

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES

Dodge Cove Marine Farm
DAM FTx

Experimental Aquaculture Lease Application
Bottom Culture of Shellfish
Damariscotta River, Walpole (South Bristol), Maine

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Dodge Cove Marine Farm applied to the Department of Marine Resources (DMR) for a 1.81¹ acre experimental lease in Fitch Cove in the Damariscotta River, in the Town of South Bristol², Lincoln County, for the bottom culture of American/eastern oysters (*Crassostrea virginica*) for commercial aquaculture research and development.

1. PROCEDURAL HISTORY

DMR accepted the application as complete on March 16, 2023. 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 South Bristol 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. A response was received from the Harbormaster on May 2, 2023. Notice of the complete application and comment period was published in the March 23, 2023, edition of *The Lincoln County News*. 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. DMR received one comment from a member of the public. 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 May 9, 2024, and the case file. The evidence from each of these sources is summarized below.³

LIST OF EXHIBITS

1. Case file

¹ Applicant originally requested 1.9 acres. DMR calculations indicated the proposed area was 1.84 acres. During the site visit, it was determined that a portion of the proposed site was located in the intertidal zone and additional permissions from riparian owners and the municipal shellfish committee would be required. The applicant then opted to reduce the size of the project to 1.81 acres to remove all areas that are not subtidal.

² The application and other materials may reference the location of the site as "Walpole" which is a region within the town of South Bristol. For the sake of clarity, this decision lists the site as being in South Bristol.

³ These sources are cited, with page references, as App (Application), CF (case file), and SR (site report).

2. Application
3. DMR site report, issued on May 9, 2024

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The purpose of the proposed experimental lease site is to determine the viability of the site for aquaculture (App 6). The applicant proposes to culture American/eastern oysters (*Crassostrea virginica*) on the proposed lease site using bottom culture techniques (App 1). Oysters will be seeded on the bottom, and aside from required marker buoys, no gear will be deployed on-site (App 6, 8).

Seeding will take place in the fall (August to December) and will take approximately seven days. Routine tending/maintenance will occur roughly once per week, year-round. Oysters will be harvested by divers, hand rakes, or bottom drag, year-round for approximately 110 hours total per year (App 6).

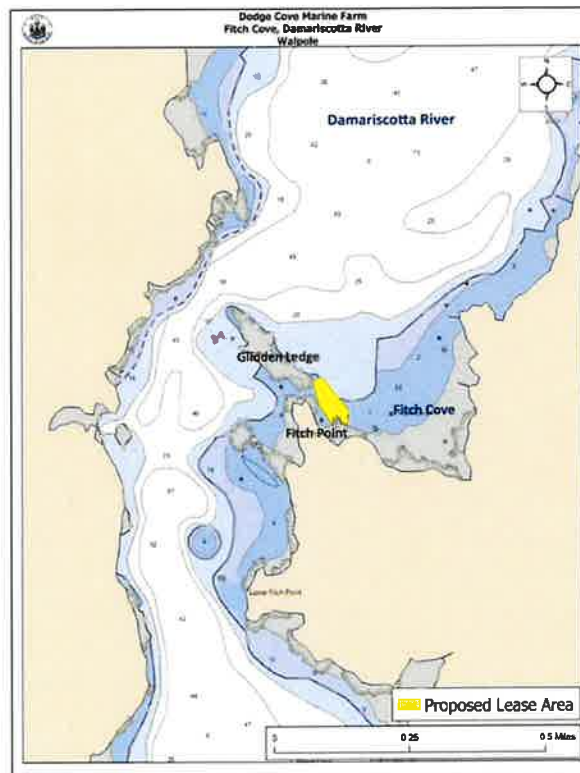


Figure 1: Vicinity map. Image generated by DMR staff.⁴

B. Site Characteristics

⁴ 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 September 26, 2023, DMR scientists assessed the proposed lease site. The proposal is located in shallow water along the eastern shore of the Damariscotta River, directly east of Glidden Ledge on the western side of Fitch Cove. The shoreline in the area consists of seaweed covered rocks and ledges with areas of mud. The uplands are forested. There are two residences within 1,000 feet of the proposal (SR 2).

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 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)).⁵

DMR used a remotely operated vehicle to assess the epibenthic ecology of the proposed lease. The relative abundance of epibenthic flora and fauna observed is described below in Table 1

Table 1. Species observed on underwater video footage.

Species Observed	Abundance
Green crab (<i>Carcinus maenas</i>)	Common
Hermit crab (<i>Pagurus sp.</i>)	Occasional
Horseshoe crab (<i>Limulus polyphemus</i>)	Rare
Sand shrimp (<i>Crangon septemspinosa</i>)	Common
Tunicates (<i>Didemnum vexillum</i>)	Common
Sponge (<i>Porifera spp.</i>)	Occasional
Green filamentous algae (<i>Ulva intestinalis</i>)	Common
Red filamentous algae (<i>Dasyatisphonia japonica</i>)	Common

⁵ 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).

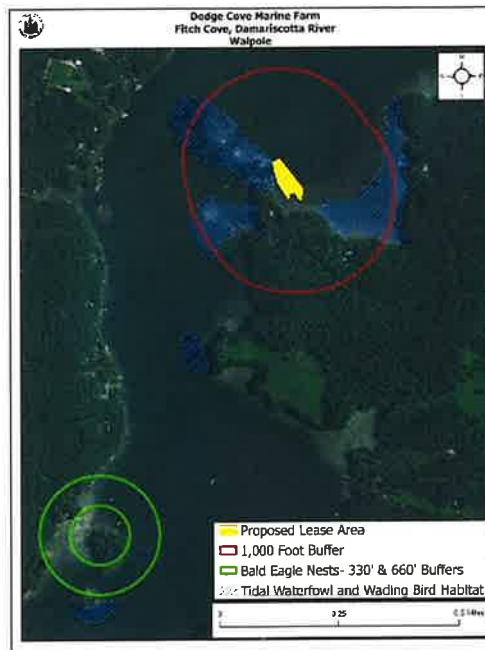
Eelgrass (*Zostera marina*)

Records of seagrass collected by Maine Department of Environmental Protection (MDEP) in 2023⁶ indicate that there is no mapped eelgrass within 1,000 feet of the proposal. During DMR's site assessment, no eelgrass was observed (SR 10).

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 directly adjacent to a Tidal Waterfowl and Wading Bird Habitat (TWWH) on Glidden Ledge, located to the west. In addition, there is an area of TWWH mapped in Fitch Cove approximately 150.1 feet southeast of the proposal. The nearest mapped bald eagle nest (*Haliaeetus leucocephalus*) is located approximately 0.81 miles to the southwest of the proposal (Figure 5) (SR 11).

On September 18, 2023, a Resource Biologist with MDIFW responded by email to a "Request for Agency Review and Comment" stating that the proposal is adjacent to Tidal Waterfowl and Wading Bird Habitat and minimal impacts are anticipated.

During DMR's site assessment, scientists observed osprey (*Pandion haliaetus*), herring gulls (*Larus argentatus*), a kingfisher (*Alcedinidae* sp.), American crow (*Corvus brachyrhynchos*), as well as a seal (*Phocidae* sp.) in the vicinity of the proposal (SR 11).



⁶ Data obtained from The Maine Office of GIS "GISVIEW.MEDEP.Seagrass2023". Widgeon grass was observed only in a tributary to the Great Salt Bay, upstream of a culvert that likely restricts tidal flow. Eelgrass was the dominant vascular species in all other locations. This is the most current record of mapped eelgrass within the vicinity of the proposal.

Figure 2. Mapped Tidal Waterfowl and Wading Bird Habitat and bald eagle nest.⁷ Image taken from DMR site report.

DMR received a comment from a riparian landowner expressing concerns about seals and birds that use the Glidden Ledge. The comment stated: “The Glidden Ledges are home to many birds at all times of the year, and the south ledge is a major harbor seal haul out rock where, during the spring, we regularly spot up to 19 seals of all ages resting on the rock. This activity goes on for several months, and a few seals can be spotted here almost any time of year. Presumably the birds and seals are here because the fish are abundant. It is likely that dragging the bottom and stirring up silt right in the gut channel will have a detrimental effect on the water quality, wildlife and the food chain”. The comment also included a photograph of several seals hauled out on what they identified as Glidden Ledge.

Discussion:

According to the site report, as proposed, Corner A is located 0.0 feet from Glidden Ledge at charted mean low water (MLW). Seals are a protected species under federal law pursuant to the Marine Mammal Protection Act (MMPA) of 1972, 16 U.S.C. §§ 1361-1423h. The MMPA prohibits the take of protected marine mammal species without a permit. The term “take” includes harassment, which is defined, in part, as having the potential to disturb a marine mammal in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering but which does not have the potential to injure a marine mammal in the wild⁸. According to the National Oceanic and Atmospheric Administration (NOAA), “harbor seals haul out (rest) on rocks, reefs, beaches, and drifting glacial ice when they are not traveling and/or foraging at sea. They haul out to regulate their body temperature, molt, interact with other seals, give birth, and nurse their pups. These seals also haul out in groups to avoid predators and spend less time being watchful for predators than those that haul out alone.”⁹ To mitigate disturbance, NOAA’s general viewing guidelines state that for seals in the water or on shore, the public should remain 50 yards away¹⁰.

The application states that seeding, harvesting, and tending activities are proposed on-site year-round. These would require human presence and activity immediately adjacent (0.0 feet) to a ledge with documented use as a haul out by seals. According to the comment received by DMR, seals utilize the ledge year-round and up to 19 seals of all ages have been spotted at one time. DMR staff also observed a seal in the vicinity of the proposal during the September 26, 2023, site assessment.

⁷ Data obtained from USFWS “Bald_Eagle_Nests_-_Maine_2023” and MDIFW maintained SDE Feature Class “GISVIEW.MEIFW.Twwh”

⁸ Marine Mammal Protection Act, 16 U.S.C 1362(3)18(A).

⁹ <https://www.fisheries.noaa.gov/species/harbor-seal>

¹⁰ <https://www.fisheries.noaa.gov/topic/marine-life-viewing-guidelines/guidelines-and-distances>

To minimize the potential for marine mammal harassment and to ensure consistency with federal viewing guidelines, for this proposal, due to the documented use of Glidden Ledge as a regular haul out for seals, DMR will reduce the northern boundary of the proposed site by 50 yards (150 feet) to provide a buffer from human disturbance. With this reduction in the northern boundary, the total lease acreage will be 1.36 acres. The reduced acreage and revised coordinates are included at the end of this decision.

Regarding the concerns related to birds on Glidden Ledge, MDIFW reviewed the proposal and did not express any concerns about the lease adversely impacting birds. In addition, for the reasons described above, the boundaries of the proposed site have been moved away from Glidden Ledge. It is unlikely the proposed activities will unreasonably interfere with the ability of the lease site and surrounding areas to support existing fauna.

Therefore, with the reduction of the northern boundary, 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.

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).

DMR observed one pier with a float in Fitch Cove within 1,000 feet of the proposal, located approximately 513.7 feet to the southeast.¹¹ A second pier and float were observed within Fitch Cove approximately 1,080 feet to the east. Aerial imagery¹² also indicates a dock and float on the west side of Fitch Point, outside of Fitch Cove, within 1,000 feet of the proposal, approximately 374.3 feet to the southwest. DMR observed four moorings in Fitch Cove within 1,000 feet of the proposal. The mooring observed closest to the proposal was located approximately 337.3 feet to the northeast. Aerial imagery indicates that there are two moorings on the west side of Fitch Point outside of Fitch Cove with the closest located approximately 582.9 feet to the west (Figure 3).

¹¹ The distance measurement provided is as observed on aerial imagery. Depth restrictions due to tidal stage at the time of the site visit prevented DMR from approaching the dock by vessel so the waypoint was placed as close as possible.

¹² Maine Orthoimagery Coastal Midcoast 2023

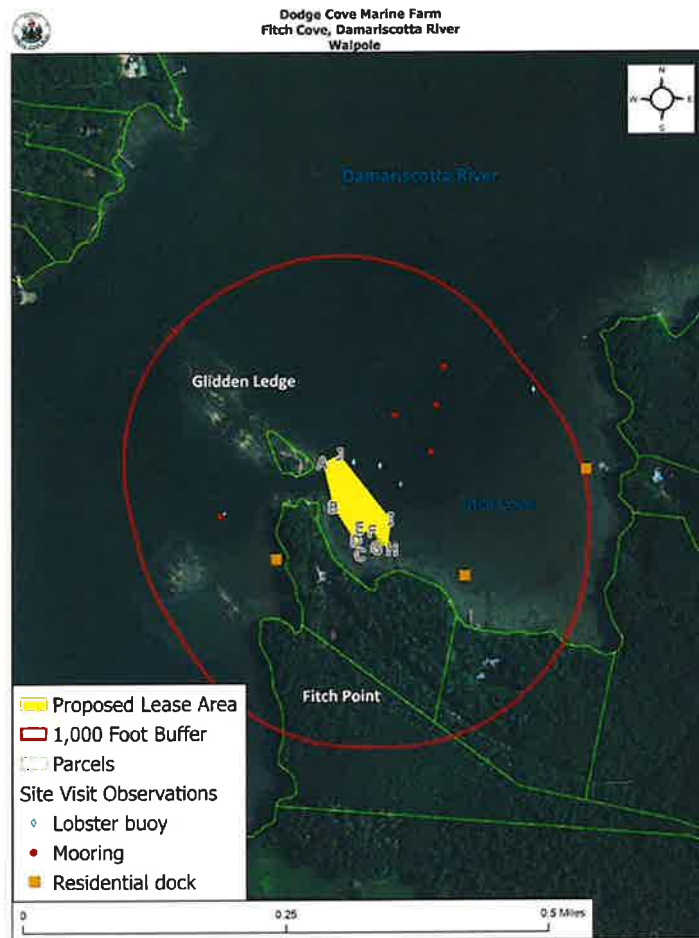


Figure 3. Proposed lease area with site visit observations.

The site report stated that corners D and G from the original application are within the intertidal zone (SR 12). The site report also provided updated coordinates for these corners within subtidal waters.

Because a portion of the proposal is in the intertidal zone, the applicant would be required to obtain written consent from riparian owners for use of any intertidal land within the proposed lease site (12 M.R.S.A. § 6072-A(8); 6072(4)(F)). In addition, the Town of South Bristol has a municipal shellfish conservation program established pursuant to 12 M.R.S.A. §6671. In accordance with 12 M.R.S.A. §6072-A(11), the applicant would need to obtain consent from municipal officers within the Town of South Bristol.

On May 15, 2024, DMR emailed the applicant a copy of the site report and detailed the permission requirements for the use of the intertidal zone. DMR stated the applicant could either submit the necessary permissions, choose to reduce the acreage to exclude any intertidal portions, or if they believed the site was not intertidal then a hearing would be held to take additional evidence. In a response dated May 17, 2024, the applicant stated that they would like to proceed with the reduced proposal to include only subtidal areas as depicted

on page 12 of the site report. As the applicant elected to move forward with subtidal portions, permissions are no longer required.

The local Harbormaster stated that riparian owner access should not be affected by the proposal.

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 received a comment from Frank and Joyce Marinace, who identified themselves as landowners and residents immediately adjacent to the proposed site at Glidden Ledge. According to the lease application, the Marinace Revocable Trust (Joyce Marinace, Trustee), owns lot 11-C, which is depicted in Figure 3. The comment stated that congestion in the cove would be increased if the lease is proposed. The riparian also stated the proposed lease would be within 100 feet of their property and would be more intrusive than a current lease¹³. The riparian stated their pier is located to the south of Glidden Ledge but did not express any concerns about access to the pier (Marinace email).

The riparian's parcel is located on a peninsula, with their pier on the opposite side from the proposed lease. Corners A and B of the proposed lease (as shown in Figure 5 with the reduced size) are closest to Glidden Ledge and adjacent to the eastern side of the riparian property (Corner A is approximately 20 feet from the property and Corner B is approximately 5 feet). The comment from the riparian owner does not address accessing the shore from the eastern side where the proposal is located. The shoreline on this side is ledge, with shallow depths so shore access may be difficult and would limit the type of vessel that could reasonably land on this shore. Additionally, no gear is proposed so vessels would not have to maneuver around any structure. Furthermore, it appears that access to the property is from the western side of the peninsula where a dock was located.

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

C. Navigation

¹³ The riparian owner is presumably referring to a limited purpose aquaculture (LPA) license. The existing aquaculture uses are detailed in Section C below.

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).

The proposal is located in shallow water directly adjacent to Glidden Ledge and Fitch Point. Glidden Ledge is an intertidal ledge that restricts navigation in this part of the river. The main navigational channel for the Damariscotta River is located west of Glidden Ledge approximately 1,162.5 feet northwest of the proposal (Figure 4).

DMR observed boats transiting the main channel while enroute to the site visit but did not observe any boats in the channel while conducting the site assessment. DMR observed boats operating near the western shore of the river approximately 0.4 miles to the northwest (SR 6).

In the Questionnaire, the Harbormaster indicated that the proposal would not affect navigation because it is located behind a ledge and away from the navigation channel. A riparian owner expressed concerns that vessel congestion would be increased if the lease is granted. However, given the proposed frequency and duration of visits to the site, it is unlikely that congestion would be an issue if the lease were approved.

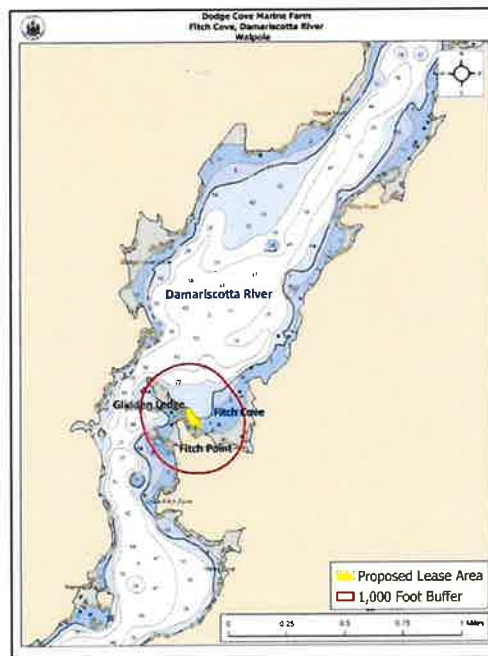


Figure 4. Navigational channels in the vicinity of the proposal. Image from DMR site report.

Given the distances to the navigation channel, that no gear is proposed, and the Harbormaster's comments 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 uses, including 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 assessment, scientists observed light lobstering activity in the vicinity of the proposal. Four lobster buoys were observed within 1,000 feet of the proposal with the closest located approximately 31.5 feet to the east.

The Harbormaster Questionnaire indicated that lobstering may be impacted slightly, but fishing for striped bass (*Morone saxatilis*) and Atlantic mackerel (*Scomber scombrus*) should not be affected by the proposed lease area.

The application states that the applicant is not aware of commercial fishing on the proposed site, although lobster buoys have been observed in the area. Additionally, the application states recreational fishing may occur in the area, although the applicant has not witnessed it (App 8).

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.

DMR received a comment stating the proposed lease gear may impact striped bass fishing in the area, especially when fishermen are trolling. However, no gear is proposed for this site.

If the lease is granted, there is no gear proposed for this site so lobstermen could deploy traps without the potential for interference with aquaculture gear. However, it is also possible that some lobstermen may avoid deploying traps within the boundaries of the site. If the lease is granted, it may cause changes to where lobstermen chose to deploy traps, but the impacts were characterized by the harbormaster as being “slight.” If the lease is granted a condition will be added allowing for lobsterfishing within the boundaries of the site.

Other uses. According to the application, some kayaking may occur in the area but would not be disrupted by the proposal since it is bottom culture (App 8). 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.

DAM FC, operated by Heron Island Oyster Company, is located within 1,000 feet of the proposal. There are four active Limited Purpose Aquaculture (LPA) sites within 1,000 feet of the proposal (MELA115, MELA215, MELA418, MELA518). The closest LPA is located approximately 548.8 feet northeast of the proposal. The LPAs are operated by Rod Melanson (SR 8). Given the distance to the LPAs, it is unlikely that this lease would interfere with their operations.

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). This is an approved source for stock. If the applicant is unable to obtain stock from this facility, then it must come from another DMR approved source.

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, 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. Based on the reduced acreage, 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.

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 application, as modified by section 8 of this decision, for a proposed experimental lease of 1.36 acres to Dodge Cove Marine Farm, 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 lessee¹⁴; 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 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

¹⁴ 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.”

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 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. The following condition is imposed on this lease:

1. Lobster fishing shall be allowed within the lease boundaries.

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: 4.10.25



Carl J. Wilson, Commissioner

Department of Marine Resources

8. Revised Site Boundaries, Coordinates, and Acreage

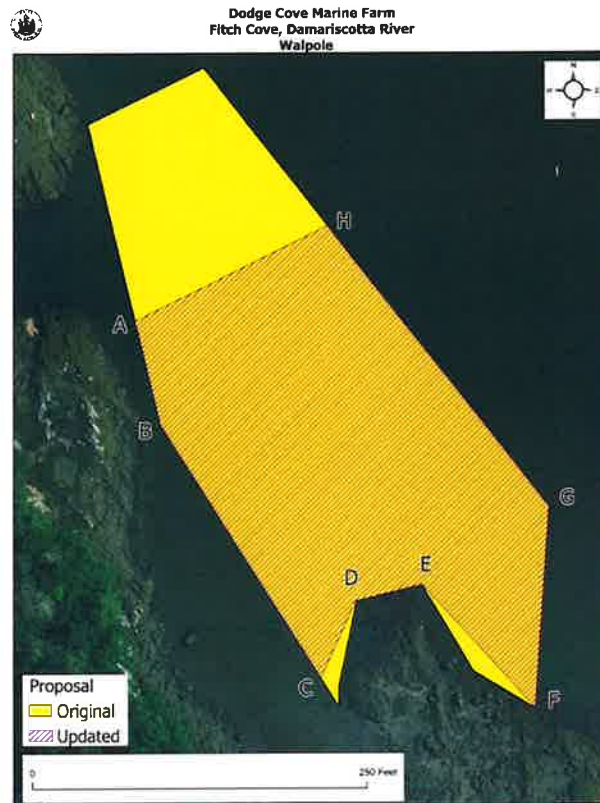


Figure 5. Lease boundaries with 50-yard reduction.

Update Coordinates (WGS84) – 1.36 Acres

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>
A	43.968364°	-69.569340° then 77.5 feet at 167° True to
B	43.968158°	-69.569267° then 226.5 feet at 148° True to
C	43.967632°	-69.568809° then 66.7 feet at 024° True to
D	43.967800°	-69.568708° then 49.7 feet at 076° True to
E	43.967833°	-69.568525° then 125.0 feet at 137° True to
F	43.967581°	-69.568203° then 150.9 feet at 004° True to
G	43.967994°	-69.568167° then 264.9 feet at 322° True to
H	43.968560°	-69.568798° then 159.6 feet at 243 ° True to A