

**STATE OF MAINE  
DEPARTMENT OF MARINE RESOURCES**

**Lessee: Pemaquid Oyster  
Company, Inc**

Standard Aquaculture Lease Application  
Bottom culture of shellfish  
Damariscotta River, Lincoln County

**Acronym: DAM GL4**

July 10, 2018

**FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION**

Pemaquid Oyster Company Inc., a Maine corporation, applied to the Department of Marine Resources (“DMR”) for a ten-year standard aquaculture lease comprised of two tracts totaling 8.02 acres.<sup>1</sup> The proposed site is located near Goose Ledges, in the towns of Newcastle and Damariscotta, Lincoln County, Maine and is for the cultivation of American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), hard clams (*Mercenaria mercenaria*), Atlantic surf clams (*Spisula solidissima*), and razor clams (*Ensis directus*) using bottom culture techniques. DMR accepted the application as complete on November 1, 2017. A public hearing on this application was held on July 2, 2018 at the Newcastle Fire Station in Newcastle, Maine. No one intervened in this case. For the reasons described below, the proposed lease with a modification to the corner 1 of Tract 1 will be granted.

**1. THE PROCEEDINGS**

Notice of the hearing, copies of the application and DMR site report were provided to state and federal agencies for their review, the municipalities of Newcastle and Damariscotta, riparian landowners within 1,000 feet of the proposed site, and subscribers of the Department’s Aquaculture email listserv. Notice of the hearing was published in the *Lincoln County News* on May 31 and June 21, 2018 and in the July edition of the *Commercial Fisheries News*.

Sworn testimony was given at the hearing by Chris Davis and Jeff Mckeen representing Pemaquid Oyster, Inc., Flora Drury, Aquaculture Scientist, and Paul Bryant, Habormaster for the towns of Newcastle and Damariscotta. The applicant described the proposed project and Ms. Drury described the site visit. Mr. Bryant testified that requests for moorings near the proposed lease are increasing. Mr. Bryant did not raise any objections or concerns regarding the proposed site. Members of the public asked the applicant questions about the proposed operations. They also asked Department staff about the leasing process and aquaculture within the Damariscotta River.

The hearing was recorded by DMR. The Hearing Officer was Amanda Ellis. The evidentiary record before the Department regarding this lease application includes five exhibits

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<sup>1</sup> Applicant originally requested 8.33 acres and the Department verified the coordinates and determined the site is 8.26 acres. The acreage was reduced by 0.245 acre, at the suggestion of the applicant, for the reasons described in section 3.C of this decision.

introduced at the hearing (see exhibit list below), and the record of testimony at the hearing itself. The evidence from these sources is summarized below.<sup>2</sup>

### **LIST OF EXHIBITS**<sup>3</sup>

1. Case file
2. Application
3. DMR site report
4. Report titled: Assessment of Environmental Impacts of Oyster Aquaculture in New England Waters: Objective 3.
5. DMR Map of Proposed Lease Site

## **2. DESCRIPTION OF THE PROJECT**

### **A. Site Characteristics**

On April 5, 2018 DMR staff assessed the proposed lease site and the surrounding area in consideration of the criteria for granting a standard aquaculture lease. The proposed lease site occupies subtidal waters on both sides of the navigational channel in the upper Damariscotta River. Proposed Tract 1 is comprised of 6.23 acres, and located to the west of Goose Ledges near the eastern shore of the Damariscotta River. Docks and houses are located on the forested upland to the north of Tract 1 (SR 2). Proposed Tract 2 is comprised of 1.77 acres and is located near the western shore of the Damariscotta River. The uplands to the west of Tract 2 contain a mixed forest and several houses (SR 2). At mean low water, the distance from corner 1 of Tract 1 to the nearest mainland is ~105 feet (SR 8). At mean low water, corner 15 of Tract 2, is ~100 feet to the western shore of the Damariscotta River (SR 8). Tracts 1 and 2 are ~155 feet apart as measured from the western boundary of Tract 1 and the eastern boundary of Tract 2 (SR 9). At low water with a tidal height of 0.20 feet, depths at the center of Tract 1 were recorded at 9.5-10 feet; and ranged between 7-9 feet at the center of Tract 2 (SR 2).

The bottom of proposed Tract 1 is comprised primarily of firm mud and sand with shell hash observed (SR 2). The bottom of Tract 2 is characterized by gravelly, sandy mud with woody debris observed (SR 2). The proposed lease is an area currently classified by the Department's Water Quality Classification program as "open/approved for the harvest of shellfish" (SR 14).

### **C. Proposed Operations**

Proposed Tract 2 is adjacent to the southern boundary of the northern most portion of DAM GL2; and proposed Tract 1 is adjacent to the western side of DAM GL3. DAM GL2 and DAM

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<sup>2</sup> In references to testimony, "Smith/Jones" means testimony of Smith, questioned by Jones.

<sup>3</sup> Exhibits 1, 2, and 3 are cited below as: Case file – "CF"; Application – "App", site report – "SR". Other exhibits are cited by number.

GL3 are standard leases held by Pemaquid Oyster Company for the culture of shellfish.<sup>4</sup> The proposed tracts are intended to help improve farm management and reduce the density of oysters on the applicant's existing lease sites (Davis/Nelson). The proposed lease area will contain no gear, except for marker buoys. Seed oysters will be planted on a rotational basis in the fall (App 6). Harvesting will occur one to two years after seeding, when the oysters reach market size (App 6). Oysters will be harvested twice a week from April through December using a chain-sweep drag towed by a lobster boat (App 6). Given the rotational nature of seed planting, harvesting will occur on different sections of the tracts in cycles of once every two to three years (App 7). Harvested oysters will be transferred to the applicant's wet storage rafts in Clarks Cove (App 7). Although the application lists European oysters (*Ostrea edulis*), hard clams (*Mercenaria mercenaria*), Atlantic surf clams (*Spisula solidissima*), and razor clams (*Ensis directus*), Mr. Davis testified that there are no established plans to cultivate those species (Davis/Drury).

### **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 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**

Most of the proposed lease is in shallow waters that border the main navigational channel (SR 9). However, the western boundary of Tract 1 and the eastern boundary of Tract 2 extend into the main navigational channel (SR 9). Per the site report:

Except for times when harvest is occurring via boat drawn drag, it is unlikely that navigation will be impacted by the proposed lease since no gear, other than marker buoys, would be present. When harvest via drag is conducted on the lease, navigation in the area may be altered but will not be prevented (SR 9).

Dragging would only be conducted twice a week from April through December (App 6). Mr. Bryant indicated in a letter to the Department that he approved of the applicant's proposal.<sup>5</sup> At the

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<sup>4</sup> DAM GL2 is 1.8 acres for the suspended/bottom culture of shellfish. DAM GL3 is 10.14 acres for the bottom culture of shellfish.

<sup>5</sup> CF: See last page of original application.

public hearing, Mr. Bryant and members of the public did not raise concerns about the effects the proposed site may have on navigation.

Based on the evidence, it is reasonable to conclude that navigation in the area will not be unduly affected by the presence of the proposed lease site.

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

### **B. Riparian Access**

During the April 5, 2018 site visit, staff observed houses, stairways leading down to the shoreline, and docks to the north of Tract 1 along the eastern shore of the Damariscotta River (SR 8). The closest dock is ~210 feet to the north of the proposed lease site (SR 8). Given the time of year, the ramp and float were not installed, so any vessels associated with the property were not observed (SR 8). A stairway leading down to the shoreline is located next to the dock and is ~205 feet to the north of proposed site (SR 8). DMR staff observed a kayak next to the stairway, which suggests riparian landowners launch hand-carry vessels from the shoreline (SR 8). Multiple residences were observed along the western shoreline of the Damariscotta River, which is nearly parallel to Tract 2 (SR 8). At the time of the site visit, no docks or stairways were observed along the western shoreline near the proposed lease site (SR 8).

Per the site report:

It is unlikely that the proposed lease will interfere with riparian ingress and egress because no gear, other than marker buoys, will be present on either proposed tract. In addition to this, the distances available between riparian property and the proposed lease site are adequate for vessels that likely transit the area (SR 8).

At the hearing, members of the public did not raise concerns about the effects the proposed site may have on navigation.

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

### **C. Fishing & Other Uses**

The application indicates that “there is minimal commercial fishing within this site” (App 11). The applicant has observed one to two lobster and crab traps within the area. These traps are set infrequently during the summer months. Recreational hook and line fishing occurs in July and August (App 11). The applicants have observed two to four recreational fishing vessels in the area during July and August (App 11). Except for periods of time when the applicant is working on the proposed site, it is unlikely that the proposed lease would affect these activities since no surface gear is proposed (SR 9). During the site visit, staff observed a clam harvester digging in the intertidal flats to the west of proposed Tract 2 (SR 9). However, the proposed lease is subtidal so it “would not impede commercial and recreational harvesters from utilizing these shorelines on their

side of the river” (SR 9). During the review period and public hearing, the Department did not receive any comments regarding fishing.

The Department received a comment from Patricia Fales, a riparian landowner on Cottage Point. Ms. Fales indicated that her property is ~169 feet from the proposed lease site. Ms. Fales felt that the proposed lease site would interfere with her swimming, boating, canoeing, paddle-boarding, and rental business.<sup>6</sup> The comment noted that Ms. Fales had met with Mr. McKeen and Mr. Davis and that they agreed to reduce the northeast boundary of the proposed site to address her concerns. During the hearing, Mr. Davis referenced his meeting with Ms. Fales and proposed to reduce corner 1 of Tract 1 to accommodate water-related use of the area (Davis/Ellis). Ms. Fales attended the public hearing and she did not raise any concerns with Mr. Davis’ proposal. The figure below illustrates the proposed reduction.



**Figure 1:** Proposed reduction to corner 1 of Tract 1. Image generated by DMR staff.

Based on this evidence, it appears that reducing corner 1 of Tract 1 addresses Ms. Fales’ concerns related to other water related uses of the area. The Department will accept the modification to corner 1 of Tract 1. The modification to corner 1 reduces the size of the proposed lease by 0.245 acres. The revised coordinate for corner 1 of Tract 1 is: 44.017214 N and 69.543290 W (Exhibit 5).

<sup>6</sup> CF: Email from S. Gettenplan to A. Ellis dated June 26, 2018. The letter indicates that renters use Ms. Fales’ float and mooring.

**Exclusivity.** The applicant requests exclusive use of the proposed area for the bottom cultivation of shellfish (App 11). The applicant intends to allow other compatible uses within the boundaries of the proposed lease site. These uses include recreational fishing, lobster fishing, and crabbing (App 11).

**Other aquaculture leases.** The Department provided notice of the proposal to operators of aquaculture sites within 1,000 feet of the proposed area. There are four aquaculture leases within 1,000 feet of the proposed lease site (SR 10). Except for the existing leases held by the applicant, the closest lease site is ~571 feet to the north of the proposed area (SR 11). The lease is held by Mook Sea Farms and is for the cultivation of shellfish using bottom and suspended culture techniques.<sup>7</sup> The Department did not receive any comments from other lease holders in the area regarding this proposal.

At the time of the site visit and publication of the site report, there were eight Limited Purpose Aquaculture (LPA) licenses within 1,000 feet of the proposed lease area (SR 11). Four of the eight LPAs were held by Mary Steele for the bottom culture of American oysters (*Crassostrea virginica*). Two of Ms. Steele's LPA licenses were located within the boundaries of proposed Tract 2 (SR 10). After publication of the site report, Ms. Steele notified the Department of her intent to relinquish the LPA sites. On May 10, 2018, per Ms. Steele's request, the Department terminated all four of her LPAs.<sup>8</sup> As a result, there are now four active LPA sites within 1,000 feet of the proposed site, which are all held by Christopher Dickinson for the suspended culture of shellfish. Mr. Dickinson was notified of the proposal and did not submit any comments regarding the proposed operations. Based on this evidence, it appears that the proposed lease will not unreasonably interfere with other aquaculture activities in the area.

**Therefore**, given the modification to corner 1 of Tract 1, the aquaculture activities proposed for this site will not unreasonably interfere with fishing, existing aquaculture operations, or other water related uses of the area.

#### **D. Flora & Fauna**

**Site observations.** During the site visit, Department staff observed several species of marine flora and fauna including Filamentous algae (*Ectocarpus/Cladophora*), sponge (Phylum *Porifera*), and hermit crab (*Pagurus sp.*) (SR 11).<sup>9</sup> Department staff also observed bald eagles (*Haliaeetus leucocephalus*), herring gulls (*Larus argentatus*), and a common loon (*Gavia immer*) (SR 13). Based on data collected by the Department, in 2005, eelgrass (*Zostera marina*) was observed over 3,000 feet to the south of the proposed lease site. (SR 13). No eelgrass was observed within the boundaries of the lease site during the Department's site assessment (SR 13).

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<sup>7</sup> DAM EL3: 15.17 acres

<sup>8</sup> CF: Email from F. Drury to M. Steele terminating LPA sites MSTE116, 216, 316, and 416.

<sup>9</sup> For a complete list of observed species and their relative abundance see pages 11-12 of the site report.

The Department received a comment from Susan Barbera, who supports the proposed lease, but Ms. Barbera was concerned about the effects harvest by drag might have on the river.<sup>10</sup> Ms. Barbera did not attend the hearing, but the applicants addressed her concerns in their testimony. Mr. McKeen noted that the drags pick up bottom sediment including rocks and mud. Based on his experience dragging on the adjacent lease sites, and studies of dragging within the Damariscotta River, Mr. McKeen noted that most of the sediment resettles on top of the existing oyster beds (McKeen/Ellis). The current may carry a small amount of sediment off the existing lease sites, but it resettles nearby (McKeen/Ellis). Mr. Davis also submitted a report that assessed the impacts of oyster aquaculture on benthic infaunal, epifaunal, meiofaunal, and macrofaunal communities and habitats (Exhibit 4). The study examined existing Pemaquid Oyster Company lease sites within the Damariscotta River (Exhibit 4). As Mr. Davis noted, the study found higher biodiversity on the oyster farm than off the oyster farm, because of the habit oysters provide for other marine organisms and the capacity of oysters to filter nitrogen (Davis/Ellis).

**Fisheries & wildlife.** Data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIF&W) indicate that most of Tract 1 is located within a mapped habitat that contains a bald eagle nest (SR 13). The applicant acknowledged the nest and indicated that “the nest has been active for at least a decade and the birds have never show signs of avoidance” (App 9). Intertidal areas to the east and west of the proposed site are designated, by MDIF&W, as Tidal Wading Bird and Waterfowl Habitat (TWWH) (SR 13). TWWH is defined as Significant Wildlife Habitat under Maine’s Natural Resources Protection Act (SR 13). DMR sent a copy of the lease application to MDIF&W for their review and comment. MDIF&W indicated that: “minimal impacts to wildlife are anticipated.”<sup>11</sup>

Based on this evidence, it appears that the proposed 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**

At mean low water, Goose Ledges is located less than two feet from the east of the proposed lease site (SR 14). Goose Ledges is classified as a “Coastal Island” and is managed by MDIF&W (SR 14). During the review period, MDIF&W did not submit any comments about Goose Ledges. The proposed lease is not within 1,000 feet of any other beach, park, docking facility, or conserved lands owned by federal, state, or municipal governments (SR 14).

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

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<sup>10</sup> CF: Email from Susan Barbera to C. Burke dated July, 2, 2018.

<sup>11</sup> CF: Email from J. Perry to C. Burke dated November 27, 2017.

#### **F. Source of Organisms**

The application indicates that the source of stock for this proposed lease site is Muscongus Bay Aquaculture located in Bremen, Maine and Mook Sea Farm located in Walpole, Maine (App 1).

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

#### **G. Light**

The application indicates that no lights will be used at the proposed lease site and operations will take place during daylight hours (App 7). Night work would only occur in case of emergency (App 7).

**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**

A fishing boat powered by a muffled diesel engine will be used to plant and harvest oysters on the proposed site. Per the application, no other powered equipment will be used on the site (App 3). The use of a muffled diesel engine will help mitigate noise levels within the boundaries of the proposed site. Based on this evidence, it appears that any noise generated by operations on the site is unlikely to have a significant effect at the boundaries of the lease.

**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 applicant is proposing to bottom plant oysters. Except for required marker buoys, no gear is proposed for this site (App 3, SR 14).

**Therefore**, since there is a lack of surface equipment the proposed 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 of American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), hard clams (*Mercenaria mercenaria*), Atlantic surf clams (*Spisula solidissima*), and razor clams (*Ensis directus*) to be cultured for 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 requested lease of 8.02 acres to Pemaquid Oyster Company, Inc. for the cultivation of American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), hard clams (*Mercenaria mercenaria*), Atlantic surf clams (*Spisula solidissima*), and razor clams (*Ensis directus*) using bottom culture techniques. Per the applicant's request, the lease will be combined with DAM GL3, which expires on September 1, 2026. 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 \$500.00, 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).<sup>12</sup> Conditions are

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<sup>12</sup> 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 ecologically significant flora and fauna and preserve the exclusive rights of the lessee to the extent necessary to carry out the lease purpose."

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 conditions shall be incorporated into the lease:

- a. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.
- b. Other public uses that are not inconsistent with the purposes of the lease are permitted within the lease boundaries.

**7. REVOCAION OF LEASE**

The Commissioner may commence revocation procedures upon determining pursuant to 12 M.R.S.A §6072 (11) and DMR Rule Chapter 2.42 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: 7/10/18



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