

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES

Jett Lindelof
PEN JIx

Experimental Aquaculture Lease Application
Suspended Culture of Marine Algae
Penobscot Bay, Islesboro, Maine

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Jeff Lindelof applied to the Department of Marine Resources (DMR) for a three-year experimental aquaculture lease located east of Job Island, in Penobscot Bay, Islesboro, Waldo County. The proposed lease is 3.71 acres and is for the suspended cultivation of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), fingered kelp (*Laminaria digitala*), Dulse (*Palmaria palmata*), and sea lettuce (*Ulva lactuca*) for commercial aquaculture research and development.¹

1. PROCEDURAL HISTORY

DMR accepted the application as complete on March 8, 2023. Notice of the application and the 30-day public comment period was provided to state agencies, riparian landowners within 1,000 feet of the proposed site, the Town of Islesboro and its Harbormaster, and others on DMR's email listserv. Notice to the municipality included a Harbormaster Questionnaire requesting information related to designated or traditional storm anchorages, navigation, riparian ingress and egress, and fishing or other uses of the area, among other considerations. No response was received from the Harbormaster. Notice of the complete application and comment period was published in the March 23, 2023, edition of *The Courier-Gazette*. Title 12 M.R.S.A. §6072-A (6) provides that the Commissioner shall hold a public hearing if five or more persons request a public hearing within the 30-day comment period. No requests for a public hearing were received during the comment period, and DMR opted not to hold a hearing for this proposal. The evidentiary record regarding this lease application includes the application, DMR's site report dated April 18, 2024, and the case file. The evidence from each of these sources is summarized below.²

LIST OF EXHIBITS

1. Case file
2. Application

¹ Applicant originally requested 4.0 acres. MDMR calculations indicate the area is 3.71 acres.

² These sources are cited, with page references, as App (Application), CF (case file), and SR (site report).

3. DMR site report, issued on April 18, 2024

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The purpose of the proposed experimental lease site is to determine if growing marine algae in this location is feasible and efficient (App 5). The applicant is proposing to culture marine algae using 15 longlines of 1,000 feet each (App 24). There would be a 10-feet of spacing between each longline (App 24). Each longline would have depth control lines every 100 feet (App 24-25). Each longline would have a 1,000lb granite block mooring it on each end (App 25). Seeding would occur between October 15 and November 15 of each year, and the applicant would be on site for approximately 5 days to seed the lines (App 5-6). The applicant would be at the site approximately once a week for maintenance from December to May (App 6). Harvesting would occur for about 5 days in May and June (App 6). To harvest, the applicant would bring the longlines aboard their boat using a hydraulic hauler, where it would be cut off the line and placed in salt bags (App 6). After harvesting, the longlines and floatation buoys would be removed from June 15 to October 15, when seeding would begin again (App 6).

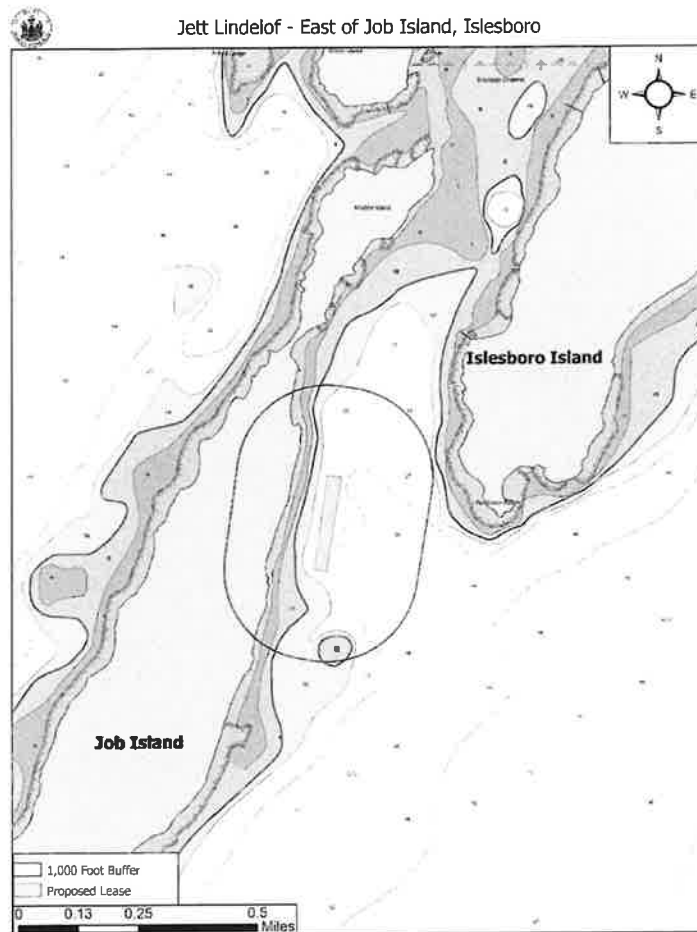


Figure 1: Proposed lease site and surrounding area. Image taken from DMR’s site report.

B. Site Characteristics

On September 28, 2023, DMR scientists assessed the proposed lease area. DMR scientists arrived on site at approximately 9:56 AM (SR 2). The adjacent eastern shoreline of Job Island is comprised of rocky coastline leading to forested uplands and is undeveloped (SR 2). The bottom of the proposed lease area is mud (SR 2).

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 for commercial aquaculture research and development or for scientific research 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 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 applicants have demonstrated that there is available source of organisms to be cultured on the lease site.

A. Riparian Access

Before granting a lease, the Commissioner must determine that the proposed project “will not unreasonably interfere with the ingress and egress of riparian owners[.]” 12 M.R.S.A. § 6072-A(13)(A). DMR’s Chapter 2 regulations require the Commissioner to examine whether riparian owners can safely navigate to their shore. 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, § 2.37(1)(A)(1).

During the site visit on September 28, 2023, DMR staff did not observe any docks, houses, or moorings in the vicinity of the proposal (SR 4). Job Island, located to the west of the proposal is uninhabited and no docks or other structures were observed at the time of the site visit (SR 4). DMR observed one dock associated with Islesboro Island, approximately 2,090 feet to the northeast of the proposal (SR 4).

The applicant stated that there are no docks, moorings, landings, or boats on shore within 1,000 feet of the proposed site (App 8).

A Harbormaster Questionnaire was sent to the Islesboro Harbormaster on March 21, 2023, but no response was received. DMR did not receive any comments from the public regarding this proposal.

The proposal is located to the east of Job Island. Job Island is undeveloped and was observed to have no docks or moorings attributed to it. The nearest dock observed at the time of the site visit was approximately 2,090 feet to the northeast. This distance would allow for vessels of various sizes and models to access the observed dock without any unreasonable interference caused by the proposal.

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-A(13)(B); Chapter 2.37(1)(A)(2). In examining navigation, the Commissioner “shall consider the current uses and different degrees of use of

the navigational channels in the area in determining the impact of the lease operation.” Chapter 2, § 2.37(1)(A)(2).

During the site visit, DMR staff did not observe any vessel traffic (SR 5). The proposal is located approximately 288.5 feet to the east of Job Island at mean low water (MLW) (SR 5). There is approximately 1,169.5 feet of navigable waters between the proposal and the western shore of Islesboro Island to the northeast at MLW (SR 5). The main navigational channel divides into two sections in the vicinity of Islesboro Island, one going east and one going west of the island, before reforming into a single channel (SR 5).

The applicant stated that the closest navigable channel is over 500 feet from the proposal (App 8).

A Harbormaster Questionnaire was sent to the Islesboro Harbormaster on March 21, 2023, but no response was received. DMR did not receive any comments from the public regarding this proposal.

The navigational channel the goes to the west of Islesboro Island is located between Islesboro Island and the proposal. Although the channel goes between these two navigational obstacles, there is approximately 1,169.5 feet of navigable waters between them for vessels to navigate in. This distance would allow for vessels of various sizes and models to navigate between the proposal and Islesboro Island without any unreasonable interference caused by the proposal. Additionally, there is approximately 288.5 feet to the east of the proposal, between the proposal and Islesboro Island. This distance would allow smaller vessels that wished to navigate close to the shoreline of Islesboro Island to still do so without being unreasonably interfered with by the proposal.

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 uses, including water-related uses, of the area. 12 M.R.S.A. § 6072-A(13)(C); Chapter 2.37(1)(A)(3).

Fishing. In examining fishing and other uses, the Commissioner “shall consider such factors as the number of individuals that participate in recreational or commercial fishing, the amount and type of fishing gear utilized, the number of actual fishing days, and the amount of fisheries resources harvested from the area.” Chapter 2, § 2.37(1)(A)(3).

During the site visit, DMR observed one lobster buoy 26.8 feet to the east of the proposal and one lobster buoy 199.1 feet to the southwest of the proposal (SR 5). There was a cluster of several lobster buoys located 144.7 feet south of the proposal (SR 5). Light lobstering activity was observed to the east of the proposal (SR 5).

The application states there is little commercial fishing around the proposed site from June to October, when the full gear would be deployed, and none during the rest of the year (App 8). Additionally, the applicant has not observed recreational fishing within or around the proposed site (App 8).

A Harbormaster Questionnaire was sent to the Islesboro Harbormaster on March 21, 2023, but no response was received. DMR did not receive any comments from the public regarding this proposal.

Although commercial fishing does occur in the area, it has been observed by the applicant to occur from June to October. DMR staff did observe light lobstering activity to the east of the proposal during their site visit. The site visit took place in September, in line with the range of months in which lobstering occurs that was supplied by the applicant. The applicant has stated that all long lines and gear used in the proposal would be removed from June to October, directly correlating with the range of months in which commercial fishing occurs in the area. Additionally, no buoys or fishing activity were observed within the proposal area, and buoys located over 100 feet away would still allow for commercial fishing vessels to access the buoys without unreasonable interference from the proposal.

Given the lack of public comment, the light level of fishing activity, and the timeframe during which gear would be fully deployed, it is unlikely that the proposed lease will interfere with commercial and recreational fishing activities in the area.

Other uses. According to the application, no swimming or kayaking has been observed in the area (App 8). No comments regarding impacts to other uses of the lease area were received by DMR.

Other aquaculture uses. DMR's Chapter 2 regulations require the Commissioner to consider any evidence submitted concerning other aquaculture uses of the area. "The intensity and frequency of such uses as well as the degree of exclusivity required for each use shall be a factor in the Commissioner's determination of whether any interference is unreasonable. The number, size, location, and type of other aquaculture leases shall be considered by the Commissioner." Chapter 2, § 2.37(1)(A)(4).

There are no existing Limited Purpose Aquaculture (LPA) sites or aquaculture leases within 1,000 feet of the proposed lease site (SR 6).

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

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-A(13)(D); Chapter 2, § 2.37(1)(A)(5). “Such factors as the degree to which physical displacement of rooted or attached marine vegetation occurs, the amount of alteration of current flow, increased rates of sedimentation or sediment resuspension, and disruption of finfish migration shall be considered by the Commissioner in this determination.” Chapter 2, § 2.37(1)(A)(5).

During the site visit, DMR staff assessed the epibenthic ecology of the proposed lease (SR 7). DMR staff observed shrimp (*Crangon septemspinosa*) and crab (*Cancer spp*) as well as rare sightings of sugar kelp (*Saccharina latissimi*), sea lace (*Membranipora membranacea*), flounder (Order, *Pleuronectiformes*), and northern cerianthid (*Pachycerianthus borealis*) (SR 7).

Eelgrass (*Zostera marina*)

Historical records of eelgrass collected by MDMR in 2010 do not indicate mapped eelgrass presence in the vicinity of the proposal (SR 7). The nearest mapped eelgrass is approximately 1,884 feet northeast of the proposal (SR 7).³ No eelgrass was observed on underwater camera footage within the proposal boundaries during MDMR’s site assessment (SR 7).

Fauna

During the site visit, DMR staff observed common eiders (*Somateria mollissima*), black guillemots (*Cepphus grille*), American crows (*Corvus brachyrhynchos*), and herring gulls (*Larus argentatus*) in the general vicinity of the proposal (SR 8).

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 (MEGIS), the proposed lease is not located within tidal waterfowl and wading bird habitat (TWWH) (SR 8). On June 22, 2023, a Wildlife Biologist with MDIFW responded by email to a “Request for Agency Review and Comment”, stating that “minimal impacts are anticipated” from this proposal.⁴

Based on the evidence, it is unlikely the proposed activities will unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant fauna.

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

³ Data obtained from The Maine Office of GIS “GISVIEW.MEDMR.Eelgrass” is current as of October 2, 2024.

⁴ Email correspondence between MDIFW and DMR

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, or docking facility owned by the Federal Government, the State Government, or a municipal government. 12 M.R.S.A. § 6072-A(13)(F); Chapter 2, § 2.37(1)(A)(7); Chapter 2, § 2.64(11)(A).

There are no beaches, parks, or docking facilities owned by federal, state, or municipal government within 1,000 feet of the proposed lease site.

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

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-A(13)(E); Chapter 2, § 2.37(1)(A)(6).

The applicant proposes to obtain stock from Atlantic Sea Farms in Biddeford, Maine. This is an approved source of stock. If the applicant is unable to obtain stock from this hatchery, then it must come from another DMR approved source.

Therefore, the applicant has demonstrated that there is available source of stock to be cultured for the lease site.

4. CONCLUSIONS OF LAW

Based on the above findings, the Department concludes that:

1. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of riparian owners.
2. The aquaculture activities proposed for this site will not unreasonably interfere with navigation.
3. The aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area.
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 3.71 acres to Jett Lindelof, 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 lessee⁵; 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 suspended cultivation of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), fingered kelp (*Laminaria digitata*), Dulse (*Palmaria palmata*), and sea lettuce (*Ulva lactuca*). 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 square feet of structures and no discharge, a bond or escrow account is required. The lessee shall post a bond or establish an escrow account pursuant to DMR Rule 2.64(12)(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.

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 M.R.S.A. §6072-A(15) and 2.64(11)(B). Conditions are designed to encourage the greatest multiple compatible uses of the lease area, while preserving the

⁵ DMR Rule 2.64 (14) provides:


“The term of the lease shall begin within 12 months of the Commissioner’s decision, on a date chosen by the applicant. No aquaculture rights shall accrue in the lease area until the lease term begins and the lease is signed.”

exclusive rights of the lessee to the extent necessary to carry out the purposes of the lease. No conditions are imposed on this lease.

7. REVOCATION OF EXPERIMENTAL LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 MRSA §6072-A (22) that no substantial research has been conducted on the site over the course of the lease, that aquaculture has been conducted in a manner substantially injurious to marine organisms, or that any conditions of the lease or any applicable laws or regulations have been violated.

Dated: 10/16/24



Patrick C. Keliher, Commissioner
Department of Marine Resources