

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
Experimental Aquaculture Lease Application
Suspended and bottom culture of shellfish in Ewin
Narrows, Harpswell

Jason Field
HARP EN1
Docket # 2010-01E

June 24, 2010

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

On February 23, 2009, the Department of Marine Resources (“DMR”) received an application from Jason Field for a three-year experimental aquaculture lease on 2.37 acres located in the coastal waters of the State of Maine, in Ewin Narrows, north of Harpswell Sound in Casco Bay in the Town of Harpswell in Cumberland County, for the purpose of cultivating American oysters, *Crassostrea virginica*, and European oysters, *Ostrea edulis*, using suspended and bottom culture techniques. The application was accepted as complete on January 20, 2010 and was advertised for a 30-day public comment period in the Brunswick *Times Record* on March 11, 2010. No one intervened in this case, and no comments or requests for a hearing on this experimental lease were received. The Department chose not to hold a hearing.

1. THE PROCEEDINGS

The evidentiary record before the Department regarding this lease application includes the application and the Department’s site report, dated May 19, 2010¹. Notices and copies of both of these documents were sent to numerous state and federal agencies for their review, as well as to various educational institutions, aquaculture and environmental organizations, the Town of Harpswell and the Harpswell Harbormaster, members of the Legislature, representatives of the press, riparian landowners, and private individuals.

2. DESCRIPTION OF THE PROJECT

Proposed Operations

The applicant proposes to cultivate American and European oysters. As the site report describes it, he is proposing “primarily bottom culture (oysters freely planted on the bottom) with a small area dedicated to a floating nursery in the shallower near-shore waters” (SR5).

¹ Cited, with page references, as “A2” or SR7”.

He will set out up to 100,000 seed oysters each year in twelve mesh ADPI bags². The application refers to these bags as “plastic crates”. The bags will be moored in a 50 ft. by 25 ft. area near the western boundary of the lease site (A3, 6, 19-24). In winter, the bags will be dropped to the bottom, where they will be covered by a minimum of five feet of water (SR2).

In the second year of the lease, if the first year’s oysters are not large enough to plant on the bottom, the applicant will deploy a second set of twelve bags, or a maximum of twenty-four bags in all. Once the oysters grow large enough, they will be free-planted on the bottom to grow to market size. They will be hand-harvested by divers. Should the ADPI bags prove not to be strong enough, the applicant will put them inside of “metal crates”, which are containers made of lobster trap wire measuring 4 ft. by 2 ft. by 8 in. high.³

The rows of gear will be moored at each end with 75-lb.⁴ mushroom anchors attached to 10 ft. of 3/8 in. galvanized chain and 25 ft. of nylon line attached to the gear at the surface, plus a marking buoy (A6, 7).

Site Characteristics

The proposed lease site is located parallel to and approximately 80 ft. east of the western shore of Ewin Narrows and at least 500 ft. from the eastern shore of the Narrows at mean low water (SR5). The lease tract is an irregular, 2.37-acre, four-sided plot with the longer axis running north to south. Water depths at the site range from a minimum of 6.3 ft. to a maximum of 15.5 ft. at mean low water (SR2). The adjacent western shore is rocky with residential development in the upland. The bottom is generally mud, sloping steeply down to the east and the scoured channel. The bottom of the lease site itself is scoured with a mix of sand, gravel, and cobble. The DMR Public Health Division classifies the water at the site as “Approved” for the harvest of shellfish (SR6).

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 if s/he determines 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

² Given the applicant’s comments on the proposed decision that he will use two rows of six bags, the reference to the layout of the bags in three rows of four has been removed (CF, letter received June 17, 2010).

³ In his comments on the proposed decision, the applicant indicated that he would not need to use the metal crates mentioned in the application, as the ADPI bags are sufficiently strong (Ibid).

⁴ The applicant also commented that he would increase the size of the anchors to 75 lbs. from the 50-lb. size stated in the application (Ibid).

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 proposed lease site lies roughly parallel to the western shore, sloping outward slightly, so that between the shore and the site there is about 80 ft. of water at the northwest corner and about 140 ft. of water at the southwest corner. There is approximately 450 ft. of navigable water (deeper than 10 ft.) between the east side of the site and the eastern shore of Ewin Narrows (SR5).

The western shore of the Narrows is relatively straight, with two docks to the north of the site, the nearest being 125 ft. north of the lease site. Two moorings lie more than 118 ft. south of the site, while the applicant holds a mooring within the site boundaries (SR4). Other docks and moorings lie along the eastern shore of the Narrows, 500 or more ft. to the east.

The applicant proposes to deploy floating gear in a small portion of the lease, approximately 50 ft. by 25 ft. on the westerly side. Otherwise the lease will be used for bottom planting. The applicant's residence is on the shore immediately to the west of the lease.

The site report concludes (SR5) that "There is sufficient area to navigate around and through the proposed lease site. ... The proposed activities will not preclude riparian ingress and egress." The various illustrations in the site report also support this conclusion.

Based on this evidence, it appears that the lease activities will not hamper riparians' access to and from their property by water.

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

There is at least 500 ft. of open water between the lease site and the eastern shore of the Narrows, with water depths of 10 to 17 ft. at mean low water. Between the lease site and the nearest western shore lie a minimum of 80 ft. of water at mean low water (SR5).

Tidal mud flats lie farther to the north of the site, and a beach is located farther to the south. At the time of the site visit in May, DMR biologists observed only clam diggers in skiffs transiting the area. The report notes that frequent traffic by recreational and commercial vessels is expected, primarily in the main channel of Ewin Narrows to the east of the site (SR5).

Most of the proposed lease site will be used for bottom planting, which will not interfere with navigation (A3). The floating gear will occupy a small area in the shallower portion of the site nearer shore during the warmer months of the year. In winter, the gear will be dropped to the bottom, with a minimum of 5 ft. of water above it (SR2). According to the site report, this shallower area is out of the main navigational channel in Ewin Narrows and would be used mainly by local traffic (SR2-3). The site report notes, however, that "While the majority of vessel traffic

appears to occur beyond the boundaries of the proposed lease site, it would be prudent of the applicant to mark submerged gear” (SR5).

Since the applicant proposes to harvest oysters by diving, vessels in the vicinity will be required to maintain a safe distance from the divers, assuming that proper dive safety practices are followed and a dive flag is displayed (SR5).

The site report concludes that “There is sufficient area and water depth to traverse around the proposed structures and activities” (SR5).

It is apparent from this evidence that the lease will not interfere with navigation to any significant extent. There is ample room for navigation around the gear on the lease, and the site is located out of the channel. Gear that is submerged on the site must be marked so that boats can avoid it. Dive harvesting is a necessary activity to conduct on a bottom lease site and will not unreasonably interfere with navigation in the area.

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with navigation. The applicant will be required to mark any submerged aquaculture gear on the lease site.

C. Fishing & Other Uses

The site report notes that while no fishing was observed during the site visit, “Some lobster and crab fishing would be expected in the deeper hard gravel channel area during warmer months.” Clams are harvested on the flats to the north, but the lease is completely subtidal and will not interfere with clamming. The report concludes that the lease activities are compatible with “commercial trap and recreational hook and line fisheries” (SR5).

Exclusive Use. The applicant requests that dragging and diving for oysters and scallops be prohibited on the lease site. He notes that he has no objection to lobstering and other forms of fishing (A4).

Other aquaculture leases. According to the site report, the nearest aquaculture activity is an LPA license site (HER-1-09) in the New Meadows River, 3.4 miles to the northeast of the proposed lease site. There are no existing aquaculture leases or licenses in the Harpswell Sound area (SR5).

It is apparent from this evidence that the lease activities will not interfere with fishing. The request to prohibit dragging and dive harvesting (by others than the leaseholder) on the site is reasonable, given the nature of bottom culture. The site will not interfere with other aquaculture sites, since there are none in the vicinity. The lease must be marked in accordance with DMR Rule 2.80.⁵

⁵**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

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. Dragging and dive harvesting on the site by others than the leaseholder or his authorized agents will be prohibited.

D. Flora & Fauna

The site report notes that no Essential or Significant Wildlife Habitats are located in the vicinity of Ewin Narrows (SR6). Because of concerns that eelgrass (*Zostera marina*) might be growing on or near the lease site, DMR biologists deployed the remote operating vehicle (ROV) to view the sea bottom at the site and between the site and the western shore of the Narrows. The site report states, at page 6:

No eelgrass was observed within the boundaries of the lease site. Very light density eelgrass was observed approximately 15 feet from the northwestern portion of the proposed lease site. The proposed lease angles away from the shoreline as it moves southward, therefore the separation between the lease site and any eelgrass increases to approximately 75-100 feet at the south end. ... Eelgrass has been present, historically, in the shallows between the proposed lease site and the adjacent shoreline (Maine Department of Marine Resources data, 2001). The proposed activities will be located beyond the documented historical extent of eelgrass in the area.

Based on this evidence, it appears that the lease will not interfere with any protected species of flora or fauna.

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 government-owned beaches or docking facilities located within 1,000 ft. of the proposed lease site (SR6).

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.

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 (A1), the source of stock will be Beals I. Shellfish Hatchery in Beals, Maine, or Muscongus Bay Aquaculture in Bremen, Maine. Marshall Point Sea Farm is also listed on the application, but to the Department's knowledge is no longer in operation.

Therefore, I find that the applicant has demonstrated that there is an available source of American oysters, *Crassostrea virginica*, and European oysters, *Ostrea edulis*, 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 shall be marked in accordance with U. S. Coast Guard requirements. The applicant must mark any submerged aquaculture gear on the lease site to alert vessels to its presence.

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. Fishing, including lobstering, will be allowed on the lease site, but dragging and dive harvesting on the site by others than the leaseholder or his authorized agents will be prohibited. 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*, and European oysters, *Ostrea edulis*, 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 2.37 acres to Jason Field 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 applicant⁶; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed. This limited-purpose (experimental) lease is granted to the applicant for the purpose of cultivating American oysters, *Crassostrea virginica*, and European oysters, *Ostrea edulis*, using bottom and suspended culture techniques.

The applicant shall pay the State of Maine rent in the amount of \$100.00 per acre per year. As this is an experimental lease with 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 \$ 1,500.00, conditioned upon his 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)⁷. 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 shall be marked in accordance with U. S. Coast Guard requirements. The applicant must mark any submerged aquaculture gear on the lease site to alert vessels to its presence.

⁶ 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.”

⁷ 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.”

2. Fishing, including lobstering, will be allowed on the lease site, but dragging and dive harvesting on the site by others than the leaseholder or his authorized agents will be prohibited. The lease boundaries must be marked in accordance with the requirements of DMR Rule 2.80.

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: 6/24/10

/s/ George Lapointe
George D. Lapointe (Commissioner)
Department of Marine Resources