

**STATE OF MAINE
DEPARTMENT OF MARINE
RESOURCES**

Stephen Train
CAS LCI4x

Experimental Aquaculture Lease Application
Suspended Culture of marine algae
Long Island, Maine

February 3, 2020

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Stephen Train applied to the Department of Marine Resources (“DMR”) for a three-year experimental aquaculture lease located southwest of Little Chebeague Island, Casco Bay, Long Island, Cumberland County. The proposed lease is 3.98¹ acres and is for the suspended cultivation of sugar kelp (*Saccharina latissima*), winged kelp (*Alaria esculenta*), skinny kelp (*Saccharina angustissima*)², and dulse (*Palmaria palmata*). DMR accepted the application as complete on April 19, 2019. No requests for a public hearing were received during the comment period and no hearing was held.

1. THE PROCEEDINGS

Notice of the application and the 30-day public comment period were provided to state and federal agencies, riparian landowners, the Town of Long Island and its Harbormaster, and others on DMR’s mailing list. Notice of the application and comment period were published in the July 4, 2019 edition of the *Northern Forecaster*. The evidentiary record regarding this lease application includes the application, DMR’s site report dated November 6, 2019, and the case file. The evidence from each of these sources is summarized below.³

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

¹ Applicant requested an area that measured 4.23 acres, slightly over the maximum allowable acreage of 4 acres for experimental aquaculture leases per 12 MRS § 6071-A. DMR revised the NW coordinate of the proposed lease so the resulting acreage is 3.98 acres. Revised coordinates are provided in section 2.B. of this document.

² In the application, skinny kelp was referred to as a morphotype of *Saccharina latissima* (*Saccharina latissima forma*). Skinny kelp is now considered a separate species (*Saccharina angustissima*) and will be referred to in this report as such.

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

The purpose of the proposed experimental lease site is to determine whether the proposed site is a suitable location to grow kelp, and to determine the gear set up that would maintain a cost-effective operation (App 6). The applicant is proposing to culture marine algae on 1,000-foot horizontal lines suspended 7 feet below the surface of the water. There would be 15 longlines in total, spaced 10 feet apart (App 15). Longlines, depth control lines and buoys, and concrete weights would be removed by mid-June, while 30 anchors and associated mooring lines and buoys are proposed to remain onsite through the year (App 15, SR 2). The applicant plans to use a combination of pyramid, mushroom, helix, and plow anchors (App 15).

B. Site Characteristics

The proposed lease occupies subtidal waters southwest of Little Chebeague Island in Long Island in Casco Bay (SR 2). The shorelines of Little Chebeague and Long Islands are comprised of rock and sand. While Little Chebeague Island is undeveloped, the shoreline facing the proposed lease on Long Island is lined with residential buildings, docks, and moorings (SR 2). During DMR’s site visit on July 9, 2019, depths at the corners of the proposed site ranged from 41 feet to 51.5 feet. When correcting for tidal variation, depths are approximately 0.6 feet lower at mean low water (SR 7).

During the review of the proposed site, DMR scientists calculated that the proposed lease was slightly larger than 4.0 acres (SR 2). Per 12 MRS § 6071-A, experimental leases can be no larger than 4.0 acres. As such, DMR has revised the NW corner coordinate so that the proposed lease boundaries result in a lease area measuring 3.98 acres. The SW, SE, and NE corners of the proposed site remain unchanged. Table 1 below provides the final coordinates for the lease area.

Table 1: Lease coordinates

Corner	Latitude	Longitude
NW	43.705835° N	70.161176° W
SW	43.705369° N	70.161046° W
SE	43.706129° N	70.157077° W
NE	43.706513° N	70.157329° W

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

During DMR's site visit, houses, docks, and moorings were observed along the Long Island shoreline facing the proposed lease (SR 2). Little Chebeague Island is undeveloped, and no docks or moorings were observed in association with that island (SR 7). The proposed lease is located more than 1,000 feet from shore at mean low water (SR 8). During the comment period, DMR did not receive any comments regarding riparian access. Based on the lack of public comments, and because the proposed site is located more than 1,000 feet from all nearby shorelines at mean low water, it is reasonable to conclude that there are no concerns regarding the affects the proposed lease may have on riparian ingress and egress. It appears from this evidence 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 area is in navigable waters to the southwest of Little Chebeague Island in Casco Bay (SR 8). The proposed lease is over 900 feet to the north of the nearby marked channel between Little Chebeague Island and Long Island that leads into Chandler Cove and is over 200 feet to the east of the channel that leads north/south in Casco Bay (SR 8). A recommended two-way route for deep draft vessels is within this marked channel. The proposed lease is located over 2,000 feet to the east of the recommended two-way route (SR 8). While the proposed lease lies outside of any marked navigational channel, it is in a heavily used area, and vessels navigating into Chandler Cove from the north and west have been observed to cut

through the area (SR 8). During the site visit, DMR staff observed commercial and recreational vessels in the area around the proposed lease (SR 8). Vessel traffic is likely heaviest during the summer months, when longlines would be removed from the water and vessels would be able to navigate through the site. However, 30 moorings and mooring balls are proposed to remain on-site year-round, and it is possible vessels would continue to avoid the area as a result.

The proposed lease is located over 1,000 feet from all adjacent shorelines (SR 8). However, the site report notes that because of existing aquaculture activity in the area, should this lease be granted there could be some impact to navigation (SR 8). If this proposal is approved, those navigating in an east/west direction would have approximately 480 feet to navigate between the proposal and existing aquaculture activity to the north (SR 8). Those travelling in a north/south direction would likely need to move east or west to avoid the proposal, and the recently approved lease for Great Ledge Cove Seafood, LLC⁴. The impact to navigation is likely to be more pronounced during the summer months when vessel traffic is heaviest. Figure 1 shows the location of the proposal and existing and pending aquaculture activity in the area.

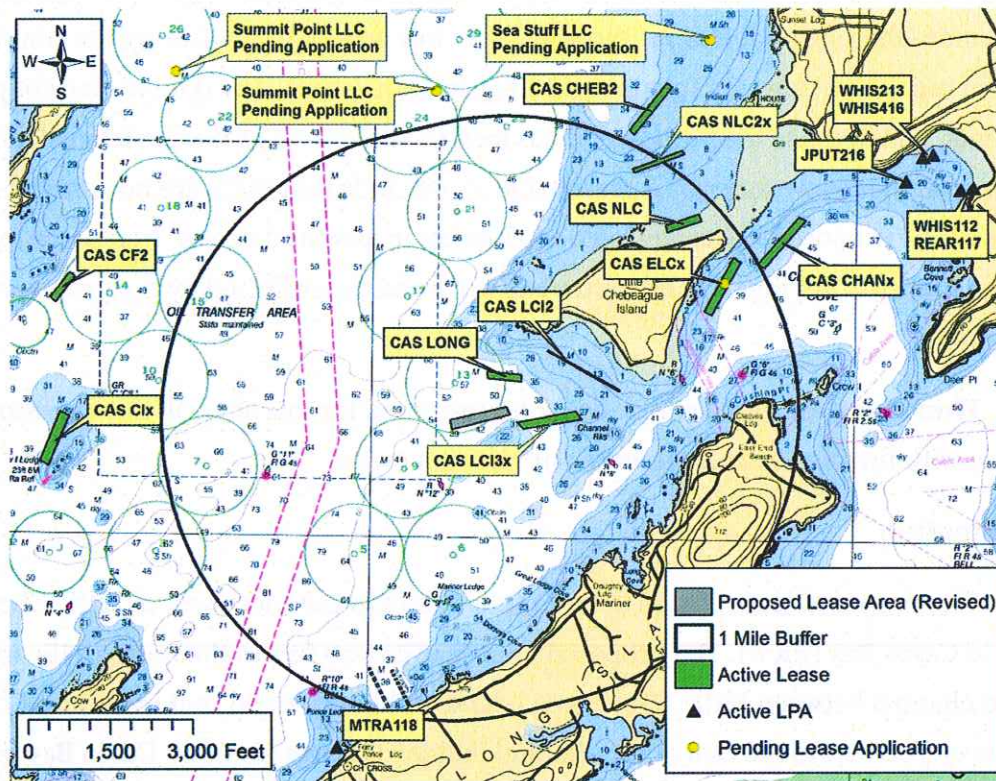


Figure 1: current and pending aquaculture activity surrounding the proposal.

⁴ Decision granting a lease for Great Ledge Cove Seafood, LLC was signed by the Commissioner on November 4, 2019.

During the review period, DMR did not receive any comments regarding navigation. However, because vessel traffic is likely the heaviest during summer months and mariners travelling to or from Chandler Cove are known to cut through the area, and because of the concern noted in the site report surrounding navigation and additional aquaculture activity in the area, DMR will require that longlines, mooring lines and chains, be removed from the water between June 15th and September 15th of each year. The anchors⁵ may remain on site year-round. Conditions reflecting this requirement will be included in the lease. This condition was also imposed on the lease for Great Ledge Cove Seafood, LLC. Requiring this of both the Great Ledge Cove, LLC lease and this proposal will help ensure any impacts to navigation are minimal. In their application, Stephen Train indicated that seeding of longlines would occur on or after November 1, and all harvesting would conclude by June 10 (App 6). The condition to remove gear between June 15th and September 15th is different from the timeline proposed by the applicant as this is the timeline that has been imposed on similar leases in the area.

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 July 9, 2019, lobstering activity was observed near the proposed lease; one lobster boat was observed to the east of the proposed lease and two lobster buoys were observed within the proposal (SR 9). DMR scientists did not observe other commercial or recreational fishermen during the visit to the site (SR 9), but it is possible the area is used by both. The applicant noted that there is light lobster fishing in the area, but not during the time longlines would be present on the site (App 9).

The applicant proposes to deploy longlines on the site from November through mid-June, while 30 anchors and associated mooring lines and buoys would remain on-site year-round (App 17). Whether lobstermen might avoid the area in the summer months due to the proposed moorings is unknown. Other fisheries, such as scallop dragging or menhaden fishing, would be excluded from the lease area due to the year-round presence of gear (SR 8). Some

⁵ Applicant intends to use a combination of pyramid, mushroom, helix and plow anchors.

recreational fishing may occur near the proposed lease site (App 9). During the review period, no comments were received regarding the impact the proposed lease may have on fishing.

As discussed in the navigation section of this document, DMR will require that longlines, mooring lines, and chains be removed from the water between June 15th and September 15th each year. As such, the proposed aquaculture activities should not interfere with any lobstering or other fishing that may occur in the area during the summer months.

Given the absence of public comments expressing concern regarding interference with fishing, and the condition described above, it is reasonable to conclude that there are no concerns about the effects the proposed site may have on commercial or recreational fishing. It appears from the evidence, and the condition described above, that the proposed lease is unlikely to unreasonably affect commercial and recreational fishing activities in the area.

Exclusivity. Due to possible interactions with gear, dragging and other forms of commercial fishing are prohibited within the boundaries of the proposed lease site from September 15th through June 15th when longlines are present.

Other aquaculture uses. There are 6 aquaculture leases located within one mile of the proposed lease. The closest lease to the proposed site, CAS LCI3x, is located approximately 195 feet to the east and held by Great Ledge Cove Seafood, LLC for the suspended culture of marine algae. The next closest aquaculture lease is standard lease CAS LONG, which is permitted for the suspended culture of shellfish and is located approximately 480 feet to the north (SR 10).

Other water-related uses. 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 the 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 2018, the nearest eelgrass to the proposed lease was 1,200 feet to the north of the site. The proposed aquaculture activities for this site are unlikely to shade or disrupt these eelgrass beds (SR 11).

Data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) indicate that the proposed lease is located approximately 1,195 feet from Tidal Wading Bird and

Waterfowl Habitat, which is defined under Maine's Natural Resource Protection Act as Significant Wildlife Habitat (SR 10). DMR sent a copy of the application to MDIFW for their review and comment on June 26, 2019, but no response was received.

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

Little Chebeague Island, which is owned by the Maine Department of Agriculture, Conservation, and Forestry, Bureau of Parks and Lands is located approximately 1,360 feet to the north of the proposed site. The island is popular with recreational boaters and beachgoers (SR 12), and access to the island from the water requires landing directly on one of the island's beaches or anchoring offshore in the shallows. Access by foot is possible at low tide via an exposed sandbar (SR 12). As discussed in the navigation section of this document, the proposed lease is located over 1,000 feet from any adjacent shoreline, and vessels would not be prevented from travelling between the proposed lease and Little Chebeague Island.

During the comment period, DMR did not receive any comments regarding public use and enjoyment. Based on the lack of public comments, and because the proposed lease is located over 1,000 feet from adjacent shorelines, it is reasonable to conclude that there are no concerns regarding the effect the proposed lease may have on public use and enjoyment. It appears from this evidence that public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by federal, state, or municipal governments will not be unduly affected by the proposed application.

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, winged kelp, skinny kelp, and dulse from Ocean's Balance in Biddeford, Maine. 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.

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 the timing of gear deployment, the aquaculture activities proposed for this site will not unreasonably interfere with navigation.

3. Given the condition related to the timing of 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 3.98 acres to Stephen Train 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 lessee⁶; 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*), winged kelp (*Alaria esculenta*), skinny kelp (*Saccharina angustissima*), and dulse (*Palmaria palmata*) 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)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 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. All gear, except for anchors, must be removed from the water between June 15th and September 15th each year.

⁶ 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.”

⁷ 12 MRS §6072-A (15) provides that:

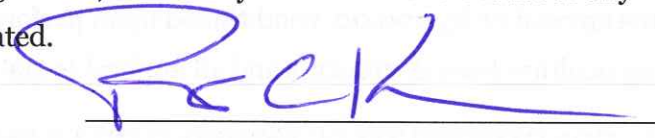
“The commissioner may establish conditions that govern the use of the leased area and limitations on the aquaculture activities. These conditions must encourage the greatest multiple, compatible uses of the leased area, but must also address the ability of the lease site and surrounding area to support 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.”

3. Due to possible interactions with gear, dragging and other forms of commercial fishing are prohibited within the boundaries of the proposed lease site from September 15th to June 15th when longlines are present on the site.

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: 02/03/2020



Patrick C. Keliher, Commissioner

Department of Marine Resources