

**STATE OF MAINE  
DEPARTMENT OF MARINE RESOURCES**

**Thomas Henninger**

Standard Aquaculture Lease Application  
Suspended culture of shellfish  
Casco Bay, Yarmouth, Maine

**CAS LJ3**

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

Thomas Henninger applied to the Department of Marine Resources (DMR) for a 20-year standard aquaculture lease on 6.37 acres northwest of Littlejohn Island in Casco Bay, Yarmouth, Maine. The proposal is for the suspended culture of American oysters (*Crassostrea virginica*), Atlantic sea scallop (*Placopecten megellanicus*), and hard clam (*Mercenaria mercenaria*).

**1. PROCEEDINGS**

The pre-application meeting on this proposal was held on January 1, 2022, and a scoping session was held on June 22, 2022. DMR accepted the final application as complete on April 3, 2023. Notice of the completed application and public hearing was provided to state agencies, the Town of Yarmouth, riparian landowners<sup>1</sup> within 1,000 feet of the proposed site, and subscribers to DMR's aquaculture email listserv. DMR sent a Harbormaster Questionnaire to the Harbormaster for the town of Yarmouth, requesting information about designated or traditional storm anchorages, navigation, riparian ingress and egress, fishing or other uses of the area, among other considerations and received a response from the Harbormaster on May 3, 2023. Notice of the hearing was published in the *Portland Press Herald* on January 24, 2024. The public notice for the hearing stated that the proceeding would be conducted in-person and remotely and directed interested persons to register to provide testimony or ask questions during the proceeding. DMR did not receive any applications for intervenor status. DMR held the public hearing on this application on February 24, 2025. Two individuals registered to participate in the hearing, and both indicated an intention to provide testimony.

Sworn testimony was given at the February 24, 2025, hearing by the following witnesses:

<b>Name</b>	<b>Affiliation</b>
Thomas Henninger	Applicant

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<sup>1</sup> The Department defines "riparian owner" as a shorefront property owner whose property boundaries are within 1000 feet of the proposed lease boundaries.

Carly Freeman Thompson, Michael Scannell	Registered members of the public
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Additional DMR staff and members of the public attended the hearing but did not offer testimony. The hearing was recorded by DMR. The Hearing Officer was Joshua Rozov.

The evidentiary record before DMR regarding this lease application includes the record of testimony at the hearing. The evidence from these sources is summarized below.<sup>2,3</sup>

## **LIST OF EXHIBITS**

1. Case file
2. Application deemed complete on April 3, 2023
3. DMR site report, issued on September 12, 2024

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

### **A. Site History**

The applicant currently operates a 2.06-acre experimental lease, CAS LJ2x, within the area of the proposal (SR 2). CAS LJ2x is authorized to culture sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), and American oyster (*Crassostrea virginica*) (SR 2). The original lease was authorized to grow American oyster (*Crassostrea virginica*) and was later amended in 2021 to add sugar kelp (*Saccharina latissima*) and skinny kelp (*Saccharina angustissima*). This standard lease proposal does not contain marine algae.

### **B. Site Characteristics**

On June 4, 2024, DMR staff assessed the proposed lease site and the surrounding area in consideration of the criteria for granting a standard aquaculture lease (SR 2). The proposed lease site occupies subtidal waters in Casco Bay in Yarmouth. The nearest shorelines are Cornfield Point approximately 1,054 feet to the northwest and Littlejohn Island approximately 1,117 feet to the southwest (SR3). The shoreline surrounding the proposal is mostly rockweed covered ledges leading to mixed forest uplands (SR 2).

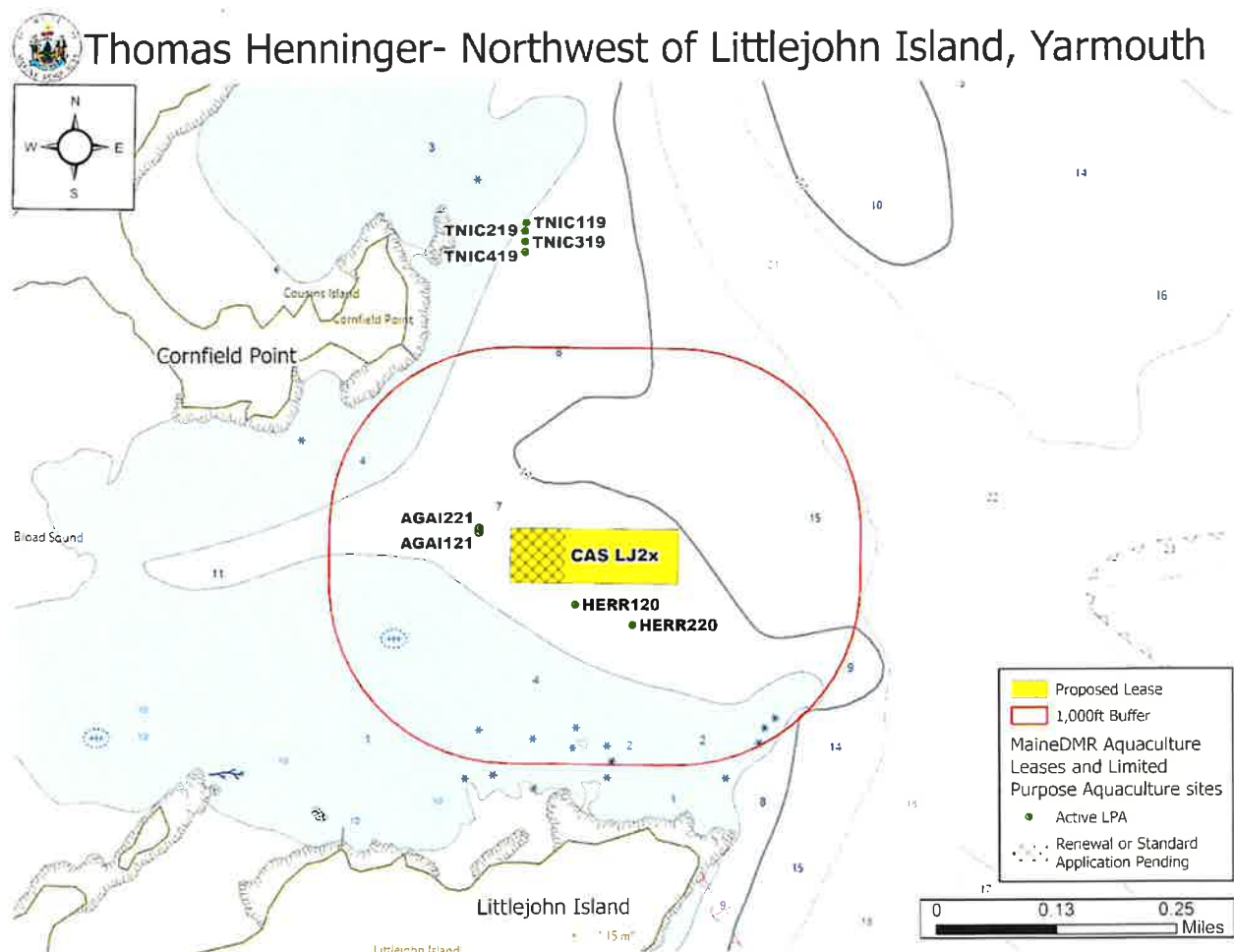
The area around the site is currently classified by DMR's Water Quality Classification program as "approved" (SR9). Growing area classifications are reviewed on an annual basis and subject to change. Classifications can also be updated at any time in response to changing environmental conditions, or other

<sup>2</sup> Exhibits 1, 2, and 3 are cited below as: Case file – "CF", Application – "App", site report – "SR"

<sup>3</sup> In references to testimony, "Smith/Jones" means testimony of Smith, questioned by Jones.

factors that impact water quality. If the lease is granted, it is the responsibility of the leaseholder to stay informed of and comply with harvest requirements applicable to the respective growing area.

At the time of the DMR's site assessment, water depths within the proposed lease site ranged from 16.2 feet to 20.4 feet (SR 2). Department staff observed the depths of the proposed lease site at approximately 10:37 AM. Correcting for tidal variation derives water depths to be approximately 6.9 to 11.1 feet at mean low water (MLLW) (SR 2). The bottom of the proposed lease area is primarily composed of mud (SR 2).



**Figure 1:** Proposed lease site and surrounding area. Image taken from DMR's site report.

### **C. Proposed Operations**

The applicant proposes to culture American oysters, Atlantic sea scallops, and hard clams on the proposed lease site using suspended culture techniques (App 1-2). The applicant stated they do not intend to possess, transport or sell whole or roe on scallops (App 2). The applicant proposes approximately 46-52 long lines of OysterGro cages to be utilized for the proposed activity (App 7, 22). Each long line would

either have 12 OysterGro cages for oysters and clams or lantern cages for scallops, and each cage spaced approximately 8 feet apart from the next one (App 23). Each long line would have 100 feet of adjustable ½ inch sinking mooring line attached to each end (App 23). The mooring line would be secured to either a 10-inch helix anchor, 150lb pyramid anchor, or a 200lb mushroom anchor (App 23). Each line would either be supported by buoys and float near the surface, or be sunk to the sea floor (App 10; Henninger/Rozov). The applicant also proposes a 33'x16' storage float on site (App 15). The float would be made of pine wood on top of plastic floats (Henninger/Rozov). The float would be on site from March 1 to November 30 (Henninger/Rozov). While the float is on site, the applicant would utilize 46 long lines of OysterGro cages or lantern cages (Henninger/Rozov). During the time when the float would be removed, the area in which the float occupied would be filled with long lines and OysterGro cages, bringing the total amount of long lines in the proposed lease site to 52 (Henninger/Rozov). The applicant would sink all cages from November 30 until February 28 (Henninger/Rozov).

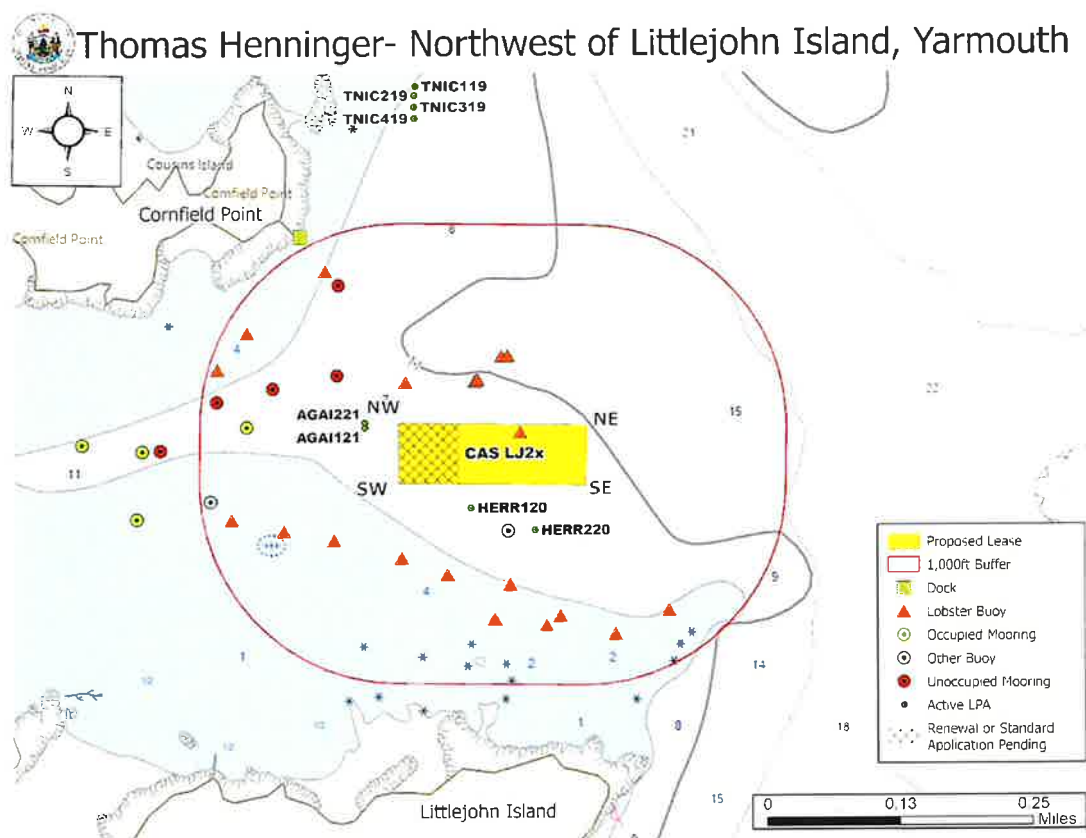
The applicant anticipates seeding to occur from July through October (App 9). Seeding would occur one to two times a week (App 9). The applicant would be on site a maximum of five days a week for routine tending and maintenance (App 9). Tending and maintenance would involve flipping cages to remove bio-fouling and using a tumbler and sorter to split oyster bags (App 9). Harvesting would occur year round, with a maximum of five days a week (Henninger/Rozov).

The proposed lease site will contain suspended surface gear. The power equipment proposed for the site includes the following:

<b>Equipment</b>	<b>Description</b>	<b>Months of Operation/Frequency of Use</b>
Oyster Sorter and Tumbler	Powered using Honda EB 6500 generator. Sorts and tumbles product.	Five times a week May-October
Water wash down pump	Powered by 4 stroke gasoline engine. Used for an hour after each trip to site to clean work platform	Five times a week Year round
Honda EB 6500 generator	Used to power oyster sorter and tumbler	Five times a week May-October
4 stroke gasoline engine	Used to power wash down pump	Five times a week Year round

### **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.



**Figure 2:** Proposed lease site with LPAs, observed moorings, and observed buoys.

### **A. Riparian Access**

Before granting a lease, the Commissioner must determine that the proposed project “will not unreasonably interfere with the ingress and egress of riparian owners.” 12 M.R.S.A. § 6072(7-A)(A). DMR’s Chapter 2 regulations require the Commissioner to examine whether riparian owners can safely navigate to their shore. 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).

During the site visit, DMR scientists observed four unoccupied moorings and one occupied mooring that had four floats and two ramps attached to it within 1,000 feet of the proposed lease (SR 4). According to ArcGIS, the closest mooring observed was approximately 392 feet from the proposed lease site. Located just over 1,000 feet from the proposal, there was one unoccupied mooring and three occupied moorings (SR 4). One mooring had a 33-foot outboard vessel, one had a small powerboat, and one had a float with aquaculture gear stored on it (SR 4). DMR scientists observed one pier just over 1,000 feet to the northwest of the proposal (SR 4). There was no dock associated with the pier at the time of the site visit (SR 4). All observed moorings were to the west of the proposed lease site (SR 4).

The Department sent a Harbormaster Questionnaire to the Yarmouth Harbormaster and received a response on May 3, 2023. The questionnaire asks how the proposal would affect the ability of any riparian owners located within 1,000 feet of the proposed lease site when going to and from their property.<sup>4</sup> The Harbormaster responded stating that the proposal would not affect any riparian owners located within 1,000 feet of the proposed lease site when going to and from their property (CF – Harbormaster Questionnaire).

The application states that the proposed activities of this lease site would not affect riparian ingress and egress in this area and that the nearest dock to the proposal is over 1,150 feet away (App 31-32).

When asked about the five moorings within 1000 feet of the proposal that were observed by DMR staff, the applicant testified that he rarely sees them in use (Henninger/Rozov).

This proposal is partially in the footprint of an existing experimental lease CAS LJ2x, a 2.06 acre experimental lease site currently operated by the applicant. CAS LJ2x fills the westernmost 2.06 acres of this 6.37-acre proposal (*See* Figure 1). All observed moorings were to the west of the proposal. If this proposal were to be granted, any new aquaculture activities would extend to the east of any current aquaculture activities, meaning no aquaculture activities in the area would occur closer to the observed moorings since CAS LJ2x was granted in 2019.

The nearest mooring observed was approximately 392 feet from the proposal. This distance would allow vessels to access the moorings in the area without risk of entanglement or collision with any gear present on the lease site. Additionally, aquaculture activities in this area have been occurring approximately 392 feet from the nearest mooring since CAS LJ2x was granted in 2019, with no reports of entanglement or difficulty navigating caused by the aquaculture activities in the area.

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<sup>4</sup> The Harbormaster Questionnaire has since been updated to reflect *Maquoit Bay v. Department of Marine Resources*, 2022 ME 19, 271 A.3d 307 (Me. 2022), which held that consideration of riparian impacts is not limited to shorefront properties whose parcels are within 1,000 feet of the proposed lease site.

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

## **B. Navigation**

Before granting a lease, the Commissioner must determine that the proposed project “will not unreasonably interfere with navigation.” 12 M.R.S.A. § 6072(7-A)(B). In examining navigation, the Commissioner “shall examine whether any lease activities requiring surface and or subsurface structures would interfere with commercial or recreational navigation around the lease area” and “shall consider the current uses and different degrees of use of the navigational channels in the area in determining the impact of the lease operation.” Chapter 2, § 2.37(1)(A)(2).

The proposed lease is located approximately 1,117 feet northwest of Littlejohn Island and approximately 1,055 feet to the southeast of Cornfield point on Cousins Island at MLW (SR 5). The proposed lease is approximately 1,000 feet to the west of the nearest navigational channel (SR 5). During the site assessment, DMR scientists observed four powerboats, one catamaran sailing vessel, and one commercial fishing vessel transiting southerly in the channel to the east of the proposal (SR 5). One powerboat was navigating westerly between the proposal and Cornfield Point (SR 5).

The Department sent a Harbormaster Questionnaire to the Yarmouth Harbormaster and received a response on May 3, 2023. In the questionnaire the Harbormaster stated that this proposal will not affect navigation in the area (CF – Harbormaster Questionnaire).

The application states sporadic boating has been observed in the summer and that the nearest navigation channel is approximately 1,300 feet to the east (App 30). The applicant states that boats are mostly observed traveling south one to two times a day, southeast out of Yarmouth Harbor (App 30).

No testimony regarding navigation was provided at the hearing.

Both Littlejohn Island to the southeast and Cornfield Point to the northwest are over 1,000 feet from the proposed lease site. This distance would allow vessels who wish to navigate to the island enough room to navigate around the proposal. Additionally, the nearest navigational channel is approximately 1,000 feet to the east, meaning vessels traveling via the channel are unlikely to navigate near the proposal while in the channel.

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

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

The Commissioner may grant a lease if the lease activities will not unreasonably interfere with commercial or recreational fishing or other uses of the area. 12 M.R.S.A. § 6072(7-A)(C). In examining fishing and other uses, the Commissioner “shall consider such factors as the number of individuals that participate in recreational or commercial fishing, the amount and type of fishing gear utilized, the number of actual fishing days, and the amount of fisheries resources harvested from the area.” Chapter 2, § 2.37(1)(A)(3).

**Fishing.** One skiff was observed recreationally fishing along the Cousins Island shoreline northwest of the proposed lease by DMR scientists during the site assessment on June 4, 2024 (SR 6). Twenty lobster buoys were observed within 1,000 feet of the proposed lease (SR 6). The closest lobster buoy DMR scientists observed was within the footprint of the proposed lease (SR 6). All observed buoys except for the six nearest to the proposed lease site appear to be placed along the shallowest depth contour of the area (*See Figure 2*).

The application states that a small number of lobster pots have been observed in the surrounding area over the summers of 2017 to 2021 (App 30). In summer 2022, the applicant observed three lobster pots approximately 1,000 feet from the proposal (App 30).

The application states that no recreational fishing has been observed within the area of the proposed lease site (App 30). The applicant has observed recreational fishing one to two times a month, from July through September, approximately 1,500 feet southeast of the proposed lease site (App 30).

The Department sent a Harbormaster Questionnaire to the Yarmouth Harbormaster and received a response on May 3, 2023. In the questionnaire the Harbormaster stated that there is no commercial fishing within the area of the proposed lease. (CF – Harbormaster Questionnaire). DMR has not received any complaints related to interference with fishing or other uses since the applicant began operating CAS LJ2x in 2019.

At the hearing, the applicant stated that most of the lobstering observed in the area occurs over 1,000 feet to the east of the proposed lease site (Henninger/Rozov). When asked about the 20 lobster buoys within 1,000 feet of the proposal that were observed by DMR staff, the applicant testified that he had not observed those buoys in the area (Henninger/Rozov).

Figure 2 shows fourteen of the 20 observed lobster buoys that were placed along the shallowest depth contour line in the area. Of the six lobster buoys closest to the proposal, five were placed near CAS LJ2x, and the expansion of aquaculture activities eastward if this proposal was granted would not move any aquaculture activities closer to most of the lobster buoys in the area. Given the location of the existing lobster fishing activity in relation to the proposal, the nature of the activity proposed, and the fact that there has been no evidence of conflict with lobster fishing from the existing aquaculture use which will be similar

in nature to the proposed use, DMR concludes that the proposed use will not unreasonably interfere with existing lobster fishing.

**Other uses.** No other uses were observed by DMR scientists at the time of the site visit. No testimony or evidence of other uses of the area was submitted at the hearing.

**Therefore,** the aquaculture activities proposed for this site will not unreasonably interfere with fishing and other uses.

#### **D. Other Aquaculture Uses**

Pursuant to 12 M.R.S.A. § 6072(7-A), the commissioner shall also take into consideration the number and density of aquaculture leases in an area. DMR's Chapter 2 regulations require the Commissioner to consider any evidence submitted concerning other aquaculture uses of the area. "The intensity and frequency of such uses as well as the degree of exclusivity required for each use shall be a factor in the Commissioner's determination of whether any interference is unreasonable. The number, size, location, and type of other aquaculture leases shall be considered by the Commissioner." Chapter 2, § 2.37(1)(A)(4).

The applicant currently operates experimental lease CAS LJ2x within the boundaries of this proposal (SR 6). This standard lease proposal is intended to replace CAS LJ2x (App 27). There are four limited purpose aquaculture (LPA) sites within 1,000 feet of the proposed lease area – AGAI121, AGAI221, HERR120, and HERR220 (SR 6). AGAI121 measured 170 feet to the west and AGAI221 measured 169 feet to the west, while HERR120 measured 123 feet to the south and HERR220 measured 227 feet to the south.

At the hearing, the applicant testified that he has observed the owner of AGAI121 and AGAI220 working on the LPAs about twice a week and has never observed the owner of HERR120 and HERR220 working on those LPAs (Henninger/Rozov).

CAS LJ2x fills the westernmost 2.06 acres of this 6.37-acre proposal (*See* Figure 1). CAS LJ2x was granted in 2019. AGAI121 and AGAI221 are to the west of the lease and were granted in 2021. CAS LJ2x was operating when AGAI121 and AGAI221 were proposed and placed in the vicinity of CAS LJx. The license holders would have been aware of the aquaculture activities taking place in the area. This proposal would not move any additional aquaculture activities any closer to AGAI121 and AGAI221, and the nature of the proposed activity would not lead to interference with the existing aquaculture activities, therefore, this proposal would not interfere with AGAI121 and AGAI221 continued aquaculture operations.

Littlejohn Island is approximately 1,117.4 feet to the south of this proposal. HERR120 and HERR220 are approximately 123 and 227 feet to the south of this proposal. This leaves approximately 994

feet and 890 feet between HERR120 and HERR220 and Littlejohn Island to the south. These distances would be adequate for a water vessel to access HERR120 and HERR220 by approaching the LPA sites from the south, and there would be adequate space for the applicant to access the proposed site without interference with HERR120 and HERR220.

**Therefore,** the aquaculture activities proposed for this site will not unreasonably interfere with existing aquaculture uses in the area.

#### **E. Existing System Support**

The Commissioner may grant a lease if the lease activities “will not 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.” 12 M.R.S.A. § 6072(7-A)(D). “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.” Chapter 2, § 2.37(1)(A)(5).

**Site observations.** DMR scientists utilized a remotely operated vehicle (ROV) to assess the epibenthic ecology of the proposed lease (SR 7). The relative abundance of epibenthic flora and fauna observed in the video transects is described below:

Species Observed	Abundance
Sand Shrimp ( <i>Crangon septemspinosus</i> )	Abundant
Rockweed ( <i>Ascophyllum nodosum</i> )	Occasional

**Eelgrass (*Zostera marina*).** Recent records of seagrass collected by the Maine Department of Environmental Protection (MDEP) in 2022 indicate four patches of mapped eelgrass in the vicinity of the proposal. The nearest patch is approximately 301.5 feet southwest of the proposal (SR 7). No eelgrass was observed within the proposal boundaries during DMR’s site assessment (SR 7).

**Wildlife.** According to Geographic Information System (GIS) data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) and available through the Maine Office of GIS (MEGIS), the proposed lease is located 689 feet to the northwest of mapped Tidal Waterfowl and Wading Bird Habitat (TWWH) (SR 8).

During the site assessment, DMR scientists observed a school of Atlantic menhaden (*Brevoortia tyrannus*) at the surface of the water, double-crested cormorant (*Nannopterum auritum*), herring gull (*Larus*

*argentatus*), lesser black backed gull (*Larus fuscus*), common loon (*Gavia immer*) and an osprey nest in the vicinity of the proposal (SR 8).

The nearest patch of eelgrass to the proposal is approximately 302 feet to the southwest, and the nearest mapped TWWH is approximately 689 feet to the northwest of the proposal. With these distances from the proposal, and given the nature of the proposed activities, the aquaculture activities proposed would not interfere with these habitats.

**Therefore**, the aquaculture activities proposed will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

#### **F. Public Use and Enjoyment**

The Commissioner may grant a lease if the lease activities will not unreasonably interfere with public use or enjoyment within 1,000 feet of a beach, park or docking facility, or certain conserved lands owned by the Federal Government, the State Government, or a municipal government. 12 M.R.S.A. § 6072(7-A)(F). Conserved lands means land in which fee ownership has been acquired by the state, federal, or municipal government in order to protect the important ecological, recreational, scenic, cultural or historic attributions of that property. *Id.* In evaluating interference with the public use or enjoyment of conserved lands, the Commissioner shall consider the degree of any such interference and the purpose(s) for which the land has been acquired. Chapter 2, § 2.37(1)(A)(7).

The proposed lease is not within 1,000 feet of any beach, park, docking facility, or conserved lands owned by federal, state, or municipal governments (SR 9).

**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.

#### **G. Source of Organisms**

In accordance with 12 M.R.S.A. §6072(7-A)(E), standard lease applicants are required to demonstrate that there is an available source of organisms to be cultured for the lease site. 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. Chapter 2, § 2.37(1)(A)(6).

The applicant proposes to source American oyster stock from Mook Sea Farms and Muscongus Bay Aquaculture (App 2). Both Mook Sea Farms and Muscongus Bay Aquaculture are approved sources of American oyster stock. The applicant proposes the source hard clam stock from Muscongus Bay

Aquaculture (App 2). Muscongus Bay Aquaculture is an approved source of hard clam stock. The applicant proposes to source Atlantic sea scallop stock from Thomas Henninger. Thomas Henninger has an active spat license and is therefore an approved source for Atlantic sea scallop stock.

All proposed sources of organisms are proposed to come from an approved source.

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

#### **H. Light**

The Commissioner considers whether there will be an unreasonable impact from lighting in accordance with 12 M.R.S.A § 6072(7-A)(G) and the regulatory standards specified in Chapter 2, § 2.37(1)(A)(8). Rules regarding lighting “apply to all exterior lighting used on buildings, equipment, and vessels permanently moored or routinely used at all aquaculture facilities, with the exception of lighting for navigation, emergencies, and construction of a temporary nature.” Chapter 2, § 2.37(1)(A)(8).

The application states that the applicant would only use lighting if working after dark and would only work after dark on site if an emergent weather situation demanded it (App 25).

Because the application provides that the applicant would only use lighting after hours in the case of emergent weather situations, which would be an emergency, the use of the lighting proposed by the applicant is exempt.

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

#### **I. Noise**

The Commissioner considers whether there will be an unreasonable impact from noise in accordance with 12 M.R.S.A § 6072(7-A)(G) and the regulatory standards specified in Chapter 2, § 2.37(1)(A)(9). Rules regarding noise apply to the routine operation of all aquaculture facilities, including harvesting, feeding, and tending equipment at leases authorized by DMR, with the exception of: watercraft, harvest or transport barges and maintenance equipment while underway; the unamplified human voice or other sounds of natural origin; bells, whistles, or other navigational aids; emergency maintenance and repair of aquaculture equipment; warning signals and alarms; and events not reasonably within control of the leaseholder. Chapter 2, § 2.37(1)(A)(9).

The applicant proposes to use a tumbler sorter powered by a Honda EB 6500 generator and a wash down pump powered with a 4-stroke gasoline engine or by a Honda WMP20 water pump (App 25). The tumbler sorter is insulated with “sound baffling materials,” and the generator is partially covered by a sound-insulated box (App 25).

The equipment proposed to be used by the applicant is of the type regularly employed within the aquaculture industry, and represents a reasonable approach to accomplishing the activities proposed by the applicant. Noise generating equipment being covered by sound insulating boxes and materials are mitigation measures commonly used within the aquaculture industry and are acceptable and reasonable means to mitigate noise produced by the power equipment. The applicant has taken appropriate measures to mitigate noise.

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

#### **J. Visual Impact**

Before granting a lease, the Commissioner must determine that the proposed lease will be in compliance with visual impact criteria adopted by the Commissioner relating to color, height, shape and mass. 12 M.R.S.A § 6072(7-A)(H). The Commissioner has adopted such regulatory standards in Chapter 2, § 2.37(1)(A)(10). Rules regarding visual impact apply to all equipment, buildings, and watercrafts used at an aquaculture facility, excluding watercraft not permanently moored or routinely used at a lease location such as harvest or feed delivery vessels. Other equipment or vessels not moored within the boundaries of a lease, but routinely used or owned by the leaseholder are subject to these requirements. Chapter 2, § 2.37(1)(A)(10).

The application states OysterGro floats would be grey, the cages would be black, and the floating work platform would be wood with plastic floats (App 7-8). Additionally, the application states buoys marking bottom cages and lantern nets would be yellow and utility mooring buoys would be white (App 8).

Chapter 2, § 2.37(1)(A)(10) states “equipment and structures shall be painted, or be of, a color that does not contrast with the surrounding area. Acceptable hues are grays, blacks, browns, blues, and greens that have a sufficiently low value, or darkness, so as to blend in with the surrounding area. Colors shall be flat, not reflective in appearance.”

The colors reported for the OysterGro floats and cages, as well as the wood for the work platform, satisfy the color requirements set out in Chapter 2. The application does not state what color the floats for the work platform would be. These floats would need to be a color and hue set out in Chapter 2, § 2.37(1)(A)(10). If the lease is granted, the holder would be responsible for complying with these marking requirements.

The application states the buoys inside the boundary of the proposal, the bottom marker buoys and mooring buoys, would be white and yellow. Buoys inside the boundary of the proposal must comply with

the color and hue requirements set out in Chapter 2, § 2.37(1)(A)(10). If the lease is granted, the holder would be responsible for complying with these marking requirements.

Chapter 2, § 2.37(1)(A)(10) states “all buildings, vessels, barges, and structures shall be no more than one story and no more than 20 feet in height from the water line.” The proposed floats would lay flat on the water and have no structure placed on top of them. Therefore, the floats would be in compliance of the rule requiring any structure to be no more than 20 feet.

**Therefore,** the aquaculture activities proposed for this site will comply with the visual impact criteria contained in DMR Chapter 2, § 2.37(1)(A)(10).

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

Based on the above findings, DMR concludes that:

- a. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of riparian owners.
- 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.
- d. The aquaculture activities proposed for this site will not unreasonably interfere with other aquaculture uses in the area.
- e. 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.
- f. 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.
- g. The applicant has demonstrated that there is an available source of stock to be cultured for the lease site.
- h. The aquaculture activities proposed for this site will not result in an unreasonable impact from light at the boundaries of the lease site.
- i. The aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease site.
- j. The aquaculture activities proposed for this site will comply with the visual impact criteria contained in DMR Chapter 2, § 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 to Thomas Henninger for 6.37 acres for 20 years for the cultivation of American oysters (*Crassostrea virginica*), sea scallop (*Placopecton magellanicus*), and hard clam (*Mercenaria mercenaria*) using suspended culture techniques. The lessee shall pay the State of Maine rent at \$100.00 per acre per year. The lessee shall post a bond or establish an escrow account pursuant to 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. LEASE CONDITIONS**

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) and Chapter 2.37(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 have been imposed on this lease.

## **7. REVOCATION OF LEASE**

The Commissioner may commence revocation procedures upon determining, pursuant to 12 M.R.S.A § 6072 (11), that no substantial aquaculture has been conducted over the course of the lease, 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: \_\_\_\_\_

8.5.25



Carl J. Wilson, Commissioner  
Department of Marine Resources

**STATE OF MAINE**  
**DEPARTMENT OF MARINE RESOURCES**  
Experimental Aquaculture Lease Application  
Suspended culture of shellfish  
Littlejohn Island, Yarmouth

**Thomas Henninger**  
**CAS LJ2x**  
July 26, 2019

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

Thomas Henninger applied to the Department of Marine Resources (“DMR”) for a three-year experimental aquaculture lease located north of Littlejohn Island in Casco Bay, Yarmouth, Cumberland County. The proposed lease is 2.06 acres<sup>1</sup> in size, and is proposed for the suspended cultivation of American/eastern oysters (*Crassostrea virginica*). DMR accepted the application as complete on October 24, 2018. No requests for a public hearing were received during the comment period, and no hearing was held.

**1. THE PROCEEDINGS**

Notice of the application and the 30-day public comment period were provided to state and federal agencies, riparian landowners, the Town of Yarmouth and its Harbormaster, and others on the Department’s mailing list. Notice of the application and comment period was published in the *Northern Forecaster* on December 6, 2018.

The evidentiary record before the Department regarding this lease application includes the application, the Department’s site report dated May 9, 2019, and the case file. The evidence from each of these sources is summarized below.<sup>2</sup>

**2. DESCRIPTION OF THE PROJECT**

**A. Proposed Operations**

The purpose of the proposed experimental lease is to assess the viability of a commercial lease operation in the chosen location (App 4<sup>3</sup>). American/eastern oysters (*C. virginica*) would be cultivated using floating and bottom cages, arranged in up to 16 parallel lines on the proposed site (App 10A). Up to 210 floating cages are proposed, with dimensions of 41” x 68” x 22” and up to 16 bottom cages, measuring 3’ x 4’ x 4’ are proposed (App 10A-11). During the winter months, cages would be sunk to the bottom for overwintering (App 5).

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<sup>1</sup> Applicant originally requested 2.17 acres. DMR calculations in the site report, based on the provided coordinates, indicate the area is 2.06 acres.

<sup>2</sup> These sources are cited below, with page references, as CF (case file), App (application), SR (site report).

<sup>3</sup> The referenced page numbers are those displayed in the bottom of the application page.

## **B. Site Characteristics**

On April 25, 2019, 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 between Littlejohn and Cousins Islands in Casco Bay (SR 2). The surrounding uplands host a mixed forest; residential buildings and docks are located to the north and west of the proposed site on Cousins Island, while the section of Littlejohn Island located to the south of the proposed lease, is undeveloped (SR 2). The shoreline is composed primarily of rocks, with mudflats exposed at lower tidal stages to the west of the proposal (SR 2).

At mean low water, the proposed lease is located approximately 1,130 feet from Littlejohn Island to the south and approximately 1,050 feet from Cousins Island to the northwest (SR 4). Water depth within the proposed lease range between 7.5 and 8.5 feet at mean low water (SR 3). The bottom of the proposed lease site is comprised of mud (SR 8).

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

Approval of experimental aquaculture leases is governed by 12 M.R.S.A. §6072-A. This statute provides that a lease may be granted by the Commissioner of DMR upon determining that the project will not unreasonably interfere with the ingress and egress of riparian owners; with navigation; with fishing or other water related uses of the area, taking into consideration other aquaculture uses in the area; with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; or with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured for the lease site.

### **A. Riparian Access**

The proposed lease is located north of Littlejohn Island and south of Cousins Island in Casco Bay (SR 5). Littlejohn Island, located over 1,130 feet to the south of the proposed lease, hosts an undeveloped shoreline (SR 4). Houses, docks, and stairs for shoreline access were observed to the north and west of the proposed lease, on the Cousins Island shoreline (SR 5). At the time of DMR's site visit on April 25, 2019, the closest docks were observed over 800 feet to the north of the proposed lease (SR 5). The proposed lease will not impede depth-appropriate vessels from utilizing this dock due to this distance. During DMR's site visit, an unlabeled white buoy, which was assumed to mark a mooring, was observed approximately 194 feet from the proposed lease (SR 5). According to the site report, "it is likely that, if this buoy marks a mooring, the use of said mooring would be impacted by the proposed lease" (SR 5).

However, during the review period, the Department did not receive any comments from members of the public concerning access to riparian owned land or the use or moorings in the vicinity of the proposed lease. Based on the absence of public comments it is reasonable to conclude that there are no concerns about the effects the proposed site may have on riparian ingress and egress, including the use of nearby moorings. Additionally, the Yarmouth Harbormaster stated in written comments that the proposed lease

application does not interfere with the ability of riparian landowners located within 1,000 feet of the proposed lease to get to and from their property.<sup>4</sup> It appears from this evidence that riparian ingress and egress will not be unduly affected by the proposed lease application.

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

## **B. Navigation**

The proposed lease is located in the cove between Littlejohn and Cousins Islands in Casco Bay (SR 2). Per page 6 of the site report:

A marked channel leading into the Royal and Cousins Rivers is located to the north and east of the proposed lease....Vessels navigating to and from the Royal and Cousins Rivers are unlikely to be impacted by the proposed lease, because it is located within a shallow cove more than 1,500 feet to the west of the channel.

According to the site report, navigation within the cove in which the proposed lease is located may be impacted by the proposal (SR 6). If the proposed lease were to be granted, vessels navigating in or out of the cove would have to navigate to the north or south of the proposal, due to its location in the center of the cove's mouth. However, because the Cousins Island shoreline is located approximately 1,050 feet to the north of the proposed lease, and the rocks off the Littlejohn Island shoreline are located approximately 715 feet to the south, adequate room is available for depth-appropriate vessels to navigate on either side of the proposed lease site (SR 4).

The Yarmouth Harbormaster indicated that the proposed lease does not interfere with navigation in designated channels.<sup>5</sup> During the review period, the Department did not receive any public comments regarding navigation. 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 navigation within the area. It appears from this evidence that navigation in the area will not be unduly affected by the proposed lease application.

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

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

**Fishing.** According to the Yarmouth Harbormaster, little to no commercial and/or recreational fishing activities occur within the area of the proposed lease.<sup>6</sup> During the site visit on April 25, 2019, no fishing activities were observed within the lease site (SR 6). In the site report, DMR acknowledged that commercial and recreational uses of this area are "more prevalent in the summer months" (SR 6). If granted, the location and size of the proposed lease would not prevent commercial or recreational fishing activities from occurring between Littlejohn and Cousins Islands.

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<sup>4</sup> CF: Harbormaster Questionnaire dated May 1, 2019.

<sup>5</sup> CF: Harbormaster Questionnaire dated May 1, 2019.

<sup>6</sup> CF: Harbormaster Questionnaire dated May 1, 2019.

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

**Other aquaculture uses.** Three Limited Purpose Aquaculture (LPA) licenses and two experimental aquaculture leases are located within one mile of the proposed lease (SR 6). The closest aquaculture site is an LPA license located within the proposed lease site and held by the applicant (SR 6). The closest aquaculture operation held by another individual is an experimental lease CAS LJIX, which is located approximately 960 feet to the southwest of the proposed lease and permitted for the suspended culture of shellfish (SR 7). Due to this distance, and the absence of public comments concerning the impact of the proposal on existing aquaculture operations, it is unlikely that the activities proposed by the applicant will adversely affect existing aquaculture leases and licenses in the area. Based on this evidence, it appears that the proposed lease will not unreasonably interfere with other aquaculture uses in the area.

**Other water-related uses.** During the site visit on April 25, 2019, DMR staff did not observe other water-related uses of the proposed lease area not described elsewhere in this decision. During the review period, the Department did not receive any public comments detailing other uses of the area. 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 other aquaculture uses of the area, the activities proposed for this site will not unreasonably interfere with fishing or other water related uses of the area.

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

Data collected in 2018 and 2013 show the closest documented eelgrass (*Zostera marina*) beds to be located approximately 110 and 650 feet respectively from the proposed lease site (SR 8). During DMR's site review, no eelgrass was observed when assessing the bottom of the proposed lease via a remotely operated vehicle (SR 8).

Data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIF&W), show that the proposed lease is located approximately 680 feet from Tidal Wading Bird and Waterfowl Habitat (SR 7). DMR sent a copy of the lease application to MDIF&W for their review and comment. MDIF&W indicated: "minimal impacts to wildlife are anticipated".<sup>7</sup>

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 culture of shellfish, as proposed for this lease site, will not interfere with the ecological functioning 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.

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<sup>7</sup> CF: Email from J. Perry, MDIF&W Environmental Review Coordinator, dated January 9, 2019.

#### **E. Public Use & Enjoyment**

Per the site report, "There are no beaches, parks, or docking facilities owned by federal, state, or municipal government within 1,000 feet of the proposed lease site" (SR 10).

**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, or docking facilities owned by municipal, state, or federal governments.

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

American/eastern oyster seed would be obtained from Mark Green, in Peaks Island, Maine (App 2). This source is approved by DMR.

**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:

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 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 2.06 acres to Thomas Henninger 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>8</sup>; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.

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<sup>8</sup> DMR Rule 2.64 (14) provides:

This lease is granted to the lessee for the cultivation of American/eastern oysters (*Crassostrea virginica*) 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 MRSA §6072-A (15)<sup>9</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. 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: \_\_\_\_\_

July 26, 2019



Patrick C. Keliher, Commissioner

Department of Marine Resources

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"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>9</sup> 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."