

STATE OF MAINE  
DEPARTMENT OF MARINE  
RESOURCES

Keith Miller & Ryan Miller  
PEN NIX

Experimental Aquaculture Lease Application  
Suspended Culture of marine algae  
St. George, Maine

January 28, 2020

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

Keith Miller and Ryan Miller applied to the Department of Marine Resources (“DMR”) for a three-year experimental aquaculture lease located west of Norton Island in Rackliff Bay, in St. George, Knox County, Maine. The proposed lease is 3.85<sup>1</sup> acres and is for the suspended cultivation of sugar kelp (*Saccharina latissima*), skinny kelp<sup>2</sup> (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail kelp (*Laminaria digitata*), dulse (*Palmaria palmata*), Irish moss (*Chondrus crispus*), and laver (*Porphyra sp.*).

**1. THE PROCEEDINGS**

DMR accepted the application as complete on May 6, 2019. Notice of the application and the 30-day public comment period were provided to state and federal agencies, riparian landowners, 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 May 23, 2019 edition of the *Courier Gazette*. During the comment period, DMR did not receive any requests for a public hearing, and no hearing was held. The site report was issued on October 18, 2019. The evidentiary record regarding this lease application includes the application, DMR’s site report, and the case file. The evidence from each of these sources is summarized below.<sup>3</sup>

**2. DESCRIPTION OF THE PROJECT**

**A. Proposed Operations**

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<sup>1</sup> Applicant requested 4 acres. DMR calculations indicate the area is 3.85 acres

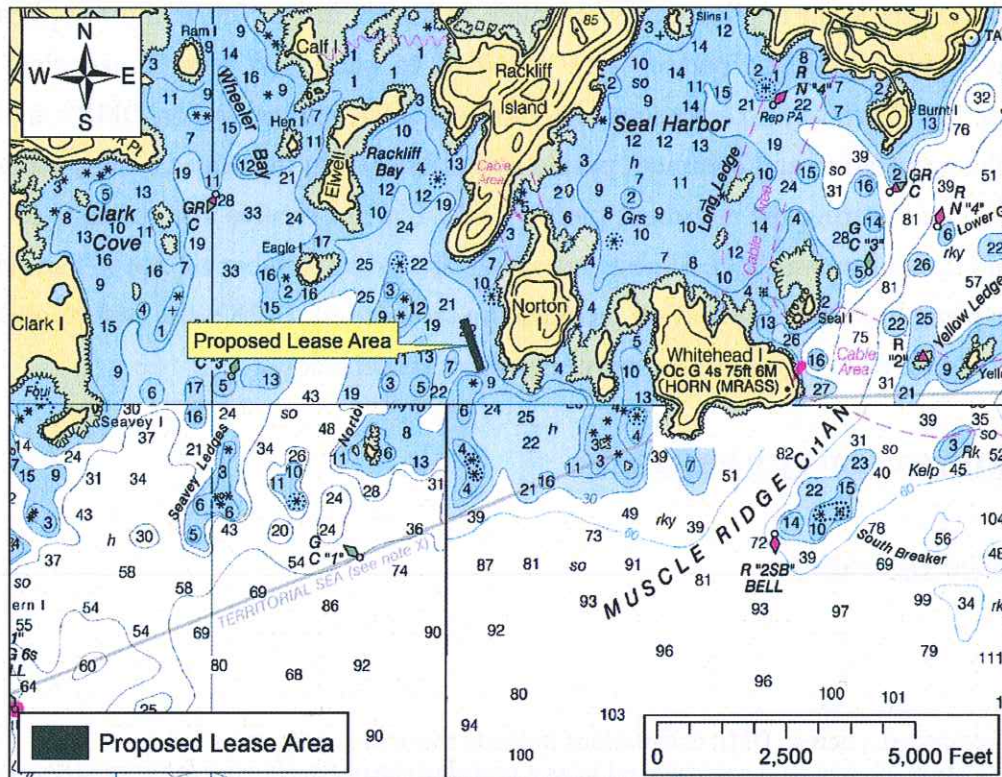
<sup>2</sup> In the application, skinny kelp was referred to as a morphotype of *Saccharina latissima* (*Saccharina latissima forma angustissima*). Skinny kelp is now considered a separate species (*Saccharina angustissima*) and will be referred to in this decision as such.

<sup>3</sup> These sources are cited, with page references, as CF (case file), App (Application), SR (site report).

The purpose of the proposed experimental lease site is to determine the viability of a commercial seaweed operation (App 5). The applicant is proposing to culture marine algae from October to June, annually, and intends to culture algae on 1,000-foot horizontal lines suspended 7 feet below the surface of the water. There will be 13 longlines in total, spaced 10 feet apart (App 12-14). Longlines, depth control lines and buoys, and concrete weights will be removed by mid-June, while 30 cement moorings and associated mooring lines and buoys are proposed to remain onsite throughout the year (App 15, SR 2).

**B. Site Characteristics**

The proposed lease occupies subtidal waters west of Norton Island and south of Rackliff Island in Rackliff Bay (SR 2). The shoreline of Norton Island is rocky and evergreen forests dominate the uplands (SR 2). No development was observed along the western shore of Norton Island. Residential buildings were observed on Rackliff Island, to the north of the proposed site (SR 2). During DMR’s site visit on September 5, 2019, depths at the corners of the proposed site ranged from 22.6-27.5 feet. When correcting for tidal variation, depths are approximately 3.8 feet lower at mean low water (SR 2). Figure 1 shows the location of the proposed lease and the surrounding area.



**Figure 1: Vicinity Map**



### **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 available source of organisms to be cultured on the lease site.

#### **A. Riparian Access**

The proposed lease occupies subtidal waters west of Norton Island and south of Rackliff Island in eastern Rackliff Bay (SR 7). During DMR's visit to the site on September 5, 2019, no docks or moorings were observed in the general vicinity of the proposed lease, and access to the Rackliff Island shore would not be impacted as the proposed site is more than 1,000 feet south of the island (SR 7).

The Norton Island shoreline is approximately 300 feet from the proposed site at mean low water (SR 7). Because the proposed site runs parallel to Norton Island, riparian owners accessing the western shore of the island may have to navigate around the proposal. However, access to the island would not be prevented by the lease (SR 7). The Harbormaster for the Town of St. George indicated that the proposed aquaculture lease would have no affect on riparian ingress and egress.<sup>4</sup>

During the comment period, DMR did not receive any comments from riparian landowners. Based on the lack of public comments, and the information contained in the site report and Harbormaster Questionnaire, it is reasonable to conclude that riparian ingress and egress will not be unduly affected by the proposed application.

**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 to the west of Norton Island in southeast Rackliff Bay (SR 7). Shoal water located in the mouth of the Rackliff Bay impacts navigation in and out of the bay,

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<sup>4</sup> CF: Harbormaster Questionnaire signed June 5, 2019.

and deeper channels lead into the bay on each side of the shoal (SR 7). The proposed lease would sit in the easternmost of these channels, and there are approximately 575 feet between the proposal and the shallow area (SR 7). Unmarked tidally exposed ledges and shoal water located 220 feet to the southwest of the southwest corner of the proposed lease likely encourages boaters to navigate to the west of the proposed lease location when entering and exiting the bay (SR). Those boaters wishing to operate between Norton Island and the proposed lease would have about 300 feet to navigate at the closest point (SR 7).

The Harbormaster for the Town of St. George indicated that the proposed aquaculture lease would have minimal effect on navigation because it is outside the normally travelled channels and is in an area with minimal vessel traffic. The Harbormaster felt the only inconvenience to navigation in the area would be the need to navigate around the mooring buoys.<sup>5</sup>

While longlines, depth control lines, buoys and weights will be removed from the lease site during summer months when vessel traffic in the area is likely the heaviest, the applicant has proposed to leave thirty moorings, mooring lines, and mooring balls on the site year-round. The presence of this amount of gear year-round may have some impact on navigation throughout the year (SR 7) however, the presence of this gear is unlikely to prohibit access to Rackliff Bay, or any of the surrounding islands. Further, in any event, as indicated in section C below, DMR will require that all gear be removed from the site between June 15th and October 15th each year, further reducing the impact on navigation.

During the comment period, DMR did not receive any comments regarding navigation in the area of the proposed lease. Based on the evidence, it appears that navigation 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 September 5, 2019 about 10 lobster buoys were observed within the boundaries of the proposed lease, and more than 50 were observed between the lease and Eagle Island, to the northwest of the proposal (SR 8). The applicant has proposed to deploy longlines on site from October 15<sup>th</sup> to June 15<sup>th</sup> annually, during which time lobster fishing would be prevented. The St. George Harbormaster indicated that "lobstering occurs on the site in the summer months to early fall (June-Oct) however there is typically no gear in the

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<sup>5</sup> CF: Harbormaster Questionnaire signed June 5, 2019.



area the rest of the year”.<sup>6</sup> The applicant noted that lobstering takes place from June through early October, but that almost no fishing occurs at the site when seaweed would be growing, and that no scalloping occurs at the site. (App 6).

The applicant has proposed to have thirty concrete moorings, and associated lines and buoys remain on site year-round. Whether lobstermen might avoid the area due to the year-round moorings is unknown (SR 8). Because lobster fishing is evident in the area during the summer months, and because lobster buoys were observed within the boundaries of the proposed lease site, DMR will require that all gear be removed from the site between June 15<sup>th</sup> and October 15<sup>th</sup> each year, and the lease will be conditioned to reflect this requirement. As such, there should be minimal impact to lobstering.

No other commercial or recreational activities were observed by DMR during their visit to the site in September 2019. The site report notes that because the proposed site is subtidal, intertidal fishing could not be hindered by the proposal, and due to the seasonal nature of the proposed activities, recreational hook and line fishing would not be prevented during summer months (SR 8). The St. George Harbormaster also noted that “no known recreational fishing occurs in the area of the lease site”.<sup>7</sup>

**Exclusivity.** Due to possible interactions with gear, lobstering and dragging are restricted from the site from October 15<sup>th</sup> to June 15<sup>th</sup>, annually.

**Other aquaculture uses.** There is one active lease, and eight Limited Purpose Aquaculture (LPA) licenses within one mile of the proposed lease (SR 8). Keith Miller, one of the applicants, holds four of the nearby LPA licenses for the suspended culture of marine algae (SR 8), and is a co-lessee on the nearby lease, PEN RBx. According to the application, the LPAs held by Keith Miller<sup>8</sup> will not be renewed at the end of 2019 if the proposed lease is granted (App 7). Keith Miller and Ben Stendel have submitted an application that is currently under review for a lease off the western shore of Elwell Island.

**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.

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<sup>6</sup> CF: Harbormaster Questionnaire signed April 1, 2019

<sup>7</sup> CF: Harbormaster Questionnaire signed April 1, 2019

<sup>8</sup> KMIL117, KMIL217, KMIL317, KMIL417

**Therefore**, considering other aquaculture uses of the area, and the condition described above, 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 data collected by DMR indicated that, in 2003 and 2005, the nearest eelgrass to the proposed lease was approximately 950 feet to the northeast of the proposed site. The proposed aquaculture activities for this site will not result in physical disturbance or shading of this eelgrass bed (SR 10).

Data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) indicate that the proposed lease is located over 1,600 feet to the west of Tidal Wading Bird and Waterfowl Habitat, which is defined under Maine’s Natural Resource Protection Act as Significant Wildlife Habitat (SR 9). DMR sent a copy of the application to MDIFW for their review and comment. Seal Island, located a mile to the east of the proposed lease, is a designated seabird nesting island (SR 9). MDIFW indicated that “minimal impacts are anticipated to wildlife are anticipated for this project.”<sup>9</sup>

Based on the evidence that the proposed lease does not interact with historical eelgrass beds or mapped wildlife habitat, and because DMR’s site report does not contain concerns regarding the impact of the proposed lease on the surrounding ecosystem, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on 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 11). The nearest publicly-owned land to the proposed lease is Little Norton Island, located over 1,500 feet to the east of the proposal, and is designated as a Coastal Island and is owned by the Maine Bureau of Parks and Lands (SR 11). Norton Island, which is held in conservation by the Maine Coast Heritage Trust is 300 feet to the east of the proposed lease (SR 11).

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<sup>9</sup> CF: Email from R. Settele to C. Burke on May 23, 2019



During the review period for this application, no public comments were received regarding the public use and enjoyment of the surrounding area. Based on the lack of public comments, and evidence because DMR's site report does not contain concerns regarding the impact of the proposed lease on public use and enjoyment of the area, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may regarding public use or enjoyment.

**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 sugar kelp, skinny kelp, winged kelp, horsetail kelp, dulse, Irish moss, and laver from Atlantic Sea Farms.<sup>10</sup> This source is 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. Given the condition related to gear deployment 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.

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<sup>10</sup> When the applicant applied, Atlantic Sea Farms was known as Ocean Approved. Ocean Approved has since changed their name to Atlantic Sea Farms.

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 3.92 acres to Keith & Ryan 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<sup>11</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 sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail kelp (*Laminaria digitata*), dulse (*Palmaria palmata*), 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 (10) (s) 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>12</sup> 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 shall be incorporated into the lease:

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<sup>11</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>12</sup> 12 MRS A §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.”



1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.
2. Except for required marker buoys, all gear, including moorings, lines, and buoys, must be removed from the water between June 15<sup>th</sup> and October 15<sup>th</sup> each year.
3. Due to possible interactions with gear, lobstering and dragging are restricted from the site from October 15<sup>th</sup> to June 15<sup>th</sup> annually.

**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: \_\_\_\_\_

01/28/2020



Patrick C. Keliher, Commissioner  
Department of Marine Resources