

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES

Unicorn Oyster
DAM PP3x

Experimental Aquaculture Lease
Suspended Culture of American Oysters (*Crassostrea virginica*)
Damariscotta River, Bristol, Maine

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Unicorn Oyster applied to the Department of Marine Resources (DMR) for a three-year experimental aquaculture lease on 3.88¹ acres east of Perkins Point, in the Damariscotta River, in Bristol, Maine. The proposal is for the suspended culture of American oysters (*Crassostrea virginica*). DMR accepted the application as complete on November 4, 2022.

1. THE PROCEEDINGS

Notice of the application and the 30-day public comment period was provided to state agencies, riparian landowners, the Town of Bristol and its Harbormaster, and others on DMR's mailing list. Notice of the complete application and comment period was published in the November 17, 2022, 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. Two requests for a public hearing were received during the comment period, and DMR elected to hold a hearing. The evidentiary record regarding this lease application includes the application, DMR's site report dated February 14, 2024, the case file, and Unicorn Oyster Exhibit A, which was provided at the hearing. 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 February 14, 2024
4. Unicorn Oyster Exhibit A

¹ Applicant originally requested 3.9 acres. DMR calculations in the site report, based on the provided coordinates, indicate the area is 3.88 acres.

² These sources are cited, with page references, as App (Application), CF (case file), and SR (site report). Citations to the hearing are to the last name of the individual providing testimony, and, if elicited under questioning include the last name of the individual questioning the witness.

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The purpose of the proposed experimental lease site is to determine if the proposed area is a viable area for commercial cultivation (App 5). The applicant is proposing to culture American oysters using suspended planting techniques (App 1-2). The proposal would have three sets of rows of ten 5/8" poly line long line (App 13). The long lines in each set would be 20' away from the adjacent long lines and would be moored on each end of the line with a 10" screw, 3/4" shaft helix mooring (App 13). Each line would either have 30 4-pack growout oyster cages spaced 7' apart, or 25 6-pack growout oyster cages spaced 8' apart (App 13).

Seeding would occur from April through August (App 5). During seeding, the applicant would be at the site three times a week, for approximately two hours each visit (Watroba/Rozov). Harvesting and sorting would occur from March through December (App 5). During harvesting, the applicant would be at the site three times a week, for approximately two hours each visit (Watroba/Rozov). Maintenance would occur once a week for approximately an hour (Watroba/Rozov).

All gear would be sunk to the riverbed from December through March for overwintering (App 13). In the spring, the lines would be raised using a boat equipped with a hydraulic lift (Watroba Testimony).



Unicorn Oyster - East of Perkins Point, Bristol

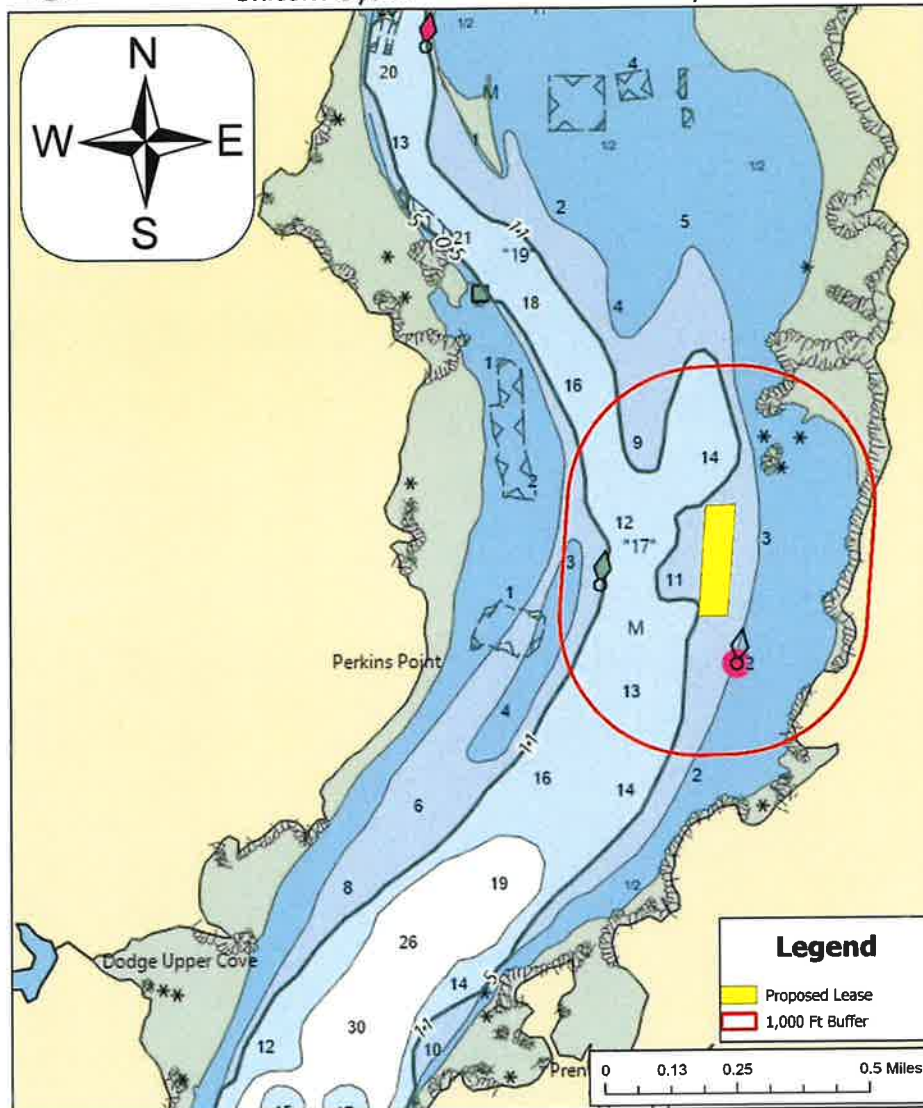


Figure 1: Proposed lease site and surrounding area. Image taken from DMR's site report.

B. Site Characteristics

On August 9, 2023, DMR scientists assessed the proposed lease area. DMR scientists arrived on site at approximately 11:28 AM (SR 2). The surrounding area is comprised of rocky coastline leading to forested uplands with scattered houses observed (SR 2). The bottom of the proposed lease area is mud (SR 2). Water depths measured at the corners of the proposal ranged from 10.2 to 12.7 feet (SR 2).

Correcting for tidal variation derives waters depths at the corners of the proposal at mean low water (MLW) to be from 9.1 to 11.6 feet (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 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 applicants have demonstrated that there is available source of organisms to be cultured on the lease site.

A. Riparian Access

Before granting a lease, the Commissioner must determine that the proposed project “will not unreasonably interfere with the ingress and egress of riparian owners[.]” 12 M.R.S.A. § 6072-A(13)(A). In examining riparian owner ingress and egress, the Commissioner “shall consider the type of structures proposed for the lease site and their potential impact on the vessels which would need to maneuver around those structures.” Chapter 2, § 2.37(1)(A)(1).

The proposed lease area is located east of Perkins Point, in the Damariscotta River, Bristol. During the site visit, DMR observed four moorings in the vicinity of the proposal approximately 500 feet, 816 feet, 966 feet, and 1,007 feet south of the proposal (SR5). Both the mooring 816 feet to the south and the mooring 1,007 feet to the south had a boat moored to them (SR 5). Four private docks were observed approximately 1,073 feet to the south of the proposal (SR 5). DMR staff observed a house under construction approximately 940 feet to the northeast of the proposal and a pier being installed approximately 930 feet east of the proposal. There is approximately 730 feet of navigable waters between the western boundary of the proposal and the green navigational buoy to the west of the proposal (SR 5). The MLW in the area to the east of the proposal is approximately 3 feet (Fig. 1).

The applicant testified that they have only ever seen two of the moorings south of the proposal being used, and that they are used throughout the summer (Watroba/Rozov).

A Harbormaster Questionnaire was sent to the Bristol Harbormaster, but DMR did not receive a response.

No comments regarding riparian access were provided at the hearing.

The nearest observed mooring to the proposal was approximately 500 feet to the south. This distance would allow for water vessels of various sizes to access the area without risk of interference from

the proposal. Because these moorings are to the south of the proposal, any vessels navigating from the south would not need to navigate near the proposal before utilizing the mooring. Vessels coming from the north would have 730 of navigable water to the west to navigate around the proposal before accessing their moorings. The nearest observed dock to the proposal, currently under construction, is approximately 930 feet to the east. Additionally, the MLW of the area to the east of the proposal is 3 feet, meaning only smaller vessels or vessels with a shallow draft would be used to access the area. 930 feet of area is adequate for vessels of varying sizes to navigate to the east of the proposal without risk of interference from the proposal.

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

B. Navigation

When examining navigation, the Commissioner considers whether any lease activities requiring surface and or subsurface structures would interfere with commercial or recreational navigation around the lease area. 12 M.R.S.A. § 6072-A(13). In examining navigation, 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.” Chapter 2, § 2.37(1)(A)(2).

The proposal is located approximately 670 feet west of the eastern shore of the Damariscotta River at the closest point at MLW (SR 5). The proposal is approximately 350 northwest of the red navigational buoy in the area and approximately 730 feet to the east of green navigational buoy “17” (SR 5). According to NOAA nautical charts and DMR observations, the proposal is located within the eastern portion of the navigational channel (SR 5). Water depths in this area of the Damariscotta River range from 13 to 18 feet at MLW, while the deepest point of the proposal is approximately 11.6 feet at MLW (SR 5). Due to the hydrography of the river, most boats transiting the river north-south remain in the deeper sections of the channel located to the west of the proposal (SR5). The MLW in the area to the east of the proposal is approximately 3 feet (Fig. 1).

A Harbormaster Questionnaire was sent to the Bristol Harbormaster, but DMR did not receive a response.

The applicant testified that navigation would still be able to occur to the east of the proposal except at MLW, when the water is very shallow (Watroba/Rozov). The applicant testified to rarely seeing recreational vessels navigating to the east of the proposal (Watroba/Rozov).

While the proposal is located within a portion of a navigational channel, there is approximately 730 feet of navigable waters to the west of the proposal. 730 feet of navigable waters is adequate for multiple vessels of various sizes to navigate the channel at the same time without risk of interference from the proposal. Additionally, there is approximately 670 feet of water from the proposal to the eastern shore at

the narrowest point. Due to this area being shallower than the navigational channel, it is likely that only smaller vessels or vessels with a shallow draft would navigate this area. 670 feet would be adequate for vessels of varying sizes to navigate the area without risk of interference from the proposal.

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

C. 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 of the area. 12 M.R.S.A. § 6072-A(13)(C); Chapter 2.37(1)(A)(3). In examining fishing and other uses, the Commissioner “shall consider such factors as the number of individuals that participate in recreational or commercial fishing, the amount and type of fishing gear utilized, the number of actual fishing days, and the amount of fisheries resources harvested from the area.” Chapter 2.37(1)(A)(3).

Fishing. During the site visit, DMR did not observe any commercial or recreational fishing in the area (SR 7). No lobster buoys were observed within 1,000 feet of the proposal (SR 7).

The application states that there has been no commercial fishing in the vicinity of the proposal in the last 20 years, based on observations made by neighboring oyster farms (App 7). The application states that there is occasional recreational fishing in the summer to the north of the lease (App 7).

A Harbormaster Questionnaire was sent to the Bristol Harbormaster, but DMR did not receive a response.

The applicant testified that they have never observed commercial fishing or lobster buoys in the area (Watroba/Rozov).

No comments regarding fishing were provided at the hearing.

Taking into consideration DMR observations and applicant testimony, there does not appear to be fishing activity in the area of the proposal.

Therefore, it is reasonable to conclude that there are no concerns regarding the potential effect of the proposed lease on commercial and recreational fishing activities in the area.

Other uses. At the time of the site visit, DMR staff did not observe any recreational activities in the area (SR 7).

The application states that kayaking, other hand powered vessels, and swimming have not been observed in the vicinity of the proposal for “at least five years,” (App 8).

No comments regarding other uses were provided at the hearing.

Taking into consideration DMR observations and applicant testimony, there does not appear to be other uses in the area of the proposal.

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

D. Other Aquaculture Uses

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

There are four existing Limited Purpose Aquaculture (LPA) sites, AWAT120, AWAT220, AWAT320, and AWAT420 located within the proposed lease area. All four LPAs are held by an individual with interest in Unicorn Oyster, and would be relinquished if this proposal were granted (App 9).

There are two standard aquaculture lease sites within 1,000 feet of the proposal. DAM SL is approximately 543 feet north of the proposal and DAM PP2 is approximately 885 feet to the west of the proposal (SR 7).

No comments regarding other aquaculture uses were provided at the hearing.

Lease DAM SL is 543 feet to the north of the proposal. Anyone accessing DAM SL from the north would not need to navigate around the proposal. Anyone accessing the DAM SL from the south would have 720 feet to the west of the proposal to navigate around it before accessing DAM SL. Lease DAM PP2 is 885 feet to the west of the proposal. This is on the other side of the navigational channel. Anyone accessing DAM PP2 would be able to utilize the main navigational channel without risk of interference from the proposal.

Therefore, the activities proposed for this site will not unreasonably interfere with other aquaculture uses of the area.

E. 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). "Such factors as the degree to which physical displacement of rooted or attached marine vegetation occurs, the amount of alteration of current flow, increased rates of sedimentation or sediment resuspension, and disruption of finfish migration shall be considered by the Commissioner in this determination." Chapter 2, § 2.37(1)(A)(5).

On August 9, 2023, DMR conducted a Remote Operated Vehicle (ROV) dive to assess the epibenthic ecology of the proposed lease (SR 9). DMR staff observed an abundant amount of benthic macroalgae turf bed, occasional crab (*Cancer spp.*), and rare unidentified flounder species (*Pleuronectiformes* sp) (SR 9).

Historic records of eelgrass collected by DMR in 2010 indicate no mapped eelgrass presence in the vicinity of the proposal (SR 9). No eelgrass was observed within the proposal boundaries on underwater camera footage or during DMR's site assessment (SR 9).

At the hearing, one member of the public testified to the presence of eelgrass near the proposal (Henning Testimony). The member of the public testified that the eelgrass was not within the proposal, but to the east of the proposal, along the eastern shoreline of the river (Henning/Rozov). Additionally, the member of the public was unable to specify how they were able to identify the flora as being eelgrass (Henning/Ellis).

Data collected by the United States Fish and Wildlife Service in 2022 shows the closest bald eagle (*Haliaeetus leucocephalus*) nesting site to be approximately 0.9 miles north of the proposal. During the site visit, DMR staff observed bald eagles, double-crested cormorants (*Nannopterum auritum*), red-tailed hawks (*Buteo jamaicensis*), common tern (*Sterna hirundo*), and seals (*Phocidae spp.*) (SR 11).

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 approximately 495 feet to the southwest of the nearest Tidal Waterfowl and Wading Bird Habitat (TWWH) (SR 11). On November 11, 2022, a Wildlife Biologist with MDIFW responded by email to a "Request for Agency Review and Comment", stating that minimal impacts to wildlife are anticipated for this project.³

While testimony was provided attesting to the existence of eelgrass in the area, the member of the public testified that the eelgrass was not present in the direct vicinity of the proposal, and was unable to specify how they were able to identify what they observed as eelgrass. Therefore, it is unlikely for there to be interference with eelgrass beds caused by this proposal.

Based on the evidence above 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.

F. Public Use & Enjoyment

³ Email correspondence between MDIFW and DMR

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 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, § 2.37(1)(A)(7); Chapter 2, § 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 (SR 13).

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.

G. 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 stock from Muscongus Bay Aquaculture. This hatchery is currently listed as an approved source for the proposed stock. If the applicant is unable to obtain stock from this hatchery, then it must come from another DMR approved source.

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, the Department concludes 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.
4. The aquaculture activities proposed for this site will not unreasonably interfere other aquaculture uses of the area.
5. 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.

6. 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.

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

Accordingly, the evidence in the record supports the conclusion that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072-A.

5. DECISION

Based on the foregoing, the Commissioner grants the requested experimental lease of 3.88 acres to Unicorn Oyster, 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 lessee⁴; 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 oysters (*Crassostrea virginica*). 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 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 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). 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

⁴ 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.”

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: _____

3/3/25-

A handwritten signature in blue ink, appearing to read 'PCK', written over a horizontal line.

Patrick C. Keliher, Commissioner
Department of Marine Resources