

**STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES**

**Lessee: Basket Island Oyster
Company, LLC**

Acronym: CAS BC2

Standard Aquaculture Lease Application
Suspended and bottom culture of American/
Eastern oysters, Broad Cove, Casco Bay,
Yarmouth

Docket # 2017-05

October 2, 2017

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Basket Island Oyster Company LLC., applied to the Department of Marine Resources ("DMR") for a ten-year standard aquaculture lease on 3.59 acres¹ located in Broad Cove, Casco Bay, Yarmouth, Cumberland County, Maine for the cultivation of American/Eastern oysters (*C. virginica*) using suspended and bottom culture techniques. DMR accepted the application as complete on May 15, 2017. A public hearing on this application was held on September 13, 2017 at the Yarmouth Town Hall in Yarmouth, Maine. No one intervened in this case.

1. THE PROCEEDINGS

Notices of the hearing and copies of the application and DMR site report were provided to state and federal agencies for their review, as well as to various educational institutions, aquaculture and environmental organizations, the Town of Yarmouth and the Yarmouth Harbormaster, members of the Legislature, representatives of the press, riparian landowners, and other private individuals. Notice of the hearing was published in the northern edition of the *Forecaster* on August 10, 2017 and August 24, 2017 and in the August edition of the *Commercial Fisheries News*.

Sworn testimony was given at the hearing by: Mark Green representing Basket Island Oyster Company, LLC.; Jon Lewis, DMR Aquaculture Program Lead; Robert Byron, Town of Yarmouth Harbormaster and Shellfish Warden; Merle Nelson, a resident of the Town of Cumberland; and Barbara Horton a riparian landowner in the Town of Yarmouth. The applicant described his proposed project. Mr. Lewis described the site visit and presented a videotape of the bottom. Mr. Byron described aquaculture activity in the Town of Yarmouth and Broad Cove. Ms. Nelson thanked the Department for conducting a hearing. Ms. Horton thanked the Department for conducting a hearing and thanked the applicant for explaining his aquaculture operations.

¹ Applicant originally requested 4 acres and the Department verified the coordinates and determined the site was 3.68 acres. However, the acreage was reduced to 3.59 acres to accommodate for an eelgrass bed as described in section 3(D) of this decision.

Each witness was subject to questioning by the Department, the applicant, and members of the public. No other representatives of federal, state, and local government agencies indicated their presence at the hearing.

The hearing was recorded by DMR. The Hearing Officer was Amanda Ellis.

The evidentiary record before the Department regarding this lease application includes three exhibits introduced at the hearing (see exhibit list below), and the record of testimony at the hearing itself. The evidence from all of these sources is summarized below.²

LIST OF EXHIBITS³

- a. Case file
- b. Application signed and dated
- c. DMR site report dated

2. DESCRIPTION OF THE PROJECT

A. Site History

The proposed standard lease would, in part, replace CAS BC a 1.8-acre experimental lease. The lease was originally issued on February 5, 2013 to Peaks Island Shellfish, LLC for the cultivation of American/eastern oysters (*C. virginica*) using suspended culture techniques. On June 20, 2013, Peaks Island Shellfish, LLC changed its corporate name to Basket Island Oyster Company, LLC. The term of the experimental lease expired on May 1, 2016, but according to 12 M.R.S. §6072-A(20), the lease remains in effect pending the Commissioner's decision on the proposed standard lease. Mr. Green testified that the proposed lease site would encompass the existing experimental lease and that the additional acreage would be used for bottom culture techniques.

Four limited-purpose aquaculture licenses (LPAs) are located within the boundaries of the proposed lease site. The LPAs were issued to Jeanne Gulnick on May 19, 2017 for the cultivation of American/eastern oysters (*C. virginica*) using bottom culture techniques. The LPAs have been utilized as part of Basket Island Oyster Company, LLC operations (Green/Ellis). Mr. Green testified that if the proposed lease is granted the LPAs would be terminated (Green/Ellis).

B. Site Characteristics

On June 2, 2017 DMR staff assessed the proposed lease site and the surrounding area in consideration of the criteria for granting an aquaculture lease. The proposed lease site occupies shallow subtidal waters in the center of Broad Cove in Yarmouth (SR 2). Although the proposed site is located in the Town of Yarmouth waters, Broad Cove is also bordered by the Town of

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

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

Cumberland. At mean low water, the distance from the northwestern corner of the proposed lease site (corner E) to the western, or Cumberland shore of Broad Cove is ~1,030 feet (SR 5). The distance, at mean low water, from the southeastern corner of the proposed site (corner A) to the eastern, or Yarmouth shore of Broad Cove is ~1,315 feet.⁴ Except for a deeper channel in the center of Broad Cove, wide areas of intertidal mud flats lie between the site and uplands. During low tide, over 70 acres of mudflats are exposed in the head of the Cove (SR 2). Water depths, at mean low water, range from 1.3 feet at corner C of the proposed site to 2.5 feet at corner B of the proposed site (SR 4).



Figure 1: Depicts the proposed lease area, which includes the existing experimental lease CAS BC.

The uplands are comprised of rocky shorelines that give way to mixed forests (SR 2). Several houses are present along the shoreline (SR 2). The bottom of the proposed site is characterized by soft mud except for the middle of the western half of the proposed site, which is comprised of sand (SR 5). The western section of the proposed lease contains large densities of bivalve shells (SR 5). The shells observed with greatest frequency include European oyster (*Ostrea edulis*), blue mussel (*Mytilus edulis*), soft-shelled clam (*Mya arenaria*), northern quahog (*Mercenaria mercenaria*), and razor clam (*Ensis directus*) (SR 5).

⁴ Distances are based on aerial imagery.

The proposed lease is an area currently classified by the Department's Water Quality Classification program as "conditionally approved for the harvest of shellfish" (SR 6). This means that shellfish cannot be harvested between June 1 and October 31, dates inclusive (SR 6).

C. Proposed Operations

The applicant proposes to cultivate American/eastern oysters using a combination of bottom and suspended culture techniques. Nearly 75% of the proposed acreage will be dedicated to bottom planting, which means most of the proposed lease area will contain no gear except for marker buoys (SR 2). The eastern most section of the proposed lease will be used for suspended culture. Eight longlines, oriented north to south, will each hold a maximum of thirty wire mesh cages for a total capacity of 240 cages (App 6). However, Mr. Green testified that there will be no more than 80 cages deployed on the proposed site at any given time. The cages are secured to the longlines by a 10-foot tether line (App 8). The cages measure 48" x 36" x 9" and will be placed on the bottom of the site, but kept six inches off the ocean floor by two wire mesh legs (SR 2). The cages will be used for product grow-out and when the oysters have reached the appropriate size they will be removed from the cages and seeded on the bottom of the proposed site (App 9). Harvesting will be conducted by hand whenever possible, but oyster rakes or a small dredge may be used when hand harvesting is not feasible (App 9). Gear will remain on the proposed site throughout the winter months (Green/Ellis).

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 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, and mass.

A. Navigation

The site report notes the following:

The proposed lease site is not within major navigation channels and is over 300 feet to the north of the deeper channel that extends into Broad Cove. Due to the shallow nature of the proposed lease site, few vessels are likely to navigate the area when the tide is low. At high tide, vessels in the area would have over 1,000 feet on all sides of the proposed lease site in which to navigate (SR 7).

Much of the proposed site will be utilized for bottom culture, which will enable mariners to navigate throughout much of the proposed area as the tides allow (SR 7). Mr. Green testified that at mid and high tides vessels can traverse the proposed lease site. Mr. Byron testified that he did not have any concerns with the proposed operations interfering with navigation (Byron/Ellis).

Based on the evidence, it is reasonable to conclude that navigation in the area will not be unduly affected by the presence of the proposed lease site.

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with navigation. Aquaculture lease sites are required to be marked for navigation purposes in accordance with U. S. Coast Guard requirements.

B. Riparian Access

During the site visit, staff observed five moorings, including one owned by the applicant, within 1,000 feet of the proposed lease site (SR 6). The closest mooring to the site, other than the one owned by the applicant, was approximately 480 feet to the south of the proposed site (SR 6). The site report notes the following:

It is unlikely that the proposed lease will interfere with riparian ingress and egress to and from the moorings observed due the fact that there is room for navigation around the lease site at high tide, and because the proposed lease site would likely be avoided by most mariners at low tide due to its shallow nature (SR 6).

Department staff also observed approximately 18 docks within the vicinity of the proposed lease (SR 6). The closest dock is located ~1,300 feet to the east of the proposed lease site (SR 6). The site report notes the following:

It is unlikely that the proposed lease will interfere with riparian ingress and egress to and from docks in Broad Cove. There is ample room for navigation around the lease site at high tide and the majority of docks in the head of Broad Cove are inaccessible at low tide (SR 6).

Given the shallow nature of the proposed lease area, it is likely that riparian owners navigating in the Cove would utilize the deeper channel to the southwest of the proposed lease site (SR 6). Mr. Byron testified that he did not have any concerns with the proposed site interfering with riparian ingress and egress (Byron/Ellis). No one else offered testimony regarding riparian ingress and egress.

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

C. Fishing & Other Uses

The application notes that soft shell clams are harvested along the shores of Broad Cove on a limited basis and that the proposed lease site is 3,000 feet away from any known harvest areas (App 10). During the site visit, staff observed some European oysters along the bottom of the proposed lease site (SR 7). However, the harbormaster for the Town of Cumberland indicated that he had not observed anyone harvesting European oysters in the area except on existing aquaculture sites (SR 7). Given the shallow water depths at the proposed site it is unlikely that the area is utilized by commercial lobstermen (SR 7). Mr. Green testified that fishing for striped bass (*Morone saxatilis*) on the proposed lease site would be permitted.

Exclusivity. The applicant requests that shellfish harvesting within the boundaries of the proposed lease site be prohibited (App 12). This 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 reflecting this restriction will be included in the lease.

Other aquaculture leases. Besides the LPAs held by Ms. Gulnick and the experimental lease held by Basket Island Oyster Company, LLC the closest aquaculture site to the proposed lease is located ~890 feet to the north. The site is an LPA and is issued for the suspended culture of American/eastern oysters (*C. virginica*).⁵ It is reasonable to conclude that the proposed operations are unlikely to negatively affect existing aquaculture uses in the area.

Based on this evidence, it appears that the proposed lease will not unreasonably interfere with fishing or other uses of the area. The lease must be marked in accordance with DMR Rule 2.80⁶

⁵ LPA acronym, **PER107**

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 State's Coast Guard's Aids to Private Navigation standards and requirements.

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 staff observed several species of marine flora and fauna including: European oyster (*Ostrea edulis*), blue mussel (*Mytilus edulis*), common periwinkle (*Littorina littorea*), red beard sponge (*Microcitoma porifera*), and harbor seals (*P. vitulina*) (SR 9).⁷ Department staff observed eelgrass within the southeastern corner of the proposed lease. The site report notes the following:

On June 2, 2017 eelgrass beds extended approximately 30 feet from Corner A along the proposed lease site's eastern boundary. The applicant proposes to populate this area with wire mesh cages placed on the ocean floor for the suspended culture of American/eastern oysters. This could inhibit the growth of eelgrass that currently populates the area (SR 11).

To prevent aquaculture gear from being deployed over the eelgrass bed and ensure compliance with the 25-foot setback required by the Army Corps of Engineers, the southeastern corner of the proposed site will be reduced in area by 75' x 55' as depicted in Figure 2 (SR 11). The reduction will modify the total size of the proposed area from the original calculated size of 3.68 acres to 3.59 acres. The applicant has been notified of the changes to the proposed lease boundaries and is amenable to the reduction in acreage.⁸

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⁷ For a complete list of observed species and their relative abundance see page 9 of the site report.

⁸ CF, email correspondence from DMR staff to applicant dated June 30, 2017.



Figure 2: Proposed lease area depicting the eelgrass reduction in the southeastern corner.

Fisheries & wildlife. DMR sent a copy of the lease application to the Maine Department of Inland Fisheries and Wildlife (MDIF&W) for their review and comment. The area surrounding the proposed lease site is designated as Tidal Waterfowl and Wading Bird Habitat by MDIF&W (SR 10). MDIF&W commented that they do “not have any concerns with this project.”⁹

Based on this evidence, it appears that the culture of oysters as proposed for this lease site will not interfere with the ecological functioning 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.

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⁹ CF, email correspondence from MDIFW staff to C. Burke dated June 20, 2017.

E. Public Use & Enjoyment

According to the site report, “there are no public docking facilities or beaches within 1000 feet of the proposed lease” (SR 14). However, the site report notes:

A parcel of land owned by the Town of Cumberland, known as the Broad Cove Reserve, is located on the western shore of Broad Cove. A public-access pier extends from the Broad Cove Reserve approximately 2,400 feet to the southwest of the proposed lease site. The town maintains a well-marked channel to this pier and is in the process of developing a nearby mooring field (SR 14).

DMR staff contacted the Cumberland harbormaster to determine whether the proposed operations would affect the pier and the development of the mooring field (SR 14). The harbormaster indicated that the proposed lease site would not interfere with the pier or mooring field (SR 14).

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

F. Source of Organisms

The application indicates that the source of stock for this proposed lease site is Mook Sea Farms located in Walpole, Maine (App, 1).

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 and operations will take place during daylight hours (App 9). Night work would only occur in case of emergency (App 9).

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 applicant intends to use a tumbler, generator, and electric hoist on the proposed site (App 9). The tumbler is used each week and is powered by a gasoline generator (App 3, SR 15). The application notes that the generator uses “four stroke technology and is quiet” (App 9). The hoist is used daily and is powered by battery (App 9, SR 15). As indicated on the application, Mr. Green had originally intended to use a power washer on the proposed site to clean gear (App 9). However, Mr. Green testified that since submitting the application he has decided not to utilize a power washer on the proposed site. Mr. Green testified that gear will be cleaned off the proposed site at a land based facility (Green/Ellis). A condition prohibiting the use of a power washer will be included in

the lease. The applicant intends to conduct work at the proposed site from a 24" Carolina Skiff and a 30" x 14" motorized work barge (SR 15). The applicant testified that the work barge will be used periodically and is powered by a 20 h.p., four-stroke engine. Mr. Green testified that the types and levels of noise likely to originate from the proposed lease are similar to what occurs currently on the existing experimental lease.

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.

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

Mr. Green testified that the tops of some of the cages may be visible periodically during low, or drain tides. The cages will be green or black in color (SR 15). The applicant testified that the work barge will be moored, periodically, to the south of the proposed lease site. No other structures will be placed on the site, other than any navigational aids that may be required. Given the color of the gear and the fact that the work barge is not a permanent feature of the site, it appears the proposed equipment will blend into the surroundings as much as possible.

The Department's visual impact rule requires structures and gear on lease sites to blend with the surroundings 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:

- a. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.
- b. The aquaculture activities proposed for this site will not unreasonably interfere with navigation.
- c. 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.
- d. 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. The aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments.
- f. The applicant has demonstrated that there is an available source of American/Eastern oysters (*C. virginica*) to be cultured for the lease site.
- g. The aquaculture activities proposed for this site will not result in an unreasonable impact from light at the boundaries of the lease site.
- h. Given the condition prohibiting the use of a power washer at the lease site, the aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease site.
- i. 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. DECISION

Based on the foregoing, the Commissioner grants the requested lease of 3.59 acres to Basket Island Oyster Company, LLC. for ten years for cultivating American/Eastern oysters (*C. virginica*) using suspended and bottom culture techniques. 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.

6. CONDITIONS TO BE IMPOSED ON LEASE

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities, pursuant to 12 MRSA §6072 (7-B)¹⁰. 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:

- a. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.

¹⁰ 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."

- b. Dragging and shellfish harvesting, except by the leaseholder or its authorized agents, are prohibited on the lease site.
- c. The use of a power washer at the lease site is prohibited.
- d. Other public uses that are not inconsistent with the purposes of the lease are permitted within the lease boundaries.

7. 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: _____

10/2/2017



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