

**STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES**

**Christopher Dickinson
DAM GL5**

Standard Aquaculture Lease Application

Suspended Culture of Oysters

June 8, 2021

Damariscotta River, Newcastle

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Christopher Dickinson applied to the Department of Marine Resources (DMR) for a 20-year standard aquaculture lease on 1.15 acres.¹ The proposed site is located southwest of Hog Island and south of Goose Ledge in the Damariscotta River, in Newcastle², Lincoln County, Maine, for the cultivation of American/eastern oysters (*Crassostrea virginica*) using suspended culture techniques.

1. THE PROCEEDINGS

The pre-application meeting for this proposal was held on March 25, 2019 and the scoping session was held on June 28, 2019. DMR accepted the final application as complete on September 26, 2019. Notice of the completed application was provided to riparian landowners within 1,000 feet of the proposed site, the Towns of Damariscotta and Newcastle, including their Harbormaster, and other state and federal agencies. DMR's site report was issued on June 18, 2020.

The remote hearing for this application was scheduled for May 10, 2021 at 3:00pm, and public notice was published in the April 8 and April 29, 2021 editions of the *Lincoln County News*. Public notice of the hearing was also provided to the Towns of Damariscotta and Newcastle and their shared Harbormaster, riparian landowners within 1,000 feet of the proposal, other state and federal agencies, and subscribers of DMR's aquaculture email list-serve. The public notice for the May 10, 2021 hearing indicated that the proceeding would be conducted remotely and directed interested persons to contact DMR to sign up to participate in the proceeding. Each person who contacted DMR to participate was provided instructions on how to join the hearing.

The remote hearing was held on May 10, 2021, and sworn testimony was given at the hearing by the following witnesses:

¹ The applicant originally requested 1 acre, but DMR calculations based on the provided coordinates indicated the area is 1.15 acres.

² The application indicated that the proposal was located in the towns of Newcastle and Damariscotta and the application was processed as such. However, the proposal is located solely in Newcastle.

Name	Affiliation
Christopher Dickinson	Applicant
Marcy Nelson	Acting Director, DMR Aquaculture Division

Mr. Dickinson described aspects of the lease application and answered questions about the proposal. Ms. Nelson testified about DMR’s site visit. The hearing was recorded by DMR. The Hearing Officer was Flora Drury.

A. Exhibits

The evidentiary record before DMR regarding this lease application includes the following³:

1. Case file (CF)
2. Application (App)
3. Site Report (SR)

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The applicant, Christopher Dickinson, proposes to culture American/eastern oysters (*C. virginica*) using suspended culture techniques. The applicant proposes to culture oysters in a maximum of 400 floating mesh bags, each measuring 18” x 32” x 4.5” (App 9). Bags would be deployed along sets of two parallel longlines, each 150’ in length (App 9). The application indicated that a total of 5 sets of parallel longlines would be deployed, however, during the hearing the applicant clarified that he intends to deploy between 8 and 10 sets of parallel longlines (Dickinson/Drury⁴). Additionally, during the hearing the applicant clarified that he intends to space the deployed longlines by 8-10 feet, as opposed to by 20 feet, which was originally proposed in the application (Dickinson/Drury). According to the applicant, longlines would be deployed on the site in a north-south orientation (Nelson/Dickinson).

According to the site report, the northern and southern boundaries of the proposed lease are approximately 204 feet long (SR 7). Given that the applicant proposes to deploy gear in a north-south orientation, and that each parallel set of longlines holding mesh bags would measure slightly more than 32” in width, it appears that 10 sets of longlines would fit within the

³ Exhibits 1, 2, and 3 are cited below as: Case file – “CF”; Application – “App”, site report – “SR”.

⁴ In references to testimony, “Dickinson/Drury” means testimony of Dickinson, questioned by Drury.

proposed lease boundaries. Furthermore, if 10 sets of longlines were deployed and evenly spaced, it appears that the sets of longlines could be separated by over 15 feet, which is similar to what was proposed in the original application. Given this, DMR will consider the gear layout described during the public hearing as the proposed operational plan when evaluating this proposal in light of the statutory criteria.

According to the applicant, gear would be deployed on the site from May through October (Dickinson/Nelson). Oyster seed would be stocked in mesh bags on the site between May and June (App 12). During the winter months, mesh bags would be removed from the proposed lease and oysters would be moved to the applicant's existing lease DAM SL where they would remain until ready for harvest (App 12).

The applicant intends to tend the site once per week, and routine on-site activities would include flipping the mesh bags (App 12). The applicant intends to use a 17' Seaway powered with a 70-horsepower engine to tend to the site while mesh bags are installed (App 13 & Dickinson/Drury). No other powered equipment is proposed to be used onsite (App 14).

B. Site Characteristics

The proposed lease site is located in subtidal waters to the southwest of Hog Island and south of Goose Ledge in the Damariscotta River (SR 2 & 6). Forest, fields, and residential buildings are located on the surrounding mainland uplands (SR 2). Hog Island has a rocky and sandy shoreline, with a house and a dock located on the southern shoreline of the island (SR 2).

During DMR's site visit on November 10, 2019, depths at the corners of the proposed site ranged from 3.1 to 3.6 feet (SR 6). Correcting for tidal variation, at mean low water, depths across the site range from approximately 2.1 to 2.6 feet (SR 6). The bottom of the proposed lease is composed of soft mud (SR 6).

3. STATUTORY CRITERIA & FINDINGS OF FACT

Approval of standard aquaculture leases is governed by 12 M.R.S.A. §6072. 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 the number and density of aquaculture leases in an 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, docking facilities, or conserved lands 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; that the lease will not result in an unreasonable impact from noise or lights at the boundaries of the lease site; and that the lease will comply with visual impact criteria adopted by the Commissioner.

A. Navigation

The proposed lease is located in shoal water lining the east side of the marked navigation channel in the Damariscotta River, which is used heavily by commercial and recreational mariners (SR 9). According to the site report, due to geographic features surrounding the proposal, most vessel traffic is expected to adhere to the marked channel at low water (SR 9). An existing lease for the suspended culture of shellfish is located on the western side of this channel, and if the proposal is granted, vessels would be constricted to the approximately 418 feet that would remain between the sites (SR 9). Due to this constriction, the site report indicated that “vessels under sail may be limited in their ability to tack through the area” (SR 9). However, due to the shallow nature of the proposed lease site, sailboats would likely avoid the area in which the proposal is located when navigating north-south in the Damariscotta River regardless of the proposed lease operations. According to the Harbormaster for the Towns of Newcastle and Damariscotta, the proposed lease site “should not be a problem for navigation if the nun buoy [Red Nun “20”] is being observed”.⁵

According to the site report, at higher tidal stages “commercial and recreational mariners, particularly those with familiarity of the area, are expected to traverse through the proposed lease”, and according to the application, occasional kayaking occurs in the proposed lease area (SR 9 & App 18). “A minimum of 700 feet of water of a similar depth to that of the proposed lease site, is available for navigation between Goose Ledge and the proposal” (SR 9), therefore, it appears that depth appropriate vessels would be able to navigate around the proposal, if approved.

DMR did not receive any comments or testimony to suggest that the proposed site would interfere with navigation.

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

B. Riparian Access

⁵ CF: Harbormaster Questionnaire completed on 10/20/19.

During the site visit, DMR staff observed a single dock located on the southern shoreline of Hog Island (SR 9). A moored float was also observed off Hog Island's southern shore, and houses and docks were observed on the surrounding mainland shorelines (SR 9). According to page 9 of the site report, "The proposed lease is more than 580 feet from the nearest shoreline and surrounded by shoal water to the north and south. The proposed activities are, therefore, unlikely to impede riparian landowner access."

DMR did not receive any comments from the Harbormaster for the Towns of Newcastle and Damariscotta concerning this standard lease proposal's impact on riparian ingress and egress. Furthermore, no comments or testimony were received to indicate that the proposed lease would interfere with riparian ingress and egress.

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

C. Fishing & Other Water Related Uses

During the site visit conducted on November 20, 2019, DMR staff did not observe any commercial or recreational fishing activity within or around the boundaries of the proposed site (SR 9). The site report indicates that shellfish harvesting occurs in the tidally exposed mudflats and ledges present in the general area, but that the "proposed lease does not overlap with the mudflats located on either shoreline of the Damariscotta River and therefore would not impede commercial and recreational harvesters from utilizing these areas" (SR 10). The site report goes on to state that recreational fishing occurs in the Damariscotta River from boat and shore. Specifically, the site report notes that striped bass fishing is conducted in the Damariscotta River, often in waters less than 20 feet deep (SR 10). According to the application, some recreational fishing occurs in the area from June through August (App 18). DMR did not receive any comments or testimony concerning recreational or commercial fishing in the area.

Based on the absence of comments, and given that ample room is available around the proposed 1.15-acre site for commercial and recreational activities, it is reasonable to conclude that it is unlikely the proposal will unreasonably interfere with commercial or recreational fishing in the area.

Other aquaculture uses. When the site report was published on June 18, 2020, there were seven other aquaculture leases and four Limited Purpose Aquaculture (LPA) licenses within 1,000 feet of this proposal (SR 10). An eighth lease located 695 feet to the east of the proposal was recently approved by DMR. The closest existing aquaculture sites to the proposed

lease are four LPA licenses held by the applicant, which would be relinquished if the proposed lease were granted (SR 10 & App 15). The closest aquaculture activity to the proposal held by an entity other than the applicant is DAM GL2, a standard lease located approximately 418 feet to the west of the proposal (SR 10).

Exclusivity. The applicant requests that recreational hook and line fishers be excluded from casting within the proposed lease boundaries to prevent the entanglement of hooks and lures in aquaculture gear; other activities within the lease area would be welcomed (App 19). In consideration of the proposed operations it is reasonable that a condition prohibiting hook and line fishing be incorporated into the standard lease, provided it is granted, as it would assist the applicant in carrying out the lease purpose while also encouraging other compatible uses of the area.

Based on this evidence, and because no other evidence has been presented indicating that the applicant's existing LPA licenses, which are located within the proposed lease area and which host the same gear as is proposed for this standard lease, have unreasonably impeded fishing or other water related uses, it appears that the proposed lease will not unreasonably interfere with fishing or other water-related uses of the area.

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

D. Flora & Fauna

Fisheries and Wildlife. The bottom of the proposed lease is comprised of soft mud (SR 12). During their snorkel transect of the proposed lease site on November 20, 2019, DMR staff observed species including brown benthic microalgae, carpet sea squirts (*Didemnum vexillum*), filamentous red and green algae, and emerald green sea slugs (*Elysia chlorotica*), (SR 12). According to testimony provided by Marcy Nelson, DMR staff had never seen these sea slugs in over 40 combined years of diving in Maine. To learn more about the species, DMR staff communicated with Dr. Karen Pelletreau, Director of Faculty Educational Development at the University of Maine Center for Innovation in Teaching and Learning, who has published scientific articles related to Sacoglossan sea slugs, and *E. chlorotica* specifically (SR 12). Dr. Pelletreau confirmed that this was a rare sighting and provided DMR staff with information on the species life history (SR 12-14). Ms. Nelson testified that during another site assessment conducted in the general area in October of 2020 for a different proposed lease site with the same bottom characteristics as the site proposed by Mr. Dickinson, no sea slugs were observed. Although rare and interesting, Ms. Nelson testified at the public hearing that the applicant's

proposed gear and timing of gear deployment are not likely to disturb the sea slugs observed during the November of 2019 site assessment.

Based on data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), the proposed lease area is approximately 600 feet from Tidal Wading Bird and Waterfowl Habitat (SR 15). DMR sent a copy of the lease application to MDIFW for their review and comment, and MDIFW commented that “minimal impacts to wildlife are anticipated for this project.”⁶

Eelgrass (*Zostera marina*). According to data collected in 1994 and 2005, the closest eelgrass beds (*Zostera marina*) to the proposed site were approximately 800 feet and approximately 2,175 feet from the proposed lease, respectively (SR 14). No eelgrass was observed during DMR’s November 20, 2019 site visit (SR 12).

Based on the evidence in DMR’s site report and testimony, comments provided by MDIFW, and because no comments or testimony was provided to indicate concerns about the proposed site and flora and fauna in the area, it appears that the aquaculture activities proposed for this lease site will not interfere with the ecological functioning of the area.

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

E. Public Use & Enjoyment

There are no beaches, parks, docking facilities, or conserved lands owned by municipal, state, or federal government within 1,000 feet of the proposed lease site (SR 16). Goose Ledge, located less than 1,000 feet to the north of the proposed lease site, is managed by MDIFW. A Wildlife Biologist for MDIF&W stated “minimal impacts to wildlife are anticipated for this project” in an email dated October 25, 2019 (SR 16).

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

F. Source of Organisms

The applicant intends to obtain stock for American/eastern oysters (*Crassostrea virginica*) from Muscongus Bay Aquaculture in Bremen, Maine and/or Mook Sea Farm in Walpole, Maine (App 2).

⁶ CF: Email from R. Settele to C. Burke dated October 25, 2019

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

G. Light

According to the application, no lights would be used on the lease site and work on the site beyond daylight hours is not anticipated (App 14).

Therefore, the aquaculture activities proposed for these sites will not result in an unreasonable impact from light at the boundaries of the lease site.

H. Noise

The applicant plans to access and service the site using a 17' Seaway Skiff, powered by a 70-horsepower engine (App 13, Drury/Dickinson). This vessel is consistent with recreational and commercial vessels used along the coast of Maine (SR 17). No other powered equipment is proposed for the site.

No comments or testimony was received to indicate there is concern with noise associated from the proposed operations.

Therefore, the aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease.

I. Visual Impact

The proposed plastic mesh bags and floats would be black, and measure 4.5" in total height (App 11, SR 18).

Therefore, equipment and structures proposed for the lease site will comply with the visual impact criteria contained in DMR Regulation 2.37 (1) (A) (10).

4. CONCLUSIONS OF LAW

Based on the above findings, I conclude that:

- a. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.
- 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 or other uses of the area, taking into consideration the number and density of aquaculture leases in the area.

- d. The aquaculture activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.
- e. 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.
- f. The applicant has demonstrated that there is an available source American/eastern oysters (*Crassostrea virginica*) to be cultured on the lease site.
- g. The aquaculture activities proposed for this site will not result in an unreasonable impact from light at the boundaries of the lease site.
- h. The aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease site.
- i. The aquaculture activities proposed for this site will comply with the visual impact criteria contained in DMR Regulation 2.37(1)(A)(10).

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.

5. DECISION

Based on the foregoing, the Commissioner grants the proposed lease in the amount of 1.15 acres to Christopher Dickinson for 20 years for the cultivation of American/eastern oysters (*Crassostrea virginica*) using suspended culture techniques. The lessee shall pay the State of Maine rent in the amount of \$100.00 per acre per year. The lessee shall post a bond or establish an escrow account pursuant to DMR Rule 2.40 (2)(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(7-B).⁷ The conditions placed

⁷ 12 MRSA §6072 (7-B) states: "The commissioner may establish conditions that govern the use of the leased area and limitations on the aquaculture activities. These conditions must encourage the greatest multiple, compatible uses of the leased area, but must also address the ability of the lease site and surrounding area to support

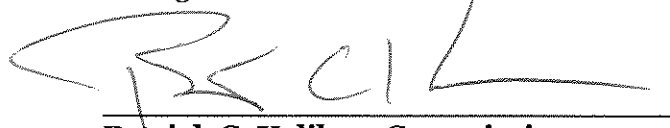
on this lease are as follows:

1. Recreational hook and line fishing is prohibited within the lease boundaries.

7. REVOCATION OF LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 M.R.S.A §6072(11) that no substantial aquaculture has been conducted within the preceding year, that the lease activities are substantially injurious to marine organisms, or that any of the conditions of the lease or any applicable laws or regulations have been violated.

Dated: 6/17/2021



**Patrick C. Keliher, Commissioner
Department of Marine Resources**

ecologically significant flora and fauna and preserve the exclusive rights of the lessee to the extent necessary to carry out the lease purpose.”