

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES

Nichols Fisheries, Inc.
PEN SIX

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

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Nichols Fisheries, Inc. applied to the Department of Marine Resources (DMR) for a three-year experimental aquaculture lease located south of Sears Island, in Penobscot Bay, Searsport, Waldo County. The proposed lease is 3.94 acres and is for the suspended culture 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*) for commercial aquaculture research and development. DMR accepted the application as complete on January 6, 2023.

1. THE PROCEEDINGS

Notice of the application and the 30-day public comment period was provided to state agencies, the Town of Searsport and its harbormaster, and others on DMR's mailing list. The application identified no known riparian landowners within 1,000 of the proposed lease site. Notice of the complete application and comment period was published in the January 19, 2023, edition of *The Courier-Gazette*. Title 12 M.R.S.A. §6072-A (6) provides that the Commissioner may hold a public hearing, and shall do so if five or more persons request a public hearing within the 30-day comment period. No requests for a public hearing were received and no hearing was conducted. The evidentiary record regarding this lease application includes the application, DMR's site report dated February 27, 2024, and the case file. The evidence from each of these sources is summarized below.¹

LIST OF EXHIBITS

1. Case file
2. Application
3. DMR site report, issued on February 27, 2024

¹ These sources are cited, with page references, as App (Application), CF (case file), and SR (site report).

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 marine algae cultivation (App 5). The applicant is proposing to culture marine algae using fifteen 1,000-linear foot culture lines, with five 150-foot-long crosslines, and depth control buoys and weights, as well as moorings and marker buoys (App 14-15). The moorings, with lines, chains, and buoys, as well as the corner marker buoys will remain in place year-round. All other gear will be removed from the site from June 16 to September 30 every year (App 14-15). The applicant intends to tend the site at least twice weekly from late October to May. Harvesting will occur from May to June and will take approximately five to ten days (App 6). Marine algae will be harvested from a lobster boat using a hauler (App 6).

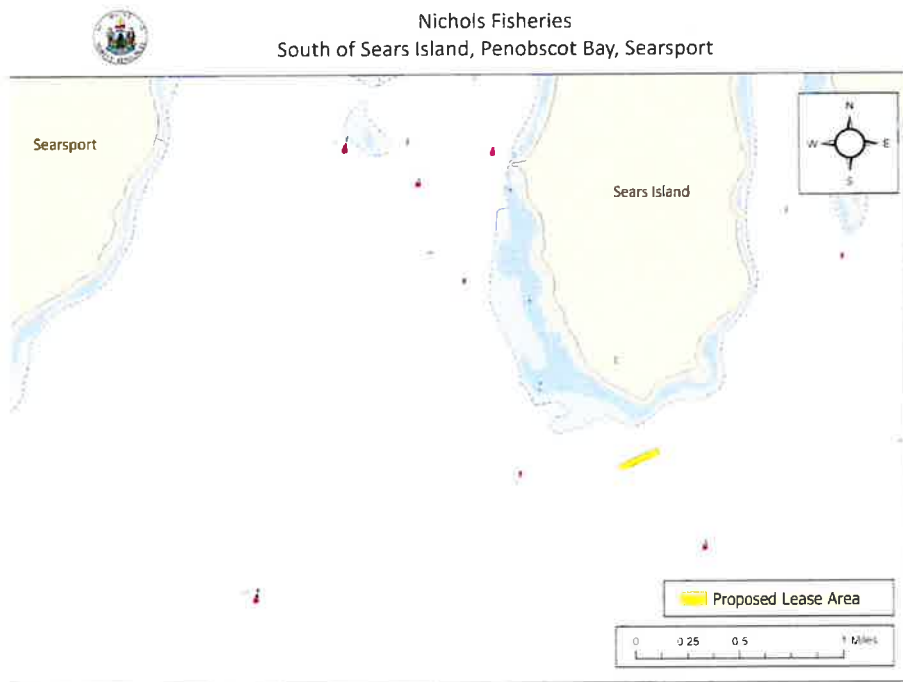


Figure 1: Vicinity map. Image generated by DMR staff.²

²Unless 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 October 26, 2023, DMR scientists assessed the proposed lease site beginning at 11:30 AM. The shoreline of Sears Island, in the vicinity of the proposal, consists of seaweed covered rocks with mixed forested uplands.

DMR began collecting depths at 11:40 AM at the proposed site, which was approximately 2.5 hours after high tide. Measured depths at corners of the proposed lease site ranged from 44.2 to 47.7 feet. Correcting for tidal variation derives water depths at mean low water (MLW, 0.0 feet) to be from 37.0 to 40.5 feet and from 48.2 to 51.7 feet at high tide (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 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 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). 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).

According to the application, there are no shorefront parcels located within 1,000 feet of the proposed lease site. DMR scientists did not observe any docks, piers, or moorings within the vicinity of the proposal at the time of the site visit. (SR 4). DMR did not receive any comments or concerns about riparian access.

DMR did not receive a response to the Harbormaster Questionnaire sent to the Town of Searsport.

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).

The main navigational channel to Searsport Harbor is marked by red navigational buoy “2” approximately 2,560 feet to the west of the proposal. Searsport terminal, in southeast Searsport, provides tanker off-loading and oil transportation, therefore, the main navigation channel is a major route for larger vessels. The navigational channel to the Penobscot River is to the east of green navigational buoy “1” and is approximately 2,620 feet southeast of the proposal. Accordingly, despite the heavy marine traffic at these sites, the proposed lease area will be located at a substantial distance from the main navigational channels, and would leave ample room for vessel navigation.

During DMR’s site visit, one commercial fishing vessel was observed navigating south of the proposal, one recreational powerboat was navigating west of the proposal, and there was one stationary emergency powerboat northwest of the proposal (SR 5).

DMR did not receive a response to the Harbormaster Questionnaire sent to the Town of Searsport.

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

C. Fishing & Other Uses

Fishing. 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-A(13)(C); Chapter 2.37(1)(A)(3)).³ Additionally, the Commissioner considers any evidence concerning other aquaculture uses of the area (Chapter 2.37(1)(A)(4)). During the site visit, DMR documented four lobster buoys within 1,000 feet of the proposal. DMR observed light lobstering activity to the north and east of the proposal. (SR 6).

³ 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).

The application states both commercial and recreational fishing activity occur in the general area but is uncommon in the project footprint (App 8). No comments concerning fishing were received by DMR. DMR did not receive a response to the Harbormaster Questionnaire sent to the Town of Searsport.

Therefore, based on the record, the proposed lease will not unreasonably interfere with commercial and recreational fishing activities in the area.

Other aquaculture uses. There are no aquaculture leases or limited purpose aquaculture (LPA) sites within 1,000 feet of the proposal (SR 6).

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

D. Flora & Fauna

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 2.37(1)(A)(5)).

On October 26, 2023, DMR utilized a remotely operated vehicle to assess the epibenthic ecology of the proposed lease. The relative abundance of epibenthic flora and fauna observed is described in Table 1 below.

Table 1. Species observed during the site assessment.

Species Observed	Abundance
Sand Shrimp (<i>Crangon septemspinosa</i>)	Common
Fluke (<i>Paralichthys dentatus</i>)	Occasional

Historical records of eelgrass collected by DMR in 2010 indicate no mapped eelgrass presence in the vicinity of the proposal.⁴ No eelgrass was observed during DMR's site assessment (SR 7).

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 836 feet to the south of mapped tidal waterfowl and wading bird

⁴ Data obtained from The Maine Office of GIS "GISVIEW.MDMR.Eelgrass". This is the most current record of mapped eelgrass within the vicinity of the proposal.

habitat. Data collected by the United States Fish and Wildlife Service in 2023 by aerial nest survey⁵ shows the closest mapped bald eagle nesting site to be approximately 1.6 miles northeast of the proposal.

On January 25, 2023, a Wildlife 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

Therefore, based on the expert analysis by MDIFW and the site report, 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 a beach, park, or docking facility owned by the federal, state, or a municipal governments (12 M.R.S.A. § 6072(7-A)(F); Chapter 2.37(1)(A)(7)).

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

The applicant proposes to obtain stock from Atlantic Sea Farms in Biddeford, Maine. This facility is currently an approved source for the proposed stock. If the applicant is unable to obtain stock from this facility, 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 any riparian owner.

⁵ Data obtained from USFWS “Bald_Eagle_Nests_-_Maine_2023”.

⁶ Email correspondence between MDIFW and MDMR.

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 3.94 acres to Nichols Fisheries, Inc., 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 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 (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.

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). 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 are imposed on this lease.

7. REVOCATION OF EXPERIMENTAL LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 M.R.S.A §6072-A (22) and DMR Rule Chapter 2.64 (13) 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 conditions of the lease or any applicable laws or regulations have been violated.

Dated: _____

6/20/24



Patrick C. Keliher, Commissioner
Department of Marine Resources