



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
21 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0021

PATRICK C. KELIHER
COMMISSIONER

Dear Mr. Auger:

DMR has reviewed your application for a gear amendment for your experimental aquaculture lease, DAM DCx, located in Day's Cove, Damariscotta. Your request was processed in accordance with DMR Regulations Chapter 2.44, and no comments were received. After careful review, we find that the request to switch from using rope and fence/PVC posts to using metal rebar frames does not violate any of the lease issuance criteria set forth in 12 M.R.S.A. §6072(7-A). Because you will still be using the Zapco tubes described in your original application and decision for growing oysters, scallops and clams, and are only adjusting the framing and posts that the tubes are attached to, your proposed change is consistent with the findings of the original decision and would not result in a change to the original lease conditions. Therefore, your request has been approved, effective on the date of this letter.

An updated summary of the gear type approved for your lease is provided below.

Approved Gear Type	Dimensions	Time of year gear will be deployed
Zapco tubes	16.1"x33.5"	March-December
Metal rebar frames	10'x8'x6'	March-December
Metal rebar frames	10'x2.75'x6'	March-December

The following conditions, which were imposed on your lease, remain in place:

1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.
2. Between May 1 and July 1, except for posts, all gear must remain off the bottom to allow horseshore crabs to freely move in and out of Day's Cove.
3. Unless permission is granted by the leaseholder, recreational or commercial shellfish harvesting is prohibited within the boundaries of the lease site.
4. All product must be relayed to an aquaculture site in an area classified as "open/approved". A contamination reduction study must be completed, at the applicant's expense, according to DMR specifications, and the receiving site must be closed for harvest for a minimum of 14 days.

Please retain a copy of this letter for your records. Your original lease application and decision, any previously approved amendments, and this amendment approval letter, may serve as the operational plan for the lease.

Patrick C. Keliher, Commissioner,
Department of Marine Resources

Date 8/24/2020

STATE OF MAINE

DEPARTMENT OF MARINE RESOURCES

Experimental Aquaculture Lease Application

Suspended Culture of Shellfish

Damariscotta River, Day's Cove

Mook Sea Farms Inc.

DAM DCx

August 27, 2019

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Mook Sea Farms Inc. applied to the Department of Marine Resources (“DMR”) for a three-year experimental aquaculture lease located in Day’s Cove, Damariscotta, Lincoln County. The proposed lease is 3.85¹ acres in size and is for the suspended cultivation of American/eastern oysters (*Crassostrea virginica*), bay scallops (*Argopecten irradians*), and surf clams (*Spisula solidissima*)². DMR accepted the application as complete on February 14, 2019. No requests for a public hearing were received during the comment period, and no hearing was held.

1. THE PROCEEDINGS

Notice of the application and the 30-day public comment period were provided to state and federal agencies, riparian landowners, the Town of Damariscotta and its Harbormaster, and others on DMR’s mailing list. Notice of the application and comment period was published in the March 14, 2019 edition of the *Lincoln County News*. The evidentiary record regarding this lease application includes the application, DMR’s site report dated June 12, 2019, and the case file. The evidence from each of these sources is summarized below.³

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The purpose of the proposed lease site is to explore the feasibility of cultivating shellfish using a novel type of suspended gear (App 4). The applicant intends to deploy plastic mesh tubes (referred to in the application as “Zapco tubes”), A total of 13,464 Zapco tubes are proposed to be deployed on the lease site. (App 6). The tubes would be hung from a line supported by posts, and have flotation built into the ends, which would allow the bags to flip with the changing tides (App 4). Tubes would be in use during ice free months (March-January), seeded in the spring, and harvested in the middle of summer or early fall. The gear would be removed by the end of December, except for stake footers, if used (App 4). Stake footers are

¹ Applicant originally requested 4 acres. DMR calculations, based on the coordinates provided, indicate the proposed site is 3.85 acres.

² Applicant and the Site Report originally referenced *Spisula solida* but follow up communication with the applicant (via e-mail on July 29, 2019) clarified that the surf clam species to be cultivated is in fact, *Spisula solidissima*.

³ These sources are cited, with page references, as CF (case file), App (application), SR (site report).

wider sleeves that are sunk into the mud in which posts could be placed. Shellfish from the site would be overwintered at one of the applicant's other lease sites (App 5).⁴

The proposed lease site is in a water quality area classified as "Conditionally Restricted" by DMR's Bureau of Public Health (App 1)⁵. Due to the proposal being sited in a conditionally restricted area, there is a requirement to relay product to an area classified as "open/approved" for a predetermined period prior to harvest. The Aquaculture Division, after consultation with the Bureau of Public Health⁶, informed the applicant that if the proposal is granted they would be subject to one of the two options listed below:

1. Complete a contamination reduction study, at the applicant's expense and according to DMR specifications, and the receiving site will be closed for harvest for a minimum of 14 days; or
2. Do not complete a contamination reduction study and the receiving site will be closed for harvest for 60 days.

The applicant indicated that they would prefer option one⁷. Given this, a contamination reduction study will need to be completed, and the receiving site will be closed for harvest for a minimum of 14 days. If the proposal is granted, a condition reflecting this restriction will be placed on the lease.

B. Site Characteristics

On April 18, 2019, 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 site occupies shallow subtidal waters in Day's Cove, Damariscotta River (SR 2). Tidally exposed mudflats lie between the proposed lease site and the uplands to the north, east and south. At extreme tides of less than 0.0 feet, portions of the proposed lease are expected to be devoid of water (SR 7). Navigable waters of the Damariscotta River lie to the west (SR 2).

⁴ The applicant intends to overwinter product on their other active lease sites DAM PP and DAM EL3.

⁵ When the Applicant applied, the proposed site was in a water quality area classified as "prohibited", it has since been reclassified as "conditionally restricted" by DMR's Bureau of Public Health

⁶ CF: Email to A. Ellis, B. Lewis, and E. Wilkinson from K. Kanwit dated July 31, 2019

⁷ CF: Email to E. Wilkinson from B. Mook dated August 6, 2019



Image 1: Location of the proposed lease site within Day's Cove

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 the site visit, DMR staff observed many houses and commercial properties along the adjacent shoreline to the north and east of the proposed lease site (SR 8). While homes were present along the southern shoreline, it is less densely populated. The western shoreline of the Damariscotta River is also densely populated by commercial and residential properties, including a boatyard (SR 8). During the site visit, DMR staff did not observe any docks with which the proposed lease might interfere (SR 8). Kayaks were observed on the property on the point to the northeast. Because of the restrictive water depths and a lack of docks, hand-carry watercraft are likely a more common means of access to surrounding properties

(SR 8). The Harbormaster Questionnaire indicates that the proposed lease site will not interfere with the ability of riparian landowners to access their property.⁸

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

B. Navigation

At low tidal stages water depths in Day's cove are less than 1 foot, and navigation is limited. Vessels transiting the upper Damariscotta River during low tide stages use the marked navigation channel located over 400 feet to the west of the proposed lease site (SR 9). At higher tidal stages, water depths are conducive to navigation closer to the lease site. There are approximately 425-450' between the eastern shoreline (Mean High Water) of the Damariscotta River and the proposed lease site (SR 9). The applicant plans to leave 9-foot-wide corridors between lines of floating gear. These channels would be large enough for small hand and power watercraft (kayaks, canoes, skiffs) to navigate through the area, providing they are comfortable travelling between lines of posts and floating gear (SR 9).

Should the lease be granted, the available area for tacking small sailboats between the eastern shore and existing aquaculture operations along the west side of the river will be reduced by approximately 790 feet, at the narrowest. Vessels under sail will not be able to safely travel through the 9-foot-wide navigation corridors proposed by the applicant (SR 9). The Harbormaster Questionnaire noted that given the proximity of existing aquaculture operations in the area, small boat sailing will become difficult depending on wind direction. Should this lease be granted, it will pose a new challenge for small boat sailors trying to tack across the upper bay of the Damariscotta River. In addition, with the location of a boatyard opposite the proposed lease area, boat access via motor and sail is imperative. The Harbormaster Questionnaire expressed concern that an additional aquaculture lease crowding the remaining navigable waters in the area would complicate the business of the boatyard.⁹ However, at this time, one of the two closest existing aquaculture leases (DAM JP2) to the proposed site is approved only for bottom culture (SR 10)¹⁰. Should this application for a lease in Day's Cove be approved, it is not likely to interfere with access to the boat yard, given its location across the river from the boatyard.

The applicant noted that there is frequent use of the channel during the summer months, but that since their proposed lease site is on a shallow mudflat it is not inside any boat moorings or constant boat activity (App 9). The site report notes that access to the marked navigation channel will remain unobstructed (SR 13). While navigation for some vessels under sail may be challenging, the location of this lease site does not preclude it, and navigable waters remain in the marked channel. During the review period, DMR did not receive any other comments concerning navigation. Based on the absence of public comments, the fact that the lease is located on the opposite side of the river from the boatyard and because

⁸ CF: Harbormaster Questionnaire signed April 2, 2019

⁹ CF: Harbormaster Questionnaire signed April 2, 2019

¹⁰ DAM JP2 does have an application in for consideration of suspended gear, it has not yet been approved.

the marked navigation channel will remain unobstructed, it is reasonable to conclude that navigation in the area will not be unduly affected by the proposed lease application.

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

C. Fishing & Other Uses

Fishing. At the time of the site assessment, no commercial or recreational fishing activities were observed within the boundaries of the proposed site (SR 9). DMR recognizes that commercial and recreational fishing are more prevalent during the summer months. Due to the timing of the site visit, it is likely that other activities occur near the proposed lease that were not witnessed during the site visit (SR 9). Recreational hook and line fishing is common in the Damariscotta River (SR 9). During the review period, DMR did not receive any feedback regarding commercial or recreational fishing. Given the absence of public comments expressing concerns regarding interference with fishing, it is reasonable to conclude that there are no concerns about the effects the proposed site may have on commercial or recreational fishing. It appears from this evidence that the proposed lease is unlikely to unreasonably affect commercial and recreational fishing activities in the area.

Exclusivity. The applicant requests that any recreational or commercial shell fishing be prohibited from the lease site (App 9). Conditions reflecting these restrictions will be included in the lease. Such a restriction is reasonable to enable the project to be carried out while also encouraging the greatest number of compatible uses of area, as provided in 12 MRSA §6072-A(15).

Other aquaculture uses. There are seven Limited Purpose Aquaculture (LPA) licenses and nine leases located within one mile of the proposed lease site (SR 9). The nearest active aquaculture site is DAM NP, which is located 790 feet to the west and approved for suspended culture of American oysters. Two leases¹¹, and three LPAs¹² are also located opposite the proposed lease, along the western edge of the navigation channel. Except for lease DAM JP2, each of these leases and licenses is approved for the use of floating gear to culture American oysters. Due to this distance, and the absence of public comments concerning the impact of the proposal on existing aquaculture operations, it is unlikely that the activities proposed by the applicant will negatively impact existing aquaculture leases and licenses in the area. Based on this evidence, it appears that the proposed lease will not unreasonably interfere with other aquaculture uses in the area.

Other water-related uses. During the review period, the Department did not receive any comments detailing other uses of the area 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.

¹¹ DAM JP and DAM JP2

¹² CPRE118, RMAC218, and YOST118

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

During the site visit on April 18, 2019 DMR staff observed herring gulls (*Larus argentatus*), buffleheads (*Bucephala albeola*), and cormorants (*Phalacrocorax auratus*) near the proposed lease site. According to data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), the proposed site abuts, but is not within an area designated as Tidal Wading Bird and Waterfowl Habitat (SR 11). DMR sent a copy of the application to MDIFW for their review and comment. MDIFW indicated that “minimal impacts are anticipated.”¹³

Data collected by DMR, in 1997 and 2019, indicate that the nearest eelgrass bed was located more than 2,300 feet to the northeast of the proposed site (SR 12) The proposed lease, if granted, will not result in physical disturbance to this existing eelgrass bed (SR 12).

According to DMR, a population of horseshoe crabs (*Limulus Polyphemus*) exists throughout Day’s Cove.¹⁴ Breeding horseshoe crabs have been documented and monitored by DMR and the Damariscotta River Association for several years. These crabs seem to be present from mid-May to late June, and routinely move in and out of the cove with the tide (SR 12). The applicant did not note the presence of horseshoe crabs on their application, but potential conflict could be minimized by positioning oyster flip bags so that they always remain suspended above the mud (SR 12). DMR will condition the lease, so that between May 1 and July 1, except for posts, all gear must remain off the bottom to allow horseshoe crabs to freely move in and out of Day’s Cove.

Based on the evidence, and given the condition described above, it appears that the proposed aquaculture activities will not unreasonably interfere with the ecological functioning 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, “there are no beaches, parks, or docking facilities owned by federal, state, or municipal government within 1,000 feet of the proposed lease site” (SR 13).

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 municipal, state, or federal governments.

F. Source of Organisms

The applicant intends to source American oysters, bay Scallops, and surf clams from Mook Sea Farms, Walpole, Maine, which is a DMR approved source of stock (SF 13).

¹³ CF: Email from R. Settele (MDIFW) to C. Burke dated March 29, 2019.

¹⁴ CF: Email from P. Thayer dated June 7, 2019

Therefore, the applicant has demonstrated that there is an 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. Given the conditions related to gear deployment, 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 3.85 acres to Mook Sea Farms 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 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 suspended culture of American/eastern oysters (*Crassostrea virginica*), bay Scallops (*Argopecten irradians*), and surf clams (*Spisula solidissima*). 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.

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.”

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 MRSA §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 both U.S. Coast Guard requirements and DMR Rule 2.80.
2. Between May 1 and July 1, except for posts, all gear must remain off the bottom to allow horseshoe crabs to freely move in and out of Day's Cove.
3. Unless permission is granted by the leaseholder, recreational or commercial shellfish harvesting is prohibited within the boundaries of the lease site.
4. All product must be relayed to an aquaculture site in an area classified as "open/approved". A contamination reduction study must be completed, at the applicant's expense, according to DMR specifications, and the receiving site will be closed for harvest for a minimum of 14 days.

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: _____

Aug 27, 2019



Patrick C. Keliher, Commissioner
Department of Marine Resources

¹⁶ 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.”