

**STATE OF MAINE**  
**DEPARTMENT OF MARINE RESOURCES**

**Great Ledge Cove Seafood, LLC**  
**CAS CHAN**

Standard Aquaculture Lease Application  
Suspended culture of marine algae  
Casco Bay, Chebeague Island

**FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION**

Great Ledge Cove Seafood, LLC applied to the Department of Marine Resources (DMR) for a twenty-year standard aquaculture lease on 6.85 acres located northeast of Little Chebeague Island in Western Chandlers Cove, Casco Bay, Town of Chebeague Island, in Cumberland County. The application is for the suspended culture of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), horsetail kelp (*Laminaria digitata*), & winged kelp (*Alaria esculenta*).

**1. THE PROCEEDINGS**

The applicant held a pre-application meeting on this proposal on March 23, 2021, and the draft application was submitted on May 6, 2021. A scoping session was held on August 30, 2021. The final application was deemed complete by DMR on November 10, 2021. Notice of the completed application was provided to riparian landowners, state agencies, the Town of Chebeague Island and its Harbormaster, and others on DMR's email listserv. DMR's site report was issued on June 27, 2023.

The public hearing on this application occurred on August 15, 2023. Public notice of the hearing was published in *The Forecaster* on July 13, 2023, and July 27, 2023. Notice of the hearing was also provided to all riparian landowners within 1,000 feet of the proposal, the Town of Chebeague Island, other state agencies, and subscribers of DMR's aquaculture email listserv.

As indicated on all notices of the hearing, persons who wished to ask questions of the parties or offer testimony were required to register in advance. Two individuals registered to provide testimony. The applicant's owner and managing member, Justin Papkee, and the two persons who registered to participate in the hearing were sent information about participation in the proceeding, the hearing agenda, and testimony time limits. During the hearing, both registered individuals declined to provide testimony. Only Justin Papkee, on behalf of the applicant, provided testimony.

The hearing was recorded by DMR. The Hearing Officer was Hannah Brazier.

The evidentiary record before DMR regarding this lease application includes three exhibits (see exhibit list below), and the record of testimony at the hearing itself. The evidence from these sources is summarized below.

### **LIST OF EXHIBITS<sup>1</sup>**

1. Case file
2. Application
3. DMR site report

## **2. DESCRIPTION OF THE PROJECT**

### **A. Site History**

On December 5, 2017, DMR granted CAS CHANx, an experimental lease to Great Ledge Cove Seafood, LLC. The experimental lease is in Casco Bay, in the Town of Chebeague Island. The experimental lease is 3.57 acres and is for the suspended culture of sugar kelp (*Saccharina latissima*), horsetail kelp (*Laminaria digitata*), and winged kelp (*Alaria esculenta*).

The experimental lease expired on May 31, 2021. However, 12 M.R.S.A §6072-A(20), allows the holder of an experimental lease to continue operating the site while DMR considers the standard lease application, as long as the application was submitted before the expiration of the experimental lease and the standard lease proposal overlaps a portion or all of the existing experimental lease. In this case, the standard lease draft application was submitted to DMR before the experimental lease expired, and the standard lease proposal encompasses the entire footprint of CAS CHANx. The applicant is also proposing to lease additional area, expanding from 3.57 acres to 6.85 acres (SR, 2).

### **B. Site Characteristics**

On March 23, 2022, DMR staff assessed the proposed lease site and the surrounding area in consideration of the criteria for granting a standard aquaculture lease. The proposed lease area is located on the western side of Chandler Cove, northeast of Little Chebeague Island (SR, 2, Figure 1). An intertidal sandbar connects Little Chebeague Island to Chebeague Island at low tide (SR, 2). According to the site report, the proposal is located approximately 700 feet from shore at mean low water (MLW) from its nearest point (SR, 2).

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<sup>1</sup> Exhibits 1, 2, and 3 are cited below as: Case file – “CF”; Application – “App”, site report – “SR”. Other exhibits are cited by number.



Figure 1. Great Ledge Cove Seafood, LLC’s proposed standard lease location (including the existing experimental and expanded area-both areas are part of the proposed standard lease). Image generated by DMR staff.

The shoreline of Little Chebeague Island is sandy with shrubs and mixed forests inland (SR, 2). Chebeague Island is north and east of the proposal (SR, 2). The northern end of Little Chebeague Island, and the intertidal sandbar that connects Little Chebeague Island to Chebeague Island at low tide, are west of the proposal (SR, 2). The northern end of Long Island is south of the proposal (SR, 2). The shoreline and intertidal zone are a mixture of sandy beaches and low-lying ledges covered in seaweed (SR, 2). The uplands are a mixture of residential houses with grass lawns and patches of forest (SR, 2). The bottom of the proposed lease site is characterized

by soft mud with sporadic shell hash (SR, 3). Correcting for tidal variations, depths within the site range are between 26.3 to 37.2 feet at MLW (SR, 2).

### **C. Proposed Operations**

The applicant is proposing to culture sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina latissimi forma*), horsetail kelp (*Laminaria digitata*), and winged kelp (*Alaria esculenta*) using longlines. The applicant plans to deploy 30 longlines that are approximately 1,100 feet in length each (App 7). Mr. Papkee testified that the longlines will be spaced ten feet apart and will be submerged seven feet below the surface of the water. The longlines will be seeded during the fall over a period of two to four days (App, 11). Once seeding has ended the site will be monitored on a weekly basis depending on weather (App, 11). In spring, the kelp will be harvested, by hand, over a period of two to 15 days, beginning in April and concluding by the end of May (App, 12/Papkee, Testimony). Mr. Papkee testified that after the kelp is harvested, the longlines and buoys will be removed from the proposed site and stored on his personal property until the fall. The applicant proposes to utilize helical moorings on the site, but if hard substrate is encountered, the applicant may use pyramid or block anchors (Papkee, testimony). The moorings will remain on the proposed site throughout the year (App 8). Access to the site will be from Long Island (Papkee, testimony).

### **3. STATUTORY CRITERIA & FINDINGS OF FACT**

Approval of standard aquaculture leases is governed by 12 M.R.S.A. §6072. This statute provides that a lease may be granted by the Commissioner upon determining that the project will not unreasonably interfere with: the ingress and egress of riparian owners; navigation; fishing or other uses of the area, taking into consideration other aquaculture uses of the area; the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; or the public use or enjoyment within 1,000 feet of beaches, parks, docking facilities, or conserved lands 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 for the lease site; that the lease will not result in an unreasonable impact from noise or lights at the boundaries of the lease site; and that the lease will comply with visual impact criteria adopted by the Commissioner.

### **A. Riparian Access**

Maine law and DMR's Chapter 2 regulations<sup>2</sup> ("Chapter 2") require the Commissioner to examine whether riparian owners can safely navigate to their shore. 12 M.R.S.A. § 6072(7-A)(A); Chapter 2.37(1)(A)(1). 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).

The proposed lease, at its nearest points, is located approximately 545 feet from the shoreline of Little Chebeague Island and approximately 1,200 feet from the Chebeague Island shoreline at MLW (SR, 4). Little Chebeague Island is an uninhabited island that is open to the public for hiking and camping (SR, 2). Chebeague Island is an inhabited island with approximately 300 year-round residents, which increases to approximately 1,850 people during the summer season (SR, 2). The proposal is approximately 1,100 feet from the nearest riparian shorefront parcel at mean high water (MHW) and approximately 580 feet at MLW (SR, 4). There are no docks or moorings within 1,000 feet of the proposal (SR, 4). The proposal is approximately 2,000 feet from the Chebeague Island mooring field located in Chandler Cove and approximately 2,600 feet from the Chebeague Island Wharf. Based on the record, the proposed lease site should not affect access to the mooring field or wharf. A Harbormaster Questionnaire was sent to the Town of Chebeague Island, but no response was received. During the hearing, no testimony was provided regarding riparian ingress and egress.

**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(7-A)(B); Chapter 2.37(1)(A)(2).

At the time of DMR's site visit on March 23, 2022, one motorboat was observed operating to the west of Little Chebeague Island and two lobster boats were observed navigating to the east (SR, 5). The proposal is within Chandler Cove, a waterbody between Chebeague, Little Chebeague and Long Islands, and is used by both commercial and recreational boaters (SR, 5). A ferry lands on the Chebeague Island Wharf and transits the navigational channel between

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<sup>2</sup> 13-188 C.M.R. ch. 2.

Little Chebeague and Long Islands (SR, 6/ Figure 2).

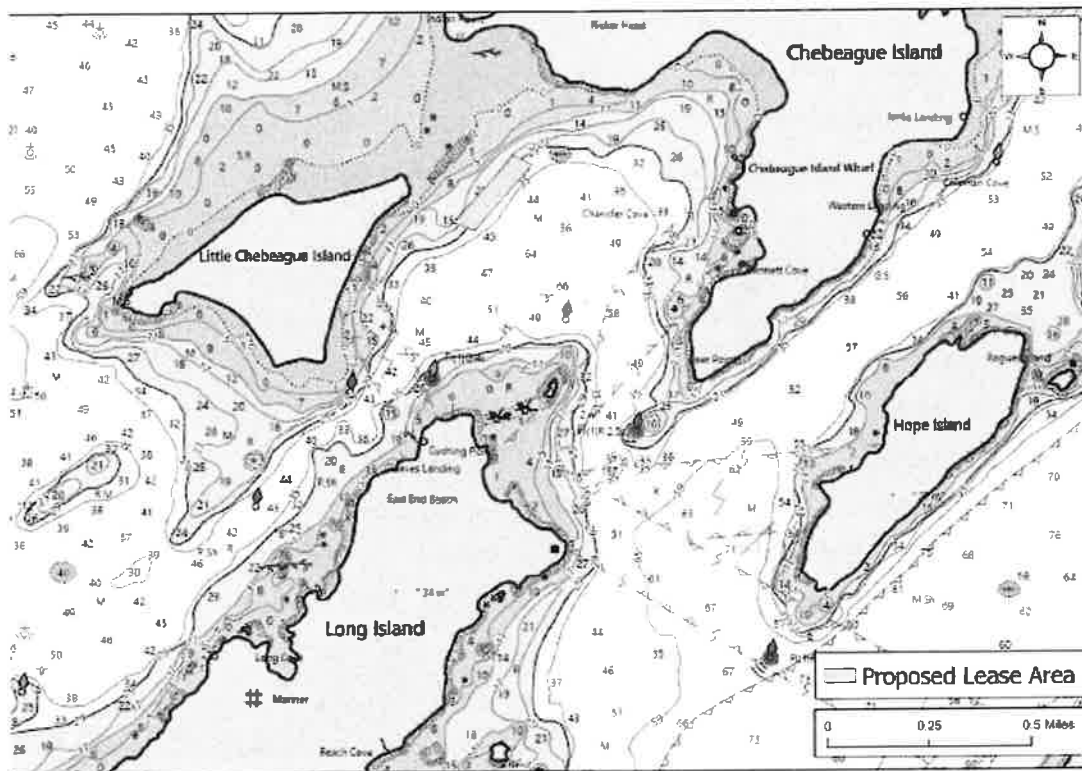


Figure 2. Proposed lease area, navigation channels, and channel markers. Image taken from DMR site report.

The proposal is along the western edge of the widest section of the marked channel that leads through Chandler Cove (SR, 5). Approximately 1,750 feet is available for navigation between the proposed lease site and the nearest navigational marker (GC “3”) on the opposite side of the channel (SR, 5). At MLW, approximately 580 feet remain between the western boundary of the proposal and the tidally exposed sandbar to the west (SR, 5). At MHW, more than 1,000 feet of navigable water remains to the north of the proposal (SR, 5).

A Harbormaster Questionnaire was sent to the Town of Chebeague Island, but no response was received. No one offered testimony about navigation at the public hearing. Based on the evidence and lack of testimony, 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**

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(7-A)(C); Chapter 2.37(1)(A)(3). Additionally, the Commissioner considers any evidence concerning other aquaculture uses of the area. Chapter 2.37(1)(A)(4).

**Fishing.** During DMR's site assessment on March 23, 2022, no commercial fishing activity was observed within the proposed lease boundaries (SR, 6). Two lobster boats were observed transiting to the east of the proposed site, but were not hauling or handling gear (SR, 6). Sea scallops (*Placopecten magellanicus*) and razor clams (*Ensis directus*) were observed on underwater camera footage taken during the site assessment (SR, 6).

During the public hearing, no one in attendance identified themselves as a lobsterman or shellfish harvester and no testimony was provided concerning those uses of the area, and no testimony was provided concerning impacts to recreational fisheries.

**Therefore**, the aquaculture activities proposed for this site will not unreasonably interfere with commercial or recreational fishing.

**Other water-related uses.** The application indicates that kayaking has been observed in Casco Bay during the summer months (App, 19). During the summer months, all marine algae gear will be removed from the site. During the hearing, no testimony was provided to indicate that the proposed lease site would interfere with other water related uses of the area.

**Other aquaculture leases.** The applicant currently operates experimental lease CAS CHANx within the boundaries of this proposal. In accordance with statute, CAS CHANx will be relinquished after a final decision on the proposal is rendered. Standard lease CAS ELC, operated by Shearwater Ventures, LLC, is approximately 300 feet to the southwest of the proposal. There are no other Limited Purpose Aquaculture sites (LPAs) or leases within 1,000 feet of the proposal (SR, 7). No one offered testimony about other aquaculture sites in the area.

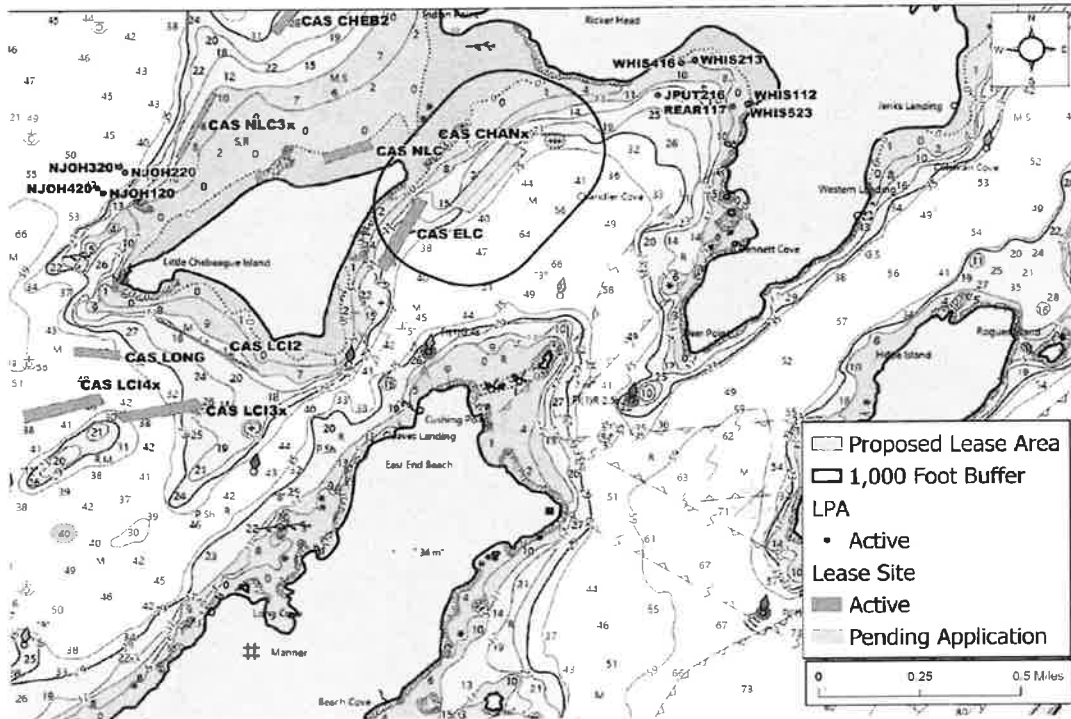


Figure 2. Aquaculture leases and Limited Purpose Aquaculture (LPA) licenses within 1,000 feet of the proposed site. Image taken from DMR site report.

Therefore, considering the number and density of aquaculture leases in the area, the aquaculture activities proposed for this site will not unreasonably interfere with fishing or other 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(7-A)(D); Chapter 2.37(1)(A)(5).

**DMR observations.** During the site assessment, staff observed the following species and recorded their respective abundance:

Species	Abundance
Tunicate species (not classified), Northern cerianthid anemone ( <i>Cerianthus borealis</i> )	Common
Hydroid species (not classified), Sea Scallop ( <i>Placopecten magellanicus</i> )	Occasional



Rockweed ( <i>Ascophyllum nodosum</i> ), Razor Clam ( <i>Ensis directus</i> ), Hermit Crab ( <i>Paguroidea spp</i> ), Sugar Kelp ( <i>Saccharina latissima</i> )	Rare
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**Eelgrass (*Zostera marina*).** According to data collected in 2022, there is eelgrass (*Z. marina*) located within 1,000 feet of the proposal along the shoreline of Little Chebeague Island and the tidal sandbar. (SR,8). Data also indicates the presence of eelgrass along much of the shoreline of Chandler Cove (SR, 8/ Figure 5). The proposal is located approximately 200 feet to the east of mapped eelgrass at its closest point. Underwater footage collected by MDMR scientists on March 23, 2022, found eelgrass within the boundaries of the proposal (SR, 8). It was observed on underwater footage in higher density clumps as well as areas of sparse coverage throughout the first and second transect conducted by MDMR on March 23, 2022 (SR, 8).

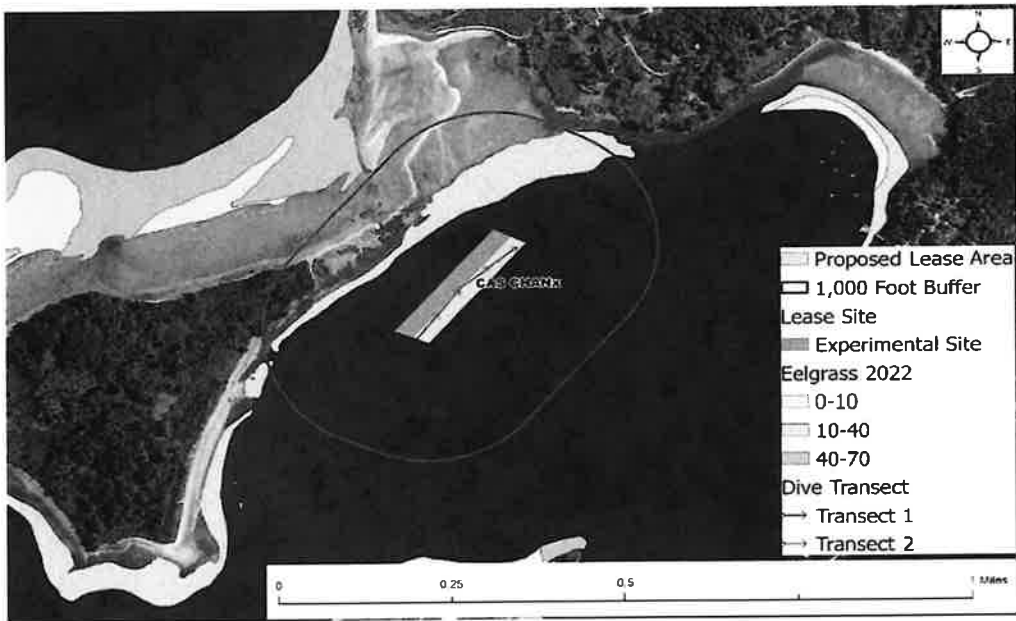


Figure 3. Historical eelgrass (*Z. marina*) near the proposed lease site utilizing data from 2022, current active experimental lease boundaries and camera transects. Image taken from DMR site report.

**Fisheries & wildlife.** During MDMR’s site assessment conducted on March 23, 2022, Longtail ducks (*Clangula hyemalis*), gulls (*Larus spp*), Loons (*Gavia immer*), Eider ducks (*Somateria mollissima*) and Scoters (*Melanitta spp*) were observed in the vicinity of the proposal (SR, 11). According to data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), the proposed lease site is not located within mapped Tidal Waterfowl and Wading Bird Habitat (TWWH). According to the data, there is tidal waterfowl and wading bird habitat

within 1,000 feet of the proposal along the shore of Little Chebeague and Chebeague Island, as well as the tidal sandbar that connects the two islands (SR, 11/Figure 5).

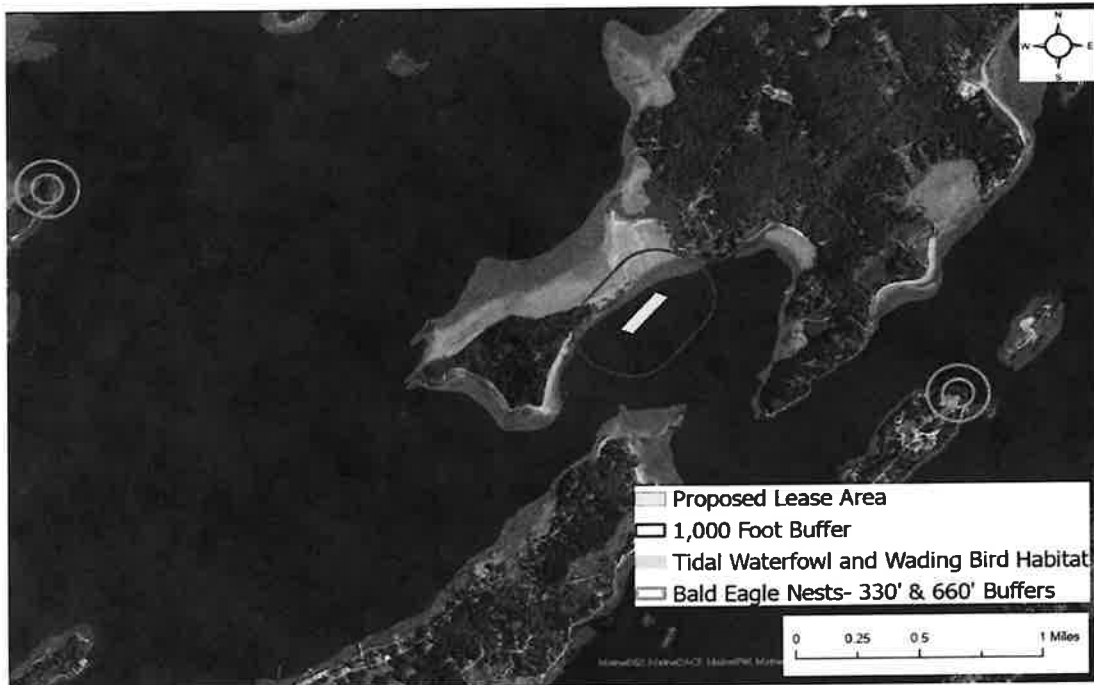


Figure 4. Tidal waterfowl and wading bird habitat & Bald eagle nests. Image taken from DMR site report.

Data maintained by the US Fish and Wildlife Service (USFW) and available through the Maine Office of GIS indicate that the nearest bald eagle (*Haliaeetus leucocephalus*) nest documented near the site is over one mile away (SR, 11). DMR sent a copy of the application to MDIFW for their review and comment. MDIFW stated that minimal impacts to wildlife are anticipated for this project.

### **Discussion**

In accordance with 12 M.R.S.A. §6072(7-A)(D), the Commissioner must determine whether the proposed lease will unreasonably interfere with significant wildlife habitat and marine habitat or with the ability of the lease site and surrounding marine and upland areas to support existing ecologically significant flora and fauna. The regulatory provision contained in Chapter 2.37(1)(A)(5) specifies that the Commissioner must consider the following in evaluating this criterion:

The Commissioner shall consider 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. 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.

DMR did not receive any testimony or other evidence to suggest that the proposed site would unreasonably interfere with wildlife species under MDIFW's jurisdiction or would otherwise present unreasonable impacts to marine fauna and associated habitat.

DMR did document the presence of eelgrass within certain areas of the proposed site in clumps or at sparse coverage. DMR is aware that eelgrass (*Zostera marina*) is a perennial and is typically biologically active from early summer to early fall. Eelgrass also needs adequate sunlight penetration for overall health and is typically found in shallower waters. The applicant has been culturing marine algae on an experimental lease at the same location for the past six years.

The applicant is proposing to expand existing operations by approximately 2.89 acres into an additional area where some eelgrass was documented by DMR. The site would be in active operation from September through May. The applicant is proposing to place 30 seeded longlines on the site between September – November, with each longline consisting of 5/16" – 1/2" rope. The applicant states that harvesting of kelp should take approximately 2-15 days and will begin in early April and conclude by the end of May.

From June through September, the applicant proposes to remove all marine algae gear, excluding the moorings and marker buoys. Therefore, the proposed operations will not occur during the months when DMR would expect eelgrass to be biologically active<sup>3</sup>, and all gear and product would be removed from the site during that timeframe. Additionally, the applicant is proposing to utilize helical anchors, which would be deployed by hand and in areas of the proposed site where eelgrass was not documented by DMR staff.

According to the site report, water depths within the proposed lease site were determined to be between approximately 33 feet and 44 feet (SR, 3). Correcting for tidal variations derives depths at high tide from 35.4 - 46.3 feet and from 26.3-37.2 feet at MLW (SR, 3). Eelgrass needs adequate light penetration in order to photosynthesize and remain biologically productive. Most of the water depths recorded during the site assessment suggest that light penetration would be minimal, so eelgrass would not likely be present at these greater depths.

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<sup>3</sup> DMR expects eelgrass to be biologically active from June – August. For purposes of this decision biologically active refers to the time when photosynthesis and reproduction are most likely to occur.

Based on the proposed removal of marine algae culturing gear and cultivated product from the site from June through September, along with the water depths of the proposed site, DMR finds that the proposed lease will not unreasonably interfere with eelgrass. Based on the lack of comments received and MDIFW's assessment of the site, DMR finds that the proposed lease will not unreasonably interfere with fisheries or other wildlife.

**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**

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, docking facility, or certain conserved lands owned by the Federal, State, or municipal governments. 12 M.R.S.A. § 6072(7-A)(F); Chapter 2.37(1)(A)(7).

According to the site report, the proposal is within 1,000 feet of Little Chebeague Island. The island is owned by the Maine Bureau of Parks and Lands and is open for day use as well as overnight camping (SR, 12). Little Chebeague Island contains over one mile of hiking trails and primitive campsites for overnight visits (SR, 12).



Figure 5. Public facilities near the proposed lease site. Images taken from DMR site report.

The beach on the east side of the island provides a landing ground and anchoring area for boaters to access Little Chebeague Island and can also be accessed from Chebeague Island by

walking across the tidally exposed sandbar that connects the two islands (SR, 12). If the proposed lease were granted, approximately 580 feet would remain, at MLW, between the western boundary of the proposal and the tidally exposed sandbar to the west (SR, 5). Based on the proximity of the proposed lease site to the shoreline of Little Chebeague Island and the alternative means of access from Chebeague Island, as well as a lack of comments received by the Bureau of Public Lands, DMR finds that the proposed lease site will not unreasonably interfere with access to Little Chebeague Island.

**Therefore**, the aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, docking facilities, or certain conserved lands owned by municipal, state, or federal 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(7-A)(E); Chapter 2.37(1)(A)(6).

The applicant intends to obtain stock from the following approved sources listed below. If stock cannot be sourced from the company listed then another approved source must be used.

Source	Location	Species
Ocean Approved Inc. <sup>4</sup>	Saco, ME	Sugar Kelp ( <i>Saccharina latissima</i> ), Skinny Kelp ( <i>Saccharina latissimi forma</i> ), Horsetail Kelp ( <i>Laminaria Digitata</i> ), Winged Kelp ( <i>Alaria esculenta</i> )

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

**G. Light**

The Commissioner evaluates lighting in accordance with 12 M.R.S.A §6072(7-A)(G) and the regulatory standards specified in Chapter 2.37(1)(A)(8). The statute specifies that a lease must

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<sup>4</sup> Ocean Approved Inc. has since become Atlantic Sea Farms. Atlantic Sea Farms is an approved source.

not result in an unreasonable impact from light at the boundaries of the proposed site. The applicable regulation imposes specific requirements related to lighting, including a requirement that the applicant demonstrate that all reasonable measures will be taken to mitigate light impacts associated with the lease activities.

The application indicates that no lights will be used at the proposed lease site, and no work will be conducted beyond daylight hours (App, 15). During the hearing, Mr. Papkee clarified that lights would only be used in an emergency, and it would be the spotlights on his boats (Papkee/Brazier).

**Therefore**, the aquaculture activities proposed for this site will not result in an unreasonable impact from light at the boundaries of the lease site.

#### **H. Noise**

The Commissioner evaluates noise in accordance with 12 M.R.S.A §6072(7-A)(G) and the regulatory standards specified in Chapter 2.37(1)(A)(9). The statute specifies that a lease must not result in an unreasonable impact from noise at the boundaries of the proposed site. The applicable regulation imposes specific requirements related to noise, including a requirement that all motorized equipment be designed or mitigated to reduce the source sound levels to the maximum practical extent and that the applicant take all reasonable measures to mitigate noise impacts associated with the lease activities.

Powered equipment to be used on site would include a 40-foot Wayne Beal boat as the primary vessel for seeding and harvesting, as well as an 18-foot skiff for checking lines during the growing season (SR, 13). Based on this evidence, it appears that any noise generated by operations on the site is unlikely to have a significant effect at the boundaries of the lease and the applicant has satisfied the standards specified in Chapter 2.37(1)(A)(9).

**Therefore**, the aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease.

#### **I. Visual Impact**

The Commissioner evaluates visual impact in accordance with 12 M.R.S.A §6072(7-A)(H) and the regulatory standards specified in Chapter 2.37(1)(A)(10).

The applicant intends to install 30 longlines with a white or orange “poly ball” buoy on each end for a total of 60 end line buoys, which are intended to be onsite year-round (SR, 13). During the growing season, up to 300 depth control buoys are proposed to be used on the site attached to the longlines. During the hearing, the applicant proposed to utilize red, blue, and

purple colored lobster buoys. However, as proposed, some of the varying-colored buoys proposed would not meet DMR's visual impact criteria as they are not acceptable hues. Chapter 2.37(1)(A)(10) notes that equipment (buoys included) shall be of a color that does not contrast with the surrounding area. Acceptable hues for equipment, which includes buoys, are grays, blacks, browns, blues, and greens.

If the proposed lease is granted, all buoys except the required marker buoys must be gray, black, brown, blue, or green in hue.<sup>5</sup> All other equipment proposed complies with DMR's height and visual impact limitations.

**Therefore**, given the applicant's obligation to comply with Chapter 2's hue requirements for the buoys, the equipment, buildings, and watercraft to be used at the proposed lease site will comply with the visual impact criteria contained in Chapter 2.37(1)(A)(10).

#### **4. CONCLUSIONS OF LAW**

Based on the above findings, I conclude that:

- a. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.
- b. The aquaculture activities proposed for this site will not unreasonably interfere with navigation.
- c. 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.
- d. 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. 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.
- f. The applicant has demonstrated that there is an available source of stock to be cultured for the lease site.
- g. The aquaculture activities proposed for this site will not result in an unreasonable impact from light at the boundaries of the lease site.

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<sup>5</sup> DMR will monitor for compliance during routine inspection. Mr. Papkee also signed the final application indicating that he had read DMR's Chapter 2 regulations.

- h. The aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease site.
- i. The aquaculture activities proposed for this site will comply with the visual impact criteria contained in DMR Regulation 2.37(1)(A)(10).

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.

**5. DECISION**

Based on the foregoing, the Commissioner grants the requested lease of 6.85 acres for 20 years for the purpose of cultivating marine algae (*Saccharina latissimi*, *Saccharina latissimi forma*, *Laminaria digitata*, and *Alaria esculenta*) using suspended culture techniques. The lessee shall pay the State of Maine rent in the amount of \$100.00 per acre per year. The lessee shall post a bond or establish an escrow account pursuant to DMR Rule, Chapter 2.40 (2)(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(7-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. No conditions are imposed on this lease.

**7. REVOCAION OF LEASE**

The Commissioner may commence revocation procedures upon determining pursuant to 12 M.R.S.A §6072(11) and DMR Rule, Chapter 2.42 that no substantial aquaculture has been conducted within the preceding year, that the lease activities are substantially injurious to marine organisms, or that any of the conditions of the lease or any applicable laws or regulations have been violated.

Dated: 1/31/24

  
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Patrick Keliher, Commissioner  
Department of Marine Resources



**STATE OF MAINE****DEPARTMENT OF MARINE RESOURCES**

Experimental Aquaculture Lease Application

Suspended culture of marine algae

Casco Bay, Chebeague Island

**Great Ledge Cove Seafood, LLC****CAS CHANx**

Docket #2017-9-E

December 5, 2017

**FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION**

Great Ledge Cove Seafood LLC, a Maine company, applied to the Department of Marine Resources (“DMR”) for a three-year experimental aquaculture lease on 3.57 acres<sup>1</sup> located in Casco Bay, Chebeague Island, in Cumberland County, for the suspended culture of sugar kelp (*Saccharina latissima*), horsetail kelp (*Laminaria digitata*), and winged kelp (*Alaria esculenta*). DMR accepted the application as complete on June 27, 2017. During the 30-day public comment period, six requests for a public hearing were received by the Department. A public hearing was held on November 29, 2017 at the Chebeague Hall Community Center, Chebeague Island, Maine. No one intervened in this case.

**1. THE PROCEEDINGS**

Notice of the application and the 30-day public comment period were provided to state and federal agencies, which were requested to review the project, as well as to riparian landowners, the Town of Chebeague Island and its Harbormaster, members of the Legislature, representatives of the press, aquaculture organizations, and others on the Department’s mailing list. Notice of the public hearing was published in the November 2017 edition of *Commercial Fisheries News* and in the northern edition of *The Forecaster* on October 26, 2017 and November 16, 2017.

Sworn testimony was given at the hearing by the applicant, represented by Justin Papkee; Flora Drury, Aquaculture Scientist, DMR Aquaculture Division; Craig Stewart, a local scallop and lobster fisherman; and James Crimp, Marine Economic Development Associate, Island Institute. Justin Papkee described the proposed project. Craig Stewart, as the applicant’s witness, addressed scallop fishing activity within the vicinity of the proposed lease. Flora Drury described the Department’s site visit. James Crimp described Mr. Papkee’s involvement in the Island Institute’s Aquaculture Business Development Program. No representatives from federal, or other state agencies, indicated their presence at the hearing, but Marjorie Stratton, Chebeague Town Administrator; Viktoria Johnson, Chebeague Town Clerk; Genaro Balzano, Chebeague Harbormaster; Jay Corson, Chebeague Selectman; and Robert Earnest, a member of the Chebeague Shellfish Conservation Commission attended the hearing.

Each witness was subject to questioning by the Department, the applicant, and members of the public. The hearing was recorded by DMR. The Hearing Officer was Amanda Ellis.

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<sup>1</sup> The applicant originally applied for 3.96 acres, but DMR calculations indicate the area is 3.57 acres.

The evidentiary record before the Department regarding this lease application includes the application and the Department's site report dated September 26, 2017, as well as the case file. The evidence from these sources is summarized below.

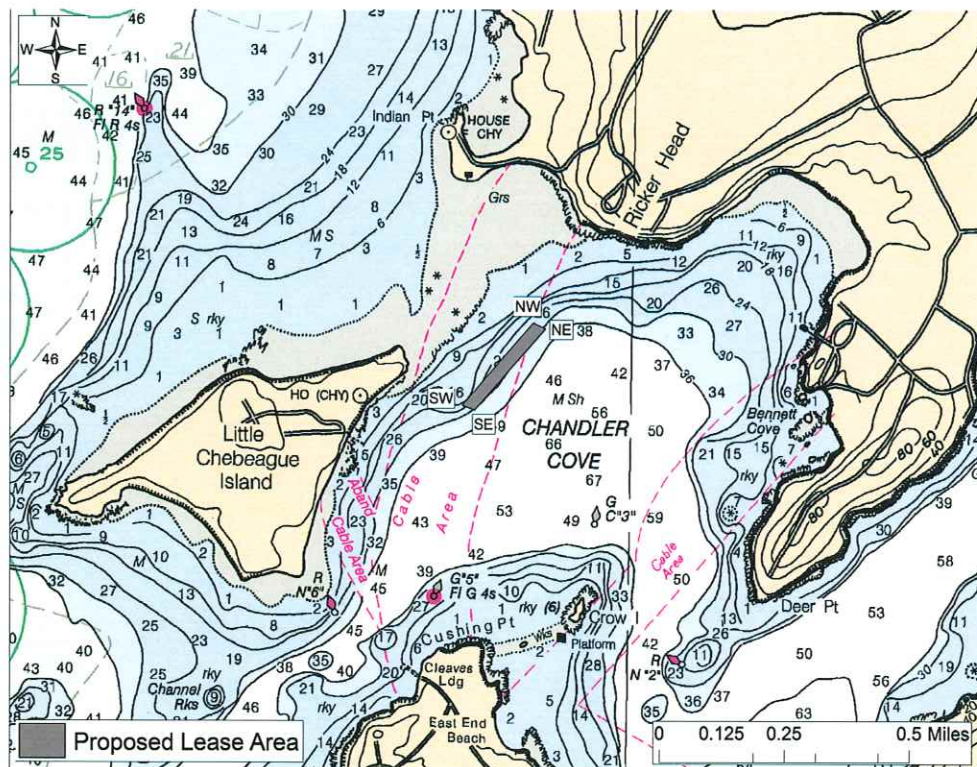
### **LIST OF EXHIBITS<sup>2</sup>**

1. Case file (CF)
2. Application signed and dated (App).
3. DMR site report dated (SR).

## **2. DESCRIPTION OF THE PROJECT**

### **A. Site Characteristics**

On August 25, 2017, DMR scientists visited the proposed lease site and assessed it and the surrounding area in consideration of the criteria for granting an experimental aquaculture lease. The proposed site occupies subtidal waters in Chandler Cove, which is surrounded by Great Chebeague Island to the north and east, Little Chebeague Island to the southwest, and Long Island to the south (SR 2). Great Chebeague and Little Chebeague Islands are connected by a tidally exposed sand bar, which is located to the west of the proposed site (SR 2).



**Figure 1:** Vicinity map depicting the proposed lease area with labeled corners.

<sup>2</sup> Exhibits 1, 2, and 3 are cited below, with page references, as CF1 (case file), App2 (application), SR3 (site report). Other exhibits are cited by exhibit number.



The uplands of Great Chebeague Island are characterized by fields and mixed forests (SR 2). Several houses are present along the shoreline of Great Chebeague Island (SR 2). Little Chebeague Island is uninhabited and owned by the State of Maine Bureau of Parks and Lands (SR 2). Water depths, at mean low water, range from 22.9 feet at the middle point along the western boundary of the proposed site to 31.6 feet at the northeast corner of the proposed site (SR 6). The nearest distance to shore at mean low water is ~380 feet from the western boundary of the proposed site (SR 5). The bottom of the proposed site is characterized by soft mud, and the current varies from 0 to 2 knots (SR 11, App 10).

The proposed lease is in an area currently classified by the Department of Marine Resources Water Quality Classification program as “approved for the harvest of shellfish” (SR 7). However, this classification will not affect the harvest of marine algae, because such classifications are currently only relevant to shellfish operations.

### **B. Proposed Operations**

The purpose of the proposed operation is to explore the commercial feasibility of cultivating sugar kelp (*Saccharina latissima*), horsetail kelp (*Laminaria digitata*), and winged kelp (*Alaria esculenta*) (App 8). The applicant plans to deploy 15 longlines that are approximately 1,100 feet in length (App 8). Mr. Papkee testified that the longlines will be spaced ten feet apart and will be submerged seven feet below the surface of the water. The longlines will be seeded during the fall over a period of one to three days (App 8). Once seeding has ended the site will be monitored on a weekly basis (App 8). In spring, the kelp will be harvested, by hand, over a period of two to 15 days (App 8). Mr. Papkee testified that after the kelp is harvested, the longlines will be removed from the proposed site and returned once seeding resumes in the fall. The moorings will remain on the proposed site throughout the year (App 8). Access to the site will be from Long Island or Portland (App 9).

### **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 uses of the area, taking into consideration the number and density of aquaculture leases in an 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 for the lease site.

### **A. Riparian Access**

During the site assessment, DMR staff did not observe any docks or moorings within the immediate vicinity of the proposed lease (SR 7). According to the site report:

Three piers with floats attached, and approximately 20 moorings, were observed by MDMR staff over 2,000 feet to the northeast of the proposal in the head of Chandler Cove. The proposed lease operations are unlikely to interfere with ingress or egress from observed piers and moorings (SR 7).

Staff also observed a ramp, ~1,290 feet north of the proposed lease site, which led from the uplands to the shoreline (SR 7). Staff noted that the ramp appeared to provide riparian owners with beach access and water access for hand-carry vessels (SR 7). Given the distance from the ramp to the proposed lease area, the site report notes: “the proposed aquaculture activity would not impede the possibility of installing a dock or float in this area in the future” (SR 7).

Activities at the proposed lease site in subtidal waters are unlikely to hamper access to and from the shore.

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

### **B. Navigation**

Chandler’s Cove is used by commercial and recreational boaters (App 9, SR 8). According to the site report:

The proposed lease is located along the western edge of the widest section of the marked channel that leads through Chandler Cove. Approximately 1,750 feet are available for navigation between the proposed lease site and the nearest navigational marker on the opposite side of the channel (SR 8).

During the review period, the Chebeague Harbormaster noted that the proposed area would not interfere with navigation, but indicated that the area is “frequently used by boaters to cut across the bar at high tide.”<sup>3</sup> At high tide more than 1,000 feet of navigable waters remain to the north of the proposal (SR 8). Per the site report, “it is unlikely that navigation to the sand bar from the east, and over the sandbar at high tide in appropriate vessels, will be hindered by the proposed lease.” (SR 8). Furthermore, under the DMR rules, high tide shortcuts are not considered as navigational ways.<sup>4</sup> There is an existing experimental lease located ~305 to the southwest of the proposed lease site (SR 10).<sup>5</sup> The site report notes “there is adequate room for vessels in the area to navigate between the two lease sites.” (SR 8).

Boat traffic in the area tends to increase during the summer months; but the longlines will be removed during the summer months leaving only the moorings and mooring balls on the proposed site when boat traffic is heaviest (App 9, SR 8).

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<sup>3</sup> CF, Harbormaster Questionnaire received July 17, 2017.

<sup>4</sup> Chapter 2.37(1)(A)(2) related to navigation decision criteria provides, in part:

High tide “short cuts” shall not be considered navigational ways for the purposes of this section.

<sup>5</sup> The existing lease is CAS ELCx.



It appears from this evidence that navigation in the area will not be unduly affected by the presence of the proposed lease site.

**Therefore, I find** that the aquaculture activities proposed for this site will not unreasonably interfere with navigation. The lease site must be marked in accordance with U.S. Coast Guard requirements.

### **C. Fishing & Other Uses**

The area is used by commercial and recreational fishermen during their respective seasons, with lobster and scallop fishing being the primary commercial activity.<sup>6</sup> In regards to scallop fishing, the site report notes:

MDMR scallop harvester reports indicate that scallops have been caught in almost all of Chandler Cove, with greater catch rates in the cove's deeper waters. Scallop surveys conducted by MDMR in December of 2016 and January of 2017 show the presence of scallop seed, along with sublegal and harvestable scallops, within Chandler Cove (SR 9).

The application notes that most scallop fishing occurs in deeper waters located to the south of the proposed lease site and should not present a conflict (App 9). Craig Stewart, a commercial lobster and scallop fishermen in the area, testified that he had not seen anyone scallop fishing within the proposed lease area and that he did not believe the proposed operations would interfere with fishing. In regards to lobster fishing, staff noted the following:

Two lobster buoys were observed to the west of the proposed site, three were observed to the north, and a few were observed to the south. The nearest apparent lobster trap buoy was located ~317 feet to the northwest. Lobster trap buoys were present in greater numbers to the east of the site. During the time of the Department's visit one lobster boat was observed hauling lobster traps to the east of the site, in the middle of Chandler Cove (SR 9).

Per the application, Mr. Papkee discussed his proposal with local lobstermen, who indicated that their gear is currently deployed away from the proposed site (App 9).

It appears from this evidence that the proposed lease site is unlikely to affect fishing in the area.

**Exclusivity.** The applicant is requesting that dragging and lobster fishing be prohibited within the proposed lease boundaries to avoid gear entanglement (App 9).

These restrictions are reasonable to enable the aquaculture project to be carried out while encouraging the greatest number of compatible uses of the area, as provided in 12 M.R.S.A §6072(7-B). Conditions reflecting these restrictions will be included in the lease.

**Other aquaculture leases.** There are ten aquaculture sites within one mile of the proposed lease (SR 10).<sup>7</sup> The closest aquaculture site is ~305 feet from the proposal and is an experimental lease for the cultivation of marine algae. The experimental lease is issued to Shearwater Ventures, and referenced

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<sup>6</sup> CF, Harbormaster Questionnaire, July 17, 2017.

<sup>7</sup> Five aquaculture leases and five Limited Purpose Aquaculture (LPA) licenses. For a complete list, see page 10 of the site report.

in section 3.B of this decision. The applicant discussed his proposal with representatives of Shearwater Ventures, who indicated that the proximity between their existing lease site and the proposed lease would not be a problem (App 9). The Department sent notice of the application to leaseholders within 1,000 feet of the proposed site and no comments were received.

Based on this evidence, it appears that the proposed lease will not unreasonably interfere with fishing or other uses of the area. The lease must be marked in accordance with DMR Rule 2.80<sup>8</sup>

**Therefore, considering the number and density of aquaculture leases in the area, I find** that the aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area.

#### **D. Flora & Fauna**

**Site Observations.** During the site visit, Department staff commonly observed American lobster (*Homarus americanus*), rock crab (*Cancer sp.*), and northern cerianthid anemone (*Cerianthus borealis*).<sup>9</sup> Herring gulls (*Larus argentatus*) were also observed roosting on the shoreline to the west of the proposed lease site and soaring overhead; and double-crested cormorants (*Phalacrocorax auritus*) were noted near the proposed lease site (SR 14). Ms. Drury testified that staff observed dead eelgrass (*Zostera marina*) within a portion of the proposed lease site, which likely drifted onto the proposed site from another location. Per the site report:

Data collected by the Maine Department of Marine Resources in 2013 suggests no historical presence of eelgrass within the immediate vicinity of the proposed lease site. The nearest documented beds are located ~194 feet to the northwest along the edge of the sandbar that separates Great Chebeague and Little Chebeague Islands (SR 13).

**Fisheries and Wildlife.** The Department sent a copy of this lease application to the Maine Department of Inland Fisheries and Wildlife (MDIFW) for their review and comment. MDIFW noted that “there are no mapped resources of MDIFW jurisdiction in the immediate project site.”<sup>10</sup>

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#### <sup>8</sup> **2.80 Marking Procedures for Aquaculture Leases**

1. When required by the Commissioner in the lease, aquaculture leases shall be marked with a floating device, such as a buoy, which displays the lease identifier assigned by the Department and the words SEA FARM in letters of at least 2 inches in height in colors contrasting to the background color of the device. The marked floating device shall be readily distinguishable from interior buoys and aquaculture gear.
2. The marked floating devices shall be displayed at each corner of the lease area that is occupied or at the outermost corners. In cases where the boundary line exceeds 100 yards, additional devices shall be displayed so as to clearly show the boundary line of the lease. In situations where the topography or distance of the lease boundary interrupts the line of sight from one marker to the next, additional marked floating devices shall be displayed so as to maintain a continuous line of sight.
3. When such marking requirements are unnecessary or impractical in certain lease locations, such as upwellers located within marina slips, the Commissioner may set forth alternative marking requirements in an individual lease.
4. Lease sites must be marked in accordance with the United State’s Coast Guard’s Aids to Private Navigation standards and requirements.

<sup>9</sup> For a complete list of observed species see page 11 of the site report.

<sup>10</sup> CF, Email from MDIFW to the Aquaculture Division dated July 21, 2017.



It appears that the culture of sugar kelp (*Saccharina latissima*), horsetail kelp (*Laminaria digitata*), and winged kelp (*Alaria esculenta*) as proposed for this lease site will not interfere with the ecological functioning of the area.

**Therefore, I find** that 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 public docking facilities on Little Chebeague Island, so any boaters visiting the area need to anchor their vessels or pull them onshore (SR 15). During the site visit, staff observed several kayaks on the eastern shore of Little Chebeague Island (SR 15). During the review period, the Department sent a copy of the application and site report to the Maine Bureau of Parks and Lands and no comments were received. Based on the absence of comments, it is reasonable to conclude that the Maine Bureau of Parks and Land does not have any concerns related to public use or enjoyment of Little Chebeague Island.

**Therefore, I find** that 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.

#### **F. Source of Organisms**

Seed stock for this proposed lease site will be obtained from Ocean Approved in South Portland, Maine (App 1).

**Therefore, I find** that the applicant has demonstrated that there is an available source of sugar kelp (*Saccharina latissima*), horsetail kelp (*Laminaria digitata*), and winged kelp (*Alaria esculenta*).

#### **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. 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, 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 sugar kelp (*Saccharina latissima*), horsetail kelp (*Laminaria digitata*), and winged kelp (*Alaria esculenta*) 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 an experimental lease of 3.57 acres to Great Ledge Cove Seafood, LLC., 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 lessee<sup>11</sup>; 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*), horsetail kelp (*Laminaria digitata*), and winged kelp (*Alaria esculenta*) 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) (D) 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)<sup>12</sup>. 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 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. Dragging and lobster fishing are prohibited within the lease boundaries, except by authorization of the leaseholder.

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<sup>11</sup> 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.”

<sup>12</sup> 12 M.R.S.A. §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.”



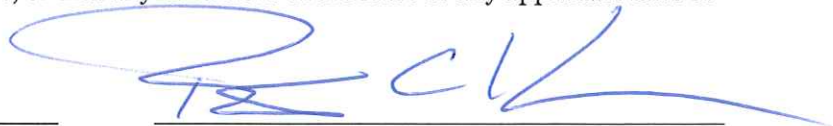
3. Other public uses that are not inconsistent with the purposes of the lease are permitted within the lease boundaries.

**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:** \_\_\_\_\_

12/5/17



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**Patrick C. Keliher, Commissioner  
Department of Marine Resources**