

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
Experimental Aquaculture Lease Application
Suspended culture of shellfish, Casco Bay

Trundy Point, LLC
CAS BASK
Docket # 2012-04E
September 24, 2012

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Trundy Point, LLC, a Maine corporation, applied to the Department of Marine Resources (“DMR”) for a three-year experimental aquaculture lease on 2.71 acres¹ located in the coastal waters of the State of Maine, east of Basket Island in Casco Bay, in the Town of Cumberland in Cumberland County, for the purpose of cultivating blue mussels (*Mytilus edulis*) American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), and sea scallops (*Placopecten magellanicus*) using suspended culture techniques. DMR accepted the application as complete on April 17, 2012. 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 Cumberland 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 *Portland Press Herald* on April 20, 2012. 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 June 19, 2012. The evidence from all of these sources is summarized below.²

LIST OF EXHIBITS³

1. Case file, # 2012-04E
2. Application signed and dated February 2, 2012
3. DMR site report dated June 19, 2012

2. DESCRIPTION OF THE PROJECT

¹ The application listed the size of the site as 2.75 acres, but the Department determined the size to be 2.71 acres.

² The application and site report are cited as “App” and “SR” with page numbers.

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

2. DESCRIPTION OF THE PROJECT

Proposed Operations

The applicant describes the project as an “experiment with catching mussel spat, growing mussels, as well as the grow-out of scallops and possibly oysters” (App 2).

Mussel production is the main focus of the project. Mussel spat will be caught on different types and lengths of rope, as an experiment to determine which types work best, with the expectation of catching two rafts-worth of seed at the site. If this does not happen, mussel spat will come from the Blue Hill Salt Pond in Blue Hill, Maine (App 4).

Mussel grow-out will take place on one or two 40' x 40' mussel rafts initially. The site is sized to accommodate up to six rafts in two parallel lines of three rafts each. Each raft can hold 150 to 200 dropper ropes 40 ft. long, each holding 100-400 lbs of mussels, up to a maximum of 100,000 pounds of mussels per raft, although the typical amount will be 50,000 to 60,000 pounds per raft. The applicant will experiment with different types, widths, and surface areas of rope for grow-out on the rafts. Another experiment involves suspending a single 25-ft. rope in a plastic container to grow 10-45 lbs of mussels (App 4).

Mussels will be harvested by raising the ropes from the raft onto a boat using a conveyor. Mussels will be cleaned and bagged on the boat and delivered to market, usually on the same day they are harvested (App 4).

Scallop spat will be wild-caught in Maine waters and grown out in mesh bags in wire cages suspended beneath the mussel rafts. Scallop culture is in its infancy in Maine, so techniques are still being developed; the applicant tentatively expects to culture an average of up to 500 scallops per cage in 12 cages, with a maximum of 6,000 scallops grown on the site. Experiments will be conducted with stocking densities, water depths, and lengths of time for scallop grow-out. Japanese lantern cages (multi-level net cylinders 10 ft. long by 2 ft. in diameter) will also be used to hold the mesh bags at multiple levels, suspended beneath the rafts (App 4).

Oysters will be grown similarly to scallops, using mesh bags inside wire cages suspended beneath the rafts at varying depths for varying lengths of time. The applicant expects to raise approximately 10,000 to 20,000 oysters per year. Seed oysters will come from the Mook Sea Farm hatchery in Walpole, Maine or the Muscongus Bay Aquaculture hatchery in Bremen, Maine (App 4).

Scallops and oysters will be harvested by winching the suspended cages aboard a boat and removing the shellfish, which will be rinsed and bagged either on the boat or at a HACCP-certified location on shore (App 4).

The application states that “We will access the site by our 43 foot lobster type boat or 27' skiff” (App 2). Work will be done at the site two to four days each week in daylight hours only. All seeding, harvesting, and tending of the site will be done from the surface of the rafts or from boats. No boats will be permanently moored at the site (App 5).

Structures deployed on the site will include up to six 40' x 40' mussel rafts arranged in two parallel rows of three rafts each, set 120 ft. apart and moored at the ends of each row to several 4,000-lb. concrete or granite blocks. The rafts in each row will be connected to each other with 10-ft. lengths of 1.5" polysteel rope. The mooring blocks will be attached to the rafts with 60 ft. of 1.75" Coast Guard chain and 180 ft. of 1.5" polysteel rope. According to the application, a similar mooring system for mussel rafts at the applicant's lease site a few miles away withstood the hurricane of 2011 (App 7, 11, 12, 13).

Site Characteristics

Department biologists visited the site on June 8, 2012 at low water (SR2). The site report states:

The applicant is requesting 2.71 acres for the suspended culture of blue mussels, eastern and European oysters and sea scallops. Mussels would be grown on ropes suspended from rafts and other shellfish would be contained in wire-mesh cages suspended under the rafts. In all cases, sufficient water depths are present to keep growing shellfish from coming in contact with the bottom (SR 2).

The proposed lease site is a 200' x 600' rectangle located approximately 700 feet to the east of Basket Island in subtidal waters approximately 42 feet deep at low water. "Tidal currents run to the northeast on a flood tide and to the southwest on an ebb tide; generally parallel with the proposed lease site" (SR2). The area is classified by the Department as "open/approved for the harvest of shellfish" (SR5).

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 proposed lease site lies approximately 700 ft. east of the shore of Basket Island, which is an undeveloped island. The site report notes:

The surrounding uplands are held in trust by the Chebeague and Cumberland Land Trust. There are no houses, docks nor moorings with which the proposed activities might interfere. No overnight camping is allowed on the island. The proposed lease site would not interfere with daytime access (SR 3).

The application states that “The applicant does not need access to the island for its use of the proposed site” (App 2). It goes on to note that the land trust allows daytime public use of Basket Island and that access is gained via the small beach on the east side, some 800 ft. west-northwest of the proposed lease site. Access to the beach is limited by ledges and shallow water to small, shallow-draft boats and the island is very lightly used, mainly in the summer. According to the application, there are multiple shallow areas and ledges between the proposed lease site and this beach area which serve as a barrier between the proposed lease site and the access point on Basket Island (App 5).

It is clear from this evidence that access to the shore of Basket Island is limited by shallow water and ledges and that the proposed lease operations some 800 ft. away will not interfere with the existing level of access to and from the island.

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

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

The proposed lease is located on the west side of a deep water channel between Basket Island to the west, Lower Basket Ledge to the east and Upper Basket Ledge to the north. The primary vessel traffic is likely to be to the west of Basket Island and to the east of Lower Basket Ledge; although some local traffic would certainly use the area of the proposed lease. If the lease were approved, approximately 880 feet of navigable water (30 feet deep or more) would remain between the lease boundary and Lower Basket Ledge.

According to Milton Calder, who returned the Harbormaster Questionnaire for the Town of Cumberland, when asked if this application would interfere with navigation in designated channels answered “no” (SR 4).

The application states “There is some recreational boating and fishing (as observed over the last several years) near to the proposed site. There might be one or two small craft (under 25’ in length) visits to the island in a week, but limited to July through early September. The proposed site will not interfere with public/recreational use to our [sic] around the Island” (App 4).

The application describes the many ledges located to the north, east, and southeast of the proposed lease site, as well as the ledges between the site and Basket Island to the west, all of which deter recreational boaters from the area. According to the application, as confirmed by the site report and the harbormaster, most navigation, particularly medium and large boats, takes place in the broad areas of open water to the north, east, and southeast of the site.

The evidence indicates that there is ample open water around the proposed lease site and that lease operations will not hamper 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

According to the site report, DMR biologists observed the following fishing activity in the vicinity of the proposed lease site during the site visit:

On June 8, 2012 no fishing activities other than the presence of lobster buoys in the area was observed. No lobster buoys were within the boundaries of the proposed lease area. Two trap buoys were observed between the proposed lease and Basket Island, three buoys were to the north of the site, one was to the south (within 20-30 feet) and approximately ten were between the proposed eastern boundary of the lease and Lower Basket Ledge.

The Harbormaster questionnaire returned by Mr. Calder characterized commercial fishing in the immediate area as "limited at best" (SR 4).

The application notes that some commercial lobstering occurs in the area around the proposed lease site but states that very little lobstering takes place from "late fall through the early summer" in the vicinity of the site. The application describes lobstering in the area as follows:

There is very little lobstering in the area of the site from late fall through the early summer. Over the last several months of this year and the winter months of last year we counted between zero and five lobster buoys within hundreds of yards of the proposed site. During the summer the lobstering in the area is heavier. At anyone [sic] time there might be half a dozen buoys in the general area. But the vast majority of lobster fishing is to the east of us by several hundred yards and on the southerly and westerly side of Basket Island. [W]e will make all reasonable efforts to work with fishermen so that they can lobster around and within the site as is appropriate" (App 5).

It appears from this evidence that fishing activity in the vicinity of the proposed lease site is generally light and that the presence of the mussel rafts will not interfere unduly with fishing there.

Exclusivity. The application notes that only a portion of the site will be occupied by the mussel rafts. Much of the site will be used for mooring gear, and the application states that fishing, including lobstering, can be conducted in these open areas, provided it does not interfere with the rafts, mooring lines, and mooring blocks. The application states,

We have successfully worked with lobstermen at another site, evidencing our ability to do this. We do request exclusive use of the space under our rafts to protect our grow-out dropper lines, bags and cages. We would also respectfully request exclusive use of a small distance around the rafts, approximately 30', to ensure the safety of our rafts and moorings from collision and fouling (App 6).

As noted under section 6 below, 12 MRSA §6072-A (15) authorizes the commissioner to place conditions on an aquaculture lease in order 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. This request is reasonable in order to permit the aquaculture operations to be conducted safely. Therefore, dragging will be prohibited on the lease site. Navigation and other forms of fishing will be permitted in the open areas of the site except for the area within 30 feet of the rafts and in the waters below them.

Other aquaculture leases. According to the site report, "The proposed activities are unlikely to impact existing aquaculture operations in the area" (SR 4). Those aquaculture lease sites are listed in the report as:

CAS LCI, ~ 1.8 miles to the southeast
CAS BA2, ~ 3.5 miles to the east.
CAS CF2, ~1.9 miles to the southwest.

Since the site report was prepared, an additional lease site has been granted in the area:

CAS CHEB, ~ 1.3 miles to the east

Nearer to the proposed lease site, three Limited Purpose Aquaculture (LPA) Licenses for the suspended culture of oysters are located ~300 feet to the northwest and southwest (GRE-1-05, GRE-2-06, GRE-3-10).⁴

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 will be prohibited on the lease site. Navigation

⁴ Although the application says that "aquaculture lease rafts" have been located on the proposed lease site for over four years (App 4), this is not the case. Mussel rafts were formerly deployed on LPAs GRE-1 and GRE-2; those sites were converted to oyster bags several years ago and are located some distance away. Thus, there is no history of mussel rafts being deployed on the site of the proposed lease.

and other forms of fishing will be permitted in the open areas of the site except for the area within 30 feet of the rafts and in the waters below them. The lease must be marked in accordance with DMR Rule 2.80.⁵

D. Flora & Fauna

Department biologists inspected the site and the surrounding area, but because the application is for an experimental lease, they did not dive on the site or collect underwater video. The applicant's consulting biologist, however, is an experienced shellfish grower who has dived on the site often; according to the application, he reported that

The bottom is quite soft and consists of a fine grain mud over the entire area. There is no significant variation in topography or bottom sediment over the site area. There is very little flora or fauna. There is no eel grass on the bottom. On occasion small lobsters or crabs will be observed (App 6).

The site report states that "Nautical charting characterizes the area as mud, sand, and gravel (MSG). Water depths are greater than sufficient light penetration to support aquatic vegetation in the proposed lease area" (SR 5). The application notes that tides run "generally NNE to SSW" at speeds of up to approximately 2 knots. "Due to the current and volume of water flow there is an abundance of nutrition in the water for shellfish" (App 6). The application also notes that there are no shellfish beds or fish migration routes in or near the proposed lease site.

Based on this evidence, it appears that installing up to six mussel rafts on the proposed lease site for the limited term of an experimental lease is unlikely to interfere with the limited amount of marine life in the area.

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 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

According to the site report, there are no government-owned beaches, parks, or docking facilities located within 1,000 ft. of the proposed lease site (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 (App 1, 3), the sources of stock for the proposed lease site will be:

- Mussels from natural set on the lease site or from the Blue Hill Salt Pond (Tightrope Sea Farms, Hancock, Maine);
- Oysters from hatcheries at Mook Sea Farms in Walpole, Maine and/or Muscongus Bay Aquaculture in Bremen, Maine;
- Sea scallops from Maine waters.

Several specific Department requirements apply to the use of stock from these sources:

- European oysters require a permit under DMR Rule Chapter 24.10 to be moved anywhere in Maine waters.
- American oysters from Mook Sea Farms require a permit under DMR Rule Chapter 24.10 to be moved from the hatchery on the Damariscotta River to any other location.
- Scallops of legal size can be harvested in season with an appropriate license and placed on the lease site.
- Scallop spat can be collected under a Special License from the Department.

Therefore, I find that the applicant has demonstrated that there is an available source of blue mussels (*Mytilus edulis*), American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), and sea scallops (*Placopecten magellanicus*) 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.

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. Dragging will be prohibited on the lease site. Navigation and other forms of fishing will be permitted in the open areas of the site except for the area within 30 feet of the rafts and in the waters below them.

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 oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), and Sea Scallops (*Placopecten magellanicus*) 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 2.71 acres to Trundy Point, LLC 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; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.⁶ This limited-purpose (experimental) lease is granted to the applicant for the purpose of cultivating blue mussels (*Mytilus edulis*), American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), and sea scallops (*Placopecten magellanicus*), using suspended culture techniques. The applicant shall pay the State of Maine rent in the amount of \$100.00 per acre per year. Because this is an experimental lease with structures covering more than 400 square feet of area and no discharge, a bond or escrow account is required under DMR Rule 2.64 (10) (D). The applicant shall post a bond or establish an escrow account in the amount of \$ 5,000.00, conditioned upon its performance of

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.”

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:

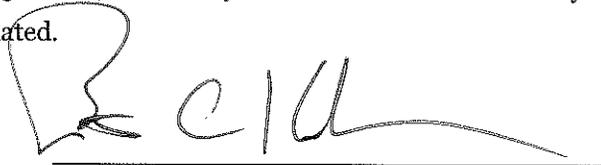
1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.
2. Dragging is prohibited on the lease site. Navigation and other forms of fishing are permitted in the open areas of the site except for the area within 30 feet of the rafts and in the waters below them.

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: _____

9/24/12



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

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.”