

**STATE OF MAINE
DEPARTMENT OF MARINE
RESOURCES**

**Beth Putnam
CAS NECx**

Experimental Aquaculture Lease Application
Suspended Culture of Marine Algae
Chebeague Island, Maine

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Beth Putnam applied to the Department of Marine Resources (“DMR”) for a three-year experimental aquaculture lease located northeast of Great Chebeague Island, in Casco Bay, Chebeague Island, Cumberland County for the suspended cultivation of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail kelp (*Laminaria digitata*), shotgun kelp (*Agarum cribosum*), dulse (*Palmaria palmata*), Irish moss (*Chondrus crispus*), nori/laver (*Porphyra sp.*), *Gracilaria tikvahiae*, and sea lettuce (*Ulva lactuca*). The application states the proposal is for a lease site comprising of 3.9 acres but DMR calculations, based on the coordinates provided, indicate the actual acreage is 3.86 acres. DMR accepted the application as complete on February 17, 2022.

1. THE PROCEEDINGS

Notice of the application and the 30-day public comment period was provided to state and federal agencies, riparian landowners within 1,000 feet of the proposal, the Town of Chebeague Island and its Harbormaster, and others on DMR’s mailing list. Notice of the application and comment period was published in the March 17, 2022 edition of *The Northern Forecaster*. No requests for a public hearing were received during the comment period and no hearing was held¹. The evidentiary record regarding this lease application includes the

¹ Only one comment was received during the public comment period from Theresa Cobb, Susan Szewczyk, and Stephanie Christman, who identified themselves as the landowners of 43 Fenderson Road on Chebeague Island, which is located approximately 1,700 feet southwest of the proposed lease, at the nearest point. Their concerns were not relevant to any of the lease decision criteria under 12 M.R.S.A. § 6072-A, such as potential interference with riparian ingress or egress, navigation, or their other uses of the waters in and around the proposed lease site. While they did raise a concern about lease site workers using their property to access the shoreline and the increased presence of vehicles attempting to park on their property, the lease application indicated that no access to the lease area would be across riparian land.

application, DMR's site report dated July 19, 2022, and the case file. The evidence from each of these sources is summarized below.²

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 6). The applicant is proposing to culture marine algae from October 15th to May 31st, annually, using horizontal lines suspended 7 feet below the surface of the water. There would be 10 longlines in total (SR 7). One section of the application states that longlines will be approximately 1,100 feet in length, and another section shows the longlines slightly less than 1,000 feet in length (SR 2). As illustrated in the site report (SR 6), the proposed lease area is approximately 998.75 feet long on the eastern boundary and 1,004.61 feet long on the western boundary. If the lease is granted, longline length will be required to be 950 feet or less, in order to always fit within the proposed boundaries of the lease. Longlines and depth compensator buoys will be removed from the water June 1 – October 14, annually; 20 moorings (either 800-lb pyramid anchors or 2,000-lb blocks), 20 associated mooring buoys (A3 and A4 poly balls)³, and the required marker buoys will remain on site year-round (App 14).

B. Site Characteristics

DMR scientists conducted a site visit of the proposed lease area on March 23, 2022. The proposed lease occupies subtidal waters near the northeastern shoreline of Great Chebeague Island, Casco Bay. The nearby shoreline is primarily sand with sections of ledge, and the uplands host several residential houses and associated structures. Uninhabited islands and Harpswell are to the east of the proposal.

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

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

³ Hereinafter referred to as "mooring system"

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, numerous houses were observed along the nearby shoreline, including approximately five houses directly west of the proposal and at least four of these houses had associated shoreline stairs for water and beach access (SR 7). The proposed lease is located approximately 490 feet from the nearest point on shore at mean low tide (SR 7). Approximately 300 feet to the northwest of the proposal, two moorings with winter stick buoys were observed near the shoreline. An additional mooring buoy and two poly ball buoys were located over 800 feet to the southwest of the proposal (SR 7). DMR's site report also highlights that landing vessels on the sand beach, located approximately 490 feet to the west of the proposed lease area, may be commonplace. Riparian landowners may use the beach as an access to the island; however, Chebeague Island has a primary ferry access route on the western shore of the island. DMR's site reports indicates that during the months that longlines are deployed, access to the observed moorings would not be prevented and approximately 200 feet would remain available for navigation between the proposal and the nearest mooring, taking into consideration vessel swing during low tide (SR 7). DMR's site report also indicates that, when longlines are deployed, traditional access routes may be altered, particularly from the south, and use of the moorings may be more cumbersome due to the proximity of deployed aquaculture gear and that access to the shoreline directly west of the proposal may require adjustments for navigating around the proposed lease area (SR 7).

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.

B. Navigation

At the time of the DMR's site assessment, depths at the corners of the proposed lease site ranged from 50.2 feet to 54.5 feet, as measured with a transom-mounted depth sounder. Correcting for tidal variation derives water depths between 50.3 and 54.6 feet at the nearest high water, and water depths between 41.3 and 45.6 at mean low water (SR 7). There is a mooring field approximately 2,655 feet southwest of the proposal and, considering the distance, the proposal is unlikely to prevent access or use of the moorings. However, the presence of the mooring field may result in increased vessel traffic in the area, and mariners travelling to and

from the mooring field may be required to alter traditional routes and navigate around the proposed longlines and/or mooring buoys, depending on the season (SR 8).

The proposed lease lies between Chebeague Island approximately 490 feet to the west and the Red Nun “8” navigational buoy approximately 1,650 feet to the east, which should provide sufficient navigational access to boat traffic. However, based on increased boat traffic during the summer months and the two rows of mooring buoys (and potential presence of longlines), vessel congestion may occur if multiple vessels are attempting to navigate the area simultaneously. Longlines will not be present on the site during the summer when vessel traffic is likely heaviest but may experience overlap between increased boat traffic and the months when longlines are deployed, particularly May and October. Automatic Information System (AIS) data for 2021 show a vessel count of 100-200 between the proposal and the Red Nun “8” navigational buoy, and a vessel count of 60-100 to and from the mooring field to the southwest of the proposal (SR 8). Additionally, the 2021 AIS data show a vessel count of 20-40 within the proposed lease area. Based on the data provided by AIS and the distances between the proposed lease area and the Red Nun “8” navigational buoy, there is evidence to suggest that there is adequate space to allow for multiple vessels to traverse the open space and not unreasonably interfere with navigation. During the review period, DMR did not receive any comments regarding navigation.

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

C. Fishing & Other Uses

Fishing. During DMR’s site visit on March 23, 2022, one fouled lobster trap-style buoy was located near the proposed lease site (SR 9). DMR scientists did not observe any other evidence of commercial or recreational fishing, and no commercially important species were seen in the drop camera video (SR 9), but it is possible the area is used by both. According to the applicant, there is limited lobster fishing in the area during the summer months (App 8). The applicant submitted four letters of support of the proposed project from local fishermen, attesting that the proposed lease area will not interrupt local lobstering. The applicant proposes to deploy longlines on the site from October 15th through May 31st, while 20 concrete moorings with associated mooring lines/chains and buoys would remain on site year-round (App 16). The applicant also indicated that recreational fishing is typically more prevalent between late-June to late-September (App 8). During the review period, no other comments were received regarding the impact the proposed lease may have on fishing.

DMR will require that all gear, except for the mooring system, be removed from the water between June 1st and October 14th each year. As such, the proposed aquaculture activities should not interfere with any lobstering or other fishing that might typically occur in the area during the summer months.

Given the absence of public comments expressing concern regarding interference with fishing, and with the addition of the condition described above, it is reasonable to conclude that the proposed lease would not have an unreasonable impact on commercial and recreational fishing activities in the area.

Exclusivity. The applicant has not requested exclusivity.

Other aquaculture uses. There are 33 leases, 109 LPA licenses, and 13 pending applications within Casco Bay (SR10). The nearest aquaculture site to the proposal is the 1.99-acre lease CAS BA2, which is approximately 5,770 feet to the southeast and approved for the suspended culture of shellfish and marine algae (SR 10).

Other water-related uses. During the review period, DMR did not receive any comments detailing other water-related uses. 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 the Maine Department of Environmental Protection in collaboration with Casco Bay Estuary Partnership indicated that, in 2018, the nearest eelgrass to the proposed lease was 350 feet west of the site. Due to water depths, the proposed aquaculture activities for this site are unlikely to disrupt these eelgrass beds.

Data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) indicated that the proposed lease is located approximately 350 feet from Tidal Wading Bird and Waterfowl Habitat, which is defined under Maine's Natural Resource Protection Act as Significant Wildlife Habitat (SR 16). DMR sent a copy of the application to MDIFW for their review and comment. In comments dated March 15, 2022, MDIFW stated that minimal impacts to wildlife are anticipated for this project.

Based on the evidence that the proposed lease does not intersect 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 ecologically significant flora and fauna.

E. Public Use & Enjoyment

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

During the comment period, DMR did not receive any comments regarding public use and enjoyment. Based on the lack of public comments, and the project's location in relation to public facilities, it is reasonable to conclude that there are no concerns regarding the effect the proposed lease may have on public use and enjoyment.

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 marine algae from Atlantic Sea Farms 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 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.

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 3.86 acres to Beth Putnam, 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 lessee⁴; 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*), shotgun kelp (*Agarum cribosum*), dulse (*Palmaria palmata*), Irish moss (*Chondrus crispus*), nori/laver (*Porphyra sp.*), *Gracilaria tikvahiae*, and sea lettuce (*Ulva lactuca*) 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

⁴ 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.”

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)⁵. 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 condition shall be incorporated into the lease:

All gear, except for the mooring system and corner marker buoys, must be removed from the water between June 1st and October 14th of each year.

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: 8/22/22



Patrick C. Keliher, Commissioner
Department of Marine Resources

⁵ 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.”