

STATE OF MAINE  
DEPARTMENT OF MARINE RESOURCES  
Experimental Aquaculture Lease Application  
Bottom & suspended culture of American/  
Eastern oysters, off Bear Head, Bagaduce River,  
Brooksville

Frank & Tonyia Peasley,  
d/b/a/ Little Island Oyster Co.  
Leases BAG BH2 & BAG BH3  
Docket #2013-06E  
July 22, 2013

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

Applicants applied to the Department of Marine Resources (“DMR”) for a three-year experimental aquaculture lease on three tracts totaling 2.5 acres located in the coastal waters of the State of Maine, off Bear Head in the Bagaduce River in Brooksville, Hancock County, for the purpose of cultivating American or Eastern oysters (*Crassostrea virginica*), using bottom and suspended culture techniques. DMR accepted the application as complete on February 4, 2013. No public hearing was held on this application.

### **1. THE PROCEEDINGS**

Notice of the application, the DMR site report, and the 30-day public comment period were sent to state and federal agencies which were requested to review the project, as well as to riparian landowners, the Town of Brooksville and its Harbormaster, members of the Legislature, representatives of the press, aquaculture and environmental organizations, and others on the Department’s mailing list. Notice of the application and comment period was published in the *Weekly Packet* on February 21, 2013. No comments were received by the Department.

The evidentiary record before the Department regarding this lease application includes the application and the Department’s site report dated May 31, 2013. The evidence from these sources is summarized below.<sup>1</sup>

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

#### **Site Characteristics**

The proposed lease is located in the Bagaduce River, south (upriver) of the Rte 175-176 bridge. It consists of three tracts totaling 2.5 acres. The applicants own Scott’s Island and conduct their aquaculture operation from their work floats located there. Access to the tracts will be gained from Scott’s Island and from the public access area at the Bagaduce (Rte 175-176) Bridge (App 1).

According to the application:

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<sup>1</sup> The application and site report are cited as “App” and “SR” with page numbers.

Shoreline is rocky, while upland consists of a narrow tree line and fields. The tide moves approximately 2 feet from high to low water. The current flow is tidal and runs east to west on Tract 1 and 2. The current flow on Tract 3 is more north to south. No eelgrass has been observed in proposed tracts. (App 2).

**Tract 1** (0.184 acres) occupies virtually all of “a small shallow cove” between the east side of Scott’s Island and Bear Head to the east. Water depths in the cove are 1-8 feet, depending on tidal stage (SR 5). Tidal flow in and out of the cove is “restricted by a ledge and rock outcropping. Near shore shallow areas of Tract 1 could be observed through the water” (SR 5). “The area is largely restricted for any through-navigation as the northern extent of the ‘cove’ is blocked by rocks and ledges” (SR 3). “Current velocities in this area likely scour and disperse finer bottom sediments” (SR 5).

According to the application, the bottom of Tract 1 is hard gravel (App 2). The application states:

This area seems ideal for several reasons. Water depth will allow for hand harvesting and tidal flow restricts ice formation in the winter. The current flow in this area is tidal. On flood tides it can run 1 knot or less. Proximity of Tract 1 to our island will allow for ease of access and maintenance (App 2).

**Tract 2** (0.153 acres) is located in the river west of Scott’s Island, near the applicants’ work float. It has water depths of 1-8 feet, depending on tidal stage (SR 4). This tract is located just west of a point where the Bagaduce River narrows between Bear Head to the south and a small peninsula to the north. The site report describes the effect of this narrowing as follows: “Water is constrained though the 200 foot wide opening which undoubtedly leads to higher current velocities and bottom scouring resulting in a gravel base” (SR 5).

According to the application,

The tract requested runs adjacent to applicant’s work floats. ... This location seems ideal for tray rack culture due to the hard rocky bottom, current flow and the deeper water. There are areas in this location where free planting may be tried (App 3).

**Tract 3** (2.171 acres), located east of Bear Head, has 6-24 feet of water, depending on tidal stage. “A shallow area of ledge extends from the eastern shoreline toward the proposed lease tract” (SR 4). The bottom “consists of grape-sized to softball-sized gravel with the occasional rock outcrop rising 3-5 feet off the bottom” (SR 5). According to the application, this tract “follows the edge of the river’s channel” and “seems ideal for tray rack culture due to the hard gravel bottom, current flow and the deeper water. There are areas of mud in this location where free planting may be tried” (App 3). The application states that a DMR water test buoy is currently located on Tract 3; the applicants can work around it, if the Department does not relocate it (App 3).

All tracts of the proposed lease are in an area currently classified by the Department of Marine Resources Water Quality Classification program as “open/approved for the harvest of

shellfish” (SR 5). An area classified as “restricted” (Area 36-B (A2)) is located approximately 75-125 ft. east of Tracts 1 and 2. Tract 3 is located approximately 200 ft. south of this restricted area (SR 5).

### **Proposed Operations**

According to the application (App 4), the three tracts of the proposed lease will be used for commercial research to evaluate the commercial viability of different growing and harvesting techniques and different growing locations. The applicant expects to grow “no more than one million oysters” on the proposed lease tracts (App 1).

Oysters will be grown out to market size after initially being raised from seed on the applicants’ nearby lease, BAG BH. Oysters will be free-planted on the bottom where depths and bottom are suitable and will also be contained in cages set on the bottom in areas of deeper water. Cages are made of 1”x 1” plastic-coated wire mesh and are 2’ x 4’ x 6” high. They will be deployed as single cages or in stacks of 2- 4 cages, depending on water depths. Cages will be marked by buoys at the surface (App 4-8).

On Tract 1, the applicants plan to free-plant oysters on the bottom, using cages on the bottom as an alternative “if the free planting doesn’t work due to oyster mortality” (App 4). Up to 100 cages would be stacked one or two high, where depth is adequate. No rope, buoys, or anchors (other than boundary marking buoys) will be used on Tract 1, “as the water clarity and depth allows for direct access” to the cages (App 4).

On Tract 2, the applicants propose to use both free planting and cages (App 3, 5). On Tract 2, maximum capacity for cages is 3 rows of 18 stacks, 1-3 cages high, spaced 8-10 ft. apart, with approximately 10 ft. between rows. Each row of cages would be approximately 60 feet long, running west to east. The application states:

With the grow-out cages, the only surface gear would be buoys marking the start and end of a run of cages. The cages would sit on the bottom, deployed at 10 ft. intervals and would never be visible (App 5).

Tract 3 would be used for bottom cages and free planting. Maximum capacity for cages on Tract 3 is 18 rows of 42 stacks, 1-4 cages high, spaced 8-10 ft. apart, with approximately 10 feet between parallel rows. Rows would be approximately 100 ft. long, running north to south. According to the application,

In areas with adequate depths, we would stack the cages up to 4 high. Stacks of cages will be deployed in lines running adjacent with the channel in a north to south direction. With the grow-out cages, the only surface gear would be buoys marking the start and end of a run of cages. The cages would sit on the bottom, deployed at 10 ft. intervals and would never be visible (App 7).

On Tracts 2 and 3, each stack of cages will be tied with sinking rope to a “main line,” also of sinking rope, running at least 4 ft. below the surface. The main line will be attached by 5/8” sinking rope to both a surface buoy and to a 100-lb. granite mooring at each end. According to the application, “All rope used will be sinking to allow for any boat to navigate this area” (App 5, 7). No gear will be visible at the surface except buoys on Tracts 2 and 3 (App 5, 7).

The number of cages ultimately used will depend on how well the oysters grow (App 4- 7). The cages will be hauled into the applicants’ boat when needed. Bottom-planted oysters will be harvested by hand, using scrapers or rakes, or by diving. The work of grading oysters and readying them for market will take place on the applicants’ work float at Scott’s Island, near Tracts 1 and Tract 2 (App 5-7). The applicants’ plan for overwintering is as follows: “The oysters would remain in the cages/bags that they are placed in for growout. We would not consolidate or remove the gear for the winter. All buoys except boundary markers would be removed before ice sets in.”<sup>2</sup>

### **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 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, 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. Riparian Access**

The site report states:

The proposed lease activities are for bottom culture (direct seeding of shellfish to the bottom) and suspended culture (shellfish placed in bags or cages on the bottom). Because there would be nothing at the surface to interfere with movement over the water’s surface no restriction to riparian access is anticipated (SR 3).

No riparian land, other than that of the applicants, will be used for access to the proposed lease tracts, all of which are subtidal (App 1). Where cages are used, the main line to which they are tethered will be at least 4 feet below the surface. Tract 1 borders the applicants’ shore to the west and Bear Head to the east; it is located in a small, shallow cove not likely to be used for shore access. Tract 2 lies close to the applicants’ shore on the east, with 130-290 feet between it and the opposite

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<sup>2</sup> E-mail from Tonyia Peasley to Diantha Robinson, July 3, 2013.

shore. The side of Tract 3 closest to Bear Head lies 85 -110 feet from shore. Activities on the tracts will not hamper access to and from the shore.

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

### **B. Navigation**

According to the application, "There are no navigational uses of proposed area. Recreational use in summer is minimal and consists of light kayak, canoe and small outboard boat traffic. In the fall, duck hunters also use the river" (App 2).

The site report describes navigation in the vicinity of the proposed lease site as follows:

Tract 1 is located to the east of Scott's Island with water depths ranging between 1-8 feet depending on tidal stage. The area is largely restricted for any through-navigation as the northern extent of the "cove" is blocked by rocks and ledges.

Tract 2 is located to the west of Scott [sic] Island in water depths ranging from 1-8 feet depending on tidal stage. Approximately 125 feet of navigable water would remain to the north of the proposed lease tract allowing for unimpeded navigation through the area.

Tract 3 is located to the east of Bear Head in waters ranging from 6-24 feet depending upon tidal stage. With all gear on the bottom, sufficient waters depths would exist for navigation through the proposed lease tract. A shallow area of ledge extends from the eastern shoreline toward the proposed lease tract. At low water vessels would likely have to travel over the proposed lease tract to avoid these rocks.

In tracts 2 and 3, if harvesting were occurring, sufficient water would exist for vessels to navigate around the harvesting vessel (SR 3-4).

Bottom-planted oysters will not affect navigation. All cages will be over 4 ft. below the surface and will be marked by buoys, as well. Given the small boats that navigate this portion of the Bagaduce River, it appears from this evidence that navigation in the area will not be hampered by the aquaculture operations on the proposed lease tracts.

**Therefore, I find** that the aquaculture activities proposed for this site will not unreasonably interfere with navigation. The lease site must be marked in accordance with U.S. Coast Guard requirements.

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

The site report notes that

On May 13, 2013 no fishing activities were observed during the site visit. No commercially harvestable resources exist in the area. Some recreational fishing for striped bass likely occurs in the area. Some potential for snagging the oyster aquaculture gear may exist. Some winter smelt fishing purportedly occurs in the vicinity of the proposed tract 3 (SR 4).

Marking the lease boundaries will alert fishermen to the presence of the aquaculture activities. It appears from this evidence that the proposed lease site is unlikely to affect fishing in the area to any significant degree.

**Exclusivity.** The application states: “There is no need to restrict recreational fishing or any current form of navigation including kayaking, canoeing or other small boats in these proposed tracts. It is asked that no one else be permitted commercial use of the requested sites” (App 2).

This request is reasonable to allow the project to be carried out. Therefore, the following conditions will be placed on this lease:

- Navigation and recreational fishing will be permitted in the leased areas.
- Commercial fishing and shellfish harvesting will be prohibited in the leased areas by those other than the lessees or their authorized agents.

**Other aquaculture leases.** The nearest aquaculture lease site to the proposed tracts is the applicants’ lease BAG BH, approximately 660 feet to the southwest (SR 4). One other lease and three limited-purpose aquaculture (LPA) license sites are located approximately 3,800 feet to the west; five limited-purpose license sites are located well to the east of Tract 3, in the upper reaches of the Bagaduce River. All of these sites are authorized for the culture of oysters; some are authorized to raise other shellfish and/or marine algae. According to the site report, “The proposed activities are unlikely to impact existing aquaculture operations in the area” (SR 4).

Based on this evidence, it appears that the proposed lease will not unreasonably interfere with fishing or other uses of the area. The lease must be marked in accordance with DMR Rule 2.80<sup>3</sup>

**Therefore, considering the number and density of aquaculture leases in the area, I find** that the aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area. Navigation and recreational fishing will be permitted on the lease site. Commercial fishing and shellfish harvesting by those other than the lessees or their authorized agents will be prohibited. The site must be marked in accordance with DMR and U.S. Coast Guard requirements.

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<sup>3</sup>**2.80 Marking Procedures for Aquaculture Leases**

1. When required by the Commissioner in the lease, aquaculture leases shall be marked with a floating device, such as a buoy, which displays the lease identifier assigned by the Department and the words SEA FARM in letters of at least 2 inches in height in colors contrasting to the background color of the device. The marked floating device shall be readily distinguishable from interior buoys and aquaculture gear.
2. The marked floating devices shall be displayed at each corner of the lease area that is occupied or at the outermost corners. In cases where the boundary line exceeds 100 yards, additional devices shall be displayed so as to clearly show the boundary line of the lease. In situations where the topography or distance of the lease boundary interrupts the line of sight from one marker to the next, additional marked floating devices shall be displayed so as to maintain a continuous line of sight.
3. When such marking requirements are unnecessary or impractical in certain lease locations, such as upwellers located within marina slips, the Commissioner may set forth alternative marking requirements in an individual lease.
4. Lease sites must be marked in accordance with the United State’s Coast Guard’s Aids to Private Navigation standards and requirements.

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

DMR biologists conducted a site visit to the proposed lease site on May 13, 2013, as described in the site report. No underwater video was collected, but a SCUBA dive was conducted on Tract 3; tracts 1 and 2 were observed without diving.

As noted above, Tract 1 occupies a small, shallow cove with restricted tidal flow. Species observed include seaweeds *Fucus* and *Ascophyllum* spp.; fauna are likely horseshoe crabs and green crabs. One small clump of eelgrass (*Zostera marina*) less than one ft. in diameter was observed on this tract by DMR biologists (SR 5). Tract 2 likely has similar fauna (SR 5). Tract 3 contained the seaweeds *Fucus* and *Ascophyllum* spp., horseshoe crabs (*Limulus polyphemus*) and green crabs (*Carcinus maenus*) (SR 5). According to the application:

Alewives pass through the river and striped bass have occasionally been seen downriver. Seagulls, cormorants, great blue herons, ducks and geese are also seen in area (App 2).

In the Department's experience, bottom planting of oysters is generally benign in its effects on existing flora and fauna. Placement of cages on the bottom is not expected to adversely affect existing marine life, provided cages are not placed on patches of eelgrass.

The Department sent a copy of this lease application to the Maine Department of Inland Fisheries and Wildlife (MDIF&W) for their review and comment. No comments were received. Normally, MDIF&W comments on aquaculture applications when they have concerns about potential effects on wildlife. DMR interprets the absence of any comment as indicating that MDIF&W has no such concerns in this instance. The proposed lease site is not located within the boundaries of an area designated by MDIF&W as "Essential Wildlife Habitat."

Based on this evidence, it appears that the aquaculture activities proposed for this lease site will not interfere with the ecological functioning of the area.

**Therefore, I find** that 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**

According to the site report, "There are no public docking facilities or beaches within 1,000 feet of the proposed lease" (SR 5).

**Therefore, I find** that 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. Source of Organisms**

According to the application, seed stock for this proposed lease site will be obtained from Muscongus Bay Aquaculture in Bremen, Maine.

**Therefore, I find** that the applicant has demonstrated that there is an available source of American or Eastern oysters (*Crassostrea virginica*) to be cultured for the lease site.

#### **4. CONCLUSIONS OF LAW**

Based on the above findings, I conclude 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. The lease site must be marked in accordance with U. S. Coast Guard requirements.
3. 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. Navigation and recreational fishing will be permitted in the leased areas. Commercial fishing and shellfish harvesting will be prohibited in the leased areas by those other than the lessees or their authorized agents. The lease boundaries must be marked in accordance with the requirements of DMR Rule 2.80.
4. 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.
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 American oysters (*Crassostrea virginica*) 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 2.5 acres to Frank and Tonyia Peasley d/b/a Little Island Oyster Co. 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 applicant<sup>4</sup>; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.

This lease is granted to the applicant for the purpose of cultivating American/Eastern oysters (*Crassostrea virginica*) using bottom and suspended culture techniques. The applicant shall pay the

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<sup>4</sup> 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.”

State of Maine rent in the amount of \$100.00 per acre per year. Since this is an experimental lease with more than 400 sq. ft. of structures and no discharge, a bond or escrow account is required. The applicant shall post a bond or establish an escrow account pursuant to DMR Rule 2.64 (10) (D) in the amount of \$5,000.00, conditioned upon its 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 MRSA §6072-A (15)<sup>5</sup>. 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.

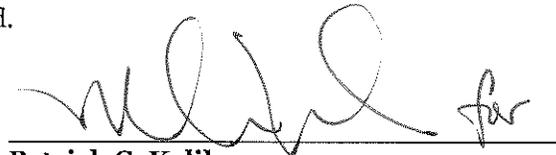
The following conditions shall be incorporated into the lease:

1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.
2. Navigation and recreational fishing are permitted in the leased areas.
3. Commercial fishing and shellfish harvesting are prohibited in the leased areas by those other than the lessees or their authorized agents.

#### **7. REVOCATION OF LEASE**

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: 7.22.13



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

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<sup>5</sup> 12 MRSA §6072-A (15) provides that:

“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. The commissioner may grant the lease on a conditional basis until the lessee has acquired all the necessary federal, state and local permits.”