

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
Experimental Aquaculture Lease Application
Suspended Culture of Marine Algae
Wheeler Bay, St. George, Knox County

Mark Miller
PEN SLx

November 9, 2021

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Mark Miller applied to the Department of Marine Resources (DMR) for a 3-year experimental aquaculture lease on 3.93 acres. The proposed site is located south of Eagle Island in Wheeler Bay, St. George, Knox County, Maine, for the cultivation of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail kelp (*Laminaria digitata*), irish moss (*Chondrus crispus*), and laver (*Porphyra sp.*) using suspended culture techniques. DMR accepted the application as complete on July 1, 2021.

1. THE PROCEEDINGS

Notice of the application and the 30-day public comment period were provided to state and federal agencies, the Town of St. George and its Harbormaster, and others on DMR's mailing list. Notice of the application and comment period was published in the July 29, 2021 edition of the *Courier Gazette* and was posted on DMR's website and distributed to subscribers of DMR's aquaculture list-serve. In accordance with 12 M.R.S.A. §6072-A(6), public hearings for experimental leases are optional unless DMR receives five or more written requests for a public hearing during the comment period. DMR did not receive any requests for a public hearing. Therefore, no public hearing was held. The evidentiary record regarding this lease application includes the completed lease application, DMR's site report dated September 30, 2021, and the Department's case file. The evidence from each of these sources is summarized below.¹

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The applicant proposes to culture marine algae on 15 suspended longlines, each 1,140 feet long and attached at either end to 150-foot long end lines. Longlines would be spaced 10 feet

¹ These sources are cited, with page references, as CF (case file), App (Application), SR (site report).

apart and would be suspended 7 feet below the surface of the water (App 8,9). Marine algae would be cultured from October to June annually. Seeding of longlines would occur in October and November, and harvesting would take place between mid-April through early June (App 8). According to the application, all gear except for 4 corner moorings and associated lines and poly balls would be removed from the site by mid-June each year. No specific dates were included in the application, but given the timelines provided, DMR expects that no gear, except for corner moorings and associated markers, would be present on site between June 15th and September 30th each year. As such, the lease will be conditioned to reflect this. Other aquaculture leases in the area for the suspended culture of seaweed have similar seasonality of operations and conditions reflecting when gear must be removed from the water.

When seeding or harvesting, the applicant expects to be on site daily; the applicant expects to visit the site for routine maintenance 1-2 days per week throughout the growing season or before and after storms (App 9). Harvesting would be conducted by hauling longlines into a lobster boat and cutting them by hand. No machinery aside from that typically found on a lobster boat (such as a hydraulic hauler) would be used on the site. The applicant expects to service the site from a 38' diesel powered lobster boat, and a 14' Carolina skiff with a 40 HP outboard motor (App 10).

B. Site Characteristics

DMR scientists conducted a site visit of the proposed lease area on September 17, 2021 (SR 2). The proposed lease is in subtidal waters south of Eagle Island in Wheeler Bay. Granite ledge composes most of the surrounding shorelines, while evergreen forests dominate the uplands (SR 2). DMR observed multiple houses on Eagle Island, and residential properties, moorings, and docks in both Rackliff and Wheeler Bays (SR 2). During DMR's visit to the site, depths at the corners of the proposed site ranged from 41.9 to 57.8 feet. Correcting for tidal variation derives depths between 32 and 49 feet at mean low water (SR 2).

According to the site report, from the proposed southeast corner there are approximately 1,050 feet to the southern section of the Norton Island Ledges, and approximately 1,500 feet between the proposed northeast corner and the northern section of the Norton Island Ledges (SR 6). There are approximately 1,060 feet between the proposed northwest corner and Eagle Island, and approximately 1,700 feet between the proposed southwest corner and Seavey Ledges (SR 6).

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 in Wheeler Bay, in St. George, Maine. There are no riparian landowners within 1,000 feet of the proposed site. However, DMR's site report notes that Eagle Island hosts multiple houses, and while moorings were not observed during their visit to the site in September 2021, what appeared to be moorings were observed by DMR staff off the northern shore of Eagle Island on December 6, 2018 (SR 7). In addition, DMR's site report notes that it appears the main access point to Eagle Island is on the island's northern shore. Given the distance between the proposed lease and Eagle Island, and because what appears to be the island's main access point is on the island's northern shore while the proposed lease is located off the southern shore, it is unlikely that access to the island would be impacted by the proposed lease.

The proposed aquaculture lease is located over 2,000 feet from other shorefront parcels in Wheeler and/or Rackliff Bays, and as such, the proposal is unlikely to impact access to other properties.

No public comments were received regarding riparian ingress and egress during the comment period for this application. Because DMR did not receive any comments regarding riparian access, and considering 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 is in Wheeler Bay, and is surrounded by islands, shallow water, or ledges on all sides (SR 7). Eagle Island is located to the north, Seavey Ledges to the southwest, Norton Island Ledges parallel the eastern boundary of the proposal and shallow water and ledges are located to the west and south (SR 7). There are also 3 active aquaculture leases and 4 active Limited Purpose Aquaculture (LPA) licenses in the general vicinity of the proposed activities. Figure 1 displays a nautical chart of the area as well as the proposed lease location, and active leases and LPAs in the area.

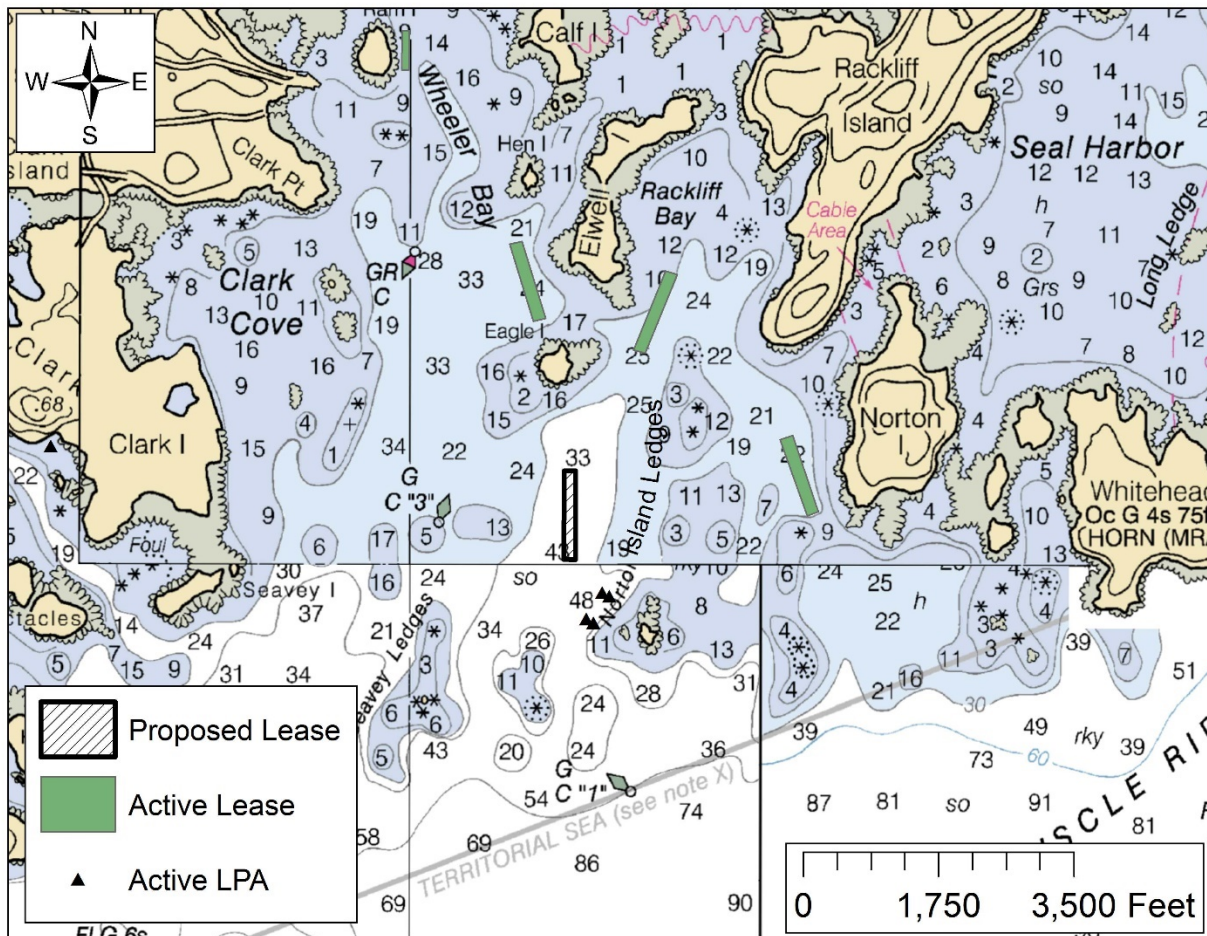


Figure 1: Nautical chart and nearby aquaculture operations in the vicinity of the proposed lease (Image taken from DMR Site Report)

According to DMR’s site report, there are multiple navigational routes in and out of Wheeler Bay, and during their visit to the site in September 2021, lobster boats and a sailboat were observed operating to the south of the proposal. In addition, the docks and moorings in the upper reaches of the bay, as well as the Hurricane Island Outward Bound School located to

the northwest of the proposal indicate it is likely that Wheeler Bay experiences heavy recreational and commercial boat traffic, especially in the summer months (SR 7).

A green navigational aid marks the western side of a channel leading into Wheeler Bay and is located approximately 1,625 feet to the west of the proposed lease site (SR 7). If the proposed site is approved, it would add an additional navigational hazard to an area with existing natural obstacles and active leases. However, the proposed activities would not create a bottleneck in the channel greater than what already exists, as boats navigating within the channel would need to operate within the 1,600 feet that separate the Norton Island Ledges and unnamed ledges located to the south of the proposal (SR 7).

DMR's site report notes that boats likely also enter Wheeler Bay between Seavey Island and Seavey Ledges to the west of the proposal, and between Norton Island and Norton Island Ledges to the east of the proposal (SR 7). The Norton Island Ledges naturally constrict the east-west navigation within Wheeler Bay, though vessels operating east-west through these ledges would be able to navigate north or south of the proposal as there are over 500 feet available for navigation between the proposed lease and the nearest navigational obstacle in either direction (SR 7). In addition, the applicant has proposed to remove all gear except for 4 corner markers and moorings from July to October, and the lease will be conditioned to reflect this, so the proposal is unlikely to interfere with navigation when boating in the area is likely the heaviest (SR 7). As gear would be on site in mid-June and October, when navigation may still be moderate or heavy, some mariners may have to navigate around the proposed site. The St. George Harbormaster, in their review of the application, indicated that the proposed aquaculture activities would not affect navigation².

As described above and noted in Figure 1, there are 3 active aquaculture leases and 4 LPA licenses nearby the proposed lease. The leases are all located north or east of the proposal, and DMR's site report states that the addition of the proposed lease is unlikely to pose unreasonable interference for boats navigating in the area (SR 8). There would be approximately 500 feet between the proposal and the closest LPA license to the south, and this distance should be adequate for boaters to navigate between (SR 8). However, DMR's site report does indicate that it will be important for both the LPAs and the proposed lease to be properly marked so boaters can easily identify the operations (SR 8). Chapter 2.80 of DMR Regulations requires that all leaseholders mark their site, and lease sites must be marked in

² Completed Harbormaster Questionnaire, signed by R. Cline on July 29, 2021.

accordance with the United States Coast Guard's Aid to Private Navigation standards and requirements.

During the comment period, DMR did not receive any comments related to navigation from members of the public or other aquaculture lease and license holders in the area.

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

C. Fishing & Other Uses

Fishing. During DMR's visit to the site on September 17, 2021, moderate to heavy lobstering was observed in the general vicinity of the proposal. DMR counted twelve lobster buoys within or along the boundaries of the proposed lease, with more activity occurring in the northern half of the proposed lease area (SR). The applicant has indicated that those who lobster and purse seine in the area are also the same individuals involved with the application (App 10). The St. George Harbormaster indicated in their review of the application that there is lobstering from mid-June into fall within the proposed lease area³. If the proposed lease were granted, it would prevent lobster and purse seining within the boundaries of the lease area from October until June when longlines would be present on the site. However, because outside of this time only corner moorings and markers will be on site, the area would be available and open to fishing from mid-June through September. As the Harbormaster has indicated, lobstering occurs in the summer into fall, and as such, the proposed activities are unlikely to interfere with lobstering and purse seining during the summer months when these activities are at their heaviest. While there may be some overlap as the seasons are changing, such as in October when gear would be deployed on the site, DMR's site report indicates that it appears there would be adequate room for lobstering to continue in the waters surrounding the proposed lease (SR 9).

Recreational fishing also likely occurs within Wheeler Bay, and the completed application indicates that mackerel and striped bass are the most targeted recreational species. The applicant indicates recreational fishing is a seasonal activity, occurring mostly in the summer, and should not be impacted by the proposal (App 10). Given that the applicant is proposing to remove gear during the summer months, the proposed aquaculture activities should not interfere with those wishing to recreational fish in the area.

³ Completed Harbormaster Questionnaire, signed by R. Cline on July 29, 2021.

During the comment period, no comments from commercial or recreational fishermen were received. Based on the lack of public comments, evidence from DMR's site report and the St. George Harbormaster, and due to the seasonality of the proposed operations, it is reasonable to conclude that the proposed aquaculture activities will not unreasonably interfere with fishing.

Exclusivity. The applicant has not requested exclusive use of the site but does ask that boaters avoid the corner markers, and when gear is deployed on the site that vessels transit the area cautiously to avoid moorings and dropper buoys. Additionally, the applicant has requested that because the longlines would be deployed 7 feet below the surface, vessels that draw more than 5 feet of water should avoid the area (App 12).

Other aquaculture uses. As described earlier in this document, there three active aquaculture lease and four LPA licenses within one mile of the proposed lease. The four LPAs, at the center point, are about 550 feet to the southeast of the proposed lease (SR 9). Given the approved gear orientation for the LPAs, there would be approximately 500 feet between the LPAs and the proposed lease area (SR 9). No comments were received from other aquaculture lease or license holders in the area.

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

Based on historical eelgrass (*Zostera marina*) data collected by the Maine Department of Marine Resources in 2003 and 2005, the closest documented eelgrass is located over 2,500 feet from the proposed site. In addition, given the water depths at the proposed site, eelgrass beds are not expected to establish within or nearby the proposal (SR 10).

According to data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), Tidal Wading Bird and Waterfowl Habitat, which is defined as significant wildlife habitat by Maine's Natural Resource Protection Act is located approximately 2,500 feet from the proposed lease (SR 10). DMR sent the application to the MDIFW for their review and

comment, to which they responded that “minimal impacts to wildlife are anticipated for this project”⁴.

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 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

There are no beaches, parks, or docking facilities owned by federal, state, or municipal governments within 1,000 feet of the proposed lease site. In addition, no comments were received to indicate there is a concern regarding the public use and enjoyment of this area if the proposed lease is 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 marine algae from Atlantic Sea Farms in Saco, Maine, which is an approved source 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.

⁴ CF: Email to C. Burke from R. Settele on August 2, 2021

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 an experimental lease of 3.93 acres to Mark Miller 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 sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail kelp (*Laminaria digitata*), irish moss (*Chondrus crispus*), and laver (*Porphyra sp.*) 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 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.”

\$5,000.00, conditioned upon performance of the obligations contained in the aquaculture lease documents and all applicable statues and regulations.

6. CONDITIONS TO BE IMPOSED ON LEASE

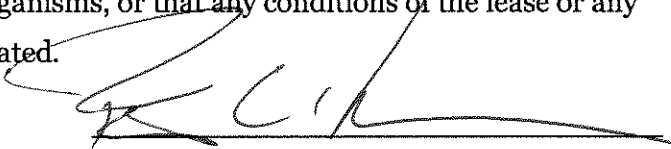
The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities, pursuant to 12 MSRA §6072-A (15)⁶. Conditions are designed to encourage the greatest multiple compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purpose of the lease. The following conditions have been imposed on this lease.

1. Except for four corner moorings and associated lines and buoys, no gear shall be deployed on the lease site from June 15th to September 30th.

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: Nov 9th, 2021



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.”