

STATE OF MAINE

DEPARTMENT OF MARINE RESOURCES

IN THE MATTER OF THE APPLICATION)
OF MOOK SEA FARM, INC. FOR AN AQUA-)
CULTURE LEASE LOCATED OFF LITTLE)
POINT IN THE DAMARISCOTTA RIVER,)
NEWCASTLE AND DAMARISCOTTA,)
LINCOLN COUNTY, MAINE)

FINDINGS OF FACT,
CONCLUSIONS OF LAW
AND DECISION

On September 6, 1996 Mook Sea Farm, Inc. of Walpole, Maine applied for an aquaculture lease totaling 8.8 acres of coastal waters of the State of Maine, in the Damariscotta River off Little Point, Newcastle and Damariscotta, Lincoln County, Maine. The applicant requested the lease for a term of ten years for the purpose of cultivating American and European oysters, surf clams, quahogs and soft-shelled clams.

Approval of aquaculture leases is governed by 12 M.R.S.A. §6072. This statute provides that the Commissioner of the Department of Marine Resources (DMR) may grant a lease if he determines that the project will not unreasonably interfere with the ingress and egress of riparian owners, navigation, fishing or other uses of the area; the ability of the site and surrounding areas to support ecologically significant flora and fauna; or the use or enjoyment within 1,000 feet of municipally, state or federally owned beaches, parks, or docking facilities. 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 public hearing on this application was held on May 21, 1997 at 7 p.m. in Damariscotta.

Evidence Introduced Concerning the Nature

and Impact of the Proposed Lease

The president of Mook Sea Farm, Inc. (MSF) presented the company's application, development plans, and a written copy of his testimony. He described the company's history, intended use of the proposed leases, a summary of the aquaculture lease statute's criteria, and responses to an intervenor's concerns. Exhibit 1a.

He provided testimony on the history of the company. The company has been primarily in the hatchery business since 1985, and since 1987 has raised shellfish on two other aquaculture lease sites. The company has 5 full-time employees, seasonal help, and its own hatchery. The company is expanding retail markets outside of Maine and intends to expand and diversify the business by increasing its own shellfish production or grow out, as well as having a hatchery for the seed supply portion of its business. He stated that the hatchery produces 130 million seed shellfish comprised of seven species. Ninety percent of the seed shellfish raised at his hatchery is sold to buyers outside of Maine and he would like to grow out more of his hatchery seed to sell locally. The species of shellfish currently grown on his existing leases, and shellfish with which the company has the most grow out experience, are oysters and surf clams.

According to the evidence, the proposed lease site is 8.8 acres. The three proposed lease tracts are extensions to the applicant's existing 4.8 acre lease. The proposed lease is located in the towns of Newcastle and Damariscotta off Little Point in the Damariscotta River. The water depths range from 3 - 8 feet at mean low water (MLW) and follow narrowly defined channels with hard bottom bounded by steep mud banks. Indigenous fauna include some sponges, marine worms, crustaceans, various species of crabs, and an occasional oyster. The sediments are characterized from silty sand to clay and gravel with shell hash and debris bounded by mud banks.

The applicant's witness testified about the intended use of the proposed lease. He explained that the proposed lease would be used for the culture of American oyster seed planted

directly on the bottom. He stated that the maximum planting density would be 12 oysters per square foot, or the equivalent of the total acreage divided by 3 (years) and multiplied by the stocking density of 12 oysters per square foot per year, which equals approximately 1.5 million per year. A maximum of 3 year classes would be distributed on the entire area. Ten to twenty percent of each year class would be left unharvested to grow into larger product for future years. This practice was referred to as “distributed production.” The market sized oysters would be harvested by dragging or hand-raking in ice-free months. At this time, the applicant is interested in American oysters and would expand to include the other species requested if technology changes make it economically feasible to raise them in this location.

The applicant’s witness testified that he believed that the lease application satisfies the statutory criteria for granting an aquaculture lease. He stated that there would be no “surface” structures other than the mandatory marker buoys to interfere with riparians’ ingress and egress. He said that the company would continue its cooperative approach of providing assistance with shorefront owners’ moorings, as approved by the harbormaster. In years past, there has been only one temporary mooring that was located within the proposed northwest tract.

The applicant’s witness stated that the only activity involving navigation would be for harvest or planting. The proposed lease is located in narrow unmarked channels navigated primarily at high tide, otherwise most traffic stays in the marked navigational channels. The primary boat traffic on the proposed lease was described as occasional recreational fishermen, at high tides, seasonally fishing for bluefish and striped bass. He stated that the applicant would not seek to restrict fishing activities.

The witness stated that he felt the proposed lease site would not interfere with the productive use of any other aquaculture lease in the river. Similarly, he testified that the use of the site would not interfere with the existing ecology of the area. The source of shellfish grown

would come exclusively from indigenous (local) stock and he explained that the company has its own facilities and does not intend to use or interfere with the local public dock facilities.

The applicant addressed concerns about the level of silt and turbidity from dragging activity. Its witness explained that he felt that it would be easy to keep a drag inside the channels, on the hard bottom located in those channels, due to the steepness of the mud banks. Therefore, turbidity would be limited. He stated that the amount of silt caused by dragging on the proposed lease going to the intervenor's lease 1000 feet up river would be negligible, given the high current velocities and the volume of water transported in that part of the river. He based his statements on his understanding of information in the literature about the levels of suspended particulate matter found to occur naturally and historically where the American oyster is grown.

A representative from the Town of Newcastle, the administering town of the local 5 town clam ordinance, asked if the dragging activities would reduce the adjacent soft shell clam population due to removal of that population. In particular, he asked about the proposed northwest tract and its primarily shallow waters. The applicant stated that the soft shell clam habitat is well above □ where the oysters would be growing. He stated that the drag used to harvest the oysters could be kept well within the channels and away from the clams, due to the steepness of the banks. He also explained that the helix type moorings for the required marker buoys would discourage dragging outside of the channels and into the mud banks because he would not want to catch a drag in the moorings.

The same official asked how this site compared to the applicant's other leases with regard to protection from poaching problems due to easy access in the shallow water depths. The witness for the applicant explained that the channels in the proposed lease are deeper than some of his other leases. He felt this area would provide better security compared to his other leases due to its greater local visibility to town and to his friends.

The applicant's witness was asked to describe the size of vessel he planned to use and how frequently he would use dragging to harvest. The witness explained that he would need to obtain a new vessel, shorter than the applicant's current vessel, that would be less influenced by the wind to work on the proposed lease. He stated that he would harvest 2 - 3 times per week.

A selectman, representing the town of Newcastle, testified in favor of granting the lease. He stated that the company has been a responsible company, which has helped the local clam and oyster industry, through its work with water quality monitoring in the river.

The statutorily required DMR site review was conducted on September 12 and 30, 1996, and was entered as part of the Department record. Exhibit 1b. The Department report covers the following criteria: a scuba diver survey for local flora and fauna and bottom composition; vertical profiles of the water column which include temperature, salinity, dissolved oxygen and pH, and depths; identification of phytoplankton, zooplankton and larval fish; proximity measurements of the proposed site to shore and to other leases; and observations and documentation of local fisheries and other issues.

An aquaculturist, who intervened in this proceeding, opposed the granting of this lease. She testified that the proposed lease was too large and that, due to its size, the dragging activities would be detrimental to production at her lease located 1000 feet up river. She explained, based on her estimates of the applicant's proposed production, that harvest by dragging would take place 4 - 6 days per week. She stated that dragging in the channels was inappropriate activity due to the difficulty of keeping a drag within the channels. The amount of dragging activity, she estimated, would therefore affect the growth of seed oysters at her lease due to the high levels of turbidity caused by dragging. She stated the turbidity would reduce growth of her seed oysters due to reduced oxygen and lowered food availability. She requested that the applicant conduct a model impact study and if a lease were granted that there be a condition to prohibit dragging on the incoming or ebb tide. She submitted a scientific paper on the detrimental effects of turbidity

on soft shell clams where a tidal power project and causeway were built, a paper on the detrimental effect of turbidity relating to decreased primary productivity using San Francisco Bay as a representative estuary, and a copy of her testimony. Exhibits 2a, b, and c.

Findings of Fact

The proposed lease is located approximately 700 feet from the nearest shore in shallow waters. The Damariscotta harbormaster identified one mooring within the proposed lease boundaries. The evidence and testimony indicated that the applicant is willing to allow and assist shorefront property owners seeking moorings in the proposed lease boundaries that are designated by the harbormaster. Based on the applicant's willingness to cooperate with the placement of riparians' moorings within the proposed lease as approved by the local harbormaster. I find that the lease will not unreasonably interfere with the ingress and egress of those riparian owners.

The harbormaster did not have concerns about navigation as long as there would be no use of gear or structures anywhere in, on, or under the water, other than the mandatory boundary markers. The evidence and testimony offered by the applicant indicate boat traffic is primarily high tide recreational fishermen. The applicant does not seek to restrict that activity. Based on the evidence and testimony in the record, I find that the lease will not unreasonably interfere with navigation in the area.

The applicant's witness testified that the use of traps for lobster and crab, and recreational fishing would be allowed. Testimony and evidence indicate that dragging, confined to only the hard bottom portions of the channels proposed for seeding, and restricted by the use of helix type marker moorings, would not generate turbidity that would cause unreasonable interference with local aquaculture operations and fisheries. Therefore, I find that the lease will not unreasonably interfere with fishing, aquaculture leases, or other uses of the area, given the evidence and testimony in the record and conditions placed on the applicant limiting dragging to

the hard bottom substrate in the channels described, bounded by helix type moorings testified by the applicant to be used for marking corners and boundaries.

The evidence indicated that the proposed lease area has very small numbers of local fauna and no flora. Concerns were raised by the intervenor about the potential impact of the proposed lease on production at her lease sites, and on other flora and fauna. The applicant's witness testified that the applicant was willing to limit planting density to no greater than 12 oysters per square foot. Testimony indicated that the amount of dragging would be half that stated by the intervenor. I find that the proposed activities will not unreasonably interfere with the ability of the site and surrounding areas to support existing ecologically significant flora and fauna, given the testimony and evidence and conditions placed on the applicant to limit the density of oysters planted on the proposed lease, and to limit the use of dragging to the hard bottom substrate in the channels described.

The applicant intends to use indigenous shellfish stocks from the Damariscotta River or those held by the University of Maine Darling Marine Center located in Walpole, also on the Damariscotta River. Based on the above, I find that there is an available source of American oysters, and when the market and technologies are available, the European oyster, quahogs, soft shell clams and surf clams.

The nearest public docking facility is located at the head of the river. The evidence and testimony indicates that the applicant would use the docking facility located at its hatchery location in Walpole. Therefore, I find that the proposed lease site activities will not unreasonably interfere with public use or enjoyment and that the proposed lease site is not located within 1000 feet of any municipally, state or federally owned beaches, parks or docking facilities.

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;
3. The aquaculture lease 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;
4. The aquaculture lease 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 applicant has demonstrated that there is an available source of the American oyster, European oyster, surf clams, soft-shelled clams, and quahogs to be cultured for the lease site; and
6. The aquaculture lease activities proposed for this site will not unreasonably interfere with public use or enjoyment within 1,000 feet of municipally, state or federally owned beaches, parks, or docking facilities.

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 (7-A).

Decision

Based on the foregoing, the Commissioner grants the requested lease to the applicant for a period of ten years from the date of this decision for the purposes of cultivating American oysters, surf clams, European oysters, quahogs and soft shell clams using bottom culture techniques that do not employ any form or placement of structures anywhere in, on or under the water, other than the mandatory boundary marker buoys with helix type moorings. The applicant shall pay the State of Maine rent in the amount of \$50.00 per acre per year. The applicant shall post a bond or establish an escrow account in the amount of \$500.00 conditioned upon its 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) lobster, crab, and recreational fishing are to be allowed on the lease;
- (2) the riparian land owners are to be allowed boat moorings as designated by the local harbormaster(s);
- (3) the lease area shall be marked in accordance with U.S. Coast Guard regulations; the lease area shall be marked in accordance with Department of Marine Resources regulations Chapter 2.80, with markers placed no more than 300 feet apart and at each corner. This requirement applies to each of the 3 tracts described and all corner and boundary marker buoys shall be moored with the helix type moorings described.
- (4) the planting density of oysters shall be restricted to no greater than 520,000 oysters per acre; up to date records of the seeding quantities of all shellfish shall be kept at the Walpole facility for inspection by the Department during normal business hours for the duration of the lease; dragging shall be limited to the hard bottom substrate in the channels described, bounded by helix type moorings.

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: _____

E. Penn Estabrook, Commissioner (Acting)
Department of Marine Resources