

**STATE OF MAINE
DEPARTMENT OF MARINE
RESOURCES**

**Miss Madisyn
STG DC3x**

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

October 10, 2019

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Miss Madisyn applied to the Department of Marine Resources (“DMR”) for a three-year experimental aquaculture lease located in Deep Cove, St. George River, St. George, Knox County. The proposed lease is 3.74¹ acres and is for the suspended cultivation of sugar kelp (*Saccharina latissima*), skinny kelp² (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail kelp (*Laminaria digitata*), dulse (*Palmaria palmata*), Irish moss (*Chondrus crispus*), and laver (*Porphyra sp.*). DMR accepted the application as complete on April 19, 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 St. George and its Harbormaster, and others on DMR’s mailing list. Notice of the application and comment period was published in the May 9, 2019 edition of the *Courier Gazette*. The evidentiary record regarding this lease application includes the application, DMR’s site report dated August 21, 2019, and the case file. The evidence from each of these sources is summarized below.³

Two other applications for the suspended culture of marine algae in Deep Cove, St. George River, St. George, Knox County were received by DMR one day before and on the same day as the

¹ Applicant requested 4 acres. DMR calculations indicate the area is 3.74 acres

² 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 report as such.

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

application from Miss Madisyn⁴. Figure 1 shows the location of each of these applications and identifies other existing aquaculture activity in the area.

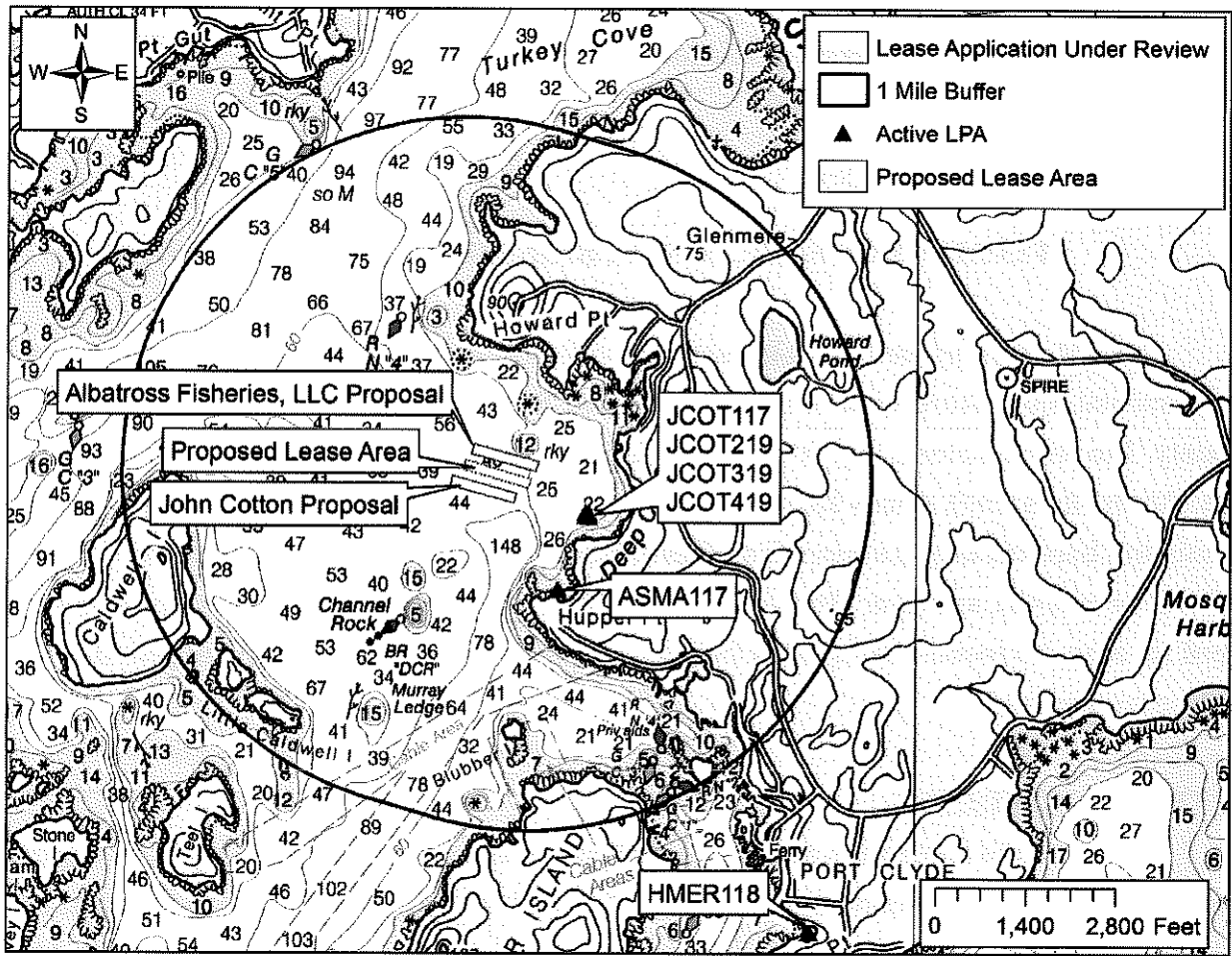


Figure 1: Current lease applications under review and existing aquaculture activity in Deep Cove.

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The purpose of the proposed experimental lease site is to determine the viability of a commercial seaweed operation (App 4). The applicant is proposing to culture marine algae from October to June, annually, and intends to culture marine algae on 1,000-foot horizontal lines suspended 7 feet below the surface of the water. There would be 14 longlines in total, spaced 10 feet apart (App 23). Longlines, depth control lines and buoys, and concrete weights would be

⁴ Application by John Cotton received on April 1, 2019 and deemed complete by DMR on April 18, 2019. Application by Albatross Fisheries, LLC received on April 1, 2019 and deemed complete by DMR on April 19, 2019.

removed by mid-June, while 32 cement moorings and associated mooring lines and buoys are proposed to remain onsite through the year (App 11, SR 2). The applicant has proposed to have a significant amount of gear (moorings, and associated lines and buoys) remaining on site year-round so the impact of these activities could be felt all year, not just in the winter when growing occurs.

B. Site Characteristics

The proposed lease occupies subtidal waters in Deep Cove in the St. George River. Port Clyde Harbor is to the southeast (SR 2). The shoreline along Deep Cove is rocky and leads to steep uplands. Houses, docks, and moorings are present to the north, east and south of the proposed site. Caldwell and Little Caldwell Islands are to the southwest (SR 2). During DMR's site visit on August 1, 2019, depths at the corners of the propose site ranged from 38.2 feet to 54.2 feet. When correcting for tidal variation, depths are approximately 0.5 feet higher at the nearest high water, and 9.1 feet lower at mean low water (SR 5).

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

During DMR's site visit, houses, docks and moorings were observed along the Deep Cove shoreline (SR 6). The closet observed mooring was approximately 970 feet to the southeast of the proposed site, and the closest observed dock was 1,180 feet to the southeast. During the review period, DMR did not receive any comments from riparian owners. The Harbormaster for the Town of St. George indicated that the proposed lease would not interfere with the ability of riparian owners to get to and from their properties.⁵ Based on the lack of public comments, and

⁵ CF: Harbormaster Questionnaire signed May 14, 2019

because the proposed site is located over 900 feet from any dock or mooring, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on riparian ingress and egress. It appears from this evidence 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 area is in navigable waters on the east side of the St. George River (SR 7). During their site visit on August 1, 2019, DMR scientists observed commercial and recreational vessels near the proposed lease; powerboats and sailboats were observed in the marked channel to the west (SR 7). The proposed lease is over 1,500 feet east of the river's marked navigation channel.

The proposed lease is in an area of the St. George River known as Deep Cove (SR 7). During the site visit, powerboats and kayaks were observed navigating within Deep Cove, and it is likely the area experiences some vessel through-traffic as Deep Cove is located between Port Clyde Harbor and the rest of the St. George River (SR 7). Longlines will be removed from the area during the summer months when vessel traffic is likely the heaviest, however, the applicant has proposed that 32 moorings and mooring balls will remain on the site year-round (App 11). Navigable waters remain between the proposed lease and nearby shorelines at mean low water, so it is likely boats will be able to continue to navigate through the area without impediment (SR 7). However, it is possible vessels will avoid the area due to the 32 mooring balls that are proposed to remain on site year-round (SR 7). While DMR considers applications in the order they were deemed complete, two other applications of a similar nature, also within Deep Cove, were received one day before, and on the same day as the application from Miss Madisyn.⁶ When considered together, it could result in more than 90 moorings remaining in the area year-round. Whether lobstermen, boaters, or others might avoid the area due to the presence of the moorings is unknown (SR 8). According to the application, kayaking occurs in the area during summer months (App 8). The Harbormaster questionnaire for this application, as well as from the harbormaster questionnaire for the application submitted by Albatross Fisheries LLC., noted that the presence of over 90 moorings in the area could have minimal impact.⁷ If the proposed lease is

⁶ Application by John Cotton received on April 1, 2019 and deemed complete by DMR on April 18, 2019. Application by Albatross Fisheries, LLC received on April 1, 2019 and deemed complete by DMR on April 19, 2019.

⁷ CF for application from Miss Madisyn: Harbormaster Questionnaire signed May 14, 2019

granted, to ensure the lease does not interfere with navigation, DMR will require that all gear be removed from the water between June 15th and October 1st of each year. Conditions reflecting this requirement will be included in the lease.

Based on the evidence, and the condition described above, it appears that the proposed aquaculture activities will not unreasonably interfere with navigation.

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 August 1, 2019 heavy lobstering was observed to the west of the proposed lease site, and light to moderate fishing activity was observed within Deep Cove (SR 8). Lobster buoys were observed within the boundaries of the proposed lease site, but a higher density of buoys was observed closer to shore in Deep Cove, off Howard Point (SR 8). According to the St. George Harbormaster, seasonal lobstering occurs within the area of the lease, but that generally no lobstering will occur during the time of the growing season for the proposed lease activities.⁸ The applicant proposes to deploy longlines on the site from early October through mid-June, while 32 cement moorings and associated lines and buoys would remain on site year-round (App 15). Whether lobstermen might avoid the area in the summer months due to the proposed moorings is unknown, however no comments were received regarding the impact the proposed lease may have on fishing.

During their site visit, DMR scientists spoke with a landowner on Howard Point who indicated that commercial menhaden (*Brevoortia tyrannus*) activity has been observed in the area of the proposed lease.⁹ Due to the presence of the year-round moorings menhaden fishermen would likely avoid the area of the proposed lease (SR 8). The Harbormaster Questionnaire did not mention commercial fishing aside from lobstering. On their visit to the site, DMR scientist observed a small skiff recreationally fishing off Hupper Point (SR 8). The applicant indicated they have not observed recreationally fishing to occur at the proposed site (App 10), and the Harbormaster Questionnaire indicates there is no recreational fishing.¹⁰

As discussed in the navigation section of this document, should the lease be granted, DMR will require that all gear, including moorings and lines, must be removed from the water between June 15th and October 1st each year. As such, the proposed aquaculture activities should not

⁸ CF: Harbormaster Questionnaire signed May 14, 2019

⁹ Grinnell More, personal communication with DMR staff F. Drury and M. Nelson on August 1, 2019

¹⁰ CF: Harbormaster Questionnaire signed May 3, 2019

interfere with any lobstering or other fishing that may occur in the area during the summer months.

No public comments were received regarding fishing. Given the absence of public comments expressing concern regarding interference with fishing, and the comments from the Harbormaster for the Town of St. George 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 the evidence, with the condition described above, that the proposed lease is unlikely to unreasonably affect commercial and recreational fishing activities in the area.

Exclusivity. Due to possible interactions with gear, dragging and other forms of commercial fishing are prohibited within the boundaries of the proposed lease site from October 1st through June 1st when longlines are present on the site.

Other aquaculture uses. There are 5 Limited Purpose Aquaculture (LPA) licenses within one mile of the proposed lease (SR 8).¹¹ The closest aquaculture activities to the proposed site are 4 LPA licenses¹² held by John Cotton for the suspended culture of shellfish (SR 8). These LPA licenses are approximately 955 feet east of the proposed site.

DMR is considering two other pending aquaculture lease applications nearby the proposed lease site. Applicant John Cotton and applicant Albatross Fisheries, LLC both submitted applications for the culture of marine algae on sites south and north of the proposed lease, parallel to the Miss Madisyn proposed operations.¹³ There is nothing in the record to indicate that the lease, if granted, would interfere with the other two proposed leases, if granted.

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 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

¹¹ The site report incorrectly stated there are 3 LPA licenses within one mile of the proposed lease site. There are 5 LPA licenses within one mile.

¹² JCOT117, JCOT219, JCOT319, JCOT419

¹³ The applications by John Cotton and Miss Madisyn were originally received on April 1, 2019. John Cotton's application was deemed complete by DMR on April 18, 2019 and Miss Madisyn's application was deemed complete by DMR on April 19, 2019.

Historical eelgrass data collected by DMR indicated that, in 2005, the nearest eelgrass to the proposed lease was 1,370 feet southeast of the proposed site. The proposed aquaculture activities for this site are unlikely to shade or disrupt these eelgrass beds (SR 10).

Data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) indicated that the proposed lease is located approximately 1,420 feet to the south of Tidal Wading Bird and Waterfowl Habitat, which is defined under Maine's Natural Resource Protection Act as Significant Wildlife Habitat (SR 9). The proposed lease is 3,590 feet northeast of a ¼ mile buffer associated with a bald eagle (*Haliaeetus leucocephalus*) nest (SR 9). DMR sent a copy of the application to MDIFW for their review and comment. MDIFW indicated that "minimal impacts to wildlife are anticipated."¹⁴

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 appears that the proposed aquaculture activities for this lease site will not interfere with the ecological function of there are.

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 ecological 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).

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.¹⁵ 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.

¹⁴ CF: Email from R. Settele to C. Burke on June 4, 2019

¹⁵ When the applicant applied, Atlantic Sea Farms was known as Ocean Approved. Ocean Approved has since changed their name to Atlantic Sea Farms.

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. Given the conditions related to gear deployment, the aquaculture activities proposed for this site will not unreasonably interfere with navigation.
3. Given the conditions 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.

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 3.74 acres to Miss Madisyn, 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 lessee¹⁶; 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

¹⁶ 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.”

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)¹⁷. 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:

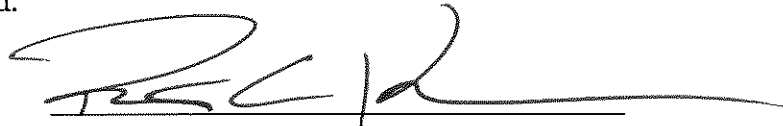
1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.
2. All gear, including moorings and lines, must be removed from the water between June 15th and October 1st each year.
3. Due to possible interactions with gear, dragging, and other forms of commercial fishing are prohibited within the boundaries of the proposed lease site from October 1st through June 1st when longlines are present on the site. Vessels that draw over 5 feet are prohibited from travelling through the lease site between October 1st and June 1st.

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: _____

10/10/19



Patrick C. Keliher, Commissioner
Department of Marine Resources

¹⁷ 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.”

