STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
Standard Aquaculture Lease Application
Suspended and Bottom culture of shellfish
Johns River, South Bristol

Johns River Shellfish, LLC
Lease JOHN NB3
Docket #2015-13

May 18, 2016

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Johns River Shellfish, LLC, a Maine corporation, applied to the Department of Marine Resources ("DMR") for a standard aquaculture lease on 2.6 acres[1] located in the coastal waters of the State of Maine, in the Johns River, west of Peabow Island in the Town of South Bristol in Lincoln County, for the purpose of cultivating American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), hard clams/quahogs (*Mercenaria mercenaria*), and blue mussels (*Mytilus edulis*), using suspended and bottom culture techniques. DMR accepted the application as complete on June 16, 2015. No one intervened in this case. A public hearing on this application was held on December 7, 2015, in South Bristol.

1. THE PROCEEDINGS

Notices of the hearing and copies of the application and DMR site report were provided to numerous state and federal agencies for their review, as well as to various educational institutions, aquaculture and environmental organizations, the Town of South Bristol and the South Bristol Harbormaster, members of the Legislature, representatives of the press, riparian landowners, and other private individuals. Notice of the hearing was published on November 5 and November 19, 2015 in the *Lincoln County News* and in the *Commercial Fisheries News* November 2015 edition. Thirteen individuals submitted comments during the comment period prior to the hearing (CF, Comment Letters).

Sworn testimony was given at the hearing by David Cheney, owner of Johns River Shellfish, LLC; DMR's Aquaculture Director, Jon Lewis; Chester Rice, Selectman of South Bristol; and Heidi Sproul. Mr. Cheney described his proposed project. Mr. Lewis described the site visit and presented a videotape of the bottom. Mr. Rice and Ms. Sproul described their concerns about the potential effect of the aquaculture lease on property values and on the nearby riparian shore land, particularly the Sproul family property. 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.

[1] The application lists the lease size as 2.65 acres (App 1), but DMR calculated the size as 2.63 acres (SR 3).

The evidentiary record before the Department regarding this lease application includes six exhibits introduced at the hearing, a seventh exhibit provided after the hearing, and the record of testimony at the hearing itself. The evidence from all of these sources is summarized below.[2]

LIST OF EXHIBITS

1. Case file ("CF")
2. Application signed and dated (4/24/13), Deemed "Complete" (6/16/15) ("App")
3. DMR site report dated August 21, 2015, conducted on July 20, 2015 ("SR")
4. Written testimony of David Cheney, 2 pages
5. Photograph of raft with processing equipment
6. Photograph of Oyster-Gro cages in both floating and drying positions
7. Photocopies (2) of portions of poster presented at the hearing based on Figure 3 of DMR site report, marked by David Cheney to show revised layout plan and access corridor

2. DESCRIPTION OF THE PROJECT

A. Site History

Mr. Cheney has been growing oysters in the Johns River since 2007, currently on lease JOHN NB2, north of the proposed lease site. He manages two Limited-Purpose Aquaculture (LPA) licenses for oyster culture (PCHE3 and PCHE4) with his father; these are located within the footprint of the proposed lease site and will be discontinued should the proposed lease be granted (Cheney, testimony).

As noted in the application, Mr. Cheney initially proposed a lease site that included a portion of the intertidal zone to the west. This site was almost an acre larger and located farther south than the site proposed in his completed application, which is the subject of this decision. In response to concerns raised at the public scoping session preceding the submission of the application to DMR, he moved the proposed lease site east, away from the intertidal zone, to accommodate clam diggers, and north, to accommodate new moorings for the Sproul family (App 11).

B. Site Characteristics

The proposed lease site is located just off the western shore of the Johns River, northwest of Peabow Island. The lease site is a rectangle, 765 feet north-south by 150 feet east-west, approximately 60 east of the intertidal zone along the western shore at mean low water (SR 6). The adjacent shoreline to the west is undeveloped, wooded land. To the north, south, and east of the site is open water (SR 1, Figure 1).

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[2] In references to testimony, "Smith/Jones" means testimony of Smith, questioned by Jones.

Mr. Cheney testified that he chose the location of the proposed lease site because the surrounding shore is undeveloped, there are no docks or houses nearby, the site is sheltered from the wind, the water is unpolluted and sufficiently deep, and little lobster fishing takes place there (Cheney/S. Sproul).

On July 20, 2015, DMR biologists visited the proposed lease site and assessed it and the surrounding area in light of the criteria for granting an aquaculture lease, as described in the site report. The site report notes that fine sediments cover the bottom of the majority of the proposed site, and that a diver "was able to insert her arm more than 2 feet into the mud without significant resistance" (SR 2). The report states:

> Water depths gradually shallow from east to west. Along the eastern boundary of the proposed lease, near the 5 foot contour, sediments become coarser and include rock, cobble and shell over a layer of firm mud and sand (SR 2).

The area around the site is currently classified by the Department's Water Quality Classification program as "open/approved for the harvest of shellfish" (SR 15).

Water depths at the site at mean low water (MLW) range from approximately 3.4 feet at the northwest corner to approximately 11.9 feet along the eastern boundary. Depths at mean high water (MHW) range from 12-15 feet along the western boundary near the shore to 18-21 feet along the eastern boundary (SR 3).

C. Proposed Operations

Mr. Cheney proposes to grow four species of shellfish using suspended and bottom culture: American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), hard clams/quahogs (*Mercenaria mercenaria*), and blue mussels (*Mytilus edulis*). He plans to do this using a combination of floating and submerged cages, mussel lines, and direct seeding of shellfish on the bottom (SR 1, App 4-7).

Approximately 405 floating oyster cages (68"L x 42"W x 24"H) will be deployed in parallel lines 30 feet apart at the surface for grow-out of oysters and quahogs (App 11). Approximately 150 cages (30" x 30" x 4") will be placed on the bottom in the western part of the site for overwintering and culture of oysters and quahogs (App 6). In addition, Mr. Cheney intends to freely plant oysters on the bottom within the shallower western portion of the lease site. Along the eastern boundary of the proposed lease the applicant plans to culture mussels on 5-foot vertical dropper lines hung from several of the parallel surface lines in place of oyster cages (SR 2; A 4-7; Cheney, testimony). According to the site report, water depths at mean low water within the proposed lease site are conducive to the use of the cages and lines (SR 3; A 4-7; Cheney, testimony).

As described in the site report,

> A "processing raft" measuring approximately 12' X 18' X 3' and supporting a 10'X10'X10' building, a tumbler, and recessed storage (6' depth) is proposed for deployment within the southern 60' of the proposed northern tract of the lease area (SR 2; A, Amendment). Attached to this raft would be a second float of similar dimensions, but without a building, for storing market size shellfish (SR 2).

Following the hearing, Mr. Cheney submitted Exhibit 7, a revised layout plan for the proposed lease site. This plan shows a slightly different arrangement of the gear from that presented in the application. The number of parallel surface lines of oyster cages is reduced from five to four. Two thirty-foot passages across the lease site are replaced with a single 85-foot (north-south) by 150-foot (east-west) access corridor across the middle of the lease site, beginning opposite the north boundary of the Sprouls' shore.

The lines of floating oyster cages would be deployed in two sections at the north and south ends of the lease site. The north gear section measures 300 feet north-south and 150 feet east-west; the south gear section measures 380 feet north-south and 150 feet east-west. Each section contains four parallel lines, thirty feet apart, holding oyster cages or other floating gear or mussel lines. Cages on the bottom would still be deployed in the western part of the lease site between the western boundary and the first line of cages, as well as in the access corridor.

Between these two sections of gear, the access corridor would occupy the center portion of the proposed lease site. No floating oyster gear would be deployed in this corridor. The two work floats and the boat mooring would be located in this space, along with some of the bottom cages.[3]

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 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, docking facilities, or conserved lands owned by municipal, state, or federal governments. The Commissioner must also determine that the applicant has

[3] Exhibit 7; CF, e-mail of David Cheney to Diantha Robinson, January 8, 2016. Exhibit 7 is an enlarged version of Figure 2 of the site report, depicting the lease boundaries and the surrounding shore and water, on which Mr. Cheney drew the revised layout plan.

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 shoreline to the west of the proposed lease site is undeveloped, as shown in several photos in Figures 4 – 11 of the site report (SR 6-11). The nearest dock is located on the east shore of the North Branch of the Johns River, approximately 670 feet northeast of the proposed lease site, on land owned by John Walker (SR 5 – 6, Fig. 3). Peabow Island, owned by the Sproul family, is more than 1,000 feet southeast of the proposed lease site and has a cottage, but no dock (App 10, SR 5). Tim Ingraham, a riparian owner on the west shore, has a ramp from the woods to the shore that is 125 feet from the proposed lease boundaries (A 12).

There are no moorings within the proposed lease site. DMR staff observed three moorings in the vicinity of the proposed lease site during the site visit (SR 5-6, Fig. 3). One mooring was 253 feet northeast of the proposed lease site, another 220 feet southeast, and a third 330 feet southeast of the site. Only the northern mooring was occupied by a boat. The two moorings to the south of the site belong to the Sproul family, owners of more than 4,000 feet of shorefront land on the shore west of the proposed lease site (App 11, 16, 28, 29). The lease operations proposed for the site will not interfere with access to the existing dock and moorings.

The site report indicates that at mean low water, roughly 60 feet of water separate the proposed lease site from the intertidal zone along the western shore (SR 6). The Harbormaster stated that the proposed lease site will not interfere with riparian access (CF, Harbormaster Questionnaire). There is adequate space for navigating between the proposed lease site and the western shore as the tide levels permit.

No evidence was presented to show that the proposed lease site would interfere with water access between the western shore of the Johns River and Peabow Island to the east. According to the site report, at mean low water Peabow Island is 895 feet from the eastern boundary of the proposed lease site and 1,040 feet from the southeast corner of the site (SR 4). The proposed lease will not interfere with access to or from the island.

The Sprouls have no dock on the west shore, nor have they applied for a permit to build one, according to a statement by Sigrid Sproul at the hearing. Nevertheless, both Sigrid and Heidi Sproul expressed concerns that the floating oyster gear would interfere with access to and from the portion of their shore opposite the proposed lease site, which they consider a prime location for a dock, should they develop their shorefront land in the future (Cheney, testimony; H. Sproul, testimony).

The record was held open for a limited time following the hearing to receive any evidence of an agreement between the Sproul family and Mr. Cheney regarding accommodation for a possible future dock on the Sprouls' shore. Although no agreement was reached, Mr. Cheney changed the gear layout to provide a dedicated access corridor to the western shore, as described under "Proposed Operations" above and illustrated in Exhibit 7. He did not propose any change in the location, size, or boundaries of the proposed lease site; only the arrangement of the gear would change.

Mr. Cheney explained that the lines of floating oyster cages "will never encroach on this corridor." He would moor the two rafts and a boat inside the corridor and would set some cages on the bottom there, as well, marked by toggles. If a dock is built on the Sprouls' shore, he stated, the boat mooring would be relocated outside the corridor.[4]

Mr. Cheney described the effect of the corridor and the benefits to both the riparians and the public as follows:

> Within this passageway, the Ingraham's and Sproul's can navigate to shore and my workers can manage the farm in a 24' x 8' workboat at all tidal stages. Furthermore Outboard boats (stripper fisherman) can pass through the farm between parallel grow lines similar to my boats tending the surface cages, or pass perpendicular via a 85' wide passage way. This large opening is also an ideal central raft location with 22' on each side for safe navigation.[5]

No evidence was presented to show that the lease site with the gear as originally laid out in the completed application would have interfered unreasonably with riparian ingress and egress or with navigation to and from the western shore by others using the area. By reconfiguring the gear layout to provide an access corridor, Mr. Cheney is providing a benefit to the public by facilitating navigation to and from the intertidal zone and the shore beyond the proposed lease site. Creation of the access corridor will also benefit the Sprouls and Mr. Ingraham by providing a direct route across the lease site to their shore. Consequently, and as Mr. Cheney has requested, maintenance of the access corridor will be included as a condition on the lease.

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

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[4] CF, E-mail from David Cheney to Diantha Robinson, January 8, 2016. Exhibit 7 is an enlarged version of Figure 2 of the site report, depicting the lease boundaries and the surrounding shore and water, on which Mr. Cheney drew the revised layout plan.

[5] CF, attachment to E-mail from David Cheney to Diantha Robinson, December 17, 2015

B. Navigation

The site report states:

> The proposed lease is situated between the western shore of the Johns River and the primary navigation channel leading into the North Branch. The northeast corner encroaches on the channel by about 50 feet. A minimum of about 230 feet of navigable water (greater than 5 feet in depth at MLW) would remain to the east of the proposed lease site at all tidal stages.
>
> Vessel traffic in the area is, however, expected to be both commercial and recreational in nature. Some lobster fishing is known to occur in the North Branch of the river, upstream from the proposal. Clam harvesting is also present on the tidally exposed mudflats to the north. The proposed activities are unlikely to restrict local fishermen traveling through the area.
>
> The typical recreational vessel that is likely to transit through the area are skiffs, kayaks, canoes, and jet skis entering the North Branch of the Johns River. Sailboats entering the area are likely to be small or under auxiliary power as the North Branch becomes increasingly narrow to the north (SR 11).

It appears from this evidence that the proposed lease activities will not significantly affect navigation in the vicinity. The access corridor to be provided across the middle of the site will facilitate navigation to and from the western shore. Aquaculture lease sites are required to be marked for navigation purposes in accordance with U.S. Coast Guard requirements.

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

C. Fishing & Other Uses

The site report states that

> On July 20, 2015 no commercial or recreational fishing was observed within the boundaries, or immediate vicinity, of the proposed lease. Lobster fishing and shellfish harvesting have been observed by DMR staff (September 27, 2007 and June 28, 2011) to the north of the proposed lease, in the North Branch of the Johns River. The proposed activities will not preclude local fishermen from transiting through the area (SR 12).

The Harbormaster reported that recreational fishing for striped bass occurs in the general area of the proposed lease (CF, Harbormaster Questionnaire). According to the site report, the Department is aware of limited clam harvesting in the intertidal area to the west of the proposed lease site (SR 12). Mr. Cheney testified that clam harvesting on the intertidal shore west of the lease would not be affected; he also noted that the structures on the lease site would be likely to attract striped bass to the area (Cheney, testimony).

This evidence indicates that while some level of commercial and recreational fishing is likely to occur in the vicinity of the proposed lease site, it is unlikely that the presence of the aquaculture lease site will interfere with fishing of any kind. The lease must be marked in accordance with DMR Rule 2.80.[6]

Other aquaculture leases. According to the site report, at present there are no aquaculture leases or licenses, other than those held by the applicant and his father, within the Johns River (SR 12, Figure 12).

Exclusivity. The applicant requested that he and his agents have exclusive shell fishing rights within the lease boundaries (A 11). Such a restriction is reasonable in order to enable the aquaculture project to be carried out while encouraging the greatest number of compatible uses of the area, as provided in 12 MRS §6072 (7-B). A condition to this effect will be included in the lease.

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.

D. Flora & Fauna

Site observations. During the site visit, Department biologists observed that "The eastern approximate ¾ of the proposed lease area consists of soft mud interspersed with lobster/crab burrows, although no lobsters (*Homarus americanus*) were observed" (SR 14). Numerous species of marine flora and fauna were present, including abundant sand shrimp and polychaete worms. "No attached or rooted flora was observed" (SR 14); thus no eelgrass was present on the proposed lease site (Lewis, testimony).

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[6] **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 States Coast Guard's Aids to Private Navigation standards and requirements.

The site report notes:

> Sediments within the western ~ ¼ of the site are significantly coarser and support the presence of hermit crabs (*Pagarus sp.*), periwinkles (*Littorina sp.*), and other species commonly found in intertidal and shallow subtidal zones (SR 14).

A variety of other species was observed within the proposed lease site, as listed in the site report. DMR biologists observed that "a grey seal (*Halichoerus grypus*) was also present in the general area" during the site visit (SR 14). Mr. Lewis testified that the structure provided by gear on aquaculture sites can attract fish, upon which the seals prey; the proposed lease site poses no danger to seals and more may appear in the vicinity (Lewis, testimony).

Mr. Lewis described the proposed lease site as having a "typical soft mud bottom." The site has an ample supply of algae, he said, noting that it is visible in the water and is distributed by tidal action. Oysters filter the algae and other detritus from the sea water, he explained, absorbing what constitutes food and excreting the remainder as pseudofeces. Thus, pseudofeces are undigested algae and other naturally-occurring material that have been filtered from the water column by the shellfish. The pseudofeces, in turn, are digested by bacteria, marine worms, and other invertebrates. There is no buildup of pseudofeces under an oyster farm, even if currents are weak, Mr. Lewis said, because of this consumption by other species (Lewis, testimony; Lewis/Lamia).

Mr. Lewis testified that the oysters on the proposed lease site would not harm the surrounding clam population, explaining that clam larvae are abundant when spawned and are only small enough for oysters to consume for three to four days of their life cycle (Lewis, testimony).

European oysters, while not native to Maine, were imported and seeded along the Maine coast in the 1940s by the Department of Sea & Shore Fisheries, the predecessor agency of the DMR. Mr. Lewis noted that some remnant populations still exist in places (Lewis, testimony).

Oysters in natural beds, Mr. Lewis said, are much denser in numbers than those cultured on oyster farms, but the density does not affect oyster diseases, which affect only oysters, not humans or other species (Lewis/Kopypnik). Mr. Lewis said that MSX disease has been found in both the Damariscotta and Johns Rivers, so Mr. Cheney's operations will not affect its existence in the vicinity of his proposed lease (Lewis, testimony). Mr. Cheney stated that he will use disease-resistant American oyster seed for his farm (Cheney/Kopypnik).

Mr. Cheney testified that while his work floats will be constructed partially with pressure-treated lumber, the lumber will rest on pontoons and will not come in contact with either the ocean water or the oysters in their cages. He said that pressure-treated lumber is commonly used in docks to deter boring worms (Cheney/Lewis).

Fisheries & wildlife. Copies of the application were provided to the Maine Departments of Environmental Protection and Inland Fisheries and Wildlife (MDIF&W) for review. Neither agency provided comments on the application to DMR.[7] The site report states that:

> According to GIS (Geographic Information System) data maintained by The Maine Department of Inland Fisheries and Wildlife there are no endangered and threatened species, species of concern (i.e. bald eagle nests), or seabird nesting islands within the Johns River or general area of the proposed lease. The intertidal shoreline to the west of the proposed lease area is designated as moderate to high value tidal wading bird and waterfowl habitat (SR 14).

A letter from MDIF&W included in the application provided similar information and stated that the agency does not foresee any significant impact from the project on tidal habitats (App 26).

No evidence was presented to suggest that the proposed lease will have any negative impact on the ecology of the area. The evidence shows that lease operations will not harm eelgrass, since none exists at the site. The lease activities will not affect Essential Habitats or eagles, since neither is found within or near the proposed site. MDIF&W indicated that the project will have no significant impact on tidal habitats in the vicinity. Oysters will not deplete the clam population, since the amount of clam larvae consumed by oysters is negligible. Pseudofeces will be consumed by other marine life and will not build up on the bottom. MSX already exists in the Johns River, so the proposed lease activities will not introduce it. Oyster aquaculture similar to that proposed by Mr. Cheney has a long history in the Damariscotta River and elsewhere along the Maine coast with no record of negative effects on other species or on the ecology of the area.

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 publicly-owned beaches, conserved lands, or docking facilities within 1000 feet of the proposed lease (SR 15).

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.

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[7] MDIF&W normally comments to DMR if it has concern regarding the potential effect of proposed lease activities on wildlife and wildlife habitat; the lack of comments indicates no such concerns in this case, which is confirmed by the letter to the applicant that is included in the application (App 26).

F. Source of Organisms

The application indicates that the sources of American and European oysters and quahogs for this proposed lease site are Muscongus Bay Aquaculture of Bremen, Maine, and Mook Sea Farms, Inc., of Walpole, Maine (App 1). At the hearing, Mr. Cheney testified that he will obtain mussel seed from a natural set in the waters of the proposed lease site (Cheney, testimony).

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, that night work will only take place in the case of an emergency, and the applicant will not utilize any permanent lighting sources, as operations will only occur during daylight hours (A 8; Cheney, testimony; SR 15).

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 site report evaluates the potential for noise at the lease site as follows:

> The applicant proposes to use four-stroke outboard power on his processing boats and a 50 h.p. 2-stroke outboard on his primary boat to be used for accessing the site. These outboards are typical of those used throughout coastal Maine. Four-stroke outboards are the quietest gasoline powered outboards available and as indicated in the application, are barely audible at idle.
>
> Other noise inputs include the use of a hydraulic sorter. This sorter is powered by a 10 h.p. Honda engine that is contained within a box, mounted using rubber vibration dampening pads, and has a second muffler installed "downstream" of the factory installed Honda muffler.
>
> The applicant has clearly invested in the best available technology, and made every accommodation to minimize noise intrusion. The lack of residences along the shoreline in proximity to the proposed lease should help to minimize remaining noise effects (SR 15).

In addition to this gear, the application notes that a portable gas-powered pressure washer will be used on the site after 8:00 a.m. (App 8). Mr. Cheney said that power washing will occur only every four to six weeks, as needed (Cheney, testimony).

Mr. Cheney noted that any noise from the processing equipment would be intermittent, stopping and starting for short periods; the equipment would not be used continuously all day. He expects that the wood raft on which the equipment will be operated will also help to absorb sound (Cheney, testimony).

John Winchester testified on behalf of Mr. Cheney; he lives near one of Mr. Cheney's limited-purpose aquaculture (LPA) sites in the East Branch of the Johns River, where Mr. Cheney operates his processing equipment on a raft approximately 100 to 150 yards from Mr. Winchester's house. Mr. Winchester described the sound as "audible, but not loud or annoying," noting that it sounded "like a lawn mower or leaf blower at a great distance" (Winchester, testimony).

John Walker, a riparian landowner on the opposite shore of the Johns River northeast of the proposed lease site, questioned Mr. Cheney about possible noise from the equipment, observing that he had heard it being operated aboard Mr. Cheney's boat and found it loud and disturbing in the vicinity of his house. Mr. Cheney explained that he expected that operating the equipment on a wooden raft would cause some of the sound to be absorbed and that he had muffled the processing equipment as much as possible (Cheney/Walker).

The Department's criteria regarding noise at a standard lease site provide that:

> All motorized equipment used during routine operation at an aquaculture facility must be designed or mitigated to reduce the sound level produced to the maximum extent practical.
> All fixed noise sources shall be directed away from any residences or areas of routine use on adjacent land.
>
> An applicant shall demonstrate that all reasonable measures will be taken to mitigate noise impacts from the lease activities (DMR Rules, Chapter 2.37 (9)).

Some noise from the aquaculture operations is inevitable, and not everyone who hears it will experience it in the same way. It appears from the information in the application, the DMR site report, and testimony at the hearing that Mr. Cheney has taken "all reasonable measures to mitigate noise impacts from the lease activities," as required by the rule.

Nevertheless, should noise become a problem during the term of the lease, the Department needs to have the ability to require additional mitigation, if necessary. Consequently, the lease will contain a condition subjecting it to review by the Department to determine whether additional "reasonable measures" need to be taken "to mitigate noise impacts from the lease activities" during the term of the lease. Should additional noise reduction measures be determined reasonable and appropriate by the Department, in its sole discretion, the lease will be amended to include further conditions requiring the implementation of those measures.

Based on this evidence, it appears that any noise generated by operations on the site is unlikely to have a significant effect at the boundaries of the lease, providing a condition as described above is placed on 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

According to the application, the boundary of the proposed lease site will be marked with six white buoys with 2" red or blue lettering reading "Sea Farm" (A 3). All structures and rafts will be grey or a color that will blend in with the surroundings (A 2-3). Oyster cages and soft bags will be black in color (A 3). Orange bushel baskets or orange bushel totes for containing the product while sorting on the raft or processing boat will be the brightest gear involved in the operations (A 4).

The site report observes:

> The applicant proposes to use floating cages and bags to contain the cultured oysters and clams and submerged lines to culture mussels. The surface gear is black in color with black floatation and would protrude a maximum of 24" above the water's surface.
>
> An 18' by 12' work float with a 10 foot square "building" is proposed to be moored within the boundaries of the lease site (see application page 2, Section E). The application states the building would be grey in color with clear corrugated plastic roofing (SR 15).

The height of the building on the work float will be ten feet (App 22); the maximum height allowed by DMR Rule Chapter 2.37 (10) is 20 feet. With black and grey colors for structures and equipment, it appears that the gear and structures to be used on the proposed lease site will blend into the surroundings as much as possible. The orange baskets will be used intermittently in the course of processing and are not permanent features of the site.

The Department's visual impact rule requires structures and gear on lease sites to blend with the surroundings in terms of materials, color, and height as much as possible. The evidence shows that this will be the case on the proposed lease site.

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.

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, docking facilities, or conserved lands owned by municipal, state, or federal governments.

6. The applicant has demonstrated that there is an available source of American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), hard clams/quahogs (*Mercenaria mercenaria*), and blue mussels (*Mytilus 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. COMBINING NEW LEASE WITH LEASE JOHN NB2

Mr. Cheney requested that the proposed lease be combined with his existing lease in the Johns River North Branch, JOHN NB2, since the two tracts are located near to each other in the same water body and are part of the same shellfish farm operation. This is acceptable to the Department.

The JOHN NB2 lease is 4.2 acres in size, issued for bottom culture of American and European oysters and hard clams/quahogs. The JOHN NB2 lease site will be designated as the "north tract" in the combined lease. The lease site approved by this decision will be designated as the "south tract." The acronym of the new, combined lease will be JOHN NB3. Lease conditions on JOHN NB2 will be included in JOHN NB3.

The term of the combined lease will be limited to the remainder of the term of lease JOHN NB2, which began on February 8, 2012 and expires on February 7, 2022.

The lessee of JOHN NB2 is named as "Johns River Oyster, LLC." According to documents included in the current lease application (pp.31-37), Johns River Oyster, LLC was renamed "Johns River Shellfish, LLC" as of 3/6/12. Both corporations are wholly-owned by David P. Cheney. The combined lease will be issued to Johns River Shellfish, LLC.

6. DECISION

Based on the foregoing, the Commissioner grants the requested lease of 2.6 acres to Johns River Shellfish, LLC, for ten years for the purpose of cultivating American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), hard clams/quahogs (*Mercenaria mercenaria*), and blue mussels (*Mytilus edulis*), using suspended and bottom culture techniques. The 4.2 acres of coastal waters and public land currently leased to Johns River Oyster, LLC as lease JOHN NB2 will be included in this lease as described in section 5 above.

The lessee shall pay the State of Maine rent in the amount of $100.00 per acre per year. The lessee 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 performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations.

7. 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)[8] 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. The lessee must maintain an 85- foot by 150-foot access corridor across the south tract of the lease site. The lessee may place two work floats, a boat mooring, and oyster cages on the bottom within the corridor.

3. Dragging and shellfish harvesting, except by the leaseholder or its authorized agents, are prohibited on the lease site.

4. When harvesting by drag on the north tract, the lessee must maintain a lookout for approaching vessels, promptly communicate to them his intent to provide a safe corridor for their passage, and do so at the soonest practicable time.

5. The Department may, in its sole discretion, review the lease to determine whether additional "reasonable measures" need to be taken "to mitigate noise impacts from the lease activities" during the term of the lease. Should the addition of noise reduction measures be determined reasonable and appropriate by the Department, in its sole discretion, the lease will be amended to include further conditions requiring the implementation of those measures.

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[8] 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."

5. Other public uses that are not inconsistent with the purposes of the lease are permitted within the lease boundaries.

8. REVOCATION 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: May 18th, 2016

Patrick C. Keliher
Commissioner,
Department of Marine Resources