

**STATE OF MAINE  
DEPARTMENT OF MARINE  
RESOURCES**

**Dirigo Marine Resources, LLC**

**CAS RCx**

Experimental Aquaculture Lease Application  
Suspended and Bottom Culture of  
American/eastern oysters, Sea Scallops, Hard  
Clams, and Blue Mussels  
Recompense Cove, Casco Bay, Freeport,  
Cumberland County

June 23, 2021

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

Dirigo Marine Resources, LLC applied to the Department of Marine Resources (DMR) for a three-year experimental aquaculture lease located in Recompense Cove in Casco Bay, Freeport, Cumberland County, Maine. The proposed lease is 3.84<sup>1</sup> acres and is for the suspended and bottom culture of American/eastern oysters (*Crassostrea virginica*), sea scallops (*Placopecten magellanicus*), hard clams (*Mercenaria mercenaria*), and blue mussels (*Mytilus edulis*). DMR accepted the application as complete on June 11, 2020.

**1. THE PROCEEDINGS**

Notice of the application and the 30-day public comment period were provided to state and federal agencies, the Town of Freeport and its Harbormaster, and others on DMR's mailing list. Notice of the application and comment period was published in the July 2, 2020 edition of *The Northern Forecaster*. During the comment period, DMR received one request for a public hearing, and no hearing was held. The evidentiary record regarding this lease application includes the application, DMR's site report dated March 25, 2021, 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 applicant proposes to culture American oysters using floating mesh bags (34"x25"x4"), floating cages (36"x48"x15"), and bottom cages (48"x36"x20"), hard clams using bottom culture and mesh bags (34"x25"x4"), sea scallops using bottom culture (no gear), and blue mussels using mussel socks (6" x 6') on hanging lines (App 4). A maximum of 18 surface

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<sup>1</sup> Applicant requested 3.85 acres. DMR calculations indicate the area is 3.84 acres.

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

longlines, each measuring 120 feet in length, oriented southwest to northeast would be deployed on the site. Longlines would be deployed in groups of 2, creating up to 9 'rows' of gear on the site. An additional 18 longlines would be deployed on the seafloor underneath the surface lines (App 21-22). At most, the applicant intends to deploy up to 12 bottom cages, 12 floating cages, 56 floating bags, or 24 mussel socks/lines per 120' longline. The application indicates that all types of gear will be deployed interchangeably to find the optimal spacing and distribution for optimal growth. Scallops would be bottom planted in the center of the proposed lease (App 21-22). According to details provided in the application, at maximum, 2000 mesh bags, 200 floating cages, 100 bottom cages, and 100 mussel socks will be deployed on the site (App 6). During the winter, all surface gear would be sunk to the bottom of the lease site (App 6) and mussel lines would be hung from the lease corner marker buoys<sup>3</sup>.

Routine maintenance of the site would include the use of a power washer, powered by gas or a boat engine, and use of an electric tumbler. The applicant indicates a pressure washer would be used at most 2 hours per day, up to four days a week, from June 1<sup>st</sup> to November 30<sup>th</sup> and an electric tumbler used to tumble, sort and grade oysters would be used no more than 8 hours per day, once a week, between May 1<sup>st</sup> to November 30<sup>th</sup> (App 6). Harvesting of product would occur via hand or by dive and would take place year-round (App 4).

The applicant indicates they intend to possess, transport, or sell whole or roe-on scallops. These activities will require a Memorandum of Understanding with DMR's Bureau of Public Health, and the applicant may be responsible for covering all costs associated with any biotoxin testing that may be required. In addition, at the time of this decision, it is not legally permissible to possess, transport, or sell whole or roe-on scallops without a special license from DMR. If the applicant intends to pursue this, they must contact DMR.

## **B. Site Characteristics**

The proposed lease site is in subtidal waters between Flying point and Wolf Neck, in an area know as Recompense Cove in Freeport, Maine (SR 2). The nearby shorelines are rocky, and lead to forests and residential properties. Wolfe's Neck State Park is located to the north of the proposal, and extensive tidal flats are located at the head of Recompense Cove to the north and northeast of the proposal (SR 2). Casco Bay islands (including Crab, Bustins, Moshier and Little Moshier) are located to the south and east (SR 2).

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<sup>3</sup> CF: email from G. Foote to C. Adams on 3.14.2021



DMR scientists visited the site on July 15, 2020 but did not collect depths during the assessment. According to the application, depths at the site range from 5 feet at mean low water to 15 feet at mean high water. The NOAA Nautical Chart for this area indicates that the site sits along a 6-foot contour line, with depths on either side of the contour line ranging from 4-7 feet at mean low water (SR 6).

According to the site report, from the proposed northeast and northwest corners to the nearest point on the Wolfe Neck shoreline there are approximately 1,550, and 1,375 feet, respectively. A pending standard lease application, from Maine Ocean Farms, that was deemed complete prior to this application, is located approximately 878 feet to the southeast at the nearest point. That application is currently awaiting a hearing.

### **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 on the lease site.

#### **A. Riparian Access**

The proposed lease is located near the center of Recompense Cove, and the nearby shoreline is composed of forest, residential buildings, docks, moorings, and sets of shorefront stairs associated with Wolfe Neck State Park that provide public access to the shoreline (SR 7). During DMR's site visit on July 15, 2020 approximately 8 docks and associated moorings were observed along the Wolfe Neck shoreline to the west of the proposal (SR 7). While DMR did not obtain GPS points for these docks during their site visit, aerial imagery from 2018 indicates that the nearest dock to the proposal is approximately 1,400 feet to the northwest (SR 7). Aerial imagery also indicates the presence of additional docks farther away from the proposal, near the head of Recompense Cove. DMR's site report notes that, due to shoal water and tidally exposed mud flats, access to these docks would likely be hindered more by tidal stages and water depths than by the proposed lease. Because the closest dock appears to be 1,400 feet away, there is

likely adequate distance for riparian landowners to navigate around the proposed aquaculture lease to access the shoreline. A standard aquaculture lease application submitted by Maine Ocean Farms is located almost 900 feet to the southeast of this proposal. A hearing on the Maine Ocean Farms proposal has not yet been scheduled, but DMR's site report for this application indicates the distance between the two proposals is likely adequate for depth appropriate vessels that are expected to access the shoreline of Recompense Cove to navigate between the two proposals, if both were to be granted (SR 7).

During the comment period, DMR did not receive any comments regarding riparian access. Based on the lack of public comments, and the evidence presented in DMR's site report, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on 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**

During DMR's visit to the site on July 15, 2020, one vessel was observed to be operating within Recompense Cove (SR 8). An additional moored vessel was observed within the proposed lease boundaries, and between Limited Purpose Aquaculture (LPA) sites that are held by Gregory Foot, who is the sole owner of Dirgio Marine Resources, LLC. According to additional communication with the applicant, both the mooring and moored vessel are owned by Mr. Foote.<sup>4</sup>

Depths in Recompense Cove range from about 1-7 feet at mean low water. Even with these shallow depths, the cove experiences moderate commercial and recreational traffic from depth appropriate vessels, especially during the summer months (SR 8). The site report notes that given the distance available for navigation between the proposed lease and nearby shorelines, and because the proposed lease will not prevent the use of the deeper channel that leads into Recompense Cove from the south, commercial and recreational traffic is unlikely to be significantly hindered by the proposal (SR 8).

As noted above, a pending lease proposal from Maine Ocean Farms is nearly 900 feet away from the Dirgio Marine Resources, LLC application contemplated by this decision. Navigation within Recompense Cove is already limited by the presence of shoal water and

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<sup>4</sup> CF: Email from G. Foote to C. Adams on 3.14.21



vessels that can navigate within the cove would likely be able to transit between the Dirigo Marine Resources site and the Maine Ocean Farms site, if both were to be approved. The site report indicates that if both applications were approved, individuals may have to alter course to avoid one or both lease footprints (SR 8), but it does not appear that navigation within the cove would be prevented. A hearing on the Maine Ocean Farms proposal has not yet been scheduled.

A navigation channel indicated by the presence of 'Red Nun 2' is located more than 0.75 miles to the south of the proposed lease (SR 8). Vessel traffic within this channel is likely heavy during times of year when commercial and recreational boating traffic are most prevalent, as the channel leads to the Harraseeket River, Harraseeket Yacht Club, and the South Freeport Town Wharf and associated mooring field (SR 8). Given the distance between the proposal and the marked channel, the proposal is unlikely to interfere with vessels navigating in the general area (SR 8).

During the comment period, DMR did not receive any comments related to navigation within or near Recompense Cove. Based on the lack of public comments, and the evidence in the site report, it is reasonable to conclude that navigation in the area will not be unduly affected by the proposed application.

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

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

**Fishing.** During DMR's site visit on July 15, 2020, light lobstering was observed near the proposed lease site (SR 8). Three lobster trap buoys were observed near the boundaries of the proposed site, but were not within the footprint, and six buoys total were observed in the general area (SR 8). The application indicates that there is occasional menhaden fishing within the cove, and that one individual sets traps nearby the proposal (App 7). An email sent by the applicant after the publication of the site report indicates that the 3 lobster buoys observed closest to the proposal are fished by the applicant's daughter, who is supportive of the proposed lease.<sup>5</sup> What appeared to be a menhaden seining vessel within Recompense Cove was also noted (SR 8). DMR's site report indicates that it is unclear to DMR if commercial harvest of schooling baitfish, like menhaden, occurs within the cove, but communication with the Freeport Harbormaster indicates that menhaden fishing takes place regularly within the cove during the

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<sup>5</sup> CF: email from G. Foote to [DMRAquaculture@maine.gov](mailto:DMRAquaculture@maine.gov) on 3.25.21

summer, including the shoal and intertidal areas when the tide allows.<sup>6</sup> While a seining vessel would be unable to fish within the proposed boundaries of the site due to the presence of gear, and the Maine Ocean Farms proposal if also ultimately approved would reduce the available area for fishing, fishing vessels should be able to navigate around and between the proposals without issue, and the rest of the cove would remain available to fishing.

In their review of the proposal, DMR's Bureau of Public Health commented that Recompense Cove is heavily used by commercial shellfish harvesters, and because the proposal is located in approximately 5 feet of water at low tidal stages, there is some concern it could infringe on existing commercial shellfisheries.<sup>7</sup> However, DMR's site report indicates that while the site may be shallow enough to allow shellfish harvest by hand, rake, or small drag, there are extensive tidal flats to the northeast of the proposal that would remain unaffected (SR 9). According to communication with the Freeport Harbormaster, most of the shellfish harvesting within Recompense Cove takes place on the tidally exposed mud flats near the head of the cove, to the northeast of the proposal.<sup>8</sup> In addition, the proposed site is more than 1,400 feet to the south of the nearest tidally exposed mud flat, so access to these areas should not be hindered by the lease (SR 9).

DMR's site report also mentions that recreational fishing for striped bass is known to occur within Recompense Cove (SR 9), and the application notes that this activity occurs June-July (App 7). However, the applicant has not requested exclusive use of the site, and while gear entanglement could occur if hook and line fishing is attempted within the proposed site boundaries, the site report indicates that the site does not present any distinct topographical features that would make the site of higher value to striped bass anglers than other areas in Recompense Cove (SR 9). Because much of the cove would still be open and accessible for recreational hook and line fishing, this activity is unlikely to be hindered by the proposal.

No comments were received regarding any commercial or recreational fishing in the area during the comment period.

Based on the lack of public comments, and the evidence in the record, it is reasonable to conclude that the proposed aquaculture activities will not unreasonably interfere with fishing.

**Exclusivity.** The applicant has not requested exclusive use of the site.

**Other aquaculture uses.** At the time of DMR's site report, there were 18 Limited Purpose Aquaculture (LPA) licenses and 1 pending lease application within 1 mile of the

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<sup>6</sup> Phone conversation between C. Adams (DMR) and C. Tetreau (Freeport Harbormaster) on 3.17.21

<sup>7</sup> CF: email from K. Kanwit to [DMRAquaculture@maine.gov](mailto:DMRAquaculture@maine.gov) on 11.4.2020

<sup>8</sup> Phone conversation between C. Adams (DMR) and C. Tetreau (Freeport Harbormaster) on 3.17.21



proposal<sup>9</sup>. Four of the LPAs in Recompense Cove are held by the applicant (Greg Foote) and would be relinquished if the lease is granted (App 8). The pending standard lease application, from Maine Ocean Farms, mentioned elsewhere in this decision, was deemed complete prior to the application from Dirigo Marine Resources but is awaiting a hearing. The Maine Ocean Farms proposal is approximately 878 feet to the southeast of the Dirigo Marine Resources proposal and requests 9.86 areas for the suspended culture of shellfish (SR 9). If the Maine Ocean Farms proposal is also granted, 7 of the other LPAs within Recompense Cove would be relinquished (SR 9). Maine Ocean Farms was directly notified of this application, but no written comments were received. In a phone conversation with DMR, the owner of Maine Ocean Farms, Eric Oransky, confirmed his familiarity with Dirigo Marine Resources, their current activities, and the proposal, and that he did not wish to submit written comments<sup>10</sup>.

**Other water-related uses.** During the review period, DMR did not receive any comments detailing other water-related uses that are not already contemplated in other sections of this decision. Based on the absence of public comments, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on other water-related uses of the area.

**Therefore**, considering the other aquaculture uses of the area, the activities proposed for this site will not unreasonably interfere with fishing or other water related uses of the area.

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

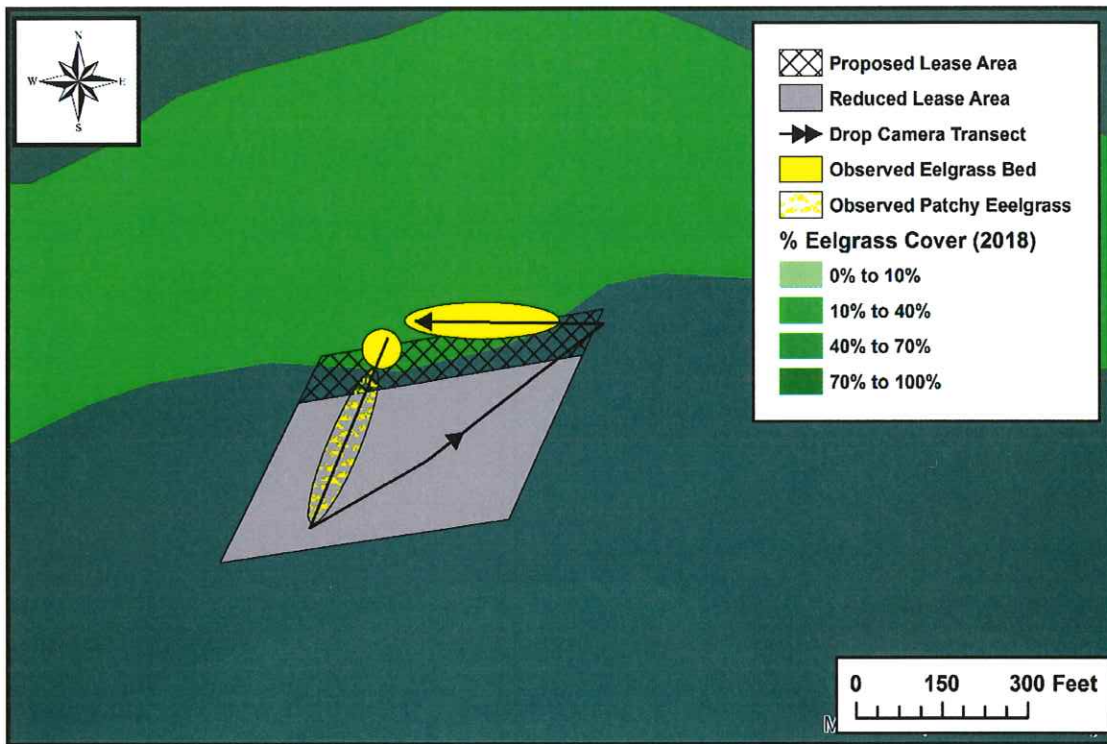
Historical eelgrass (*Zostera marina*) data collected by the Maine Department of Environmental Protection, in partnership with the Casco Bay Estuary Partnership, indicate that the northern boundary of the proposed lease overlaps with a mapped eelgrass bed (SR 11). During DMR's visit to the site on July 15, 2020, the underwater assessment found an eelgrass bed with moderate coverage near the northern boundary of the proposal, as well as sporadic lower density patches of eelgrass throughout the first 1/3 of the transect (SR 11). Because the low-density patches observed by DMR were intermittent, and not part of established beds, DMR scientists do not recommend a reduction to that area of the proposed lease. However, to ensure the lease does not overlap or interfere with the observed and mapped eelgrass bed near the northern boundary of the proposal, and to ensure the lease meets the United States Army Corps of Engineers recommended 25-foot setback from existing eelgrass beds, DMR scientists have

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<sup>9</sup> One additional experimental lease application was deemed complete after the proposal from Dirigo Marine Resources and is also within 1 mile of the proposed site. As it was received after the Dirigo Marine Resources proposal, it has no bearing on the decision.

<sup>10</sup> Phone call between Eric Oransky (Maine Ocean Farms) and Marcy Nelson (DMR) on February 5, 2021.

recommended that the proposed northern boundary of the lease site be shifted approximately 90 feet to the south (SR 11). Figure 1 shows the mapped and observed eelgrass, the proposed lease boundaries, and the suggested lease boundary reduction. Table 1 provides updated coordinates for the lease site that reflect this reduction. The lease footprint will be reduced accordingly, and the total acreage of the site is therefore reduced to 2.99 acres. In addition, because the placement of bottom cages directly on eelgrass could damage the plants, before deploying any gear, the applicant should evaluate the site, take note of the location of any existing eelgrass patches within the boundaries of the site, and should not place bottom cages on any observed patches. The lease will be conditioned to reflect this requirement. Should eelgrass grow into the site and establish underneath already deployed floating gear or around any deployed bottom cages, Dirigo Marine Resources is encouraged to contact DMR with an update regarding eelgrass within the site.



**Figure 1:** Observed and mapped eelgrass beds, location of observed patchy eelgrass on July 15, 2020 and original and reduced lease boundaries. Figure taken from DMR’s site report.

**Table 1:** Revised Lease Coordinates (2.99 acres)

Corner	Latitude	Longitude	
SE	43.812390°N	70.086570°W	then 512.16 feet at 261.58° True to



SW	43.812166°N	70.088486°W	then 308.43 feet at 26.42° True to
NW	43.812929°N	70.087980°W	then 506.76 feet at 80.65° True to
NE	43.813173°N	70.0860089°W	then 312.23 feet at 204.73° True to SE

During DMR’s visit to the site on July 15, 2020 DMR scientists observed double crested cormorants and terns on cages associated with the LPA licenses held by Greg Foote, the sole owner of Dirigo Marine Resources, LLC. Various gull species were observed in the general vicinity and a bald eagle was observed flying near the mouth of the Harraseeket River (SR 10). According to data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), the proposed lease is located over 1,200 feet to the southwest of Tidal Wading Bird and Waterfowl Habitat, which is defined as Significant Wildlife Habitat by Maine’s Natural Resource Protection Act (SR 10). The nearest bald eagle nest is over 1 mile to the southeast of the proposed lease (SR 10). During the review period for this application, DMR sent the application to the MDIFW for their review and comment, and they indicated that “minimal impacts to wildlife are anticipated for this project.”<sup>11</sup>

No public comments were received regarding the flora and fauna in the area. Based on the evidence that the proposed lease does not interfere with significant wildlife, and because the lease has been reduced to provide a buffer between the lease and existing eelgrass beds, a condition related to the deployment of bottom cages will be included on the lease, and because no other comments were received regarding the flora and fauna in the area, it appears that the proposed aquaculture activities for this lease site will not interfere with the ecological function of the area.

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

**E. Public Use & Enjoyment**

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

**Therefore**, the aquaculture activities proposed for this site will not unreasonably interfere with public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by federal, state, or municipal governments.

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<sup>11</sup> CF: Email from R. Settele to C. Burke on July 7, 2020.

## **F. Source of Organisms**

The applicant intends to source American/eastern oysters from Mook Sea Farms, hard clams from Muscongus Bay Aquaculture, and blue mussels and sea scallops from wild seed. These sources are approved by DMR.

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

## **4. CONCLUSIONS OF LAW**

Based on the above findings, I conclude that:

1. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.
2. 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. Given the reduced lease coordinates and condition related to deployment of bottom cages to avoid established eelgrass patches, 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 an experimental lease, reduced to 2.99 acres, to Dirigo Marine Resources 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>12</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 American/eastern oysters (*Crassostrea virginica*), sea scallops (*Placopecten magellanicus*), hard clams (*Mercenaria mercenaria*), and blue mussels (*Mytilus edulis*) using suspended and bottom 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 (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 MSRA §6072-A (15)<sup>13</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 purpose of the lease. The following conditions have been imposed on this lease.

1. Before any initial gear deployment on the site, the leaseholder shall evaluate the site and note the location of any existing eelgrass patches. Bottom cages

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<sup>12</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>13</sup> 12 MRS §6072-A (15) provides that:

“The commissioner may establish conditions that govern the use of the leased area and limitations on the aquaculture activities. These conditions must encourage the greatest multiple, compatible uses of the leased area, but must also address the ability of the lease site and surrounding area to support ecologically significant flora and fauna and preserve the exclusive rights of the lessee to the extent necessary to carry out the lease purpose. The commissioner may grant the lease on a conditional basis until the lessee has acquired all the necessary federal, state and local permits.”

shall not be deployed directly on any of the observed eelgrass patches within the site.

**7. REVOCATION OF EXPERIMENTAL LEASE**

The Commissioner may commence revocation procedures upon determining pursuant to 12 MRSA §6072-A (22) and DMR Rule Chapter 2.64 (13) that no substantial research has been conducted on the site within the preceding year, that research has been conducted in a manner injurious to the environment or to marine organisms, or that any conditions of the lease or any applicable laws or regulations have been violated.

Dated: 6/23/2021



Patrick C. Keliher, Commissioner

Department of Marine Resources