

**STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES**

Robert Baines and Cole Baines

PEN CL

Standard Aquaculture Lease Application
Suspended Culture of Marine Algae
West Penobscot Bay
Unorganized Territory, Maine

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Robert and Cole Baines applied to the Department of Marine Resources (DMR) for a twenty-year standard aquaculture lease on 7.19¹ acres located in West Penobscot Bay, west of Hewett Island, Unorganized Territory, Maine. The proposal is for the suspended culture of marine algae (*Saccharina latissima*, *Saccharina angustissima*, *Alaria esculenta*, *Laminaria digitata*, *Agarum clathratum*², *Palmaria palmata*, *Chondrus crispus*, *Porphyra spp.*, *Gracilaria tikvahiae*, and *Ulva lactuca*).

1. THE PROCEEDINGS

The pre-application meeting on this proposal was held on July 14, 2021, and a scoping session was held on November 23, 2021. DMR accepted the final application as complete on December 16, 2021. Notice of the completed application and public hearing was provided to state agencies (including the Property Tax Division because the project is located in unorganized territory)³, and subscribers to DMR's aquaculture email listserv. Notice of the hearing was published in the *Courier-Gazette* on October 5 and October 12, 2023. The public notice for the hearing indicated that the proceeding would be conducted in-person and directed interested persons to register in order to provide testimony or ask questions during the proceeding. No applications for intervenor status were received by DMR. A public hearing on this application was held on November 9, 2023. Two individuals registered to participate in the hearing, but ultimately did not attend.

Sworn testimony was given at the hearing by Robert and Cole Baines. Additional members of the public and DMR staff attended the hearing but did not offer testimony. The hearing was recorded by DMR. The Hearing Officer was Maria Eggett.

¹ Applicants originally requested 7.33 acres. DMR calculations indicate the area is 7.19 acres.

² The application lists the scientific name for "Shotgun Kelp" as *Agarum cribosum*. Accepted species name is *Agarum clathratum*.

³ Notice was also provided to the Town of Thomaston because the hearing was located in the town.

The evidentiary record before DMR regarding this lease application includes three exhibits introduced at the hearing and the record of testimony at the hearing. The evidence from all sources is summarized below.⁴

LIST OF EXHIBITS

1. Case file
2. Application
3. DMR site report, issued on October 3, 2023

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The applicants propose to culture marine algae (*Saccharina latissima*, *Saccharina angustissima*, *Alaria esculenta*, *Laminaria digitata*, *Agarum clathratum*, *Palmaria palmata*, *Chondrus crispus*, *Porphyra spp.*, *Gracilaria tikvahiae*, and *Ulva lactuca*) using suspended culture techniques (App 1). A maximum of seventeen 1,000 linear foot longlines are proposed for the site as well as moorings and depth control buoys and lines. Yellow lease marking buoys will be deployed at the corners (App 5).

The applicants anticipate seeding in November and December. Some seeding may occur in March depending on species availability. Routine tending and maintenance will occur approximately every two weeks from December to May. Harvesting will occur April to May and will take five to 12 days. All gear will be removed from the site between May 31 and November 1 every year.

On October 16, 2019, DMR granted a 3.74-acre experimental lease (PEN CLx) to Robert Baines. The decision provided authorization to cultivate marine algae using suspended culture. 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. A subsequent amendment approved the use of mushroom anchors in place of the concrete moorings. The applicants intend to replace the experimental lease with this expanded proposal in the same area.

B. Site Characteristics

On June 20, 2023, DMR assessed the proposed lease site. Underwater video footage was collected by conducting a 290-foot transect line within the proposed lease area using SCUBA. The proposal is located approximately 1,860 feet to the west of Hewett Island at mean high water (MHW) and approximately 4,000 feet to the east of Muscle Ridge Channel. There are no intertidal areas or land within 1,000 feet of the

⁴ Exhibits 1, 2, and 3 are cited below as: Case file – “CF”, Application – “App”, site report – “SR”.

proposal. The surrounding Muscle Ridge Islands are sparsely inhabited with primarily rocky shorelines and forested uplands with areas of low-lying brush and grass (SR 2).

DMR assessed depths at the site beginning at 12:10 PM. The tide was rising with the next high tide predicted at 1:33 PM. Depths were recorded at the proposal corners and determined to be between 39.1 feet and 40.1 feet. Correcting for tidal variations derives depths ranging from 31.6 feet to 32.6 feet at mean low water (MLW, 0.0 feet) and from 40-41 feet at high tide (SR 2).

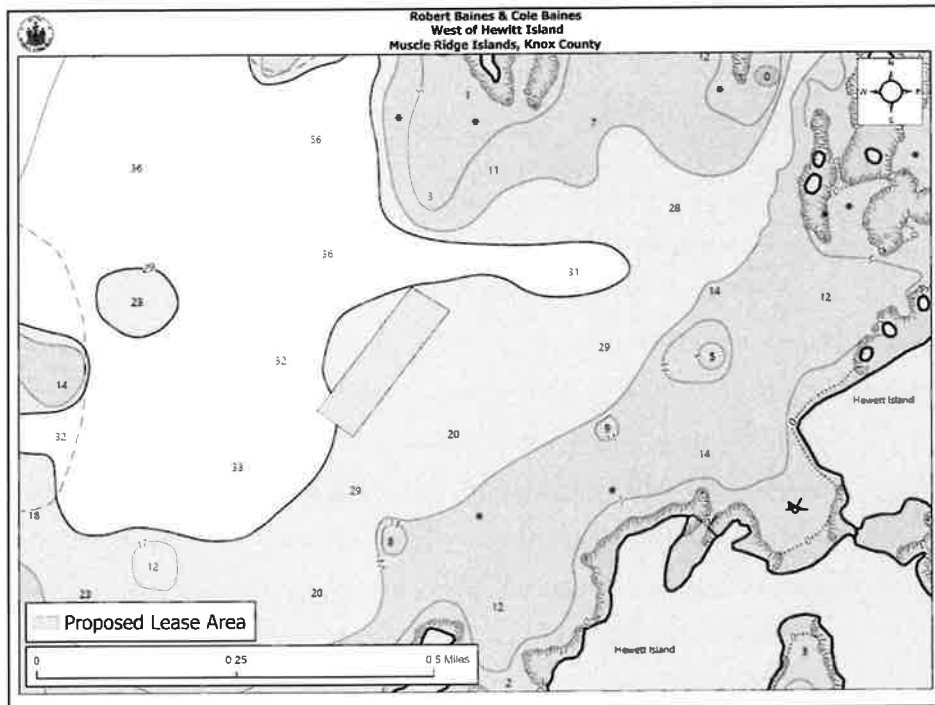


Figure 1: Proposed lease site and surrounding area. Image taken from DMR site report.

3. STATUTORY CRITERIA & FINDINGS OF FACT

Approval of standard aquaculture leases is governed by 12 M.R.S.A. §6072. This statute provides that a lease may be granted by the Commissioner upon determining that the project will not unreasonably interfere with: the ingress and egress of riparian owners; navigation; fishing or other uses of the area, taking into consideration other aquaculture uses of the area; the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; or the public use or enjoyment within 1,000 feet of beaches, parks, docking facilities, or conserved lands owned by municipal, state, or federal governments. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured for the lease site; that the lease will not result in an unreasonable impact from

noise or lights at the boundaries of the lease site; and that the lease will comply with visual impact criteria adopted by the Commissioner.

A. Riparian Access

Maine law and DMR's Chapter 2 regulations⁵ ("Chapter 2") require the Commissioner to examine whether riparian owners can safely navigate to their shore. 12 M.R.S.A. § 6072(7-A)(A); Chapter 2.37(1)(A)(1). In examining riparian owner ingress and egress, the Commissioner "shall consider the type of structures proposed for the lease site and their potential impact on the vessels which would need to maneuver around those structures." Chapter 2.37(1)(A)(1).

The location of the proposal is on the western side of the Muscle Ridge Islands chain. There are no docks or moorings within 1,000 feet of the proposal. The pier observed nearest to the proposal is approximately 1,755 feet to the southeast, on the eastern shore of Flag Island. Hewett Island is inhabited and there were approximately six houses observed on the island in satellite imagery. There were no piers or docks observed on the western side of Hewett Island. The riparian parcels on Hewett Island nearest to the proposal are over 2,000 feet away at mean high water and there were no docks or piers observed on the shoreline facing the proposal. There is a small mooring field in a cove on the western side of Hewett Island approximately 2,400 feet to the east of the proposal (SR 4).

A Harbormaster Questionnaire was completed by the local Marine Patrol Officer (MPO) on January 4, 2022. The MPO commented that the proposal would have no effect on riparian access. During the public hearing, no one offered testimony or evidence regarding 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

When examining navigation, the Commissioner considers whether the lease activities would interfere with commercial or recreational navigation around the lease area and considers the current uses of the navigational channels in the area (12 M.R.S.A. § 6072(7-A)(B); Chapter 2.37(1)(A)(2)). According to the site report, the proposal is located approximately 4,150 feet to the east of the Muscle Ridge channel in a partially enclosed area surrounded by the Muscle Ridge Islands. There is over 1,800 feet of navigable water between the proposal and Hewett Island at MLW, over 1,300 feet of navigable water between the

⁵ 13-188 C.M.R. ch. 2.

proposal and Clam Ledges at MLW and over 1,300 feet of navigable water between the proposal and Flag Island.

During DMR's site assessment conducted on June 20, 2023, scientists observed several boats transiting to the south of the proposal between Bar and Flag Islands. DMR also observed a lobster boat transiting through the proposed lease area (SR 5).

A Harbormaster Questionnaire was completed by the local MPO on January 4, 2022. The MPO commented that the proposal would have no effect on navigation. During the public hearing, no one offered testimony or evidence regarding potential impacts to navigation.

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

C. Fishing & Other Uses

When examining fishing and other uses, the Commissioner considers whether the lease activities would unreasonably interfere with commercial or recreational fishing or other water-related uses of the area (12 M.R.S.A. § 6072(7-A)(C); Chapter 2.37(1)(A)(3)). Additionally, the Commissioner considers any evidence concerning other aquaculture uses of the area (Chapter 2.37(1)(A)(4)).

Fishing. During DMR's site assessment on June 20, 2023, no commercial fishing activity was observed within the boundaries of the proposed lease. A lobster boat was observed transiting through the proposed lease area but was not observed working any gear in the vicinity (SR 6).

A Harbormaster Questionnaire was completed by the local MPO on January 6, 2022. The MPO stated that they have not observed any commercial or recreational fishing within the proposed lease area.

No testimony was given at the public hearing concerning impacts to commercial or recreational fisheries.

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

Other aquaculture uses: Robert Baines currently operates a 3.74-acre experimental lease, PEN CLx, within the boundaries of this proposal. The standard lease proposal is intended to replace PEN CLx. There are no other active leases or LPAs within 1,000 feet of the proposal (SR 6).

No testimony was received by other aquaculture lease or license holders in the area to indicate they have concerns regarding the proposed activities. Based on this evidence, it appears that the proposed lease will not unreasonably interfere with other aquaculture activities in the area.

Other water-related uses. The application states there is some kayaking during the summer months (App 13). However, all gear will be removed from the site between May 31 and November 1 every year. No evidence or testimony was provided concerning kayaking in the area.

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with fishing, existing aquaculture operations, or other water-related uses of the area.

D. Flora & Fauna

When examining existing system support, the Commissioner considers the degree to which the use of the lease site will interfere with significant wildlife habitat and marine habitat or with the ability of the lease site and marine and upland areas to support ecologically significant flora and fauna (12 M.R.S.A. § 6072(7-A)(D); Chapter 2.37(1)(A)(5)).

Site observations. During the site assessment on Jun 20, 2023, DMR conducted a SCUBA transect to collect underwater video footage and assess the epibenthic ecology of the area. Numerous lobster burrows were observed and occasionally lobsters (*Homarus americanus*) were observed within the burrows. Sugar kelp (*Saccharina latissima*) holdfasts and stipes were observed in the sediment without blades attached, as well as organisms with the blade attached. In addition to epibenthic flora and fauna, lion’s mane jellyfish (*Cyanea capillata*) were observed in the water prior to the SCUBA dive (SR 7). The relative abundance of epibenthic flora and fauna observed in the video transect is described in the table below.

Species observed on underwater footage collected by DMR

Species Observed	Abundance
Hermit Crab (<i>Paguroidea</i> spp)	Rare
Sea raven (<i>Hemitripterus americanus</i>)	Rare
Sugar Kelp (<i>Saccharina latissima</i>)	Occasional
Lobster (<i>Homarus americanus</i>)	Common
Crab (<i>Cancer sp.</i>)	Common

Eelgrass. According to data collected in 2010, there is no eelgrass (*Z. marina*) located within 1,000 feet of the proposal. In 2010, eelgrass was observed approximately 1,475 feet to the southeast of the proposal. During the site visit conducted on June 20, 2023, DMR did not observe any eelgrass (SR 8).

Wildlife. According to Geographic Information System (GIS) data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) and available through the Maine Office of GIS, the proposed lease area is not located within tidal waterfowl and wading bird habit. Data collected by the

United States Fish and Wildlife Service in 2023 by aerial nest survey shows the closest mapped Bald Eagle nesting site to be approximately 1.7 miles to the northeast of the proposal.

During the site assessment, DMR observed black guillemots (*Cepphus grylle*), gulls (*Larus sp.*), as well as occasional common terns (*Sterna hirundo*). A bald eagle (*Haliaeetus leucocephalus*) was also observed flying in the vicinity of the proposal. Harbor seals (*Phoca vitulina*) were common in the vicinity of proposed lease area.

On January 14, 2022, a Wildlife Biologist with MDIFW responded by email to a “Request for Agency Review and Comment”, stating that minimal impacts to wildlife are anticipated.⁶

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

When examining interference with public facilities, the Commissioner considers the degree to which the lease interferes with public use or enjoyment within 1,000 feet of beach, park, docking facility, or certain conserved lands owned by the Federal Government, the State Government, or a municipal government (12 M.R.S.A. § 6072(7-A)(F); Chapter 2.37(1)(A)(7)).

The proposal is not within 1,000 feet of any beach, park, docking facility, or other conserved lands owned by federal, state, or municipal governments (SR 9).

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, docking facilities, or certain conserved lands owned by municipal, state, or federal governments.

F. Source of Organisms

When examining the source of organisms, the Commissioner shall include but not be limited to, consideration of the source’s biosecurity, sanitation, and applicable fish health practices (12 M.R.S.A. § 6072(7-A)(E); Chapter 2.37(1)(A)(6)).

According to the application, the source for all stock is Atlantic Sea Farms. This is currently an approved source for these species. If the applicants are unable to obtain stock from this facility, then it must come from another DMR approved source.

Therefore, the applicants have demonstrated that there is an available source of stock to be cultured for the lease site.

⁶ Email correspondence between MDIFW and DMR (CF)

G. Light

The Commissioner evaluates lighting in accordance with 12 M.R.S.A §6072-A(G) and the regulatory standards specified in Chapter 2.37(1)(A)(8). The statute specifies that a lease must not result in an unreasonable impact from light at the boundaries of the proposed site. The applicable regulation imposes specific requirements related to lighting, including a requirement that the applicant demonstrate that all reasonable measures will be taken to mitigate light impacts associated with the lease activities.

According to the application, no lights would be used on the proposed lease site.

Therefore, the proposed aquaculture activities will not result in an unreasonable impact from light at the boundaries of the lease site.

H. Noise

The Commissioner evaluates noise in accordance with 12 M.R.S.A §6072-A(G) and the regulatory standards specified in Chapter 2.37(1)(A)(9). The statute specifies that a lease must not result in an unreasonable impact from noise at the boundaries of the proposed site. The applicable regulation imposes specific requirements related to noise, including a requirement that the applicant take all reasonable measures to mitigate noise impacts associated with the lease activities.

According to the application, no powered equipment will be used on the site. The only source of noise would be a lobster boat and/or skiff used to service the proposed site.

Based on this information, it appears that any noise generated by the proposed operations is unlikely to have a significant effect at the boundaries of the lease site.

Therefore, the aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease.

I. Visual Impact

The Commissioner evaluates visual impact in accordance with 12 M.R.S.A §6072-A(H) and the regulatory standards specified in Chapter 2.37(1)(A)(10).

No on-site support structures are proposed. The gear proposed, including buoys, complies with DMR's height and visual impact limitations.

Therefore, the equipment utilized on the proposed lease site will comply with the DMR's visual impact criteria.

6. CONCLUSIONS OF LAW

Based on the above findings, I conclude that:

- a. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.
- b. The aquaculture activities proposed for this site will not unreasonably interfere with navigation.
- c. The aquaculture activities proposed for this site will not unreasonably interfere with fishing or other water-related uses of the area, taking into consideration other aquaculture uses in the area.
- d. The aquaculture activities proposed will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.
- e. The aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, docking facilities, or certain conserved lands owned by municipal, state, or federal governments.
- f. The applicants have demonstrated that there is an available source for organisms to be cultured for the lease site.
- g. The aquaculture activities proposed for this site will not result in an unreasonable impact from light at the boundaries of the lease site.
- h. The aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease site.
- i. The aquaculture activities proposed for this site will comply with the visual impact criteria contained in DMR Regulation 2.37(1)(A)(10).

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.

7. DECISION


Based on the foregoing, the Commissioner grants a lease to Robert and Cole Baines for 7.19 acres for twenty years for the cultivation of marine algae (*Saccharina latissima*, *Saccharina angustissima*, *Alaria esculenta*, *Laminaria digitata*, *Agarum clathratum*, *Palmaria palmata*, *Chondrus crispus*, *Porphyra spp.*, *Gracilaria tikvahiae*, and *Ulva lactuca*) using suspended culture techniques. The lessees shall pay the State of Maine rent in the amount of \$100.00 per acre per year. The lessees shall post a bond or establish an escrow account pursuant to DMR Rule 2.40 (2)(A) 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.

8. 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 M.R.S.A §6072 (7-B).⁷ Conditions are designed to encourage the greatest multiple compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the lease. No conditions shall be imposed on this lease.

9. REVOCAION OF LEASE

The Commissioner may commence revocation procedures upon determining, pursuant to 12 M.R.S.A §6072 (11), that no substantial aquaculture has been conducted within the preceding year, that the lease activities are substantially injurious to marine organisms, or that any of the conditions of the lease or any applicable laws or regulations have been violated.

Dated: January 8th, 2024 
Patrick C. Keliher, Commissioner
Department of Marine Resources

⁷ 12 MRSA §6072 (7-B) states: "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."

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.”