

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES

Victor A. Sokoloski
PHB CP4x

Experimental Aquaculture Lease Application
Suspended Culture of Marine Algae
Pigeon Hill Bay, Steuben, Maine

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Victor A. Sokoloski applied to the Department of Marine Resources (DMR) for a three-year experimental aquaculture lease located east of Chair Pond Head in Pigeon Hill Bay. The proposed lease is 3.99 acres and is for the suspended culture of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail/fingered kelp (*Laminaria digitata*), shotgun kelp (*Agarum clathratum*)¹, dulse (*Palmaria palmata*), Irish moss (*Chondrus crispus*), and sea lettuce (*Ulva lactuca*) for commercial aquaculture research and development. DMR accepted the application as complete on March 16, 2023.

1. THE PROCEEDINGS

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 Steuben 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 30, 2023, edition of *The Ellsworth American*. 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 September 23, 2024, and the case file. The evidence from each of these sources is summarized below.²

¹ Application lists the scientific name for shotgun kelp as *Agarum cribosum*. Accepted species name is *Agarum clathratum*.

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

LIST OF EXHIBITS

1. Case file
2. Application
3. DMR site report, issued on September 23, 2024

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The purpose of the proposed experimental lease site is to determine the viability of the site for commercial aquaculture (App 5). The applicant is proposing to culture marine algae using fifteen 1,000 linear foot longlines, plus buoys, depth control weights, PVC pipes, and mooring lines, chains, and blocks.

The moorings and mooring components would remain on-site year-round, but all other gear would be removed from June 16-October 14 (App 14). The applicant intends to seed the lines between mid-October and early December for 2-4 days and to tend the farm one to two times a month, weather depending (App 6). Harvesting would occur between late April and mid-June and would take approximately ten days (App 5). For harvest, the longlines will be lifted by a trap hauler or a mast and boom onto a lobster boat and the algae will be cut from the lines with a small knife (App 6).

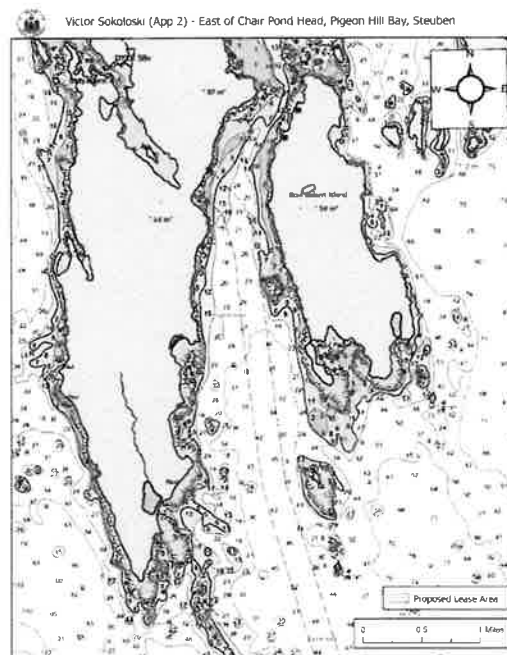


Figure 1: Vicinity map. Image generated by DMR staff.³

³ Unless otherwise noted, all figures in this report were created in ArcGIS Pro version 2.9 using digitized NOAA Nautical Charts or geo-referenced aerial photographs provided by The Maine Office of GIS.

B. Site Characteristics

On July 3, 2024, DMR scientists assessed the proposed lease site. Petit Manan National Wildlife Refuge is to the west of the proposal and consists of a rocky coastline with occasional sandy beaches leading to mixed forest uplands. Bois Bubert Island is east of the proposal and consists of a rocky coastline leading to forested uplands. Petit Manan Light is approximately 4.0 miles south of the proposal (SR 2).

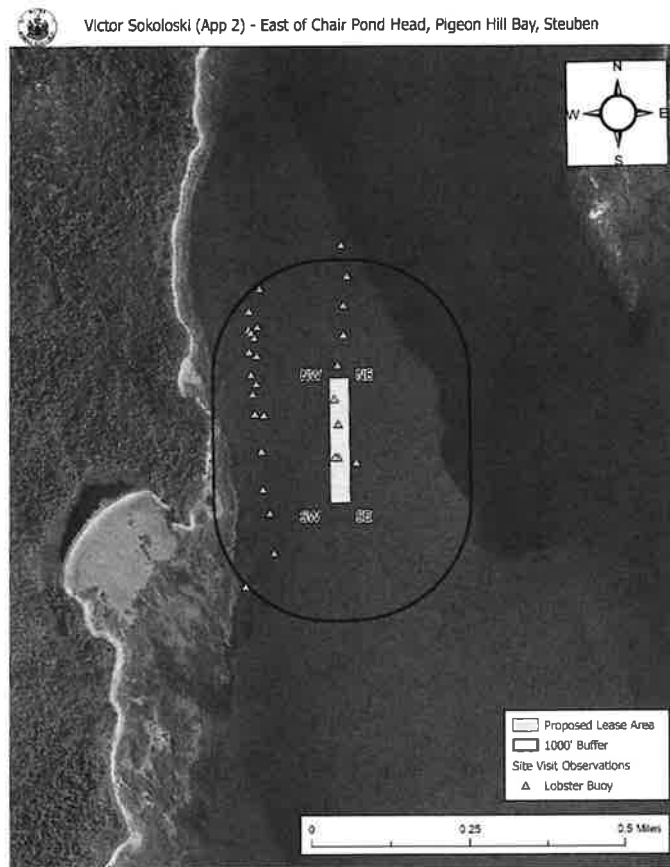


Figure 2. Proposed lease area with site visit observations. Image from DMR site report.

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 applicant has demonstrated that there is an 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 regulations⁴ 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 assessment, DMR did not observe any docks, houses, or moorings in the vicinity of the proposal. The nearby land, Bois Bubert Island to the east and Petit Manan Point to the west, consists mostly of National Wildlife Refuge land owned by the United States Fish and Wildlife Service. No docks or other structures were observed at the time of the site visit (SR 4).

The applicant stated that there are no private docks, moorings, or other access points within 1,000 feet of the proposed site (App 8). A Harbormaster Questionnaire was sent to the Steuben Harbormaster, but no response was received. DMR did not receive any comments from the public regarding this 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).

The proposal is located approximately 7755 feet to the east of Petit Manan Point at mean low water (MLW). There is approximately 2,275 feet of navigable water between the proposal and tidally exposed ledges near Bois Bubert Island at MLW. There is no dedicated main navigational channel in the vicinity

⁴ 13-188 C.M.R. ch. 2. The Commissioner considers the applicable criteria contained in Chapter 2.37 pursuant to Chapter 2.64(11)(A).

of the proposal and water depths in the area would not restrict most vessels from transiting in the area (Figure 3). DMR observed most navigational traffic to be approximately 0.25 miles east of the proposal with occasional vessels traveling nearby or to the west of the proposal. Vessels transiting to the east of the proposal were as follows: six commercial fishing vessels transiting north and four transiting south, and two recreational vessels transiting north and two transiting south. One recreational vessel transited south through the proposal and one commercial fishing vessel transited southerly to the west of the proposal (SR 5).

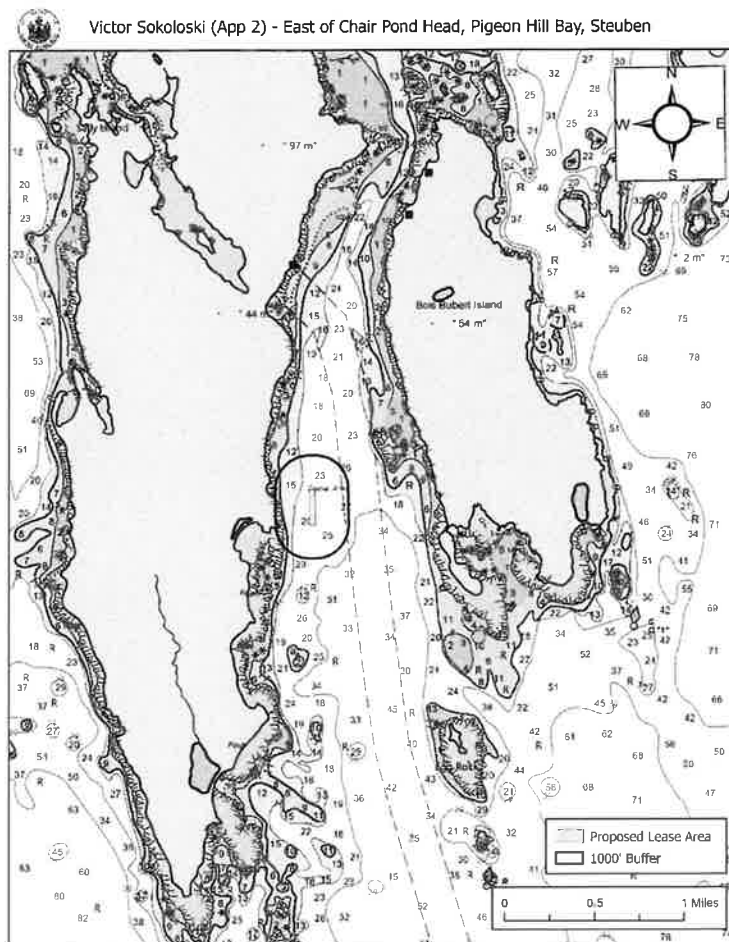


Figure 3. Navigational channels in the vicinity of the proposal. Image from DMR site report.

The application states that boating is uncommon in the area. The application also states that from October 15 to June 15, when gear would be deployed on-site, transit near the site is “very rare” (App 8). A Harbormaster Questionnaire was sent to the Town of Steuben. No response was received by DMR. No comments regarding impacts to navigation were received by DMR. Given the minimal amount of boating in the area, and the distance to most observed vessel traffic, the proposal would not impact 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 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 documented 26 lobster buoys within 1,000 feet of the proposal, with four buoys located with the proposal boundaries (Figure 2). Overall, DMR classified lobstering activity in the general area as light albeit centralized to the vicinity surrounding the proposal. DMR observed several fishing vessels transiting through the area as mentioned in the navigation section of this report (SR 6).

The application states that lobstering is rare at the proposed lease site and does not occur from October 15 to June 15 when the full gear would be deployed (App 8). The application also states that no recreational fishing has been observed in the area (App 8). No comments regarding impacts to fishing were received by DMR from the public. Additionally, the application includes a letter from the Harbormaster stating the proposed lease will not interfere with lobstering or menhaden fishing (App 28).

Although commercial fishing does occur in the area and buoys were observed in and near the proposed site, it has been observed by the applicant to occur from June to October. DMR staff did observe light lobstering activity within 1,000 feet of the proposal during their site visit. The site visit took place in July, in line with the range of months in which lobstering would typically occur. The applicant has stated that all long lines and gear (not including moorings) used in the proposal would be removed from June to October, directly correlating with the range of months in which most commercial fishing occurs in the area.

Given the lack of public comment, the light level of fishing activity, and the timeframe 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.

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

D. 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 aquaculture leases or limited purpose aquaculture (LPA) sites within 1,000 feet of the proposal. There are three pending experimental applications within 1,000 feet of this proposal that are under review by DMR. The applicant has a second pending experimental application 100 feet east of this proposal. Randy Pinkham has a pending experimental application 100 feet south of this proposal and a second pending experimental application 140 feet southeast of this proposal. (SR 6). The application includes a letter of support from Mr. Pinkham (App 29).

Therefore, the activities proposed for this site will not unreasonably interfere with other aquaculture related uses in the area.

E. 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).

On July 3, 2023, DMR utilized a remotely-operated vehicle to assess the epibenthic ecology of the proposed lease. Crab (*Cancer* sp.), lobster (*Homarus americanus*), and hermit crab (*Pagurus* sp.) were seen occasionally, and shrimp (*Crangon septemspinosus*) were common in the video transect (SR 7).

Eelgrass (*Zostera marina*)

Historical records of eelgrass collected by DMR in 2010 indicate the nearest mapped eelgrass is approximately 1,250 feet southwest of the proposal.⁵ Eelgrass blades were observed drifting on the surface of the water in the vicinity of the proposal. No eelgrass was observed on underwater camera footage attached to the seafloor within the proposal boundaries during DMR's site assessment (SR 7).

Fauna

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 located approximately 1,300 feet to the northeast of mapped Tidal Waterfowl and Wading Bird Habitat (TWWH). Data collected by the United States Fish and Wildlife Service in 2022 by aerial nest survey shows the closest mapped bald eagle nesting site to be approximately 0.70 miles southwest of the proposal.

During the site assessment, DMR observed menhaden (*Brevoortia tyrannus*), black guillemot (*Cepphus grylle*), common tern (*Sterna hirundo*), herring gull (*Larus argentatus*), seal (unknown sp), moon jellyfish (*Aurelia aurita*), and bald eagle (*Haliaeetus leucocephalus*) in the general vicinity of the proposal (SR 8).

On August 10, 2023, a Resource Biologist with MDIFW responded by email to a "Request for Agency Review and Comment" stating minimal impacts to wildlife are anticipated for this project.⁶

Based on the evidence, including MDIFW's comment and the absence of eelgrass at the site, the proposed activities will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora or fauna.

Therefore, the aquaculture activities will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

F. 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, 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).

⁵ Data obtained from The Maine Office of GIS "GISVIEW.MEDMR.Eelgrass". This is the most current record of mapped eelgrass within the vicinity of the proposal.

⁶ Email correspondence between MDIFW and DMR

The proposed lease is not within 1,000 feet of any beach, park, or docking facility owned by federal, state, or municipal governments.

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.

G. 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 all marine algae stock from Atlantic Sea Farms in Biddeford, Maine. Atlantic Sea Farms is not currently an approved source of stock for shotgun kelp and Irish moss. Therefore, the applicant may only obtain sugar kelp, skinny kelp, winged kelp, horsetail/fingered kelp, dulse, and sea lettuce from Atlantic Sea Farms or another DMR approved source of stock.

There is currently no approved facility where the applicant could obtain shotgun kelp or Irish moss. The applicant has not demonstrated an approved source for this species. Therefore, it will not be authorized if the lease is granted. However, if the lease is granted and an approved source becomes available, prior to the expiration of the lease, the holder may request a source review. The review must be requested by the applicant in writing and include the name of the approved source. If DMR approves the request, then the applicant may deploy those species. If the lease is granted, a condition will be added accordingly.

Therefore, the applicant has demonstrated that there is available source of stock for sugar kelp, skinny kelp, winged kelp, horsetail/fingered kelp, dulse, and sea lettuce to be cultured for the lease site but failed to demonstrate that there is available source of stock for shotgun kelp and Irish moss.

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 other aquaculture uses of the area.

5. 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.

6. 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.

7. The applicant has demonstrated that there is an available source of stock for sugar kelp, skinny kelp, winged kelp, horsetail/fingered kelp, dulse, and sea lettuce to be cultured for the lease site but failed to demonstrate that there is available source of stock for shotgun kelp and Irish moss.

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 3.99 acres to Victor A. Sokoloski, 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 lessee⁷; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.

This lease for is granted to the lessee for the suspended cultivation of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail/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. Because 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 Chapter 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.

⁷ 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.”

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 exclusive rights of the lessee to the extent necessary to carry out the purposes of the lease. The following condition is imposed on this lease:

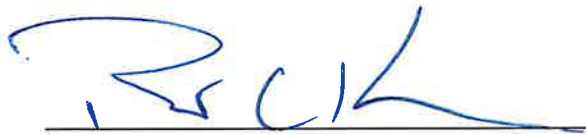
1. If an approved source of shotgun kelp (*Agarum clathratum*) and/or Irish moss (*Chondrus crispus*) becomes available prior to the expiration of the lease, the holder may request a source review, in writing, which must include the name and address of the approved source. These species may not be deployed unless and until the lease holder receives written authorization from DMR.

7. REVOCATION OF EXPERIMENTAL LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 MRSA §6072-A (22) that no substantial aquaculture or 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 condition of the lease or any applicable laws or regulations have been violated.

Dated: _____

12/2/24



Patrick C. Keliher, Commissioner

Department of Marine Resources