

**STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES**

**Joe Cutts
MED LIX**

Experimental Aquaculture Lease Application
Suspended and Bottom Culture of Shellfish
Morse's Bay, Friendship, Maine

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Joe Cutts applied to the Department of Marine Resources (DMR) for a 2.24¹ acre experimental lease east of Friendship Long Island in the Meduncook River, in the town of Friendship, Knox County, for the suspended and bottom culture of American/eastern oysters (*Crassostrea virginica*) for commercial aquaculture research and development.

1. PROCEDURAL HISTORY

DMR accepted the application as complete on December 5, 2022. Notice of the application and the 30-day public comment period was provided to state agencies, riparian landowners within 1,000 feet of the proposed site, the Town of Friendship and its harbormaster, and others on DMR's email listserv. Notice to the municipality included a Harbormaster Questionnaire requesting information related to designated or traditional storm anchorages, navigation, riparian ingress and egress, and fishing or other uses of the area, among other considerations. No response was received from the Harbormaster. Notice of the complete application and comment period was published in the December 15, 2022, edition of *The Courier-Gazette*. Title 12 M.R.S.A. §6072-A (6) provides that the Commissioner shall hold a public hearing if five or more persons request a public hearing within the 30-day comment period. 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 18, 2024, and the case file. The evidence from each of these sources is summarized below.²

LIST OF EXHIBITS

1. Case file
2. Application
3. DMR site report, issued on March 18, 2024

2. DESCRIPTION OF THE PROJECT

¹ Applicant originally requested 2.2 acres. DMR calculations indicate the cumulative area is 2.24 acres. Tract 1 is 1.51 acres; Tract 2 is 0.73 acres.

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

A. Proposed Operations

The purpose of the proposed experimental lease site is to determine the viability of the site for aquaculture (App 4). The proposed site is comprised of two Tracts. Tract 1 is 1.15 acres and Tract 2 is 0.73 acres. For purposes of this decision, unless stated otherwise, the term “proposal” is used to refer to both Tracts. Any analysis respective to impacts associated with a specific Tract will be described by referencing the respective Tract. The applicant is proposing to culture oysters on each Tract as follows:

- Tract 1: a maximum of 75 OysterGro racks (41-inches by 39-inches by 36-inches) and/or screened seed boxes (30-inches by 30-inches by 5-inches), as well as mooring gear and marker buoys (App 21), as well as direct seeding on the bottom.
- Tract 2: a maximum of 190 OysterGro racks (41-inches by 39-inches by 36-inches) and/or screened seed boxes (30-inches by 30-inches by 5-inches), as well as mooring gear and marker buoys (App 22).

The racks and/or boxes in Tract 1 would be removed from November to May (App 21). The gear in Tract 2 would be submerged from November to May (App 22). The applicant intends to tend and harvest year-round (App 5). Seeding, harvesting, and maintenance may occur up to seven days per week (App 5). No machinery is proposed for on-site use (App 6).

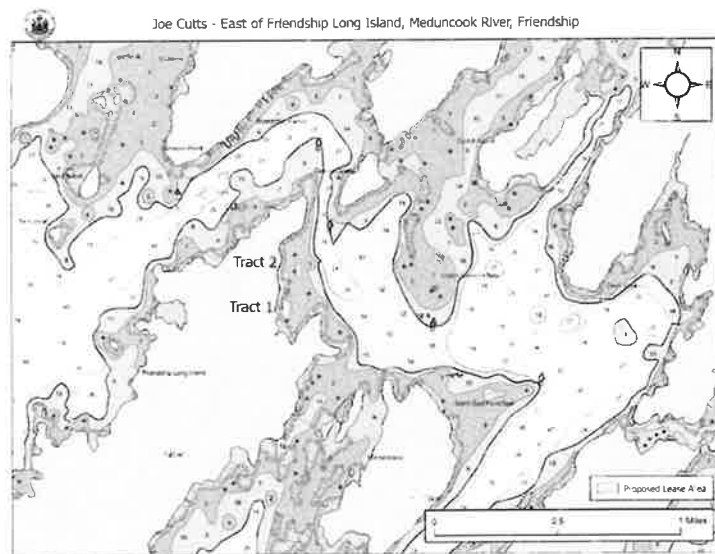


Figure 1: Vicinity map. Image generated by DMR staff. ³

B. Site Characteristics

³ Unless otherwise noted, all figures in this report were created in ArcGIS Pro version 2.9 using digitized NOAA Nautical Charts or geo-referenced aerial photographs provided by The Maine Office of GIS.

On August 14, 2023, DMR assessed the proposed lease site. The proposed lease site is situated along the eastern shore of Friendship Long Island which is cobble and marsh shoreline with forested uplands. On September 6, 2023, DMR conducted a second site visit to collect additional information about water depths and nearby eelgrass.



Figure 2. Proposed lease area with site visit observations. Image from DMR site report.

2. 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 for commercial aquaculture research and development or for scientific research may be granted by the Commissioner of DMR upon determining that the project will not unreasonably interfere with the ingress and egress of riparian owners; with navigation; with fishing or other uses of the area, taking into consideration 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. Flora & Fauna

When examining existing system support, the Commissioner considers the degree to which the use of the lease site will interfere with significant wildlife habitat and marine habitat or with the ability of the lease

site and marine and upland areas to support ecologically significant flora and fauna (12 M.R.S.A. § 6072-A(13)(D); Chapter 2.37(1)(A)(5)).⁴

DMR utilized a remotely operated vehicle (ROV) and snorkel transects to assess the epibenthic ecology of the proposed lease. The relative abundance of epibenthic flora and fauna observed are described below in Table 1 (SR 8).

Table 1. Species observed using underwater camera footage and snorkel transects.

Species Observed	Abundance
Hermit Crab (<i>Paguridae</i> sp.)	Abundant
Crab (<i>Cancer</i> sp.)	Common
Hard Clam (<i>Mercenaria mercenaria</i>)	Common
Eelgrass (<i>Zostera marina</i>)	Occasional
Seaweed (<i>Ascophyllum</i> sp.)	Occasional
Atlantic Razor Clams (<i>Ensis directus</i>)	Occasional
Green Crab (<i>Carcinus maenas</i>)	Occasional
American/eastern Oyster (<i>Crassostrea virginica</i>)	Occasional
Common Periwinkle (<i>Littorina littorea</i>)	Occasional

Eelgrass (*Zostera marina*)

Historical records of eelgrass collected by DMR in 2010 indicate mapped eelgrass presence within the proposal boundaries of Tract 2, and between Tract 1 and Tract 2 (Figure 4).⁵ During the site visits, DMR confirmed the presence of rooted eelgrass both within the vicinity of the proposal, and within the boundaries of Tract 2 (Figure 2). DMR observed several patches of eelgrass approximately 130 feet north of the northern boundary of Tract 1. DMR documented six eelgrass patches in this general area (Figure 2). Additionally, DMR observed several small eelgrass patches within the boundaries of Tract 2 (Figure 2). The eelgrass patches appeared to be localized surrounding a very large, subtidal boulder.

⁴ 13-188 C.M.R. ch. 2. The Commissioner considers the applicable criteria contained in Chapter 2.37 pursuant to Chapter 2.64(11)(A).

⁵ Data obtained from The Maine Office of GIS "GISVIEW.MEDMR.Eelgrass". This was the most current record of mapped eelgrass within the vicinity of the proposal at the time the site report was written.



Figure 3. Mapped eelgrass (*Z. marina*) in the vicinity of the proposed lease area. Image from DMR site report.

Discussion. Eelgrass beds form an important marine and estuarine coastal aquatic habitat. Eelgrass provides shelter for juvenile fish and for invertebrates, is a site for primary settlement of the larvae of some bivalve mollusks and invertebrates, and in certain locations helps to stabilize unconsolidated sediments and shorelines. DMR observed several rooted eelgrass patches within the boundaries of Tract 2, which were localized around a very large subtidal boulder approximately in the middle of the Tract. The density and level of establishment indicates that areas within Tract 2 are supporting a viable eelgrass bed. In addition, water depths within Tract 2 ranged from 5.1 to 6.4 feet at MLW. These depths are conducive to eelgrass growth and development.

In Tract 2, the applicant proposes to deploy a maximum of 190 OysterGro racks and/or screened seed boxes. This gear would be suspended at the surface of the water from June-October during periods when eelgrass is biologically active. Cages would be sunk to the bottom of the site from November-May. In addition, the applicant would tend the site daily in the summer months and would flip cages every three weeks or as necessary (App 5). The applicant would also need to deploy moorings, in and along the substrate, to secure the floating gear and boundary markers.

The operations on Tract 2 present the possibility of physical disturbance and shading which may negatively impact the health of existing eelgrass stands. For example, deploying suspended gear from June-October may limit light penetration required for photosynthesis. Sinking gear to the bottom from November-May, daily tending, and mooring placement may also result in the physical displacement of rooted eelgrass. Permitting this type of operation over an established stand of eelgrass presents too great

a risk to this resource. Given these factors, the proposed operations in Tract 2 will unreasonably interfere with the ability of this portion of the proposed lease site and surrounding areas to support eelgrass. Since no eelgrass was observed within Tract 1, the proposed operations in Tract 1 will not unreasonably interfere with eelgrass habitat.

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 within mapped Tidal Waterfowl and Wading Bird Habitat (Figure 4). Data collected by the United States Fish and Wildlife Service in 2022 by aerial nest survey shows the closest mapped bald eagle nesting site to be approximately 0.9 miles southeast of the proposal.⁶



Figure 4. Mapped Tidal Waterfowl and Wading Bird Habitat.⁷ Image taken from DMR site report.

On December 21, 2022, a Wildlife Biologist with MDIFW responded by email to a “Request for Agency Review and Comment” stating minimal impacts to wildlife are anticipated for this project.⁸

During the site visits, DMR observed bald eagle (*Haliaeetus leucocephalus*), double-crested cormorants (*Nannopterum auritum*), osprey (*Pandion haliaetus*), laughing gull (*Leucophaeus atricilla*), herring gull (*Larus argentatus*), bonapartes gull (*Chroicocephalus philadelphia*), river otter (*Lontra canadensis*), common tern (*Sterna hirundo*), plover (*Charadrius sp.*), great blue heron (*Ardea herodias*), and king fisher (*Megaceryle sp.*) in the general vicinity of the proposal.

⁶ Data obtained from USFWS “Bald Eagle Nests - Maine 2023”.

⁷ Data obtained from MDIFW maintained SDE Feature Class “GISVIEW.MEIFW.Twwh”

⁸ Email correspondence between MDIFW and DMR

MDIFW reviewed the proposal and did not express any concerns about the lease impacts for either tract. Considering MDIFW's expertise and the site report, it is unlikely the proposed activities in either tract will unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant fauna. However, it is reasonable to conclude that the proposed activities in Tract 2 will adversely affect ecologically significant flora, namely eelgrass.

Therefore, the aquaculture activities proposed for Tract 2 of this site will unreasonably interfere with the ability of the area within this tract to support existing ecologically significant flora. The aquaculture activities proposed for Tract 1 of this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

B. 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-A(13)(A).

Tract 2 is more than 100 feet from shore at mean low water. DMR observed six floats/piers in the vicinity of the proposal. One pier located approximately 2 feet to the west of Tract 1 belongs to the applicant. A second pier, with an associated house, was approximately 258 feet southeast of Tract 1. Additionally, there was an empty float approximately 140 feet east of the eastern boundary of Tract 1. According to the application, this float may belong to the applicant's neighbor and is used as a swim float during the summer months.⁹ Two work floats were observed between Tract 1 and Tract 2. Both floats had lobster fishing gear stored on them. Lastly, one dilapidated pier was observed approximately 484 feet north of Tract 2 (SR 2).

In evaluating riparian ingress and egress, the commissioner must consider the following pursuant to Chapter 2.37(A)(1):

The Commissioner shall examine whether the riparian owners can safely navigate to their shore. The Commissioner shall consider the type of shore involved and the type of vessel that can reasonably land on that shore. The Commissioner shall consider the type of structures proposed for the lease and their potential impact on the vessels which would need to maneuver around those structures.

During the comment period, DMR did not receive any comments from riparian owners stating that access to their shorefront property would be adversely impacted by the proposal. Additionally, with the exception of the applicant's pier, it appears there is sufficient distances for access, so it is reasonable to assume that riparian ingress and egress will not be adversely affected.

⁹ Application page 7

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

C. Navigation

When examining navigation, the Commissioner considers whether the lease activities would interfere with commercial or recreational navigation around the lease area and considers the current uses of the navigational channels in the area. 12 M.R.S.A. § 6072-A(13)(B); Chapter 2.37(1)(A)(2).

Tract 1 of the proposal is located approximately 30 feet east of Friendship Long Island at MLW. Tract 2 is located approximately 120 feet east of Friendship Long Island at MLW. The main navigational channel is approximately 500 feet east of Tract 2. Red navigational buoy “6” is approximately 910 feet northwest of Tract 2 (Figure 5).

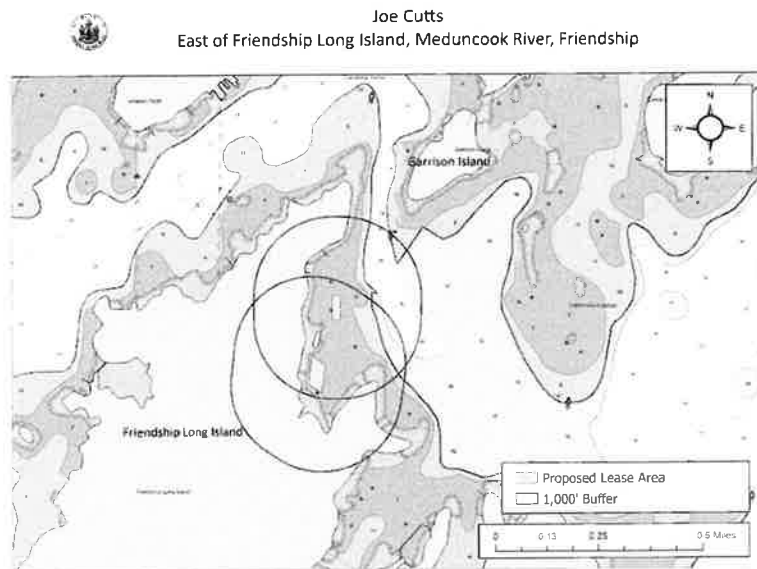


Figure 5. Navigational channels in the vicinity of the proposal. Image from DMR site report.

During DMR’s site visit on August 14, 2023, forty-five total vessels were observed navigating within the vicinity of the proposal. DMR observed 20 recreational powerboats, 15 commercial fishing vessels, two sailboats, and two personal watercraft navigating in the main channel to or from Friendship Harbor. Four commercial fishing vessels were observed actively hauling lobster gear in the general vicinity of the proposal. Two kayakers were paddling into the cove where the proposal is located (SR 6).

In evaluating navigation, the commissioner must consider the following pursuant to Chapter 2.37(A)(2):

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. The Commissioner 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.

A Harbormaster Questionnaire was sent to the Town of Friendship. No response was received by DMR. No comments regarding impacts to navigation were received by DMR.

Given the distances to the navigation channel and that no comments were received from the public concerning impacts to navigation, the record shows that the proposed lease will not unreasonably interfere with navigation.

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

D. Fishing & Other Uses

When examining fishing and other uses, the Commissioner considers whether the lease activities would unreasonably interfere with commercial or recreational fishing or other water-related uses of the area (12 M.R.S.A. § 6072-A(13)(C); Chapter 2.37(1)(A)(3)). Additionally, the Commissioner considers any evidence concerning other aquaculture uses of the area (Chapter 2.37(1)(A)(4)).

Fishing. During the site visit, DMR documented two lobster buoys in the vicinity of the proposal. Additionally, there was light lobstering activity northeast of the proposal within and around the main navigational channel, as denoted “lobster buoy cluster” in Figure 2. Four commercial fishing vessels were observed actively hauling lobster gear in the general vicinity of the proposal. There were two work floats observed between Tract 1 and Tract 2. Both floats had lobster fishing gear stored on them.

The application states that mackerel and striped bass fishing have been observed occasionally in the area of Tract 2 (App 7). The application also states that the two work floats observed during the site visit belong to lobstermen.

In evaluating fishing and other uses, the commissioner must consider the following pursuant to Chapter 2.37(A)(3):

The Commissioner shall examine whether the lease activities would unreasonably interfere with commercial or recreational fishing or other water-related uses of the area. This examination 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.

No comments regarding impacts to fishing were received by DMR. Additionally, no concerns were expressed by the harbormaster about impacts from the proposed lease on fishing in the project area.

Given the lack of public comment and the light level of activity, it is unlikely that the proposed lease will interfere with commercial and recreational fishing activities in the area.

Other uses. According to the application, some kayaking occurs in the area and a swim float is moored in the cove in the summer months (App 7). No comments regarding impacts to other uses of the lease area were received by DMR.

Other aquaculture uses. In evaluating other aquaculture uses, the Commissioner must consider the following pursuant to Chapter 2.37(A)(4):

The Commissioner shall 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 factors 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.

There are no aquaculture leases within 1,000 feet of the proposal. One active limited purpose aquaculture (LPA) license, JCUT121, is within 1,000 feet of the proposed lease site. JCUT121 is located within proposed Tract 2 and is held by the applicant. JCUT21 will be relinquished if the proposed lease is granted (SR 7).

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

E. Public Use & Enjoyment

When examining interference with public facilities, the Commissioner considers the degree to which the lease interferes with public use or enjoyment within 1,000 feet of a beach, park, or docking facility owned by the Federal Government, the State Government, or a municipal government (12 M.R.S.A. § 6072-A(13)(F); Chapter 2.37(1)(A)(7)) and 2.64(11)(A)).

There are no beaches, parks, or docking facilities owned by federal, state, or municipal 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.

F. Source of Organisms

When examining the source of organisms, the Commissioner shall include but not be limited to, consideration of the source's biosecurity, sanitation, and applicable fish health practices (12 M.R.S.A. § 6072-A(13)(E); Chapter 2.37(1)(A)(6)).

The applicant proposes to obtain American/eastern oysters (*Crassostrea virginica*) stock from Muscongus Bay Aquaculture (Bremen, Maine) and Mook Sea Farm (Walpole, Maine). These are approved sources for stock.

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

3. CONCLUSIONS OF LAW

Based on the above findings, the Department concludes that:

1. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of riparian owners.

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.

4. The aquaculture activities proposed for Tract 1 will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna. The aquaculture activities proposed for Tract 2 will unreasonably interfere with the ability of that tract to support existing ecologically significant flora.

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 (1) the proposed aquaculture activities in Tract 1 meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072-A, and (2) the proposed aquaculture activities in Tract 2 do not 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 application, modified to include only the requested Tract 1 of the proposed experimental lease of 1.51 acres to Joe Cutts, 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 lessee¹⁰; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.

Also based on the foregoing, the Commissioner denies the application with respect to the 0.73 acre Tract 2 portion of the proposed experimental lease.

This lease for Tract 1 is granted to the lessee for the suspended cultivation of American/eastern oysters (*Crassostrea virginica*). The lessee shall pay the State of Maine rent in the amount of \$100.00 per acre per year. Because this is an experimental lease with more than 400 square feet 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 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. CONDITIONS TO BE IMPOSED ON LEASE

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

7. REVOCATION OF EXPERIMENTAL LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 MRSA §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 or any applicable laws or regulations have been violated.

Dated: _____

9/16/24



¹⁰ 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.”

Patrick C. Keliher, Commissioner
Department of Marine Resources