

**STATE OF MAINE**  
**DEPARTMENT OF MARINE RESOURCES**  
Standard Aquaculture Lease Application  
Suspended & bottom culture of shellfish  
Meduncook River, Cushing, Maine

**Paul H. Farmer**  
Docket # 2009-16  
**Lease MED G13**

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

On March 19, 2009, the Department of Marine Resources (“DMR”) received an application from Paul H. Farmer of Cushing, Maine, for a standard aquaculture lease on 0.275 acres located in the coastal waters of the State of Maine, in the Meduncook River, west of Gay Island in the Town of Cushing in Knox County, for the purpose of cultivating blue mussels (*Mytilus edulis*), American/eastern oysters (*Crassostrea virginica*), sea scallops (*Placopecten magellanicus*), surf/hen clams (*Spisula solidissima*), soft-shell clams (*Mya arenaria*), and European oysters (*Ostrea edulis*) using suspended and bottom culture techniques. The application was accepted as complete on December 4, 2009. The site visit was conducted on June 18, 2010. A public hearing on this application was held on August 24, 2010 in Cushing, Maine.

### **1. THE PROCEEDINGS**

Notices of the hearing and copies of the application and DMR site report 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 Cushing and the Cushing Harbormaster, members of the Legislature, representatives of the press, riparian landowners, and other private individuals. Notice of the hearing was published in the *Village Soup* newspaper on July 20 and August 10, 2010 and in the *Commercial Fisheries News* August edition. No response was received from the Cushing Harbormaster to the questionnaire sent to him by the Department.

Sworn testimony was given at the hearing by the applicant, Paul Farmer, by aquaculturist Barrett Lynde, and by DMR Aquaculture Biologist, Marcy Nelson. Mr. Farmer described the proposed project. Ms Nelson presented the site report, including a video presentation showing the sea bottom on the site. Each witness was subject to questioning by the Department, the applicant, and members of the public. The hearing was recorded by DMR. The Hearing Officer was Diantha Robinson.

The evidentiary record before the Department regarding this lease application includes four exhibits introduced at the hearing (see exhibit list below) and the record of testimony at the hearing itself. The evidence from all of these sources is summarized below.

## **LIST OF EXHIBITS<sup>1</sup>**

1. Case file, #2009-16.
2. Application signed and dated March 11, 2009.
3. DMR site report dated June 29, 2010.
4. NOAA Chart # 13301, enlarged to show the area around the lease site.

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

### **A. Site History**

The applicant currently holds an experimental lease, MED GI2, originally granted in 2006, in the same location as the proposed lease. The proposed lease is identical in size to the existing experimental lease, and the aquaculture activities proposed for the standard lease will be similar to those conducted under the experimental lease.

Ms Nelson testified that in the time that Mr. Farmer has operated his existing lease, there have been no complaints about his operation and no issues requiring the Department to intervene.

### **B. Proposed Operations**

The applicant proposes to continue to grow mussels, American and European oysters, sea scallops, surf/hen clams, and soft-shell clams, using several cultivation techniques on a very small, intensively-developed site located along the western shore of Gay Island at the mouth of the Meduncook River. The site measures 150 ft. by 80 ft. On the surface, it contains a 40 ft. x 40 ft. mussel raft, a 16 ft. x 24 ft. work float, and an area of floating bags and trays. On the bottom it has wire cages with surface marker buoys, scallop fencing, and free-planted shellfish. This gear will continue to be used if the proposed standard lease is granted.

Mussels will be grown on lines suspended from the mussel raft. Surf/hen clams and soft-shell clams will be grown as seed in floating wooden trays and moved to floating mesh bags for grow-out. Scallops and oysters will be grown in wire mesh cages on the bottom, as well as being free-planted on the bottom. Bottom-planted scallops will be contained by scallop fencing (App, pp. 2, 5, 6). Detailed plans for the deployment of gear on this compact site are contained in the application.

Mussel culture has been the main focus of Mr. Farmer's work on his experimental lease and will continue to be the focus of operations under the proposed standard lease. Mr. Farmer collects mussel seed in early summer and socks it on grow-out ropes in the fall for harvest by hand the following fall and winter. Harvesting takes place when product is available, focusing particularly on winter holiday markets from December through February. Production at the time the application was submitted was 50 bushels annually. Estimated maximum production is 600 bushels. Mr. Farmer visits the site every few days, at least, if not every day, using either his 40-ft. fishing boat or his 17-ft. open boat (App, p. 5).

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<sup>1</sup> References to Exhibits 1 – 3 will be designated as: Case file – CF; Application – App; Site Report – SR.

### **C. Site Characteristics**

The proposed lease site lies just off the western shore of Gay Island in the Meduncook River, in the eastern part of the channel separating Gay Island from Morse Island to the west. The area around the site is classified by the Department as open to the harvest of shellfish. The site measures 150 ft. x 80 ft. The eastern boundary of the site lies approximately 300 ft. west of the upland shore of Gay Island and approximately 220 ft. from the nearest edge of the intertidal zone along the Gay island shore. Distance from the western side of the site to the west side of the main navigational channel is 1,138 ft. (SR, p. 5)

Water depth under the shellfish raft and work float at the site is approximately 23 feet at mean low water and 33 feet at mean high water. Currents are tidal, running northeast/southwest, and are affected and accelerated by a shallow bar lying to the west of the site. The bottom is composed of firm mud and sand, with occasional clumps of blue mussels (SR, pp.2-3).

Mr. Farmer testified that the site is well-suited for raising mussels, as it has ample water flow and abundant plankton in the water for shellfish, and it is located away from any developed land areas. He said that while few people are raising scallops on aquaculture sites in Maine, he is confident that he can collect seed scallops and grow them successfully. He will continue to operate the site as a small-scale sea farm. He has a wet storage permit to hold soft-shell clams for market.

### **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 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, 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 be in compliance with visual impact criteria adopted by the Commissioner relating to color, height, shape and mass.

#### **A. Riparian Access**

The applicant testified that while he has never seen the riparian landowners (other than the neighboring aquaculturist) use the adjacent shore for access, there is ample room for them to install a dock, should they choose to do so. Ms Nelson testified that 220 ft. of open water lie between the easterly side of the proposed lease site and the shore. The site report notes that the proposed lease site will not affect the existing moorings associated with the oyster farm that lies adjacent to the site and that it is unlikely that a new mooring would be sited near the proposed lease site (SR, p. 6).

The evidence shows that the site lies sufficiently far from the Gay Island shore to allow access to and from the shore by boat.

**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**

Barrett Lynde, owner of the neighboring aquaculture lease MED GI, testified that there is room for lobster boats to navigate between the east side of Mr. Farmer's proposed lease site and the nearby shore. Ms Nelson testified that boat traffic in the area stays to the west of the site in the main channel, where there is over 1,000 ft. of navigable water between the proposed lease site and the shore to the west. She noted that in the more than three years that Mr. Farmer has been operating his existing lease in this location the Department has received no complaints about it, and no issues have been brought to the attention of Maine Marine Patrol. At the time of the site visit on June 18, 2010, she discussed the site with a local lobsterman who said he had no concerns. In discussions at the pre-application meeting for this application, the Cushing Harbormaster explained that the existing lease was very carefully sited to avoid interfering with lobster fishing, which is a major activity in the surrounding waters.

Based on this evidence, including over three years' experience at the existing site with no problems, it appears that the proposed site in the same location will not interfere with navigation in the vicinity.

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

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

The site report notes that extensive lobstering was observed in the area, with 100–200 buoys in the channel to the west of the site, some of them very close to the lease boundaries. The report notes that the applicant has been operating in this location for over three years without any apparent conflicts with the lobster fishery. No other fishing activity was observed during the site inspection, but the report notes that recreational striped bass fishing is likely in the area, and scallop harvesting is possible (SR, p. 4). Mr. Farmer testified that he gets along well with other fishermen; he himself is a fisherman, in addition to operating his sea farm. As noted above, this site is extremely small and is located close to shore, next to a larger aquaculture site and out of the channel where most fishing activities are conducted.

Based on this evidence, it appears that the proposed lease site will not hamper fishing and other uses of the area.

**Other aquaculture leases.** According to the site report, there is only one aquaculture lease site nearby, MED GI, a lease for suspended culture of oysters located approximately 175 ft. southeast of the proposed lease site (SR, p. 7). The owner of that lease testified at the hearing in support of Mr. Farmer's proposal.

**Exclusive Use.** Mr. Farmer noted in the application that “Lobstermen will continue to be able to fish traps in the open areas of the lease” (App. p. 8).

While Mr. Farmer did not specifically request to exclude any other uses from the proposed lease site, it is apparent from the small size of the site and the intensive nature of his aquaculture activities there, including gear covering most of the surface and part of the bottom, as well as bottom-seeded shellfish, that almost any other use of the proposed lease site could interfere with and even damage the aquaculture operation. Therefore, the lease will prohibit dragging, diving, shellfish harvesting, and fishing other than lobstering and crabbing (which are done under a single license with similar gear) on the site except by the leaseholder and his authorized agents.

The lease must be marked in accordance with DMR Rule 2.80.<sup>2</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. The site must be marked in accordance with DMR requirements. Lobstering will be permitted in the open areas of the lease, but dragging, diving, shellfish harvesting, and fishing other than lobstering and crabbing will be prohibited on the site except by the leaseholder and his authorized agents.

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

According to maps issued by the Maine Department of Inland Fisheries and Wildlife, there are no essential habitats for endangered and threatened species or islands considered significant habitats for seabird nesting within one-quarter mile of the site (SR, p. 7). According to the applicant, there is no eel grass on the site, the closest eel grass being some 200 ft. away, nearer to shore (App., p. 2). The applicant has been conducting aquaculture at the site for over three years, and no problems with the site were noted in the site report.

Based on this evidence, it appears that the applicant’s operations are not interfering with the surrounding marine environment.

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#### <sup>2</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.

**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**

The report of the State Planning Office discloses no conserved lands within 1,000 ft. of the proposed lease site. All of the land on Gay Island within 1,000 ft. of the site appears to be privately owned; therefore there are no public facilities within that distance of the site.

**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 or certain conserved lands owned by municipal, state, or federal governments.

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

The application indicates that the sources of stock for this proposed lease site are as follows: Mussel seed will be collected on the site. Existing American oyster stock was purchased from Marshall Point Sea Farm, now defunct. In future, American oyster seed will be acquired from Muscongus Bay Aquaculture in Bremen, Maine. "European oysters, surf clams, and soft-shell clam seed will be purchased from a Maine hatchery when available" (App., p. 1).

The application indicates that scallop seed collection has been and will be conducted under a Special License from DMR to use spat bag seed collectors in Muscongus Bay. Mr. Farmer testified, however, that he has not renewed the Special License for collecting scallop spat, because the spat collection process is too costly. Instead, he has harvested legal-size wild scallops in season under his scallop harvester's license and placed them on his experimental lease site to continue growing.

Ms. Nelson testified that while season and size limits for harvesting shellfish do not apply to aquaculture lease sites, they do apply to harvest of wild shellfish, even when done by licensed aquaculturists. Thus, growing out legally-harvested wild scallops on an aquaculture site is legal. She noted that moving European oyster seed within the State of Maine requires a transfer permit from the Department because of concerns about disease transmission.

It is apparent from this evidence that the applicant has shown that there are sources of seed for the species he plans to cultivate.

**Therefore, I find** that 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 that night work would only take place in the event of an emergency (App., p. 7).

**Therefore, I find** that 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 application indicates that a 40-ft. lobster boat, a 17-foot skiff, and a gas-powered water pump will be the only powered equipment in use at the site. The equipment will be used only for seeding and harvesting, and the boat's engine will be shut off most of the time it is at the site (App., p. 7). This equipment is similar to that used by lobster boats in the surrounding waters and has been used at the site for over three years without complaint. It appears from this evidence that any noise generated by operations on the site is unlikely to have a significant effect at the boundaries of the lease.

**Therefore, I find** that 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 equipment and gear to be used on the site include a shellfish raft, a work float, floating mesh bags and wooden trays, and buoys marking the site boundaries and any submerged gear. According to the application, the rafts are the color of natural wood, the flotation is black, and ropes used at the site are in various colors. The experimental lease site is marked at four corners by orange low-drag buoys (App., p. 5). The site report notes that the rafts are similar to rafts commonly used in the area, and it is clear that this is true of the remainder of the gear. Based on this evidence it appears that the visual impact of the gear at the site will be minimal, as it is all gear that is commonly used in the surrounding area for other types of fishing and does not contrast with the surroundings, except for the site markers buoys, where contrast is reasonable.

**Therefore, I find** that the equipment, buildings, and watercraft to be used at 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:

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.

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. The lease boundaries must be marked in accordance with the requirements of DMR Rule 2.80. Lobstering will be permitted in the open areas of the lease, but dragging, diving, shellfish harvesting, and fishing other than lobstering and crabbing will be prohibited on the site except by the leaseholder and his authorized agents.

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 blue mussels (*Mytilus edulis*), American/eastern oysters (*Crassostrea virginica*), sea scallops (*Placopecten magellanicus*), surf/hen clams (*Spisula solidissima*), soft-shell clams (*Mya arenaria*), and European oysters (*Ostrea edulis*) to be cultured for the lease site.

7. The aquaculture activities proposed for this site will not result in an unreasonable impact from light at the boundaries of the lease site.

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

9. 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 0.275 acres to Paul H. Farmer for ten years for the purpose of cultivating blue mussels (*Mytilus edulis*), American/eastern oysters (*Crassostrea virginica*), sea scallops (*Placopecten magellanicus*), surf/hen clams (*Spisula solidissima*), soft-shell clams (*Mya arenaria*), and European oysters (*Ostrea edulis*) using suspended and bottom culture techniques. The applicant shall pay the State of Maine rent in the amount of \$100.00 per acre per year. The applicant 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 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 (7-B)<sup>3</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.

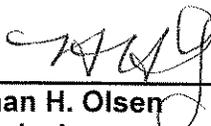
The following conditions shall be incorporated into the lease:

1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.
2. Lobster and crab fishing are permitted in the open areas of the lease.
3. Dragging, diving, shellfish harvesting, and fishing other than lobstering and crabbing are prohibited on the site except by the leaseholder and his authorized agents.

## 7. REVOCAION OF LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 MRSA §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: 2/28/2011

  
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Norman H. Olsen  
Commissioner  
Department of Marine Resources

<sup>3</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."