

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
Experimental Aquaculture Lease Application
Suspended and Bottom Culture of shellfish
Phippsburg, Maine

Terry Watson
MOR SPx

August 19, 2019

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Terry Watson applied to the Department of Marine Resources (“DMR”) for a three-year experimental aquaculture lease located in Spirit Pond, at the north end of Morse River, Phippsburg, Sagadahoc County. The proposed lease is 0.52 acres and is for the suspended and bottom culture of eastern oysters (*Crassostrea virginica*). DMR accepted the application as complete on April 4, 2019. No public comments were received, and no hearing was held.

1. THE PROCEEDINGS

Notice of the application and the 30-day comment period were provided to state and federal agencies, riparian landowners, the Town of Phippsburg and its Harbormaster, and others on DMR’s mailing list. Notice of the application and comment period was published in the April 11, 2019 edition of *The Times Record*. The evidentiary record regarding this lease application includes the application, DMR’s site report dated July 30, 2019, and the case file. The evidence from each of these sources is summarized below.¹

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The purpose of the proposed experimental lease is to evaluate the site’s potential for growing oysters, and to determine the best gear selection (App 4). Applicant will deploy up to 140 floating cages and 560 soft mesh bags (App 5). Cages and bags will be deployed along 7 lines, each 120 feet long. (SR 2). During the winter, oysters, bags, and cages will be removed from the site but ropes and buoys will remain (App 5).

B. Site Characteristics

On July 24, 2019 DMR scientists visited the proposed site and assessed it and the surrounding area in consideration of the criteria for granting an experimental aquaculture lease. The proposed site occupies waters on the west side of Spirit Pond (SR 2). Saltmarsh grass is found along most of the shoreline, and uplands are dominated by mixed forest (SR 2). Houses are found on the uplands to the east (SR 2). A dam, located in the southwest corner of Spirit Point, formed from natural rock ledges and added cut granite

¹ These sources are cited, with page references as CF (case file), App (application), SR (site report).

blocks, restricts water flow between Spirit Pond and Morse River (SR 2). The presence of the dam prevents tidal flow in the area from matching that outside the pond. The dam's sill is higher than the low water mark, so water flows into the pond when the tide outside the dam is higher than the sill and flows out of the pond when the tide is lower than the sill (SR 4). During DMR's assessment the tide reached the dam's sill, and water stopped draining from the pond, at which point the proposed site was entirely submerged (SR 4). Depths at the proposed lease site ranged from 5 to 9 inches. Per the site report: "although it is difficult to assess the proposed lease area in relation to a 0.0' tide, it appears that the entirety of the proposed lease is subtidal. However, due to the shallow nature of the proposed lease site, cages and bags would sit on the bottom at lower tidal stages." (SR 4). Shallow water within the pond exposes sand bars, the closest of which is approximately fifteen feet from the proposed lease site (SR 4).

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 water related uses of the area, taking into consideration other aquaculture uses in the 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 available source of organisms to be cultured on the lease site.

A. Riparian Access

No docks were observed during DMR's site visit on July 24, 2019. Some shallow-draft vessels were observed near the parking lot on the eastern side of Spirit Pond, and another was seen hauled out near the southwestern shoreline (SR 6). Riparian ingress and egress in Spirit Pond is constrained to shallow-draft vessels due to the pond's shallow depths (SR 6). The proposed lease, if granted, is not expected to impede the ability of landowners to launch vessels from their shorefront property (SR 6). The harbormaster questionnaire noted that the proposed lease will not interfere with the ability of riparian owners to get to and from their properties.²

During the review period, the Department did not receive any public comments regarding riparian access. Based on the absence of public comments, and the information provided in the site report and harbormaster questionnaire, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on riparian ingress and egress. It appears from this evidence that the riparian ingress and egress will not be unduly affected by the proposed lease application.

² CF: Harbormaster Questionnaire signed April 18, 2019

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.

B. Navigation

Per DMR's site report: "due to Spirit Pond's shallow nature, only shallow-draft vessels can navigate within it" (SR 7). At the time of DMR's visit, three hand powered vessels were observed near the parking lot on Spirit Pond's eastern shore, and one other was seen on the southwestern shoreline (SR 7). At lower tidal stages, the dam in the southwest corner of the pond prevents navigation into the pond from Morse River (SR 7). There is more than 800 feet of water between the proposed lease site and the eastern/southern shore of Spirit Pond, and approximately 160 feet available to the west (SR 7). The applicant notes that kayakers use the area during high water, but there are no navigable channels at low water (App 6), and the harbormaster questionnaire indicated the proposed lease would have no effect on navigation³. According to the site report, should the proposed lease be granted, it is unlikely that it would impede with navigation (SR 7).

During the review period, the Department did not receive any public comments regarding navigation. Based on the absence of public comments, and the information provided in the site report and harbormaster questionnaire, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on navigation. It appears from this evidence that navigation in Sprit Pond would not be affected by the proposed lease application.

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

C. Fishing & Other Uses

Fishing. At the time of DMR's site visit, buoys, and what is assumed to be green crab traps were observed at low water within sections of Spirit Pond (SR 7). A lobster trap was observed at the top of the dam, indicating lobstering occurs in the area around the proposed lease (SR 7). The applicant noted that there is minimal green crab fishing, and possibly a lobster trap or two within a hundred feet of the site (App 6). During their site visit, DMR observed individuals recreationally fishing to the west of the Spirit Pond Dam (SR 7), and the applicant and harbormaster noted there is recreational fishing in the area (App 6)⁴

Due to the shallow nature of Spirit Pond, the amount of recreational and commercial fishing occurring near the proposed lease site is limited. The shallow nature of the proposed site makes it an unlikely area for lobster fishing (SR 7). It is possible green crab traps are set within the proposed site, and the applicant noted some green crab fishing occurs in the area (SR 7, App 6). However, it is unlikely the proposed lease would interfere with green crab fishing (SR 7).

³ CF: Harbormaster Questionnaire signed April 18, 2019

⁴ CF: Harbormaster Questionnaire signed April 18, 2019

European oysters were observed near the proposed lease, and shells from European oysters, blue mussels, razor clams, and soft shell clams were also seen in the area (SR 7). The harbormaster indicated some commercial clam harvest occurs within Spirit Pond,⁵ but the site report indicates the presence of oysters within the lease site was limited (SR 7) so the proposed site likely will not interfere with commercial or recreational fishing in Spirit Pond.

No public comments were received regarding fishing. Due to the absence of public comments, and the information from the site report and harbormaster questionnaire, it is reasonable to conclude that there are no concerns regarding the proposed activity's impacts on fishing in Spirit Pond. It appears from the evidence that the proposed lease is unlikely to unreasonably affect commercial and recreational fishing activities in the area.

Exclusivity. The applicant requests that shellfish harvesting be prohibited from the lease site (App 7).

Other aquaculture uses. There are 5 limited purpose aquaculture (LPA) licenses located within 1 mile of the proposed lease. The applicant holds one of these leases and plans to terminate it if the proposed lease is approved (SR 8, App 7). The remaining four LPAs, the closest of which is approximately 385 feet from the proposed site are held by the applicant's son (SR 8). No public comments were received during the comment period. Due to the absence of public comments concerning the impact of the proposal on the existing aquaculture operations, it is unlikely the activities proposed by the applicant will negatively impact existing aquaculture leases and licenses in the area. Based on this evidence, it appears that the proposed lease will not unreasonably interfere with other aquaculture uses in the area.

Other water-related uses. During the review period, DMR did not receive any comments detailing other water-related uses that are not already contemplated in other sections of this decision. Based on the absence of public comments, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on other water-related uses of the area.

Therefore, considering other aquaculture uses of the area, the activities proposed for this site will not unreasonably interfere with fishing or other water related uses of the area.

D. Flora & Fauna

During DMR's site visit, green crabs (*Carcinus maenas*), hermit crabs (*Pagurus sp.*), sand shrimp (*Crangon septemspinosa*) and European oysters (*Ostrea edulis*) were observed near the proposed lease site (SR 9). Shells from blue mussel (*Mytilus edulis*), razor clam (*Ensis directus*), soft shell clam (*Mya arenaria*), and European oyster (*O. edulis*) were observed in the area around the proposed lease (SR 9). Herring gulls (*Larus smithsonianus*), common terns (*Sterna hirundo*), great blue herons (*Ardea herodias*), yellowlegs species (*Tringa sp.*), purple sandpipers (*Calidris maritima*), and snowy egrets (*Egretta thula*) were observed in the shallow waters or surrounding mudflats of Spirit Pond, and osprey (*Pandion haliaetus*), bald eagles (*Haliaeetus leucocephalus*), and great black-backed gulls (*Larus marinus*) were

⁵ CF: Harbormaster Questionnaire signed April 18, 2019

seen roosting on nearby trees and flying overhead. Two white-tailed deer were also observed along the shoreline of the pond (SR 10).

According to data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), Spirit Pond is classified as Tidal Wading Bird and Waterfowl Habitat (SR 11). This habitat type is defined as Significant Wildlife Habitat under Maine's Natural Resources Protection Act. Essential habitat for the Piping Plover (*Charadrius melodus*) and the Least Tern (*Sterna antillarum*) is located approximately 845 feet from the proposed lease site, and habitat for the Saltmarsh Sparrow (*Ammodramus caudacutus*), which is listed as a Species of Special Concern under the Maine Endangered Species Act, is located about 860 feet from the proposed lease (SR 11). DMR sent a copy of the application to MDIFW for their review and comment. MDIFW indicated that "minimal impacts to wildlife are anticipated for this project".⁶

According to DMR, a population of horseshoe crabs (*Limulus polyphemus*) exists in Spirit Pond and are typically seen around the dam in the southwest area of the pond.⁷ At mean low water, gear at the proposed site may bottom out with horseshoe crabs potentially underneath.⁸ The presence of horseshoe crabs was not mentioned in the site report. DMR is aware that the tidal changes in Spirit Pond occur gradually, which will allow horseshoe crabs to avoid gear at low tidal stages. In Addition, because horseshoe crabs are more common elsewhere in the pond, there is little concern about interactions between horseshoe crabs and the proposed aquaculture activities.

No eelgrass (*Zostera marina*) was observed in Spirit Pond during DMR's site visit, and according to data collected between 1992 and 2010, there are no historical records of eelgrass within one mile of the proposed site (SR 11).

Based on the evidence that the proposed lease does not interact with historical eelgrass beds or mapped wildlife habitat, and because DMR's site report does not contain concerns regarding the impact of the proposed lease on the surrounding ecosystem, it appears that the proposed aquaculture activities for this lease site will not interfere with the ecological function of the area.

Therefore, 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 proposed lease is located within 1,000 feet of Popham Beach State Park (SR 12), and approximately 160 feet from the western Spirit Pond shoreline, on which Popham Beach is located (SR 12). Fifteen feet to the north of the proposed site is a sandbar that extends east from a small island within Spirit Pond (SR 12). This small island is also part of the Popham Beach State Park parcel. The location of the lease will not impede access to or use this parcel (SR 12). The harbormaster questionnaire indicated there would be no effect on the public use and enjoyment of Spirit Pond should the lease be granted.⁹ No concerns

⁶ CF: Email from R. Settele to C. Burke dated June 3, 2019.

⁷ CF: Email from P. Thayer to J. Lewis, M. Nelson, and F. Drury on June 11, 2019.

⁸ CF: Email from P. Thayer to J. Lewis, M. Nelson, and F. Drury on June 11, 2019.

⁹ CF: Harbormaster Questionnaire signed April 18, 2019

about the location of the lease related to public use or enjoyment were raised during the comment period. Based on the absence of public comments, and the small size of the proposed lease, it is reasonable to conclude that there are no concerns regarding the effects the proposed lease may have on public use and enjoyment of the area.

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with public use and enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments.

F. Source of Organisms

The applicant intends to source eastern oysters from Mook Sea Farms Inc. in Walpole, Maine, Muscongus Bay Aquaculture, in Bremen, Maine, and Basket Island Oyster, Co., in Portland, Maine (App 2). These sources are approved by DMR.

Therefore, the applicant has demonstrated that there is available source of stock 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.
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.
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 stock 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 0.52 acres to Terry Watson 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 lessee¹⁰, however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.

¹⁰ DMR Rule 2.64 (14) provides:

The lease is granted for the suspended and bottom culture of eastern oysters (*Crassostrea virginica*). The lessee shall pay the State of Maine rent in the amount of \$100.00 per acre per year. Since this is an experimental lease with more than 400 sq. ft. of structures and no discharge, a bond or escrow account is required. The lessee shall post a bond or establish an escrow account pursuant to DMR rule 2.64 (12) (B) in the amount of \$5,000.00, conditioned upon performance of 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 MSRA §6072-A (15)¹¹. 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 purpose of the lease.

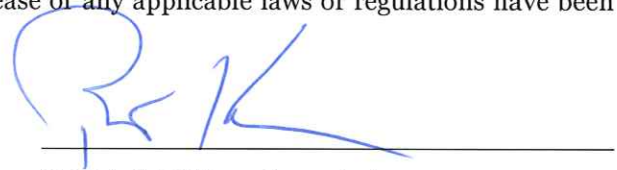
The following conditions shall be incorporated into the lease:

1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.
2. Unless permission is granted by the leaseholder, shellfish harvesting is prohibited within the boundaries of the lease site.

7. REVOCACTION OF EXPERIMENTAL 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: 8/19/19



Patrick C. Keliher, Commissioner
Department of Marine Resources

“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.”

¹¹ 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.”