

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES

Ryan McPherson

Experimental Aquaculture Lease Application
Suspended Culture of Shellfish
Damariscotta River, Newcastle

DAM SPPx

Findings of Fact, Conclusions of Law, and Decision

Ryan McPherson applied to the Department of Marine Resources (DMR) for a three¹-year experimental aquaculture lease on 0.43² acres located south of Perkins Point in the Damariscotta River, Newcastle, Lincoln County. The proposal is for the suspended culture of American oysters (*Crassostrea virginica*). The proposal is for commercial research and development.

1. Proceedings

On February 11, 2025, DMR accepted the final application as complete. Notice of the completed application and the 30-day public comment period was provided to state agencies, the Town of Newcastle, riparian landowners within 1,000 feet of the proposed site, and subscribers to DMR's aquaculture email listserv, and it was published in *The Lincoln County News* on March 6, 2025. On March 4, 2025, DMR sent a Municipal Questionnaire to the Town of Newcastle, 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 March 13, 2025.

The version of Title 12 M.R.S.A. § 6072-A(6) that was in effect when this application was deemed complete provided that the Commissioner may hold a public hearing, and that they shall hold a public hearing if five or more persons request a public hearing within the 30-day comment period. On April 5, 2025, the comment period ended. No requests for a public hearing were received during the comment period, and no hearing was conducted.

The evidentiary record regarding this lease application includes the application, DMR's site report dated March 11, 2026, and the case file. The evidence from each of these sources is summarized below.

A. List of Exhibits

1. Case file (CF)
2. Application (App)
3. DMR site report, issued on March 11, 2026 (SR)

The case file, application and site report are referred to in the decision with their designated abbreviations.

¹ No maximum lease term is requested on the application. Therefore, DMR defaults to a three year maximum term.

² Applicant originally requested 0.45 acres. DMR calculations indicate the area is 0.43 acres.

2. Description of the Project

A. Site History

Based on DMR records, no prior aquaculture activities have occurred in the area of this proposed lease site.

B. Proposed Operations

The purpose of the proposed experimental lease site is to determine the viability of culturing shellfish at this site (App 7). The applicant is proposing to culture American oysters using 1,256 16-inch by 33.5-inch Zapco tubes, with 419 five-foot by 10-foot rebar staples, helix anchors, chains, and corner marker buoys (App 19). The buoys, chains, and anchors will remain on-site year-round, but the Zapco tubes and rebar staples will be removed from late December to March each year (App 7, 19).

The applicant proposes to use skiffs with outboard motors at the lease site (App 8). Stocking the tubes with seed (from an upweller at another location) and/or second year oysters would be done between late April and July, with staff on-site daily (App 7). Harvesting would occur August to December, daily (App 7). Routine maintenance would occur once per week, from April to December (App 7).

No power equipment is proposed to be used at this lease site (App 8).

C. Site Characteristics

Description. On June 3, 2025, DMR scientists assessed the proposed lease site (SR 2). The western shoreline of the Damariscotta River consisted of rocky coastline with two residential properties visible from the proposal (SR 2).

Correcting for tidal variation approximate water depths at corners of the proposal at mean low water (MLW, 0.0 feet) are 0.2 to 2.2 feet (SR 2). Approximate depths at mean high water (MHW, 9.4 feet³) at corners of the proposal are 9.6 to 11.6 feet (SR 2). The proposal is located in the subtidal zone (SR 2).

DMR scientists observed the bottom characteristics of the proposed lease site via a remotely operated vehicle (ROV) (SR 3). Sediment information was determined based on visual analysis of the video (SR 3). The bottom of the proposed lease site is composed of mud (SR 3).

Growing Area Classification. Growing Area Classifications for bivalve shellfish are reviewed on an annual basis and subject to change. Classifications can also be updated at any time in response to

³ MHW in Walpole is 9.4 feet, NOAA Tide Station 8416731

changing environmental conditions, emergency situations, or other 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.

The proposed lease is currently located within an area classified as Approved by the DMR Bureau of Public Health and Aquaculture (SR 11).

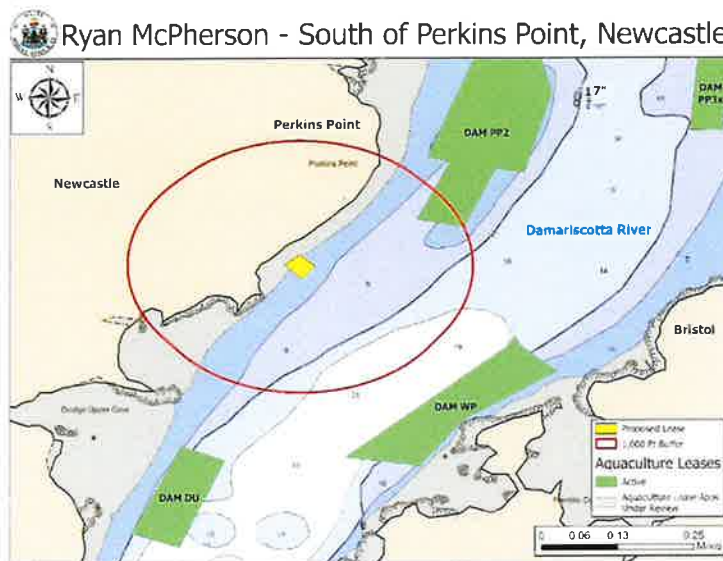


Figure 1. Proposed lease site and surrounding area.

3. Legal Criteria and Findings of Fact

Approval of experimental aquaculture leases is governed by 12 M.R.S.A. § 6072-A and DMR Regulations, Chapter 2.37 and 2.64⁴. The statute and regulations provide that a lease for commercial aquaculture research and development or for scientific research 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; other aquaculture uses in the area; the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; and 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.

⁴ Chapter 2 of DMR Regulations is published at 13-188 C.M.R. ch. 2 and may be found at <https://www.maine.gov/dmr/rules-enforcement/regulations-rules>.

A. Riparian Owners Ingress and Egress

When examining riparian access, the Commissioner considers whether the proposed lease will unreasonably interfere with the ingress and egress of riparian owners. 12 M.R.S.A. § 6072-A(13)(A). The Commissioner shall examine whether the riparian owners can safely navigate to their shore and consider the type of shore, the type of vessel that can reasonably land on that shore and the types of structures proposed for the lease 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 on June 3, 2025, DMR scientists observed six piers with docks attached in the vicinity of the proposal (SR 4). Approximate distances to the observed docks from the proposal are as follows, listed from north to south: 901 feet to the northeast, 648 feet to the northeast, 74 feet to the northeast with a dinghy on the dock, 260 feet to the southwest with a dinghy on the dock, 885 feet to the southwest with a kayak on the dock, and 1,277 feet to the southwest⁵ (SR 4). The dock seen approximately 648 feet northeast of the proposal appeared to be new construction, and is not visible in Figure 2, which utilizes orthorectified imagery from 2023 (SR 4). DMR scientists also observed eight moorings in the vicinity of the proposal (SR 5). Three moorings had vessels attached to them; one mooring was approximately 84 feet southeast of the proposal and had a powerboat approximately 20-foot in length attached, another mooring was approximately 318 feet southeast and had a powerboat approximately 24-foot in length attached, and a third mooring was approximately 328 feet to the southwest that had a sailboat attached approximately 12-foot in length (SR 5). Approximate distances from the proposal to the five unoccupied moorings that were observed by DMR scientists are as follows, listed from north to south: 1,022 feet to the northeast, 968 feet to the northeast, 280 feet to the northeast, 911 feet to the southwest, and 1,032 feet to the south (SR 5).

A Municipal Questionnaire was received by DMR from the Newcastle Harbormaster on March 13, 2025 (SR 5). The Harbormaster stated that there are two riparian docks in the vicinity of the proposal, approximately 60 and 240 feet from the proposal (SR 5). The docks are accessed by recreational boats in the 14 to 26-foot range (SR 5). The Harbormaster also stated there are no permitted moorings nearby or within the boundaries of the proposal (SR 5).

⁵ Due to shallow water depths at the time of the site visit, DMR scientists were not able to access the cove to the southwest of the proposal containing two docks, so DMR scientists recorded a description of the location of the docks. During data analysis, the dock waypoints were generated, located, and mapped using orthorectified imagery, as seen in Figure 2.



Figure 2. Proposed lease area with site visit observations.

The lease is proposed in an area with riparian structures, namely piers and moorings. In two instances, the boundaries of the proposed lease would be less than 100 feet from these structures. There is one dock 74 feet and one mooring 84 feet from the proposed lease boundaries. However, the vessels using the piers and moorings, based on the site report and the Harbormaster's comments, are less than 30 feet in length. Given the distance to the riparian structures and the size of the vessels utilizing them, the lease as proposed will not interfere with riparian ingress and egress.

Therefore, the aquaculture activities as proposed will not unreasonably interfere with riparian owner ingress and egress.

B. Navigation

When examining navigation, the Commissioner considers whether the proposed lease will unreasonably interfere with navigation. 12 M.R.S.A. § 6072-A(13)(B). 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 consider the current uses and different degrees of use of the navigational channels in the area. Chapter 2.37(1)(A)(2). High tide "short cuts" shall not be considered navigational ways for purposes of this section. Chapter 2.37(1)(A)(2).

The proposal is located in the Damariscotta River, immediately adjacent to the Perkins Point shoreline at MLW (SR 5). The proposal sits approximately 612 feet to the west of the navigational channel, as measured from the 11-foot depth contour marked by the green navigational aid “17” (Figure 3; SR 5). There is approximately 1,616 feet of water from the southeast corner of the proposal to the eastern shore of the Damariscotta River at MLW (Figure 3; SR 5).

No navigational vessel traffic was observed by DMR scientists during the site visit (SR 5).

The Harbormaster stated in the Municipal Questionnaire that there is no commercial navigation in the area of the proposal (SR 5).

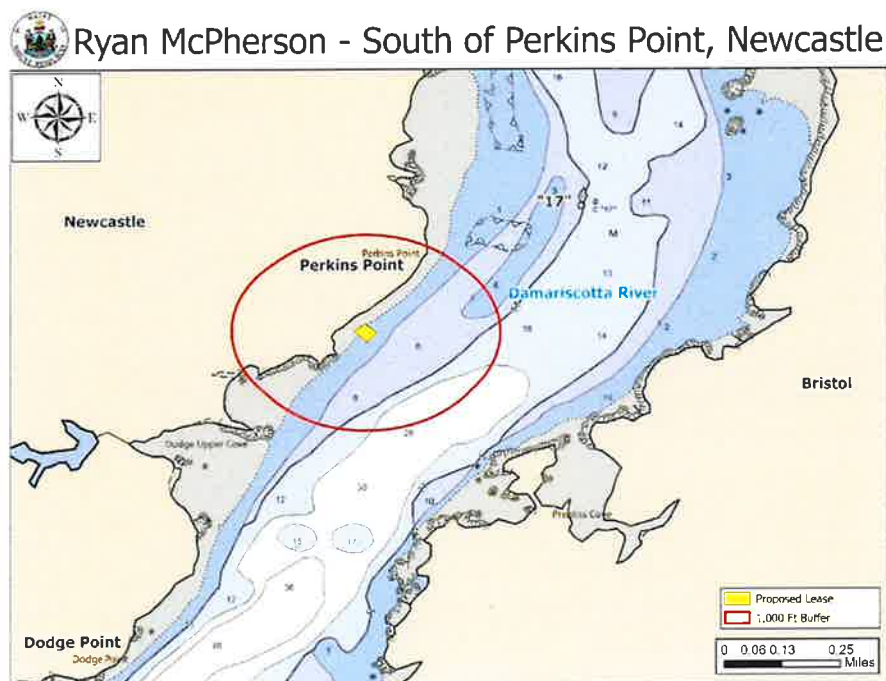


Figure 3. Navigational channels in the vicinity of the proposed lease area.

Because of its location outside of the mapped navigational channel, the lease as proposed will not unreasonably impede navigation.

Therefore, the aquaculture activities as proposed will not unreasonably interfere with navigation.

C. Fishing and Other Uses

When examining fishing and other uses, the Commissioner considers whether the proposed lease activities will unreasonably interfere with fishing or other uses of the area. 12 M.R.S.A. § 6072-A(13)(C).

The Commissioner shall examine whether the lease activities would unreasonably interfere with commercial or recreational fishing or other water-related uses of the area. Chapter 2.37(1)(A)(3).

Fishing. With respect to fishing, 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 2.37(1)(A)(3).

During the site visit, DMR scientists did not observe any commercial or recreational fishing in the vicinity of the proposal (Figure 2; SR 6).

The Harbormaster stated in the Municipal Questionnaire that there is no commercial or recreational fishing in the area of the proposal (SR 6).

According to the application, no commercial or recreational fishing has been observed at the site (App 9).

Other Uses. The Harbormaster stated that there is kayaking in the vicinity of the proposal. On a peak day, there may be approximately 5-10 kayaks navigating in the area of the proposal, typically in a north to south direction (SR 6).

Because recreational and commercial fishing do not occur within the proposal boundaries and there is ample space available for commercial and recreational fishing and kayaking outside of the proposed lease area, the proposed lease activities will not unreasonably interfere with fishing or other uses of the area.

Therefore, the aquaculture activities as proposed will not unreasonably interfere with fishing or other uses, including water-related uses of the area.

D. Other Aquaculture Uses

Pursuant to 12 M.R.S.A. § 6072-A(13)(C), in evaluating the proposed lease, the Commissioner shall take into consideration the number and density of aquaculture leases in an area. The Commissioner shall consider any evidence submitted concerning other aquaculture uses of the area, the intensity and frequency of such uses, the degree of exclusivity required for each use as well as the number, size, location, and type of other aquaculture leases. Chapter 2.37(1)(A)(4).

There are no Limited Purpose Aquaculture (LPA) sites or aquaculture leases granted or under review by DMR within 1,000 feet of the proposal (SR 6). Standard lease DAM PP2, held by Mook Sea Farms, Inc., is located approximately 759 feet northeast of the proposal (Figure 1; SR 6). During the site visit, DMR scientists observed an aquaculture boat actively tending lease site DAM PP2 (SR 6).

The applicant, Ryan McPherson, holds, or has an interest in, several other leases and LPAs. The applicant will maintain all other leases and LPAs, regardless of the outcome of this proposal⁶ (SR 7).

Given the distance to other aquaculture sites, the lease as proposed will not interfere with existing aquaculture activities.

Therefore, the aquaculture activities as proposed will not unreasonably interfere with other aquaculture uses in the area.

E. Existing System Support

When examining existing system support, the Commissioner considers whether the proposed lease activities will unreasonably interfere with significant wildlife 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-A(13)(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 2.37(1)(A)(5).

Site Observations. On June 3, 2025, DMR scientists utilized an ROV to assess the epibenthic ecology of the proposed lease (SR 8). The relative abundance of epibenthic flora and fauna observed in the video footage is described below in Table 1 (SR 8).

Table 1. Species observed on underwater video footage.

Species Observed	Abundance
Sand Shrimp (<i>Crangon septemspinosa</i>)	Common
Rockweed (<i>Ascophyllum nodosum</i>)	Occasional
Long clawed hermit crab (<i>Pagurus longicarpus</i>)	Occasional
Sugar kelp (<i>Saccharina latissima</i>)	Occasional

Marine Vegetation. Records of seagrass collected by the Department of Environmental Protection (DEP) in 2023⁷ indicates no mapped eelgrass presence in the vicinity of the proposal (SR 9). The closest mapped seagrass is approximately 3.6 miles upriver in Great Salt Bay (SR 9). No eelgrass was observed on underwater video footage within the proposal boundaries during DMR's site visit (SR 9).

⁶ Application page 11.

⁷ Data obtained from The Maine Office of GIS "GISVIEW.ME/DEP.Seagrass2023". This is the most current record of mapped eelgrass within the vicinity of the proposal.

Wildlife. During DMR’s site visit, scientists observed an osprey (*Pandion haliaetus*), herring gulls (*Larus argentatus*), moon jellyfish (*Aurelia aurita*), lion’s mane jellyfish (*Cyanea capillata*), and horseshoe crab (*Limulus polyphemus*) in the general vicinity of the proposal (SR 10).

The Department of Inland Fisheries and Wildlife (IFW) has jurisdiction over inland fisheries and wildlife resources of the state (SR 10). IFW also has the authority to conserve wildlife populations and their ecosystems through applicable state laws and rules (SR 10). DMR provides IFW with notice and the opportunity to comment on all complete lease applications (SR 10). In addition, the DMR Site Report also includes IFW designated and mapped habitat types that are within 1,000 feet of the lease proposal, if applicable (SR 10).

According to Geographic Information System (GIS) data maintained by IFW and available through the Maine Office of GIS (MEGIS), there is mapped habitat within 1,000 feet of the lease proposal (SR 10). The proposal is located entirely within mapped Tidal Waterfowl and Wading Bird Habitat (TWWH), which is a type of Significant Wildlife Habitat designated and regulated by IFW (Figure 4; SR 10).⁸

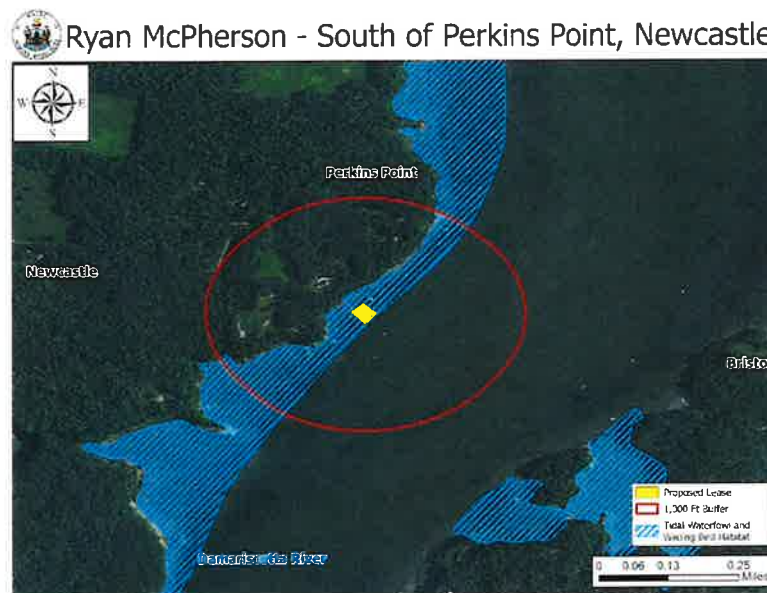


Figure 4. Mapped habitats in the vicinity of the proposed lease area.⁹

Though bald eagles are no longer listed on Maine’s Endangered and Threatened Species List, the United States Fish and Wildlife Service (USFWS) may also have jurisdiction over the management and conservation of the species based on applicable law and rule (SR 10). Data collected by USFWS in 2023

⁸ <https://www.maine.gov/ifw/programs-resources/environmental-review/significant.html>

⁹ Data obtained from USFWS “Bald_Eagle_Nests_-_Maine_2023” and IFW “EHRTERN”, “EHPLVTRN”, “GISVIEW.MEIFW.Twwh”, “ShorebirdAreas”, and “SNI”.

by aerial nest survey shows there is no mapped bald eagle nesting site within the vicinity of the proposal (SR 10). The nearest mapped bald eagle nest is approximately 1.2 miles northeast of the proposal (SR 10).

IFW was provided with the opportunity to comment on this proposal (SR 10). On March 24, 2025, a Resource Biologist with IFW responded, stating that the proposal is within TWWH managed by IFW (SR 10). However, minimal impacts to wildlife are anticipated¹⁰ (SR 10).

Based on the record, including the absence of eelgrass and IFW's comment, the proposed lease activities will not interfere with the ecological functioning of the area.

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

F. Source of Organisms to be Cultured

Pursuant to 12 M.R.S.A. § 6072-A(13)(E), in evaluating the proposed lease, the Commissioner shall determine that the applicant has demonstrated there is an available source of organisms to be cultured for the lease site. The Commissioner shall include but not be limited to, consideration of the source's biosecurity, sanitation, and applicable fish health practices. Chapter 2.37(1)(A)(6).

According to the application, American/eastern oyster (*Crassostrea virginica*) would be sourced from Muscongus Bay Aquaculture in Bremen, Maine and Mook Sea Farm in Walpole, Maine. These currently are approved sources for American/eastern oyster (*Crassostrea virginica*).

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

G. Interference with Public Facilities

When examining interference with public facilities, the Commissioner considers whether the proposed lease will unreasonably interfere with public use or enjoyment within 1,000 feet of a beach, park, or docking facility owned by the Federal Government, the State Government or a municipal governmental agency. 12 M.R.S.A. § 6072-A(13)(F). Chapter 2.37(1)(A)(7) and 2.64(11)(A)).

The proposed lease is not within 1,000 feet of any beach, park, or docking facility owned by federal, state, or municipal governments (SR 11).

¹⁰ Correspondence between IFW and DMR

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

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 uses of the area, including water-related uses of the area.
- d. The aquaculture activities proposed for this site will not unreasonably interfere with other aquaculture uses of the area.
- e. 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. 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 federal, state, or municipal government.
- g. 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 to Ryan McPherson, for 0.43 acres for three years, the term of the lease to begin within 12 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.

This lease is granted to the lessee for the cultivation of American oysters (*Crassostrea virginica*) using suspended cultivation techniques. The granted lease coordinates are contained in the Appendix to this decision. 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 2.64(12)(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

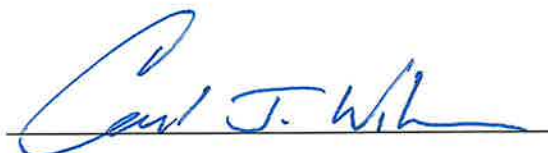
The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities, pursuant to 12 M.R.S.A. § 6072-A(15) and Chapter 2.64(11)(B). Conditions are designed to encourage the greatest multiple compatible uses of the lease area, while addressing the ability of the lease site and surrounding area to support ecologically significant flora and fauna, and preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the lease. No conditions are imposed on this lease.

7. Revocation of Lease

The Commissioner may initiate revocation proceedings and revoke the lease upon determining, pursuant to 12 M.R.S.A. § 6072-A(22), that no substantial aquaculture or research has been conducted on the site over the course of the lease, that aquaculture has been conducted in a manner substantially injurious to marine organisms, or that any condition of the lease has been violated.

Dated:

9.8.2026



**Carl J. Wilson, Commissioner
Department of Marine Resources**

Appendix

Granted Lease Coordinates

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>	
NW	43.99759°	-69.54895°	then 136 feet at 136° True to
NE	43.99732°	-69.54859°	then 134 feet at 220° True to
SE	43.99703°	-69.54890°	then 158 feet at 319° True to
SW	43.99736°	-69.54929°	then 123 feet at 044° True to NW