner

Department of Marine Resources

⁶ 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.”