

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES

Experimental Aquaculture Lease Application
Suspended culture of marine algae
Sheepscot River, Southport

Jodi M. Brewer
SHE BIX

July 16, 2018

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Jodi M. Brewer applied to the Department of Marine Resource for a three-year experimental aquaculture lease on 3.98¹ acres located in the Sheepscot River, west of Boston Island, Southport, Lincoln County, for the cultivation of sugar kelp (*Saccharina latissima*), horsetail kelp (*Laminaria digitata*), winged kelp (*Alaria esculenta*), and strap kelp (*Saccharina latissima*) using suspended culture techniques.² DMR accepted the application as complete on April 20, 2018. No one intervened in this case. The Department received one comment during the comment period. However, no requests for a public hearing were received, and no hearing was held.

1. THE PROCEEDINGS

Notice of the application, the DMR site report, and the 30-day public comment period were provided to state and federal agencies, riparian landowners, the Town of Southport and its Harbormaster, and others on the Department's mailing list. Notice of the application and comment period was published in the *Boothbay Register* on May 4, 2018.

The evidentiary record before the Department regarding this lease application includes the application and the Department's site report dated July 9, 2018, as well as 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 assess the commercial feasibility of cultivating marine algae (App 9). Marine algae will be cultivated using 13 longlines that are each 1,450 feet in length and deployed seven feet below the surface of the water (App 8-9). The longlines will be seeded in fall or early winter (App 8). Once seeding has ended, the site will be monitored on a weekly basis (App 8). In April or May, marine algae will be harvested from the longlines by hand (App 8). After harvest, the longlines will

¹ Applicant originally requested 4 acres. DMR calculations, based on the provided coordinates, indicate the area is 3.98 acres.

² Per the site report, strap kelp is a morphologically distinct strain of *Saccharina latissima*.

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

be removed from the proposed site and returned once seeding resumes in the fall. The moorings will remain on the proposed site throughout the year (App 8).

B. Site History

The applicant currently has two Limited Purpose Aquaculture License (LPA) sites located within the western boundary of the proposed lease area.⁴ The LPAs were originally granted in 2017 for the cultivation of marine algae using suspended culture techniques (SR 2). The Department has received no complaints regarding the operation of these licenses. The LPA sites within the boundaries of the proposed area will be relinquished once the lease is issued (App 1).

C. Site Characteristics

On May 25, 2018, 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 subtidal waters in the Sheepscot River, near the western shore of Boston Island (SR 2). The uplands of Boston Island are characterized by a mixed forest with some residential buildings (SR 2). At mean low water, the distance from the eastern boundary of the proposed lease site to the nearest point on Boston Island is ~690 feet (SR 5). At mean low water, water depths range between 27.8 feet at the northwest corner of the proposed lease and 43.8 feet at the center of the site (SR 6). 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). However, any changes to this classification will not affect the harvest of marine algae, because such classifications are currently only relevant to shellfish operations.

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 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 for the lease site.

A. Riparian Access

During the site visit, no docks or moorings were observed within the vicinity of the proposed lease site (SR 6). Per the site report:

⁴ The LPAs are designated JBRE317 and JBRE417. See page 8 of the site report for a map of the LPA locations.

At the closest point, there are approximately 690 feet between the proposed lease and Boston Island at mean low water (MLW); given this distance the proposed lease will not unreasonably interfere with riparian owner access from this shoreline. Docks and moorings on Boston Island's eastern shore appear to provide access to the residential buildings located there. The proposed lease will not interfere with riparian ingress and egress from this infrastructure (SR 6).

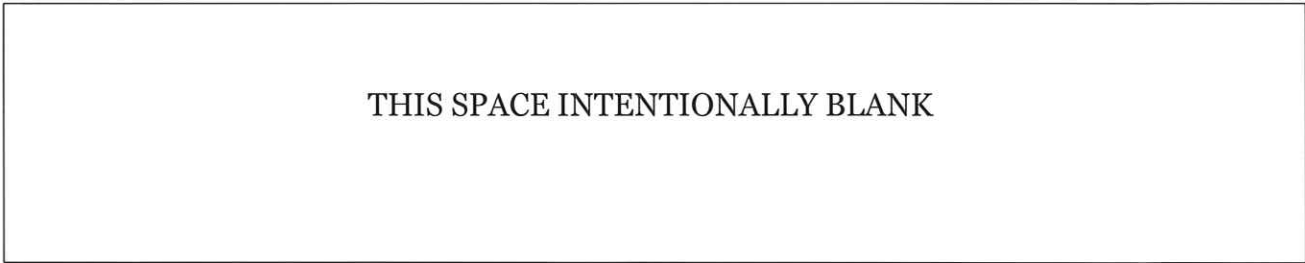
During the review period, the Department did not receive any comments concerning access to riparian owned land. Based on the absence of comments it is reasonable to conclude that there are no concerns about the effects the proposed site may have on riparian ingress and egress.

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

B. Navigation

During the site visit staff observed two vessels transiting the proposed lease area (SR 6). The proposed site is located “~400 feet to the east of the marked channel that runs north-south in the Sheepscoot River” (SR 6). Harding Ledge is located between the western boundary of the proposed site and the main navigational channel (SR 6). Considering the location of the ledge in relationship to the location of the main navigational channel and proposed lease site: “it is unlikely that mariners navigating north and/or south in the Sheepscoot River would be negatively impacted by the proposed lease” (App 6). The site report notes that the ledges would also prevent most vessels from navigating across the middle of the site from the west or east (SR 6).

Vessel traffic would likely navigate between the proposed site and Boston Island before traveling west or east (SR 7). The proposed site is ~690 feet from the western shore of Boston Island, which provides an adequate navigable area for vessels to traverse between the proposed site and Boston Island (SR 7). Vessels transiting between the main navigational channel and other locations within the vicinity of the proposed site including Sawyer Island, Isle of Springs, Townsend Gut, and Ebenecook Harbor could navigate past the lease area (SR 6). Figure 1 depicts the location of the proposed lease site in relationship to the ledges and other landmarks in the area.



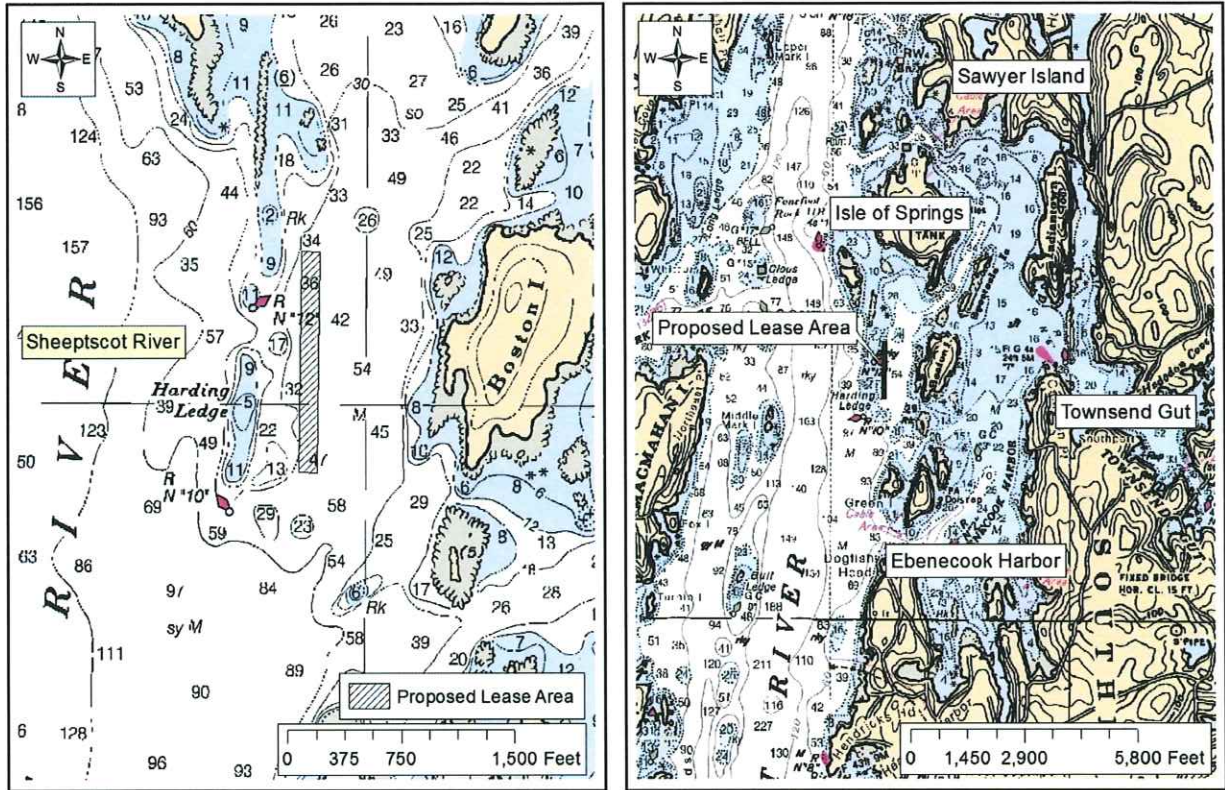


Figure 1: Depicting the location of the proposed lease site in relationship to ledges and landmarks in the area. Map created by Department staff.

All gear, except for moorings will be removed from the proposed site during June, July, and August when recreational boating activities are most prevalent (App 9, SR 7). During the review period, the Department did not receive any comments regarding navigation. Based on the absence of comments, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on navigation within the area.

It appears from this evidence that navigation in the area will not be unduly affected by the presence of the proposed lease site. Aquaculture lease sites are required to be marked for navigation purposes in accordance with U. S. Coast Guard requirements.

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

C. Fishing & Other Uses

During the site visit, staff observed three lobster buoys between the proposed lease site and Boston Island (SR 7). In addition, a lobster boat set traps near and within the boundaries of the proposed site (SR 7). During the review period, the Department received a comment from Tyler R. Hodgdon, which noted that there is “significant boat traffic, especially during the summer months” in the area.⁵ Mr.

⁵ CF: Email from T. Hodgdon to C. Burke and A. Ellis dated May 6, 2018.

Hodgdon also speculated that the proposed site would interfere with lobster fishing.⁶ Ms. Brewer responded to Mr. Hodgdon's comment by explaining the seasonality of the proposed operation and gear configuration.⁷ The Department did not receive any other comments concerning fishing or other water related uses of the area. Per the site report: "Since the applicant plans to remove gear, excluding moorings, from the proposed lease site during June, July, and August, the site will not unreasonably interfere with lobster fishing during these months" (SR 7).

The application notes that recreational fishing and boating occurs during the summer months (App 9). However, it is unlikely that the proposed site would interfere with this recreational fishing and boating as all gear, except for moorings is removed from the area during summer months. It appears from this evidence that the proposed lease site is unlikely to affect fishing and recreational boating in the area.

Exclusivity. The applicant requests that lobster fishing and dragging be prohibited within the boundaries of the proposed site from September through May, when the longlines are deployed, to avoid gear entanglement (App 9).

These restrictions are 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 MRS §6072-A (15). Conditions reflecting these restrictions will be included in the lease.

Other aquaculture uses. Except for the LPAs held by the applicant, the closest aquaculture site is an LPA located 4,000 feet to the southeast of the proposed site (SR 8). The LPA is JSMI116 and is for the suspended culture of American/eastern oysters (*C. virginica*).

Based on this evidence, it appears that the proposed lease will not unreasonably interfere with fishing or other 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

Based on data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIF&W), a bald eagle (*Haliaeetus leucocephalus*) nest is located ~900 feet to the southeast of the proposed lease site (SR 9). In addition, there is a seabird nesting island located ~0.5 miles to the southwest of the proposed site (SR 9). In 2005, the closest eelgrass beds were located over 2,000 feet to the north of the proposed lease site (SR 9).⁸ The applicant has not observed eelgrass within the boundaries of the proposed lease site (App 10).

DMR sent a copy of this lease application to MDIF&W for their review and comment. MDIF&W indicated: "minimal impacts to wildlife are anticipated."⁹

⁶ Ibid.

⁷ CF: Email from J. Brewer to T. Hodgdon and A. Ellis dated May 6, 2018.

⁸ Based on historical cover data collected by the Department.

⁹ CF: Email from J. Perry, MDIF&W Environmental Review Coordinator, dated May 2, 2017.

Based on this evidence, it appears that the culture of marine algae as proposed for this lease site will not 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 10).

Therefore, 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.

F. Source of Organisms

Marine algae seed will be obtained from Ocean Approved located in Saco, Maine (App 1). This is an approved source of seed stock.

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. 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 3.98 acres to Jodi M. Brewer 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 lessee¹⁰; 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 sugar kelp (*Saccharina latissima*), horsetail kelp (*Laminaria digitata*), winged kelp (*Alaria esculenta*), and strap kelp (*Saccharina latissima*)¹¹ 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 (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 MRSA §6072-A (15)¹². 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. Dragging and lobster fishing are prohibited within the lease boundaries from September 1 through May 31, 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 MRSA §6072-A (22) and DMR Rule Chapter 2.64 (13) that no substantial research has been conducted on

¹⁰ 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.”

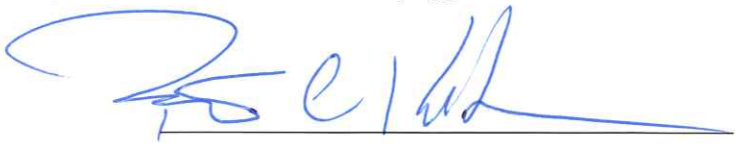
¹¹ A morphologically distinct strain of *Saccharina latissima*.

¹² 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.”

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: July 16, 2018



Patrick C. Keliher, Commissioner
Department of Marine Resources