

**STATE OF MAINE  
DEPARTMENT OF MARINE  
RESOURCES**

**Downeast Institute  
EAST JPx**

Experimental Aquaculture Lease Application  
Suspended Culture of soft-shell clams, Arctic  
surf clams, American/eastern oysters,  
European oysters, razor clams, Atlantic surf  
clams and northern quahogs.  
Joan's Pound, Black Duck Cove, Eastern Bay,  
Beals, Washington County

February 23, 2021

**FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION**

The Downeast Institute (DEI) applied to the Department of Marine Resources ("DMR") for a three-year experimental aquaculture lease located in Joan's Pound, a tidal impoundment on Black Duck Cove in Eastern Bay, Beals, Washington County, Maine. The proposed lease is 0.81<sup>1</sup> acres and is for the suspended culture of soft-shell clams (*Mya arenaria*), Arctic Surf Clams (*Mactromeris polynyma*), American/eastern oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), razor clams (*Ensis leei*), Atlantic surf clam (*Spisula solidissima*), and northern quahogs (*Mercenaria mercenaria*). DMR accepted the application as complete on July 30, 2020.

**1. THE PROCEEDINGS**

Notice of the application and the 30-day public comment period were provided to state and federal agencies, the Town of Beals and its Harbormaster, and others on DMR's mailing list. Notice of the application and comment period was published in the August 12, 2020 edition of *The Machias Valley News Observer*. During the comment period, DMR did not receive any 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 January 26, 2021, and the case file. The evidence from each of these sources is summarized below.<sup>2</sup>

**2. DESCRIPTION OF THE PROJECT**

**A. Proposed Operations**

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<sup>1</sup> Applicant requested 0.84 acres. DMR calculations indicate the area is 0.81 acres.

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

Shellfish would be cultured using floating trays and mesh bags (App 13). Trays and bags will be deployed on the surface between May-November. Some oysters bags will be submerged for the winter, but most species will be brought to DEI's hatchery for overwintering (App 5). The applicant proposes to deploy a maximum of 3400 mesh bags, 200 floating trays, or a combination of both gear types. According to clarifying information provided by the applicant, the overhead view included in the application provided one example of how trays and bags might be deployed on the site but does not show the maximum gear layout should only mesh bags or trays be deployed.<sup>3</sup> If the maximum amount of either bags or trays were deployed, mesh bags would be attached to a maximum of 47 longlines that are 264 feet in length and 1 longline that is 48 feet in length, while floating trays would be deployed on a maximum of 10 longlines that are 267 feet long.

According to the application, the proposed site will primarily be used as a nursery site for juvenile oysters, clams and other species, and to conduct growth trials on American and European oysters (App 4). Should the site not be used exclusively as a nursery, the applicant will need to obtain a Memorandum of Understanding from the DMR Bureau of Public Health and may be responsible for covering all costs associated with any biotoxin testing that may be required.

## **B. Site Characteristics**

The proposed lease site is located entirely in a tidal impoundment known as Joan's Pound, which is operated and maintained by the applicant, DEI. The shoreline surrounding the pound is a mixture of ledge, boulder, and forested uplands, and there is a small gravel beach (SR 2). Structures associated with DEI, as well as neighboring residential buildings, are nearby (SR 2). The bottom of the proposed site is composed of cobble, mud and shell hash (SR 5).

A DMR Scientist visited the site on October 28, 2020. Because the proposed site is located entirely within a tidal impoundment, in addition to being influenced by the local tidal state, depths within the site are partially a function of the tide gate management. On the completed application, DEI indicated that the proposed lease site is above mean low water (App 1). Therefore, it is expected that if the gate were opened, the pound would drain during lower tidal stages. According to the application, when the gate is closed, water depths in the pound vary from 5 to 12.5 feet (App 9). For intertidal applications, written permission for use of any intertidal lands that will be used by the applicant is required to be given by the intertidal landowner. DEI is the owner of the adjacent parcel surrounding the proposed lease. In

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<sup>3</sup> CF: email correspondence between C. Adams and the applicant. January 25, 2021.

addition, a letter detailing consent for the proposed activities from the Town of Beals was also included in DEI's completed application (App 69).

### **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**

During DMR's site visit on October 28, 2020, an outhaul system and hauled out rowboat were observed on a beach near the southwest corner of the proposed site within Joan's Pound. The outhaul, rowboat, and surrounding upland adjacent to the beach are the property of the applicant (SR 7). Because the proposed lease site is located entirely within Joan's Pound, the impoundment is operated by the applicant, and because the applicant owns the entire area surrounding the pound, riparian access to and from the pound is already limited to the applicant (SR 7).

During the comment period, DMR did not receive any comments regarding riparian access. Based on the lack of public comments, and the evidence presented in DMR's site report, 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 site is entirely enclosed by pound infrastructure operated and maintained by the applicant. The proposal would comprise most of the impounded area, but approximately 10 feet, at minimum, would remain for navigation between the pound shoreline

and the western, northern, and eastern boundaries (SR 7). This space would likely facilitate navigation for small vessels, such as a rowboat. Because the proposal is located entirely within the tidal impoundment that is operated by the applicant, there is no public boat access to the waters where the lease is proposed (SR 7). In addition, the applicant owns the entire upland area surrounding the proposal.

During the review period, DMR did not receive any comments regarding navigation. Based on the lack of public comments, the evidence in the site report, and because the proposal is located within a tidal impoundment operated by the applicant, 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 site visit on October 28, 2020, 6 lobster trap buoys and one vessel hauling traps was observed outside the proposed lease site, and outside of the boundaries of the tidal impoundment. No commercial fishing is expected to occur within Joan's Pound (SR 7). DMR did observe several mooring and marker buoys within the pound during their site visit, but all were confirmed to belong to the applicant (SR 7). The completed application stated some intertidal harvesting of periwinkles has been observed outside of the pound (App 11). No comments were received regarding fishing in the area during the comment period.

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 all activities not conducted by individuals associated with DEI be prohibited. Because the location of the proposed lease is surrounding by property owned by the applicant, and there is no public access to the impoundment, the lease will not be conditioned to expressly prohibit any uses as the public already does not have access to this space.

**Other aquaculture uses.** There are no other aquaculture leases within Joan's Pound, but there are 8 Limited Purpose Aquaculture (LPA) licenses and 1 lease within 1 mile of the proposal. Lease EAST MCHx, is a 3.95 area experimental lease, held by DEI for the suspended culture of shellfish. The 8 LPAs within 1 mile of the proposal are held by two different individuals who are associated with the applicant (SR 7).

**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 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 DMR in 2009 indicate that the closest eelgrass to the proposed site was in Black Duck Cove, approximately 200 feet outside of Joan's Pound (SR 9). During DMR's visit to the site on October 28, 2020, no eelgrass was observed from the shoreline of the pound (SR 9).

During their visit to the site, DMR staff observed a double-crested cormorant (*Phalacrocorax auritus*), several bufflehead (*Bucephala albeola*), and a common loon (*Gavia immer*). According to data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), the proposed lease is located more than 350 feet to the northwest of crowberry blue butterfly (*Plebejus idas empetri*) habitat, which is considered a Species of Greatest Conservation Need, and is more than 2,400 feet to the southwest of Tidal Wading Bird and Waterfowl Habitat (SR 10). During the review period for this application, 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."<sup>4</sup>

DMR did not conduct an underwater assessment of the proposed lease area but did conduct a walk around the shoreline of the impoundment and observed mud shrimp, rockweed, bladder wrack, sugar kelp, and an invasive colonial tunicate (SR 8). The applicant reports that periwinkles and green crabs have been observed in the pound (App 10). No public comments were received regarding the flora and fauna in the area.

Based on the evidence that the proposed lease does not interact with historical eelgrass beds, 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.

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<sup>4</sup> CF: Email from R. Settele to C. Burke on August 20, 2020.

**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.

**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 all species from their hatchery, the Downeast Institute, which is an approved source for all the proposed species.

**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 0.81 acres to the Downeast Institute 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:<sup>5</sup> 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 soft-shell clams (*Mya arenaria*), Arctic Surf Clams (*Mactromeris polynyma*), American/eastern oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), razor clams (*Ensis leei*), Atlantic surf clam (*Spisula solidissima*), and northern quahogs (*Mercenaria mercenaria*) 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 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 (12)(B) 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)<sup>6</sup>. Conditions

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<sup>5</sup> 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.”

<sup>6</sup> 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

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 incorporated into the 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: 2/23/21



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Patrick C. Keliher, Commissioner  
Department of Marine Resources

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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.”