

STATE OF MAINE
DEPARTMENT OF MARINE
RESOURCES

Robert Baines
PEN CLx

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

October 16, 2019

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Robert Baines applied to the Department of Marine Resources (“DMR”) for a three-year experimental aquaculture lease located east of the Muscle Ridge Channel and northwest of Hewett Island in 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.*).

1. THE PROCEEDINGS

DMR accepted the application as complete on February 28, 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 March 21, 2019 edition of the *Courier Gazette*. During the comment period, DMR received more than 5 requests for a public hearing. The site report was issued on July 26, 2019, and a public hearing was held on September 16, 2019.

Notice of the hearing and copies of the application and DMR site report were provided to state and federal agencies for their review, the Town of St. George and its Harbormaster, and others on DMR’s mailing list. Notice of the hearing was published in the August 15, 2019 and September 3, 2019 editions of the *Courier Gazette*.

The hearing was held as scheduled on September 16, 2019. Sworn testimony was given at the hearing by the applicant, Robert Baines, who described the proposed project, gear type, and location of the lease. At the hearing Mr. Baines moved to update the timing of his operations from

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 decision as such.

November 1 to June 15th annually, with 22 moorings, mooring chains and lines, and buoys remaining on site year-round. Jon Lewis, DMR Aquaculture Program Director, described the site visit. James Crimp, with Atlantic Sea Farms, testified about Atlantic Sea Farms and their involvement with Mr. Baines and other lobstermen in Maine. Many area fishermen attended the hearing and asked questions of the applicant but did not provide formal testimony under oath. There were no representatives from any municipality, other state agencies, or the federal government in attendance. The hearing was recorded. The Hearing Officer was Erin Wilkinson.

The evidentiary record regarding this lease application includes the three exhibits introduced at the hearing³ and the record of testimony at the hearing itself. The evidence from each of these sources is summarized below.

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 November 1st to June 15th, annually, and intends to culture kelp 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 pages 19, 20). Longlines, depth control lines and buoys, and stabilizing weights will be removed during summer months, while 22 cement moorings and associated mooring lines, chains and buoys are proposed to remain onsite through the year (App 9, SR 2). The applicant has proposed to have a significant amount of gear (moorings, and associated lines and buoys) remaining on site year-round. As a result, the impact of these activities may be felt all year, not just in the winter when growing occurs.

B. Site Characteristics

The proposed lease occupies subtidal waters east of Muscle Ridge Channel and is bordered by Hurricane, Graffam, Bar, Flag, and Hewett Islands to the south and east. The tidally exposed Clam Ledges are to the north and east (SR 2). The nearest residential development, located on Flag Island, is more than 1,400 feet south of the proposed lease site (SR 2). More than 1,800 feet to the southeast mature forest and scattered residential buildings can be seen on Hewett Island (SR 2). During DMR's site visit, depths at the corners of the propose site ranged

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

⁴ In their application, Mr. Baines indicated October is when seeding of lines would begin. At the hearing he requested to revise his timeline to begin seeding in November.

from 40-21 feet. When correcting for tidal variation, depths are approximately 0 feet higher at the nearest high water, and 9.7 feet lower at mean low water (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 available source of organisms to be cultured on the lease site.

A. Riparian Access

Per the site report “there are no riparian landowners within 1,000 feet of the proposed lease” (SR 8). Flag Island, located more than 1,400 feet to the south, is the nearest island supporting a private residence (SR 8). During DMR’s visit to the site, scientists did not observe any docks or moorings with which the proposed aquaculture activities might interfere (SR 8). No public comments were received regarding riparian ingress and egress. Based on the lack of public comments, and because the proposed site is located more than 1,000 feet from any dock or mooring, 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 in an area bordered by the Muscle Ridge channel to the west, Clam Ledges to the north, and Graffam, Bar, Flag, and Hewett Islands to the south and east (SR 8). The proposed lease is located more than 2,500 feet east of the marked navigation corridors within the Muscle Ridge Channel (SR 8). The Muscle Ridge Channel is heavily trafficked, and most boats traversing the area, especially those without local knowledge of the area, are expected to adhere to the designated channels, due to unmarked navigational hazards (SR 8). During DMR’s visit to the site, one sailboat was observed travelling south to north in the marked channel (SR 8). Given

the distance from the marked navigational channel, the proposed aquaculture activities are unlikely to interfere with use of the channel.

The proposed lease is over 1,400 feet from all adjacent shorelines and is over 1,100 feet from the nearest 20-foot contour line west of Hewett Island and south of Clam Ledges. According to Matt Talbot, Marine Patrol Sergeant, the proposed lease does not interfere with navigation, but vessels entering or leaving Dix Harbor, located northeast of the proposed site may need to alter traditional course around the lease, if granted.⁵

During the comment period for this application, three comments were received that expressed concern about having room to navigate around the proposed lease, due to the proposed timing of operations and the 22 moorings proposed to remain on site year-round.⁶ One comment received indicated that the individual crosses through the area in which the lease is proposed.⁷ At the hearing, one individual in attendance questioned whether Mr. Baines' aquaculture gear would affect his ability to transit to the surrounding islands, as he currently travels right through the proposed lease area, and typically continues to do so well into November. Mr. Baines indicated that only the moorings will remain year-round. During the summer, when no longlines are proposed to be present, individuals would be able to move throughout the area between each end of the proposed site unhindered. During the winter when the proposed farm is in operation and longlines are present in the water, Mr. Baines felt there is plenty of room if individuals shift their course slightly to go around. Because moorings on each end of the proposed site would remain year-round, vessels would likely avoid each end of the site, so as not to become entangled in a mooring. Given the concerns expressed by fishermen, and the possibility that the gear remaining on site year-round could impact routes typically used by lobstermen, DMR will require that all gear be removed from the water between June 15th and November 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 June 17, 2019 no commercial or recreational fishing was observed in the vicinity of the proposed lease (SR 8). No lobster traps were observed within

⁵ CF: Harbormaster Questionnaire signed April 1, 2019

⁶ CF: Comments dated April 3, 2019 from M. Oliver and April 4, 2019 from C. Oliver and V. Oliver.

⁷ CF: Comment from S. Sutela dated March 28, 2019

the boundaries of the proposed lease, but buoys were seen clustered near Clam Ledges and High Clam Ledge to the north of the proposed site (SR 8). During the site visit, DMR staff used a GoPro camera to document the benthic ecology of the proposed site, and lobsters and lobster burrows were commonly observed (SR 9). DMR recognizes that many commercial and recreational fisheries are more prevalent during the summer months, and that some fisheries, such as those for green sea urchins and sea scallops, are winter fisheries, and would not have been observed during DMR's visit to the site (SR 9). According to Matt Talbot, Marine Patrol Sergeant, commercial fishing in the area consists of lobstering in summer and fall, and scallop and sea urchin diving and dragging in the fall and winter. Recreational fishing consists of lobster, mackerel, and striped bass fishing.⁸ The applicant notes that there is little to no recreational fishing around the proposed lease (App 6).

Many commercial lobster fishermen attended the hearing on September 16, 2019. While none provided official testimony, many questions about the location of gear, timing of operations, risks of entanglement on the proposed moorings, and specifics of the lease application and intent were directed to Mr. Baines. Fishermen in attendance at the hearing expressed concern that while they could still navigate between ends of the lease in the summer, the year-round presence of 22 moorings and lines prohibits them from setting traps within that area. Additionally, during the public comment period for this lease application, DMR received comments that expressed concern with the proposed operations. One comment letter said that while the lease area would be open to fishing during the summer, the presence of the year-round moorings and ropes would essentially make the area unfishable as ropes could become tangled and gear could be lost. This commenter felt that would make the entire lease area unfishable.⁹ Mr. Baines was asked several times how he would handle possible gear entanglements with his moorings. Mr. Baines expressed that he hoped people would give his gear a wide berth to avoid entanglements altogether, and that he did not have a specific answer for how entanglements would be handled, as it could mean his gear would be lost as well. When questioned about this again, Mr. Baines stated that if gear was entangled he may be able to free entangled gear by lifting the moorings when his boat is fitted with scalloping gear. This prompted one fisherman to question whether scallop gear would be effective at lifting the moorings.

As mentioned under the proposed operations section of this document, the presence of year-round moorings and associated lines and buoys mean the impact of the proposed aquaculture activities are felt year-round, even though the growing season is limited to the winter.

⁸ CF: Harbormaster Questionnaire signed April 1, 2019

⁹ CF: Comment from D. Randall received April 16, 2019

In the current case, the public comments received and discussion at the hearing indicate that, if Mr. Baines were to remove all gear from the site during summer months, the potential impact to the lobstering community would be substantially reduced. Based on this information, and as described already in the navigation section of this document, DMR will require that all gear, including moorings and associated lines and buoys, be removed from the water between June 15th and November 1st of each year. Conditions reflecting this requirement will be included in the lease.

Exclusivity. Due to possible interactions with gear, lobstering and dragging are restricted from the site from November 1 to June 15th, annually.¹⁰

Other aquaculture uses. There are 2 Limited Purpose Aquaculture (LPA) licenses,¹¹ for the culture of American oysters and sea scallops, within one mile of the proposed lease (SR 8). Both LPA licenses are in Home Harbor, more than 4,473 feet southeast of the proposed site (SR 9).

Other water-related uses. The applicant noted that while some kayaking occasionally occurs in the vicinity during the summer months, there is very little recreational boating during the summer, and none during the winter (App 6). 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, 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 2005, the nearest eelgrass to the proposed lease was 1,500 feet southeast of the proposed site. The proposed aquaculture activities for this site are unlikely to shade or disrupt these eelgrass beds (SR 11).

During DMR's site visit, harbor seals, including pups, were observed hauled out on the Clam Ledges to the north of the proposed site (SR 11). To minimize the potential for disturbance with these animals, the National Marine Fisheries Service recommends maintaining a distance of

¹⁰ The applicant originally requested exclusive use from October 1 through June 15th, annually. At the hearing the applicant updated their proposed operations from November 1 to June 15th, so that change has been requested in the exclusive use section.

¹¹ GCON117 and GCON217

at least 50 yards, or 150 feet (SR 11). The proposed site is more than 1,350 feet away from where the seals were hauled out on June 17, 2019.

Data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) indicate that the proposed lease is located approximately 2,400 feet to the east and south of Tidal Wading Bird and Waterfowl Habitat, which is defined under Maine's Natural Resource Protection Act as Significant Wildlife Habitat (SR 10). Approximately 3,650 feet from the proposed lease site, on Graffam Island, is Essential Habitat for the Great Blue Heron (*Ardea herodias*), which is a species of Special Concern under the Maine Endangered Species Act (SR 10). Shorebird feeding, and roosting areas are present on islands over 1 mile from the proposed site (SR 10). DMR sent a copy of the application to MDIFW for their review and comment. MDIFW indicated that "minimal impacts are anticipated."¹²

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 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 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 15).

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.¹³ 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.

¹² CF: Email from R. Settele to C. Burke on April 3, 2019

¹³ 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 condition related to gear deployment, 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.

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 Robert Baines, 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 lessee¹⁴; 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

¹⁴ 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.”

(*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).¹⁵ 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. Except for required marker buoys, all gear, including moorings, lines, and buoys, must be removed from the water between June 15th and November 1st each year.
3. Due to possible interactions with gear, lobstering and dragging are restricted from the site from November 1 to June 15th 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: 10/16/19


Patrick C. Keliher, Commissioner
Department of Marine Resources

¹⁵ 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.”

**STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES**

Application for Change in Gear Authorization
St. George, Maine

Robert Baines

PEN CLx

December 5, 2019

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Robert Baines applied to the Department of Marine Resources (DMR) to change the gear authorization for their existing experimental lease PEN CLx, located east of the Muscle Ridge Channel and northwest of Hewett Island in unorganized territory, in Knox County. The leaseholder is seeking authorization to switch from using concrete moorings to mushroom anchors.

1. THE PROCEEDINGS

Notice of the application and the 14-day public comment period were provided to federal agencies, riparian landowners, the Town of St. George and its Harbormaster, the Town of Owls Head and its Harbormaster, the Town of Rockland, and the Town of South Thomaston, and the Town of Rockport, and others on DMR's mailing list. The evidentiary record before DMR regarding this lease amendment application includes two exhibits (see exhibit list below).

LIST OF EXHIBITS

1. Application for a change in gear authorization
2. Original lease decision signed October 16, 2019

2. STATUTORY CRITERIA & FINDINGS OF FACT

Approval of experimental aquaculture lease amendments is governed by 12 M.R.S.A. § 6072-A (8) and Chapter 2.44 of DMR regulations. The statute and regulations provide that the Commissioner may grant amendments for the use of specific gear, species, and/or operational modifications on an existing lease site provided the proposed changes do not materially alter the findings of the original decision or would result in a change to the original lease conditions.

A. Original Lease Decision

On October 16, 2019, DMR granted lease PEN CLx to Robert Baines (Exhibit 2, page 9). DMR's Findings of Fact, Conclusions of Law, and Decision, henceforth referred to as "the decision", found that the evidence in the record supported the conclusion that the aquaculture activities proposed by Robert Baines met the requirements for granting an experimental aquaculture lease as set forth in 12 M.R.S.A. § 6072-A (Exhibit 2, page 7).

The decision provided authorization to cultivate marine algae using suspended culture (Exhibit 2, page 8). Thirteen 1,000 foot longlines, spaced 10 feet apart, depth control lines and stabilizing weights, and

22 concrete moorings and associated lines and chains were authorized to be deployed on PEN CLx (Exhibit 2, page 2).

Conditions imposed on lease PEN CLx, pursuant to 12 M.R.S.A § 6072-A (15) and located on page 7 of the decision, are as follows:

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 15th and November 1st each year.
3. Due to possible interactions with gear, lobstering and dragging are restricted from the site from November 1st to June 15th annually.

B. Proposed Gear Changes, Operational Modifications, and Findings

Robert Baines is authorized to deploy a total of 13 longlines on experimental lease PEN CLx (Exhibit 2, page 2). The longlines, which measure approximately 1000 feet in length are spaced 10 feet apart. Longlines are positioned 7 feet below the surface of the water and are kept in place using depth control lines and stabilizing weights and buoys. Longlines are secured on each end with concrete moorings. So as not to interfere with navigation or fishing, the original lease was conditioned to require that all gear be removed between June 15th and November 1st of each year (Exhibit 2, page 9).

Due to the condition requiring all gear be removed between June 15th and November 1st, Robert Baines is requesting authorization to switch from using concrete moorings to mushroom anchors to facilitate setting and removing the moorings at the start and end of each growing season (App 5).

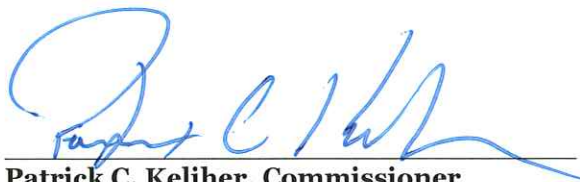
The proposed changes would replace 22 concrete moorings with mushroom anchors. No other changes are proposed, and all gear would still be removed between June 15th and November 1st each year, as conditioned in the original decision. Therefore, the proposed changes to the gear type will not materially alter the findings of the original decision for experimental lease PEN CLx.

3. DECISION

Based on the foregoing, the Commissioner grants the request from Robert Baines for the authorization to amend the gear from concrete moorings to mushroom anchors.

Dated: _____

12/5/2019



**Patrick C. Keliher, Commissioner
Department of Marine Resources**