

**STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES**

Stewart Hunt

Experimental Aquaculture Lease Application
Suspended Culture of Marine Algae, Green Sea
Urchins, and Sea Scallop
Casco Bay, Yarmouth

CAS UBLx

October 8, 2021

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Stewart Hunt applied to the Department of Marine Resources (DMR) for a 3-year experimental aquaculture lease on 3.94 acres.¹ The proposed site is located northeast of Upper Basket Ledge in Casco Bay, Yarmouth, Cumberland County, for the cultivation of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*²), green sea urchin (*Strongylocentrotus droebachiensis*), and sea scallop (*Placopecten magellanicus*) using suspended culture techniques.

1. PROCEDURAL HISTORY

The application was deemed complete by DMR on April 9, 2021. Notice of the completed application and 30-day comment period was provided to the Town of Yarmouth, including the Harbormaster, and other state and federal agencies. Notice of the 30-day comment period was also posted on DMR's website and distributed to subscribers of DMR's aquaculture list-serve. It was also published in the May 27, 2021 edition of the *Forecaster*. In accordance with 12 M.R.S.A. §6072-A(6), public hearings for experimental leases are optional unless DMR receives five or more written requests for a public hearing during the comment period. DMR did not receive any requests for a public hearing. Therefore, no public hearing was held. DMR's site report was issued on July 23, 2021.

A. Exhibits

The evidentiary record before DMR regarding this lease application includes the following:

Exhibit Number	Description	Cited in Decision
1	DMR case file	CF

¹ Applicant originally requested 3.90 acres, but DMR calculations based on the provided coordinates indicated the proposed area is 3.94 acres.

² In the application, skinny kelp was referred to as a morphotype of *Saccharina latissima* (*Saccharina latissima forma angustissima*). Per the site report (see footnote 4) skinny kelp is now considered a separate species (*Saccharina angustissima*) and was referred to as such in the site report. It will also be referred to *Saccharina angustissima* for the purposes of this decision.

2	Completed Lease Application	App
3	DMR Site Report	SR

1. DESCRIPTION OF THE PROJECT

A. Current and Proposed Operations

The applicant is proposing to cultivate marine algae, green sea urchins, and sea scallops using suspended culture techniques. The applicant would modify operations between summer and winter to reflect the seasonal differences in culturing the respective species. For example, from May through November, sea urchins and scallops would be deployed in lantern nets, which would be secured to 10 longlines (App 16). The longlines would be suspended 15 feet below the surface of the water (App 7, App 16). After November, the scallops and urchins would be transferred to cages and overwintered on the bottom of the proposed site (App 8, App 16). During the winter months, marine algae would be cultured on ten longlines, which would be suspended 7 feet below the surface of the water (App 16).

During the summer months, each longline used to suspend the lantern nets would support 7-LD-2 polyform buoys and 24 lobster trap-style buoys. Therefore, there would be a total of 310 buoys within the boundaries of the proposed lease site during the summer months (App 17, SR 2). In the winter months, each of the kelp longlines would support 3 LD-2 polyform buoys and 8 lobster-trap style buoys for a total of 110 buoys within the boundaries of the proposed lease site (App 17, SR2). Except for the use of vessels to access the site and a 15hp hydraulic pump to help retrieve the submerged cages and lines of marine algae during harvest, no other powered equipment is proposed for the site (App 8 and 9).

The applicant is proposing to possess, transport, or sell whole or roe-on scallops (App 2). If the lease is granted, Mr. Hunt would need a Memorandum of Understanding (MOU) from DMR’s Bureau of Public Health.

B. Site Characteristics

On May 11, 2021, DMR staff visited the proposed lease site and assessed the area in consideration of the decision criteria governing experimental leases. The proposed lease site is in subtidal waters between Cousins and Basket Islands in Casco Bay (SR 2). There is a power plant on Cousins Island and the uplands contain residential buildings and forests (SR 2). Staff observed several docks and moorings near the eastern shoreline of Cousins Island. Basket Island, located to the southwest of the proposal, appeared to be uninhabited (SR 2). Correcting for mean low water, depths at

the corners of the proposed site ranged from 20.5 feet to 36.5 feet (SR 6). Upper Basket Ledge, the nearest landmark, is ~260 feet to the west of the SW corner of the proposed site (SR 7).³ Cousins Island is ~1,500 feet to the northeast of the NW corner of the proposal (SR 7). Figure 1 depicts the labeled corners of the proposal.

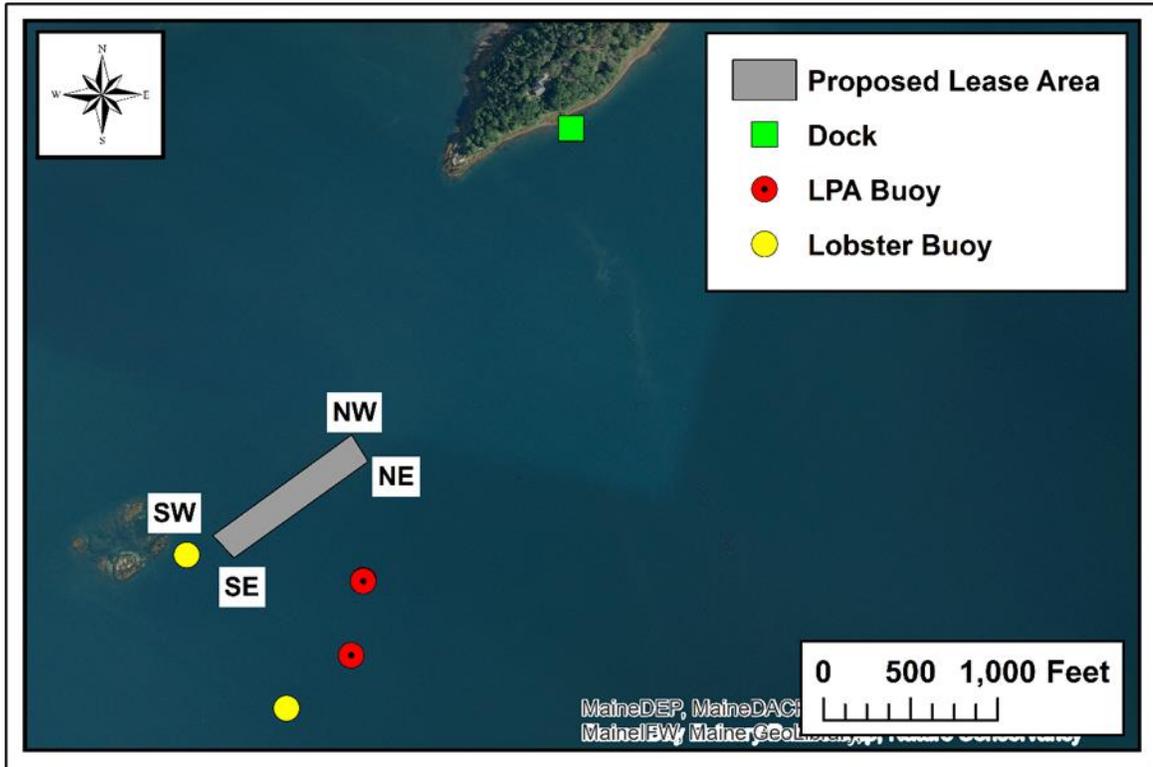


Figure 1: Proposed lease site, with labeled corners, and the locations of the nearest observed lobster and Limited Purpose Aquaculture (LPA) buoys, and dock from the site visit. Image generated by DMR staff and is Figure 2 in the site report.

3. STATUTORY CRITERIA & FINDINGS OF FACT

Approval of experimental aquaculture leases is governed by 12 M.R.S.A. §6072-A. This statute provides that a lease 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

³ Unless otherwise noted, distances are corrected for mean low water.

by municipal, state, or federal governments. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured on the lease site.

A. Navigation

The proposed site is in an area of Casco Bay that typically experiences heavy commercial and recreational vessel traffic, especially during the summer months (SR 8). The site visit occurred on May 11, 2021 and DMR staff did not observe vessel traffic in the vicinity of the proposed lease site (SR 8). However, the site report indicates that the timing of the site assessment did not occur when vessel traffic is expected to be the heaviest (SR 8). The navigational channel is marked by Red Nun 16, which is close to the Great Chebeague Island shoreline (SR 8). A red and white beacon marks Upper Basket Ledge as a navigational hazard (SR 8). The proposed site is to the immediate northeast of the beacon, so most vessels likely avoid the proposed lease area (SR 8).

The proposal is ~1,500 feet from the closest point on Cousins Island and if the lease is granted, there would be ~4,300 of navigable area between the site and Red Nun 16 (SR 8). Given these distances, it is unlikely that the proposal would unreasonably interfere with vessel traffic in the area. The municipality, members of the public, and other stakeholders were provided with the opportunity to comment on the lease application. DMR did not receive any comments specific to navigation.

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

B. Riparian Access

There are no riparian landowners within 1,000 feet of the lease proposal. During DMR's site assessment several houses, docks, and moorings were observed near the shoreline of Cousins Island (SR 7). The closest observed dock was more than 2,000 feet to the northeast of proposed lease site (SR 7). Given this distance, it is unlikely that the proposed lease site would unreasonably interfere with access to the observed dock (SR 7). DMR staff did not observe any docks or moorings around Basket Island (SR 7). Upper Basket Ledge is between the proposed lease site and Basket Island; given the presence and location of the ledge it is unlikely that access routes to Basket Island would be unreasonably impeded by the lease should it be granted (SR 8). DMR did not receive any comments about riparian access.

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

C. Fishing & Other Water Related Uses

DMR staff observed 6 lobster trap style buoys in the vicinity of the proposed site (SR 8). The closest observed buoy was ~185 feet to the southwest of the proposed area (SR 8). Maine's nearshore lobster fishery follows the migration and molt cycle of lobsters (*Homarus americanus*) (SR 8). The site report explains that given the timing of the site assessment and seasonal nature of the fishery, lobstering may occur to greater extent or in greater proximity to the site during latter parts of the year (SR 8). During the summer months, fishing for schooling baitfish including menhaden (*Brevoortia tyrannus*) occurs frequently throughout Casco Bay (SR 8). According to a local Maine Marine Patrol officer, and described in the site report, this type of fishing generally occurs to the northwest and east of the proposed lease area (SR 8).

The applicant has observed 15 lobster/crab traps in the vicinity of the proposal and two traps within the proposed lease boundaries (App 10). According the applicant's observations the lobstermen who fish in the area are using single traps (App 10). Fishing for menhaden occurs in the area but given the proximity of the site to Upper Basket Ledge the application indicates that bait fishermen are likely to avoid the area (App 10). Recreational fishing for striped bass has been observed near Cousins Island (App 10). Although the applicant is not requesting exclusive use of the proposed lease site, the presence of submerged gear throughout the year could limit or preclude lobster or menhaden fishing within the boundaries of the proposed site (App 12, SR 8). During the comment period, DMR did not receive any feedback regarding commercial or recreational fishing.

Other aquaculture uses. At the time the site report was published, there were nine Limited Purpose Aquaculture licenses (LPAs) within a mile of the proposal (SR 8). The closest LPA is NHEN218 and is permitted for an area ~195 feet from the proposed lease site (SR 8). DMR did not receive any comments from the holder of NHEN218 or any other LPA holders regarding this lease proposal.

Therefore, based on this evidence and considering the existing aquaculture activities, the proposed site will not unreasonably interfere with fishing or other water-related uses of the area.

D. Flora & Fauna

Fisheries and Wildlife. During the May 11, 2021 site assessment, DMR staff observed an osprey (*Pandion haliaetus*) nest on the red and white beacon marking Upper Basket Ledge (SR 9). An adult osprey and several young ospreys were observed in the nest (SR 9). Various gulls (*Larus sp.*) and several common eider ducks (*Somateria mollissima*) were observed in the general vicinity of the site (SR 9). The

application indicates that seals⁴ may haul out on Upper Basket Ledge (App 10). The National Marine Fisheries Service recommends maintaining a viewing distance of 150 feet from seals. As previously noted, Upper Basket Ledge is ~260 feet from the closest boundary of the proposed lease site, which satisfies the distance guidelines. It is expected that the lease holder would comply with applicable federal laws and guidelines.

Based on data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), the proposed site is ~1,840 feet from an area categorized as Tidal Waterfowl and Wading Bird Habitat (SR 9). DMR sent a copy of the lease application to MDIFW for their review and comment. MDIFW indicated that “minimal impacts to wildlife are anticipated for this project.”⁵

Eelgrass (*Zostera marina*). Based on data collected in 2018, the closest documented eelgrass bed was ~230 feet to the southwest of the proposed lease site (SR 10). An underwater assessment was not conducted by DMR, but eelgrass beds are generally observed in shallow waters, which allow for adequate light penetration to support photosynthesis (SR 10). As previously noted, mean low water depths at the proposed lease site ranged from 20.5 feet to 36.5 feet.

Therefore, in consideration of the evidence, 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 municipal, state, or federal government within 1,000 feet of the proposed lease site (SR 11).

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 owned by municipal, state, or federal governments.

F. Source of Organisms

The applicant would source marine algae from Atlantic Sea Farms in Saco, Maine and green sea urchins from the University of Maine Center for Cooperative Aquaculture in Franklin, Maine (App 2).

⁴ Although not observed during the site visit, it is likely that these are harbor seals (*Phoca vitulina*). All Marine mammals within the waters of the United States, including seals, are protected by the Marine Mammal Protection Act (MMPA). The National Marine Fisheries Service is responsible for managing seals (among other species) under the MMPA.

⁵ CF: Email from R. Settele to DMR dated May 27, 2021

Scallop spat would be collected from the wild, which requires a separate license (App 2, SR 11).

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

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 sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), green sea urchin (*Strongylocentrotus droebachiensis*), and sea scallop (*Placopecten magellanicus*) to be cultured on 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 proposed lease for 3.94 acres to Stewart Hunt for 3 years for the cultivation of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), green sea urchin (*Strongylocentrotus droebachiensis*), and sea scallop (*Placopecten magellanicus*) using suspended culture techniques. The term of the lease to begin within twelve months of the date of this decision on a date chosen by the lessee; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed. 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 2.64(12)(B) 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). No conditions are placed on this lease.

7. REVOCAION OF LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 M.R.S.A §6072-A(22) that no substantial aquaculture or research 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: 10/8/2021



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