

STATE OF MAINE

DEPARTMENT OF MARINE RESOURCES

IN THE MATTER OF THE APPLICATION OF)	
TIM LEVESQUE FOR AN AQUACULTURE)	FINDINGS OF FACT,
LEASE LOCATED EAST OF GOOGINS LEDGE,)	CONCLUSIONS OF LAW
EASTERN BAY, BAR HARBOR, HANCOCK)	AND DECISION
COUNTY, MAINE)	

On October 6, 2004, Tim Levesque of Trenton, Maine applied for an aquaculture lease totaling 8.03 acres in the coastal waters of the State of Maine, located east of Googins Ledge in Eastern Bay, Bar Harbor, Hancock County, Maine. The applicant requested the lease for a term of ten (10) years for the purpose of cultivating blue mussels (Mytilus edulis) using suspended culture techniques. The application was accepted as complete on December 21, 2004. A public hearing on this application was held on October 13, 2005 at 6:00 p.m. in Bar Harbor.

Approval of aquaculture leases is governed by 12 M.R.S.A. §6072. This statute provides that a lease may be granted by the Commissioner of the Department of Marine Resources (DMR) if it is determined that, taking into consideration the number and density of aquaculture leases in an area, the project will not unreasonably interfere with the ingress and egress of riparian owners; navigation; fishing or other uses of the area; significant wildlife habitat and marine habitat or the ability of the site and surrounding marine and upland areas to support ecologically significant flora and fauna; or the public use or enjoyment within 1,000 feet of a beach, park, docking facility or certain conserved land owned by the Federal Government, the State Government, or a municipal governmental agency. 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.

Evidence Introduced Concerning the Nature

and Impact of the Proposed Lease

The evidentiary record before the Department regarding this lease application includes the Department file (Exhibit 1), including the application (Exhibit 2) and the Department site report (Exhibit 3), and the record of the October 13, 2005 public hearing. At the public hearing, testimony was given by the applicant, Tim Levesque, Carter Newell of Great Eastern Mussel Farms (GEMF), the Department's Aquaculture Environmental Coordinator, Jon Lewis, and several members of the public.

According to the application, the proposed lease is sought to raise blue mussels on a lease site totaling 8.03 acres, for a lease term of ten (10) years. The applicant testified that he currently operates an experimental aquaculture lease in the proposed lease area. The proposed lease activities would be conducted in the same manner as under the experimental lease and would consist of growing mussels on dropper ropes suspended from a maximum of six 40' x 40' rafts. Seeding takes place in October or May of each year and consists of using an AGUIN seed machine to attach the seed mussels to the rope with biodegradable cotton. Seeding one raft takes approximately 2-3 days. Harvesting the mussels involves lifting the ropes with a crane and basket and washing and grading the mussels. Harvesting one raft takes approximately 12 days, spread out over a six-week period. Approximately 1500 bushels of mussels are harvested from each raft. In addition, the site would be monitored 1-2 times per week. Carter Newell of GEMF testified regarding the work schedule on the lease site. He testified that GEMF buys the mussels from the applicant's experimental lease and therefore assists in the harvesting. When asked by a member of the public whether the work on the site could be limited to exclude weekends in the summer, Mr. Newell explained that Sunday harvesting is required by seafood dealers. He testified that they are considering the purchase of new equipment which could potentially eliminate the need for weekend harvests. In the meantime, he testified that they will minimize the activity level and noise as much as possible.

According to the application, a 70-foot fishing vessel "Thunder Bay" would be used for seeding and predator net maintenance and the barge "Mumbles" would be used for seeding and

harvesting. Both vessels are equipped with mufflers. Mr. Newell testified that the barge has recently been equipped with a new muffler which has reduced engine noise. The applicant does not plan to use lighting at the lease site other than required navigational lighting. According to the application, the rafts are constructed of black floats, wooden crossbeams and gray galvanized frames. The applicant testified that all seed mussels would be collected on the ropes on site.

In accordance with Department regulations, 2.10(3), the applicant provided an environmental characterization of the proposed lease area. According to this environmental characterization, the bottom of the proposed lease site consists of soft mud and sediments. Fauna consists of rock crabs, mussels, mud shrimp and eel holes. The water depths are estimated to be between 75 and 86 feet at mean low water. The current is estimated to be approximately 10 cm per second and flows in a north/south direction. Additionally, the proposed lease site is not located within an Essential Habitat. When questioned regarding a seagull entanglement in the predator netting observed by a member of the public at the experimental lease site, the applicant stated that he is trying different methods to deter seagulls from the rafts, including the use of a wooden bald eagle on the raft. Mr. Newell testified that in the last three years, working on 12 rafts at different sites, he has observed a total of 8-12 seagulls entangled in the predator netting. When questioned regarding the effects of bird feces on the mussels, the applicant testified that he is concerned with water quality and that the mussels are tested prior to being sold for human consumption.

According to the application, the proposed lease site is located over 2,500 feet from the nearest shore. Therefore, there are no property owners within 1,000 feet of the site. The primary navigation channel runs to the south of the proposed lease. According to the application, approximately 10-15 vessels pass within 500 feet of the proposed site daily in the summer months. The applicant testified that he has solar-powered navigational lights on his existing rafts and radar reflectors in the corner buoys marking the lease area. According to the

application, there are no known mooring owners, fishermen or draggers who actively use the proposed lease site.

The Department's Aquaculture Environmental Coordinator (AEC) conducted a site visit at the proposed lease area on June 30, 2005. During the site visit, a diver survey, utilizing an underwater video camera, was performed. The AEC created a site report summarizing the information obtained during the site visit and provided testimony regarding the site report at the public hearing. According to the AEC's report, the proposed lease is located east of Googins Ledge in water depths ranging from 72-82 feet at low water. The bottom of the proposed site is comprised of very soft sediments with no vegetation. Mysid shrimp and sand shrimp are the dominant species in the proposed lease area. According to the AEC, the epibenthic fauna observed under the existing mussel rafts on the experimental lease site is significantly different that elsewhere in the proposed lease. Sea stars and rock crabs are abundant, as they have moved in to take advantage of the mussel drop-off. No bacterial mats or anoxic sediments were noted. According to the AEC's report, the existing populations of crabs and sea stars may control the levels of organic buildup. Ecological change that includes a continued hardening of the bottom due to mussel drop-off and a dominance of opportunistic species should be expected under the additional rafts. With regard to the seagull entanglement observed at the lease site, the AEC testified that the Department is currently looking into ways to minimize seagull entanglements in predator netting. He stated that it may possibly be addressed by requiring a smaller mesh size. He noted, however, that a smaller mesh size would reduce water flow which is necessary for mussel growth.

According to the AEC, the proposed activities will not interfere with navigation or riparian ingress and egress. According to the AEC's report, no moorings or docks were observed within the boundaries of the proposed lease site. The proposed lease is located 2,597 feet from the nearest shore to the north and 2,603 feet from the nearest shore to the south. There is a minimum of 2,200 feet of deep navigable waters to the south and 700 feet of channel available to the north of the proposed lease. The majority of traffic passes to the south of the proposed

lease site. According to the AEC, because the applicant has operated a mussel farm in the same location for the past 3 years, the proposed expansion is not expected to create a greater hazard to vessel traffic.

According to the AEC's report, no fishing activity was observed within the boundary of the proposed lease site during the site visit. A limited number of lobster trap buoys were located in the area surrounding the proposed lease site. The soft bottom of the proposed lease is unlikely to support commercially exploitable populations of lobsters or crabs. According to the AEC, the Department has not received any complaints regarding the applicant's experimental lease. The nearest aquaculture lease is located 2.5 nautical miles to the west of the proposed lease site. According to the AEC's report the proposed lease is located in an area classified as open for the harvest of shellfish by the Department's Water Quality Division.

Charlie Phippen, the Bar Harbor Harbormaster, provided written comments. Mr. Phippen indicated that the proposed lease site would not interfere with navigation or riparian access; that there are no permitted moorings within the lease boundaries; that there are no storm anchorages within the proposed lease area; that there is commercial lobster fishing throughout the bay and light recreational fishing activity in the area of the proposed lease that will not be impacted; that the proposed moorings appear adequate for the conditions; and that there are no local, state or federally owned beaches, parks or docking facilities within 1,000 feet of the proposed lease site. Mr. Phippen also indicated that the Bar Harbor Harbor Committee discussed the proposed lease and found no unreasonable interference with the proposal.

Several members of the public provided testimony regarding the proposed lease. One person testified that she is a sailor and has sailed around the existing site and feels three more rafts would be reasonable. Two students of the Maine Coast Learning Expedition testified regarding observations they made at the experimental lease site. They testified that they observed a seagull entangled in the predator net, numerous seagulls surrounding the rafts and bird feces on the rafts. They recommended that raft operators deter birds from the rafts to avoid entanglements. They stated that they performed water quality tests near the raft, which were

negative for bacteria. Due to the bird feces on the rafts, they recommended that regular monitoring of water quality occur on site. One member of the public testified in support of rope aquaculture as environmentally benign. One person testified that she would not object to the proposed lease as long as the number of work days is limited, there is no explosion of rafts in the bay, navigational lights are used, and the lease is monitored.

Findings of Fact

The proposed lease site is located east of Googins Ledge in water depths of approximately 72-86 feet at mean low water (MLW). There are no moorings or docks located in the area of the proposed lease. The proposed site is located 2,597 feet from the nearest shore to the north and 2,603 feet from the nearest shore to the south. There is a minimum of 2,200 feet of deep navigable waters to the south and 700 feet of channel available to the north of the proposed lease. The majority of traffic passes to the south of the proposed lease site. The rafts will have solar-powered navigational lights and there will be radar reflectors in the corner buoys marking the lease area. The applicant has operated a mussel farm in the same location for the past 3 years without incident. Based on this evidence, I find that the lease will not unreasonably interfere with navigation or the ingress and egress of riparian owners.

Due to the soft bottom of the proposed lease site, limited lobster fishing is expected within the area of the proposed lease site. Recreational fishing in the area of the lease is light. In the three years that the experimental lease has been in place the Department has not received any complaints of interference with fishing or other activities. The nearest aquaculture lease is located 2.5 nautical miles to the west of the proposed lease site. The area of the proposed lease is classified as "open" for the harvest of shellfish. Based on this evidence, I find that the proposed lease will not unreasonably interfere with fishing or other uses of the area.

The bottom of the proposed site is comprised of very soft sediments with no vegetation. Local fauna include mysid shrimp, sand shrimp, sea stars and crabs. The fauna under the existing mussel rafts on the experimental lease site is significantly different that elsewhere in the proposed lease. Sea stars and rock crabs are abundant under the rafts, as they have moved in

to take advantage of the mussel drop-off. There are no bacterial mats or anoxic sediments under the existing mussel rafts. Ecological change that includes a continued hardening of the bottom due to mussel drop-off and a dominance of opportunistic species is expected under the additional rafts. The proposed lease site is not located within an Essential or Significant Wildlife Habitat. Based on this evidence, I find that the proposed activities will not unreasonably interfere with significant wildlife habitat and marine habitat or with the ability of the site and surrounding marine and upland areas to support ecologically significant flora and fauna.

All seed mussels will be collected on the ropes on site. Based on this evidence, I find that there is an available source of blue mussels.

The proposed lease site is not located within 1,000 feet of any public beaches, parks, docking facilities, or conserved land. Based on this evidence, I find that the proposed lease site activities will not unreasonably interfere with public use or enjoyment within 1,000 feet of a beach, park, docking facility or certain conserved land owned by the Federal Government, the State Government, or a municipal governmental agency.

The motorized equipment on site will consist of two vessels used to seed, harvest and service the site. The fishing vessel "Thunder Bay" and the harvest barge "Mumbles" are both equipped with mufflers, and "Mumbles" was recently equipped with a new muffler to further reduce engine noise. The equipment would be used a total of approximately 12-15 days per raft for seeding and harvesting per growing cycle. The applicant does not plan to use lighting at the lease site other than required navigational lighting. I find that the proposed lease will not result in an unreasonable impact from noise or lights at the boundaries of the lease site.

The colors of the proposed gear, black and gray, will allow the gear to blend in with the surrounding area. All equipment on the lease site will be less than 20 feet in height. I find that the proposed lease will comply with visual impact criteria.

Conclusions of Law

Based on the above findings, taking into consideration the number and density of aquaculture leases in the area, 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;
3. The aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area;
4. The aquaculture activities proposed for this site will not unreasonably interfere with significant wildlife habitat and marine habitat or with the ability of the site and surrounding marine and upland areas to support ecologically significant flora and fauna;
5. The applicant has demonstrated that there is an available source of blue mussels;
6. The aquaculture activities proposed for this site will not unreasonably interfere with public use or enjoyment within 1,000 feet of a beach, park, docking facility or certain conserved land owned by the Federal Government, the State Government, or a municipal governmental agency;
7. The aquaculture activities proposed for this site will not result in an unreasonable impact from noise or lights at the boundaries of the lease site; and
8. The aquaculture activities proposed for this site will be in compliance with visual impact criteria.

Accordingly, the evidence in the record supports a finding that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072.

Decision

Based on the foregoing, the Commissioner grants the applicant's requested aquaculture lease of 8.03 acres from the date of this decision for the purpose of cultivating blue mussels (Mytilus edulis) using suspended 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 in the amount of \$5,000 conditioned upon his performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations.

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. 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 aquaculture law.

The following conditions are placed on this lease:

- (1) navigation, lobster fishing and recreational boating and fishing shall be allowed on the open areas of the lease; and
- (2) the lease area shall be marked in accordance with U.S. Coast Guard and Department of Marine Resources regulations Chapter 2.80.

The Commissioner may commence revocation procedures if he determines that substantial aquaculture has not been conducted within the preceding year or that the lease activities are substantially injurious to marine organisms. If any of the conditions or requirements imposed in this decision, in the lease, or in the law are not being observed, the Commissioner may revoke the aquaculture lease.

Dated: _____

George D. Lapointe (Commissioner)
Department of Marine Resources