STATE OF MAINE DEPARTMENT OF MARINE RESOURCES

Quahog Bay Conservancy

HARP DH

Application for Change in Gear and Species Authorization Casco Bay, Harpswell

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Quahog Bay Conservancy applied to the Department of Marine Resources (DMR) to amend its existing standard lease HARP DH, located in Casco Bay in the Town of Harpswell, Cumberland County, Maine, to change the gear and species authorization.

1. THE PROCEEDINGS

The application was deemed complete by DMR on September 22, 2023. Notice of the application and the 14-day public comment period were provided to other state and federal agencies, riparian landowners within 1,000 feet of the proposal site¹, the Town of Harpswell and its Harbormaster, and others on DMR's mailing list. No public comments were received. The evidentiary record before DMR regarding this lease amendment application includes seven exhibits (see exhibit list below).

LIST OF EXHIBITS^{2,3}

- 1. Application for a change of species and gear authorization, deemed complete September 22, 2023
- 2. Executed lease agreement for transferred site signed April 12, 2018
- 3. Lease transfer decision signed April 11, 2018
- 4. Lease transfer application deemed complete March 15, 2018
- 5. Original executed lease agreement for HARP DH signed July 12, 2016
- 6. Original lease decision signed March 29, 2016
- 7. Original application deemed completed August 26, 2015
- 8. Case file.

2. STATUTORY CRITERIA & FINDINGS OF FACT

¹ For purposes of notice, the Department defines "riparian owner" as a shorefront property owner whose property boundaries are within 1,000 feet of the proposed site.

² Exhibits 1-7 are cited below as: Amendment Application – "App", Executed Transferred lease for HARP DH – "Exhibit 2", Transfer Lease decision for HARP DH – "Exhibit 3", Transfer of Lease Application – "Exhibit 4", Original Executed lease document for HARP DH – "Exhibit 5", Original Lease decision for HARP DH – "Exhibit 6", Original Application deemed completed August 26, 2015 – "Exhibit 7", and Case File – "CF".

³ Page numbers are cited using the PDF page number, and not the page number written on the application.

Approval of standard aquaculture lease amendments is governed by 12 M.R.S.A. § 6072 (13)(G) and Chapter 2.44 of DMR regulations. The statute and regulations provide that the Commissioner may grant amendments for the use of specific gear or the growth of specific species, and for operational modifications resulting from the change(s), on an existing lease site provided the lease amendment does not violate any of the lease issuance criteria, the lease amendment is consistent with the Commissioner's findings on the underlying lease application, and the lease amendment does not violate any of the conditions set forth in the original lease.

A. Original Lease Decision

On March 29, 2016, DMR granted lease HARP DH to Dogs Head Oyster, LLC (Exhibit 6). DMR's Findings of Fact, Conclusions of Law, and Decision, hereinafter referred to as "the original decision", found that the evidence in the record supported the conclusion that the aquaculture activities proposed by Dogs Head Oyster met the requirements for granting a standard aquaculture lease as set forth in 12 M.R.S.A. § 6072 (Exhibit 6, page 10).

Dogs Head Oyster, LLC applied to transfer HARP DH to Quahog Bay Conservation on March 9, 2018 (Exhibit 4, page 1). This application was deemed complete on March 15, 2018 (Exhibit 4, page 1). DMR granted the transfer of the lease to Quahog Bay Conservation on April 11, 2018, hereinafter referred to as "the transfer decision". (Exhibit 3).

The original decision provided authorization to cultivate American oysters (*Crassostrea virginica*), using suspended culture techniques (Exhibit 6, page 1). The lease as approved authorized the use of 17" x 40" x 4.5" plastic mesh oyster bags, 67" x 40" x 9" 12-gauge wire mesh oyster cages, plastic floats, and a 16' x 20' wood and fiberglass float to be towed to the site as needed (Exhibit 6, page 3-4). Oyster cages were approved to be set on the bottom of the proposal throughout the lease site (Exhibit 6, page 3). The original decision authorized floating gear in the western and eastem portions of the lease and bottom cages in the southwestern third of the lease (Exhibit 6, page 3). The absence of floating gear in the southwestern portion of the lease would "allow Bowdoin College continued access to the head of Brewers Cove and allow passage for Kayakers to paddle the shoreline uninhibited" (Exhibit 6, page 3).

In the original decision, pursuant to 12 M.R.S.A § 6072(7-B), the Commissioner established four conditions governing the use of HARP DH. The conditions are:

- 1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80;
- 2. Recreational fishing and navigation, except in non-motorized vessels, are prohibited from areas of the lease site where surface gear is deployed;

- 3. Dragging and shellfish harvesting are prohibited on the lease site except with the authorization of the lessee; and
- 4. Other public uses that are not inconsistent with the purposes of the lease are permitted within the lease boundaries.

The lease transfer did not change what was originally authorized or otherwise modify the lease conditions.

B. Proposed Changes to Gear Layout and Findings

The leaseholder is requesting an amendment to the approved gear to allow the deployment of suspended lines in the northern half of the lease from November 1 to May 31 for the purpose of growing marine algae (App 4). This proposed culture technique is referred to as the "catenary module" throughout the application (App 8). The applicant proposes to add two catenary module aquaculture systems to their lease. The gear proposed for a single catenary module include: six corner buoys, three longitude framing lines, four transverse framing lines, four catenary lines, one hundred grow line extensions, one hundred grow lines, one set line, three set line end buoys, and sixteen set line buoys (App 8). Mooring the modules would also require anchor lines, shackles, anchor chains, and drag-embedment anchors (App 8).

Using the catenary module system, the marine algae will be cultured on twenty-five rows, consisting of two segments of 200' lines each, anchored to the bottom with 200lb drag-embedment anchors (App 5-6). There would be set line and buoys approximately every 100' on the grow lines (App 5). All grow lines, structural lines, and surface buoys would be removed at the end of the growing season (App 5). The anchors and lines/chains used to secure the longlines to the anchors would be left on the bottom with pickup lines and pickup buoys left to mark their location and to aid in retrieval (App 5).

Additionally, the applicant is seeking authorization to add a new 20' x 30' work float to the lease area (App 10). The work float would have a building placed on it with the dimensions of 12' x 16' x 9' (App 10). The purpose of this building is for the security of the applicant's equipment (App 10). This float would be moored year-round with two 1000lb mooring blocks using 5/8" chain (App 10). A Craftsman portable generator used to power the equipment would be stored on site, but the gas for the generator would not be (App 10). A generator was not authorized as part of the original decision.

The area in which the marine algae longlines are proposed currently houses four strings of twenty floating oyster cages (App 4). The oyster cages that have historically been held in that section of the lease will be moved to the southeastern side of the lease to make room for the catenary system (App 10). Space will still be available in the bottom portion of the lease site to allow Bowdoin College and kayakers continued access to the head of Brewers. No floating gear would be placed below the ten strings of OysterGro cages. Additionally, the original decision authorized a 16-foot by 20-foot processing float. The float is constructed from wood and fiberglass and is towed to the site as needed but is not moored within the boundaries year-round (Exhibit 6, page 4). The amendment application indicated that the float is currently located in the northeastern area of the lease site (App 4).

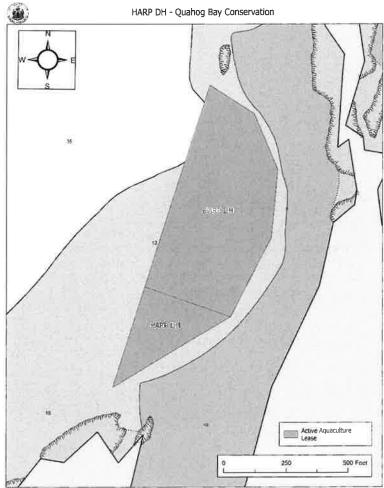


Figure 1. Lease site divided into a bottom third and a top two thirds. Figure created in ArcGIS Proversion 2.9 using digitized NOAA Nautical Charts or geo-referenced aerial photographs provided by The Maine Office of GIS.

1. Gear - Suspended Aquaculture.

The applicant proposes to add gear to enable them to use a catenary module as outlined in Section B. Using the catenary module system, the marine algae will be cultured on twenty-five rows, consisting of two segments of 200' lines each, anchored to the bottom with 200lb drag-embedment anchors.

The catenary module system is a type of suspended gear aquaculture. The lease currently allows for suspended gear aquaculture in this proposal. Allowing the catenary module would be allowing the same general type of activity to continue with additional types of gear, such as anchors and longlines, to be placed in the lease area. While the species cultured in the northern half of the lease site would change, as discussed in Section 3, the general culture gear or longline infrastructure would remain consistent with what was originally authorized.

As stated in the original decision, the leaseholder leaves the southern third of the lease area free from any suspended gear to allow Bowdoin College to access to the head of Brewer Cove and allow passage for kayakers to paddle to the shoreline uninhibited (Exhibit 7, page 23). The original decision and the transfer decision did not include measurements or diagrams setting out the boundaries of the bottom third of the lease site that can be used for bottom gear only. However, for purposes of this decision, DMR has provided such measurements and diagrams. Figure 1 depicts the lease site split into the bottom third and upper two thirds. Information regarding the measurements can be found in the appendix.

Because this amendment is adding additional suspended aquaculture gear to a lease site which is already authorized for a similar gear type, the addition of the catenary module and associated changes in layout to existing suspended gear is consistent with the Commissioner's findings on the underlying lease application, and this change does not violate any of the conditions set forth in the original lease. The addition of this gear would not violate any lease issuance criteria.

However, due to the original decision stating that the bottom third of the lease site would only be used for bottom gear, the new catenary modules cannot be placed within the bottom third of the lease site as depicted in Figure 1 and described in the appendix.

Therefore, the proposed gear change is consistent with the findings on the underlying lease application and would not materially alter the findings of the original decision, including the lease conditions in place.

2. Gear - Work Float.

The amendment application proposes a new work float which would be 20' x 30', or 600 SF replacing the 16' x 20' or 320 SF work barge that was proposed in the original decision (App 10).⁴ The proposed float would be 4' wider and 10' longer, or an additional 280 SF in size, than the float currently in place. Additionally, the proposed float would have a building on it with the dimensions of 12' x 16' x 9' (App 10). This building is also diagrammed elsewhere in the application to have a height of 11' as measured from the water line (App 9). The color of the new float or the building that will be placed on the float is not listed in the application. As proposed, the new float would be moored within the boundaries of the site year-round using two 1,000lb mooring blocks and 5/8" chain (App 10).

The original barge is not used on site year-round but is towed on site as needed (Exhibit 7, page 4). There are no conditions or other restrictions limiting the duration the original barge may be kept on the lease site. The original barge does not contain any buildings.

DMR Rule Chapter 2.44 (1) states "the Commissioner shall not amend a lease in such a way that it materially alters the findings of the original decision or would result in a change to the original lease

⁴ The proposed new float is also referenced as 20' x 32' elsewhere on the application (App 10).

conditions." The rule also says that a lease amendment may only be granted if it "does not violate any of the lease issuance criteria set forth in 12 M.R.S.A. §6072(7-A)." Chapter 2.44 (4).

When evaluating a lease application, DMR considers an established set of decision criteria as specified in law and rule. Accordingly, DMR must consider the visual impact of the proposal. Rules regarding visual impact apply to all equipment, buildings, and watercraft used at an aquaculture facility, excluding watercraft not permanently moored or routinely used at a lease location such as harvest or feed delivery vessels. Chapter 2, § 2.37(1)(A)(10). Because the proposed work float would be moored within the boundaries of the lease site, it would be subject to a visual impact analysis.

The proposed new float would be 280 SF larger than the barge approved in the original decision. Additionally, the new float would be a permanent structure, while the original barge is currently "towed to the site as needed" (Exhibit 6, page 4). While the proposed float is larger than the barge already present in the lease area, the use and general size of the new float is consistent with the original decision, due to its low profile and minimal visual prominence. The current barge is not a permanent structure but is towed to and from the site as needed. The original decision does not condition a range of days or months to which the barge can be located within the lease site, meaning the current barge is able to be within the lease for as long as the lease holder deems it necessary to be there. Due to the broad length of time the lease holder is currently able to locate the current barge within the lease boundary, keeping the new float within the boundaries year-round is consistent with the original decision.

The proposed float would have a building on it with dimensions of 12' x 16' x 9' (App 10). This building is also diagrammed elsewhere in the application to have a height of 11' as measured from the water line (App 9). While the float itself does not materially change the findings in the original decision, a building on top of the float would, as it would increase the visual profile and be different in kind from the design and style of structures approved by the original decision. A building located within the boundaries of the lease would be materially different from what was originally permitted because no building was initially proposed. Therefore, there was no finding made in the prior decision that a building would meet the relevant statute and regulatory criteria governing visual impacts and building design. Proposing a building is not consistent with the original decision and would be a material departure from what was initially proposed.

Due to the original decision stating that the bottom third of the lease site would only be used for bottom gear, the float cannot be placed within the bottom third of the lease site as depicted in Figure 1 and described in the appendix.

^{5 12} M.R.S.A. § 6072(7-A); Chapter 2, § 2.37(1)(A)(1)-(10).

^{6 12} M.R.S.A. § 6072(7-A)(H); Chapter 2, § 2.37(1)(A)(10).

⁷ For full rules regarding visual impact of an aquaculture lease see Chapter 2, § 2.37(1)(A)(10). Any rule applicable to this decision will be fully stated in the decision.

Therefore, the proposed gear change of the addition of a permanent 20'x30' float to replace the current 16'x20' barge is consistent with the findings on the underlying lease application and would not materially alter the findings of the original decision, including the lease conditions in place. The addition of a building placed on top of the float is inconsistent with the Commissioner's findings on the underlying lease application and the building will not be permitted.

3. Gear - Generator.

The application includes the addition of a Craftsman portable generator which would be used to power the applicant's equipment (App 10). The generator would only be used 14 days out of the year (App 10). The original decision grants the applicant the ability to use noise generating gear to power equipment used during the applicant's aquaculture activities. The original decision allowed for the use of hydraulics to power the onsite equipment. This would now be replaced with the proposed generator. The addition of a generator will not add more noise within the boundaries of the lease, only change the source of which the noise is coming from.

Because this amendment is replacing the noise generating equipment with other noise generating equipment, and not adding more noise to the lease site, the lease amendment is consistent with the Commissioner's findings on the underlying lease application, and the lease amendment does not violate any of the conditions set forth in the original lease. The addition of this gear would not violate any lease issuance criteria.

Therefore, the addition of a generator is consistent with the findings on the underlying lease application and would not materially alter the findings of the original decision, including the lease conditions in place.

C. Proposed Species Changes and Findings

The leaseholder is also seeking authorization to cultivate sugar kelp (Saccharina latissimi), skinny kelp (Saccharina angustissima), and winged kelp (Alaria esculenta). These species would be cultured using the gear discussed in section 2.B of this decision (App 6). All three species would be sourced from Ocean's Balance, located in Biddeford, Maine, which is an approved source of stock by DMR. If stock is not available from this source another DMR approved source must be used.

Because the proposed sources of stock are all approved by DMR, and because six corner buoys, three longitude framing lines, four transverse framing lines, four catenary lines, one hundred grow line extensions, one hundred grow lines, one set line, three set line end buoys, and sixteen set line buoys involved in the proposed catenary system to culture this species has been found to be permissible via section 2.B of this decision, the proposal is consistent with the findings of the underlying lease application, would not materially alter the findings of the original decision, and would not result in a change to the original lease conditions.

3. CONCLUSIONS OF LAW

Based on the above findings, I conclude that:

- a. The proposed lease amendments do not violate any of the lease issuance criteria set forth in 12 M.R.S.A. §6072(7-A);
- b. The proposed lease amendments are consistent with the Commissioner's findings on the underlying lease application, with the exception of the requested addition of a 12' x 16' x 9' building for storage located on the 20'x30' work float;
- c. The requested addition of a 12' x 16' x 9' building for storage located on the 20'x30' work float is inconsistent with the Commissioner's findings on the underlying lease application;
- d. The proposed lease amendments do not violate any of the conditions set forth in the original lease.

Accordingly, the evidence in the record supports the conclusion that the proposed lease amendments, with the exception of the requested addition of a 12' x 16' x 9' building for storage located on the 20'x30' work float, meet the requirements for the granting of a lease amendment set forth in 12 M.R.S.A. §6072 and in DMR Rule Chapter 2.44.

4. DECISION

Based on the foregoing, the Commissioner grants the amendment request for HARP DH from Quahog Bay Conservancy to cultivate sugar kelp (*Saccharina latissimi*), skinny kelp (*Saccharina angustissima*), and winged kelp (*Alaria esculenta*) using the gear required for the catenary method listed above in section 2.B, and deployed in the manner described in section 2.B, which alters the gear layout to a maximum of fifty lines, deployed in pairs, and running northeast to southwest. The Commissioner grants the request from Quahog Bay Conservancy for the authorization of a 20'x30' work float moored in the lease site. The Commissioner grants the request from Quahog Bay Conservancy for the addition of a Craftsman portable generator to be used within the lease site. The Commissioner denies the request from Quahog Bay Conservancy for the authorization of the addition of a 12' x 16' x 9' building for storage located on the 20'x30' work float.

Dated:

Patrick C. Keliher, Commissioner Department of Marine Resources

APPENDIX

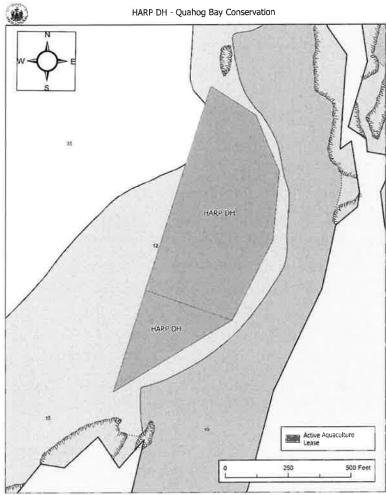


Figure 1. Lease site divided into a bottom third and a top two thirds. Figure created in ArcGIS Proversion 2.9 using digitized NOAA Nautical Charts or geo-referenced aerial photographs provided by The Maine Office of GIS.

Western intersect point – 43.794440 N, -69.954908 W Eastern intersect point – 43.794117 N, -69.953599 W

From the southern tip of HARP DH to the 'split' line = 426' From the split to the northern tip of HARP DH = 852' Area of southern 1/3 = 1.79 acres Area of northern 2/3 = 6.90 acres

STATE OF MAINE DEPARTMENT OF MARINE RESOURCES

Dogs Head Oyster, LLC, Transferor Aquaculture Lease Transfer Application Lease HARP DH Docket # 2018-07-T

Quahog Bay Conservation, Transferee April 11, 2018

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

1. THE PROCEEDINGS

Dogs Head Oyster, LLC, applied to the Department of Marine Resources ("DMR") to transfer to Quahog Bay Conservation, a Maine non-profit public benefit corporation, its 8.68-acre aquaculture lease HARP DH, located in the coastal waters of the State of Maine, northwest of Orrs Island and southwest of Dogs Head Island, Harpswell Sound, in the Town of Harpswell, Cumberland County, Maine. The lease was originally granted on March 29, 2016 for a period of ten years for the purpose of cultivating American/eastern oysters (*Crassostrea virginica*), using suspended culture techniques. The current lease expires on March 28, 2026.

The transfer application was accepted as complete on March 15, 2018. The Department provided a notice of the application and of the 14-day comment period to all riparian owners, the Town of Harpswell, the general mailing list of interested persons, and various state and federal agencies. A notice of the application and comment period was published in the *Brunswick Times Record* on March 23, 2018. No comments were received.

2. STATUTORY CRITERIA & FINDINGS OF FACT

Lease transfer requests are governed by 12 M.R.S.A. §6072 (12-A) and DMR Rule 2.60. They provide that the Commissioner of DMR may allow a lease to be transferred from one lessee to another upon determining that: (A) the change in the lessee's identity does not cause any of the original criteria for issuing a lease to be violated; (B) the transfer is not intended to circumvent the preference guidelines for treatment of competing applications; (C) the transfer is not for speculative purposes; and (D) the transfer will not cause the transferee to be a tenant in more than 1,000 acres of aquaculture leases in Maine.

A. Effect of Lessee Change on Lease Criteria

The transferee has met the same requirements for providing information about financial and technical capability and corporate status as is required for an applicant for a standard lease. The transferee has experience in shellfish aquaculture and is acquainted with Maine's aquaculture laws and rules. According to the transfer application, the transferee plans no changes in the aquaculture activities taking place on the lease site. No comments on this transfer application were received by the Department. There is no evidence that the change in the identity of the lessee will affect any of the statutory criteria for issuing an aquaculture lease.

THEREFORE, I FIND that the change in the identity of the lessee does not violate any of the lease issuance criteria set forth in 12 MRSA §6072 (7-A).

B. Effect on Preference Guidelines

There are no competing applications for this lease site, so the preference guidelines are not relevant to this application.

THEREFORE, I FIND that the lease transfer is not intended to circumvent the preference guidelines for treatment of competing applications as set forth in 12 MRSA §6072 (8).

C. Speculative Purposes

Rule 2.60 provides that in considering whether a transfer is being conducted for speculative purposes, the Department must consider "whether the current lessee has conducted substantially no research or aquaculture in the lease areas during the previous lease term." It is clear from annual reports filed with DMR by the Transferor that aquaculture has been conducted on this lease site.

THEREFORE, I FIND that the lease transfer is not for speculative purposes.

D. Acres Leased by Transferee

The statute and rule require that in order to grant the lease transfer, the Commissioner must find that "the transfer will not cause the transferee to be a tenant of any kind in leases covering an aggregate of more than 1,000 acres." According to DMR records, the transferee holds no leases prior to this transfer.

THEREFORE, I FIND that the lease transfer will not cause the transferee to be a tenant of any kind in leases covering an aggregate of more than 1,000 acres.

3. CONCLUSIONS OF LAW

Based on the above findings, I conclude that:

- 1. The change in the identity of the lessee does not violate any of the lease issuance criteria set forth in 12 MRSA §6072 (7-A);
- 2. The lease transfer is not intended to circumvent the preference guidelines for treatment of competing applications as set forth in 12 MRSA §6072 (8);
 - 3. The lease transfer is not for speculative purposes; and
- 4. The lease transfer will not cause the transferee to be a tenant of any kind in leases covering an aggregate of more than 1,000 acres.

These findings of fact and conclusions of law having been made as required by 12 MRSA \$6072 (12-A) and by DMR rule 2.60, this lease transfer may be granted.

4. DECISION

Based on the foregoing, I grant the requested transfer of the aquaculture lease HARP DH from Dogs Head Oyster, LLC, to Quahog Bay Conservation, a Maine non-profit public benefit corporation. The term of the lease is not affected by the transfer, so the new lease will expire on the same date as the current lease, which is March 28, 2026.

All provisions of the existing lease shall continue in full force and effect, including all conditions on the lease, as noted below. 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), conditioned upon its performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations.

5. CONDITIONS

Pursuant to 12 MRSA §6072 (7-B), 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 lease.

The existing conditions on this lease, which continue in effect after the transfer, are:

- a. The lease area shall be marked in accordance with U.S. Coast Guard and Department of Marine Resources Regulations Chapter 2.80.
- b. Recreational fishing and navigation, except in non-motorized vessels, are prohibited from areas of the lease site where surface gear is deployed.
- c. Dragging and shellfish harvesting are prohibited on the lease site except with the authorization of the lessee.
- d. Other public uses that are not inconsistent with the purposes of the lease are permitted within the lease boundaries.

6. REVOCATION OF LEASE

The Commissioner may commence revocation procedures if it is determined 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 is not being observed, the Commissioner may revoke the aquaculture lease.

Dated: 4.11.18

Patrick C. Keliher, Commissioner Department of Marine Resources

STATE OF MAINE DEPARTMENT OF MARINE RESOURCES

Standard Aquaculture Lease Application Suspended culture of oysters Harpswell Sound, Harpswell Jon M. Rogers/
Dogs Head Oyster, LLC
HARP DH
Docket #2015-18
March 29, 2016

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Jon Rogers applied to the Department of Marine Resources ("DMR") for a standard aquaculture lease on 8.68 acres¹ located in the coastal waters of the State of Maine, northwest of Orrs Island and southwest of Dogs Head Island in Harpswell Sound in the Town of Harpswell in Cumberland County, for the purpose of cultivating American oysters (*Crassostrea virginica*) using suspended culture techniques. DMR accepted the application as complete on August 26, 2015. No one intervened in this case. A public hearing on this application was held on March 7, 2016 in Harpswell.

After the hearing, Mr. Rogers established Dogs Head Oyster, LLC as the corporate form for his oyster business and requested that the lease be issued to the LLC, which is wholly-owned by him.

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 Harpswell and the Harpswell Harbormaster, members of the Legislature, representatives of the press, riparian landowners, and other private individuals. Notice of the hearing was published in the Brunswick *Times Record* on February 1 and 15, 2016, and in the *Commercial Fisheries News* February 2016 edition.

Sworn testimony was given at the hearing by Jon Rogers and DMR Aquaculture Scientist Marcy Nelson. Mr. Rogers described his proposed project. Ms Nelson described the DMR site visit and presented a videotape of the bottom. The U.S. Army Corps of Engineers was represented by Senior Project Manager LeeAnn Neal.

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.

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

¹ Lease coordinates listed in the application actually describe a site of 8.82 acres (*see* Site Report, p. 4). Following the DMR site visit, the site boundaries were revised to cover 8.68 acres (*see* Site Report, p. 11, and section 3 (D), Flora & Fauna, below).

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

LIST OF EXHIBITS3

- 1. Case file, #2015-18
- 2. Application signed and dated 6-19-15, revised 8-17-15
- 3. DMR site report dated February 2, 2016

2. DESCRIPTION OF THE PROJECT

A. Site History

The applicant currently has four limited-purpose aquaculture (LPA) licenses for the suspended culture of American oysters (ROGE-1, -2, -3, and -4-15) located along the proposed eastern boundary of the lease site (SR, Figure 2). At the time of the DMR site visit, four lines of up to five floating oyster cages per line were observed by Department biologists (SR 2 and Images 1 and 2).

B. Site Characteristics

The proposed lease site is located in Harpswell Sound, off the northwest shore of Orrs Island, in an area currently classified by the DMR Bureau of Public Health as "open/approved" for the harvest of shellfish. On October 14, 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 proposed lease site occupies a half-moon-shaped site off the northwest shore of Orrs Island in Harpswell Sound (SR 1, Figure 1). Figure 5 of the DMR site report depicts a revision in the eastern boundary of the proposed lease site in order to provide a buffer between the site and an eelgrass bed.⁴

The nearest shore is the northern tip of Orrs Island, about 200 feet east of the proposed lease site, which consists of undeveloped wooded upland bordered by rocky shore and intertidal ledges. This land is owned by Bowdoin College, which operates its Coastal Study Center on 118 acres there, using the area southwest of the proposed lease site for their students and sailing school, according to the application (App 11, 29, 32). To the north of Orr's Island, additional ledges surround tiny Dogs Head Island, approximately 425–500 feet northeast of the proposed lease site, on which a small house and dock are located (SR 5, Fig. 2). To the west, the site is bordered by the open waters of Harpswell Sound.

The site report describes the proposed lease site as follows:

The bottom of the proposed lease is flat without rocky outcrops or ledges. It gently slopes downward east to west. Eelgrass (*Zostera marina*) exists to the east of the proposed lease site boundaries. As the site deepens to the west and eelgrass diminishes, bottom sediments become increasingly silty and muddy. A diver could insert their gloved hand approximately 6-10 inches before meeting resistance (SR 3).

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

⁴ See Section 3 (D), Flora & Fauna, below, for a discussion of this change.

Mean low water depths (MLW) within the area of the proposed lease, as calculated from measurements taken during the site visit, range from "a minimum of roughly 4.12 feet along the nearshore/eastern boundary to 14.12 feet to the south and west" (SR3).

C. Proposed Operations

The applicant proposes to grow American oysters using floating bags and floating and bottom cages.

Oyster bags are plastic mesh, 17" x 40" x 4.5" high (App 3). They will be deployed in two ways: floating at the surface, clipped individually to parallel lines up to 100 feet long; or set inside the oyster cages, which hold up to six bags each (App 3).

Oyster cages are 12-gauge, vinyl-coated, wire mesh, 67" x 40" x 9" high, with two plastic floats (67" x 8" x 11" high) on top, for a total height of twenty inches (App 3, 19). Each cage has a single shelf and holds up to six oyster bags. The cages will be deployed in two ways: floating at the surface attached to parallel lines up to 100-feet long; or set directly on the bottom for grow-out or overwintering (App 6).

Cages will be set on the bottom throughout the lease site (App 3). On the southwestern third of the lease site, no floating gear will be deployed, only cages on the bottom (App 6, 21), "to allow Bowdoin College continued access to the head of Brewer Cove and allow passage for Kayakers to paddle the shoreline uninhibited" (App 23).

Floating bags will be deployed in the eastern portion of the lease, nearer the shore (App 21, 23), with ten to twelve bags per line (App 22-A). The floating bags will be replaced by floating cages in three to five years (App 23).

Floating cages will be deployed in the western portion of the lease, facing the open water of Harpswell Sound, with ten cages per line (App 22).

The numbers of lines, bags, and cages will increase yearly for the first four to six years of the lease until Mr. Rogers's goal of one million oysters in cultivation is attained (App 12). Mr. Rogers states, "My target is 1,000,000 Oysters within this site leaving room for weather, current, boat travel between lines ..." (App 23). He expects to have 500,000 oysters growing on the site by 2017 (App 23). He states:

When asked about the maximum number of Oysters this site will hold it would be in excess of 1.5 million. This would be a fairly large operation within industry standards. This will be built in stages over the next 2-3 years and looked at in depth after the first overwinter. Current water temperatures and feed indicate this to be a site worth making this attempt (App 23).

Although the application does not indicate the maximum amount of gear Mr. Rogers expects to deploy on the lease site, his discussions with the U.S. Army Corps of Engineers following the hearing resulted in an estimate of up to 2,000 cages, to be listed in the permit issued by the Army Corps.⁵

⁵ CF, e-mail from LeeAnn Neal to Jon Rogers, 3-17-16

DMR has evaluated this lease application on the basis of the gear and layout described in the application, as noted above, recognizing that Mr. Rogers intends to increase the amount of gear deployed over time in order to reach his goal of culturing one million oysters. Any significant changes in the nature, amount, or layout of the gear or the activities conducted on the lease site as described in the application must be reviewed and approved by the Department to ensure that they are consistent with the findings made in this decision regarding the lease criteria. Aquaculture leases issued by the Department contain a standard provision to this effect.

The applicant also proposes to deploy a 16-foot by 20-foot wood and fiberglass float on the lease site; the float will be towed to the site as needed but will not be moored there year-round (App 4).

Throughout the growing season, the applicant will monitor the site approximately every three days; he expects to harvest oysters at least once each week. Oysters will be cleaned and graded in a tumbler on the applicant's 46-foot lobster boat; he may also use a pressure washer for cleaning the product (App 6).

Although scallops are not listed on the cover page of the application as species proposed to be cultured on the lease site, the application states, "I would like the right to have scallops within the site raised from captured spat for personal use. I will obtain a license to capture scallop spat if needed" (App 6). No information is provided in the application on how scallops would be cultured or harvested, or how many scallops would be grown. Therefore, scallops will not be approved for culture on the lease site at this time. Mr. Rogers has indicated that he may apply to the Department in the future for a species amendment for scallops and provide information on his plans for scallop culture at that time.

Mr. Rogers has access to the proposed lease site from his own dock on Bailey Island, southwest of Orrs Island (App 11).

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, shape and mass.

⁶ CF, e-mail from Jon Rogers to Diantha Robinson, 3-24-16

A. Riparian Access

According to the site report, "A small beach is located on the south side of Dogs Head Island." The nearest docks are located "along the northwest shore of Dogs Head Island, ~637 feet from the proposed lease, and along the western shore of Orrs Island, ~680 feet to the south of the proposed lease. If granted, the proposed lease would not impede ingress and egress from those properties" (SR 5).

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

B. Navigation

The site report describes the proposed lease site's effect on navigation as follows:

The proposed lease site occupies nearshore subtidal waters off the northwestern shore of Orrs Island. The primary navigation channel between Orrs Island and High Head is located to the west of the proposed lease (Figure 1). If granted, a minimum of 1,600 feet of navigable water would remain between the proposed lease and High Head to the west. Vessels transiting through the general area will not be impeded by the proposed activities.

The proposed lease is situated less than 30 feet from the shoal waters surrounding an intertidal ledge to the north, 80 feet from the ledge itself, and approximately 100 feet from the nearest intertidal shoreline (MLW) on Orrs Island. To the south is a small cove (Figures 1 & 2, Images 4 and 5). Access to this cove is likely limited to recreational boaters and Bowdoin College students and staff, including the sailing school. To maintain continued access to this cove, the applicant has suggested using bottom cages only in the southwestern $1/3^{\rm rd}$ of the lease (SR 6).

According to the Harpswell Harbormaster, the proposed lease site will not interfere with navigation (CF, Harbormaster Questionnaire).

The applicant proposes to use submerged cages in the deeper southwestern third of the proposed lease, as described above under Proposed Operations. According to the site report, at mean low water these cages, which are approximately 20 inches high, would be approximately 12.45 feet below the surface of the water, allowing adequate depth for safe navigation through the area (SR4, App 3, 19, 23).

Mr. Rogers testified at the hearing that he has observed people in kayaks and paddleboards navigating in the vicinity of the proposed lease site. He stated that the approximately 100 feet of open water between the east side of the lease site and the shore allows adequate room for navigation of these types of craft (Rogers, testimony).

It appears from this evidence that the proposed lease will not hamper navigation in the vicinity of the site. 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.

According to the site report, DMR biologists did not observe any fishing in the area at the time of the site visit (SR 8). The site report notes:

No commercially exploitable quantities of any species were observed on the bottom during the SCUBA assessment. Buoys marking the locations of lobster (*Homarus americanus*) traps were noted in the deeper channel waters to the west of the proposed lease.

It is likely that during summer months some recreational angling for striped bass (*Morone saxatilis*) occurs in the vicinity of the lease site. The installation of oyster cultivation equipment would create a physical obstruction to fishing; however, shelter provided by the equipment at the surface and on the bottom will likely attract and "hold" fish in the vicinity.

Some harvesting of European oysters (Ostrea edulis) may occur along the shoreline surrounding the proposed lease.

The harbormaster for the town of Harpswell, in a report submitted to the Department on September 17, 2015, affirmed that the proposed lease site is not within "commercial fishing grounds" and would have "minimal impact" on recreational fishing (SR 8).

Harvesting wild European oysters along the shore will not be impeded by the lease activities, which are located in subtidal waters. The evidence indicates that while some level of commercial and recreational fishing is likely to occur in the vicinity of the proposed lease, it is unlikely that the presence of the aquaculture lease site will interfere significantly with fishing of any kind. The lease must be marked in accordance with DMR Rule 2.80.7

Other aquaculture leases. According to the site report, the nearest aquaculture sites are Mr. Rogers's four LPA license sites along the eastern boundary of the proposed lease site. The next-nearest aquaculture sites are two other LPA licenses (LSMI-1-15 and LSMI-2-15) in Long Reach, Harpswell, approximately 2.5 miles northeast of the Rogers site (SR 8). The site report concludes that the proposed lease activities will not interfere with aquaculture activities at these sites (SR 8).

Exclusivity. The applicant requests exclusive use in the areas where gear is deployed, "with the exception of moorings needed by Bowdoin College for small boats" in the southwest portion of the lease site where the bottom cages will be located (App 12). Accordingly, recreational fishing and navigation, except in non-motorized vessels, will be prohibited from areas of the lease site where surface gear is deployed, and dragging and shellfish harvesting will be prohibited on the lease site except with the authorization of the lessee. These restrictions are 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). Conditions reflecting these restrictions will be included in the lease.

⁷2.80 Marking Procedures for Aquaculture Leases

- 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.
- 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.
- 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. According to the site report, "Other than eelgrass, little benthic flora or fauna was observed during the SCUBA transect." Other organisms observed during the site visit included brown benthic diatoms, rock crabs (*Cancer spp.*), European oysters (*Ostrea edulis*), and mud shrimp (*Crangon septemspinosa*) (SR 8-9).

Eelgrass. Mr. Rogers states in the application,

I have sited the lease outside the nearest eelgrass beds. There is no eelgrass within the proposed lease boundaries (App 9).

Eelgrass as mapped in 2013 is shown on the Vicinity Map, Attachment 1a. The lease site is outside of the nearest eelgrass bed...There is a mapped eelgrass site inside (not within but 'inshore') of the designated lease area that comes and goes in cycles (App 10).

Prior to the Department's site visit, the U.S. Army Corps of Engineers advised DMR with respect to eelgrass as follows:

The Corps recommends a minimum setback of 25' from any known, observed, mapped eelgrass to avoid not only direct impact (bottom gear) but also impact from shading associated with surface gear. Therefore, the site should be situated to reflect a minimum setback of 25'. This will be duplicated as a Corps permit condition in the event a permit is drafted. The setback should be reflected on the permit plan, with the appropriate coordinates supplied if not already depicted within the context of the application materials.⁸

During the site visit, DMR biologists verified and mapped the location of eelgrass on the proposed lease site as follows:

Proximity to eelgrass (*Zostera marina*) was documented by a diver carrying a line that was connected to a dive flag at the surface. The line was held taut to the surface and the diver swam along the western (nearest the boundary of the proposed lease) extent of the eelgrass bed. While swimming along the eelgrass boundary the diver would tug the flag and line in three successive pulls to communicate to a person at the surface to collect a GPS waypoint; thus marking the eelgrass boundary (see Figures 2 and 5) (SR 8).

Of note during the SCUBA dive was the amount of sediment and detritus in the water and covering fronds of eelgrass in the cove. The presence of oysters might prove to be beneficial to the growth of eelgrass due to their ability to increase water clarity by removing particulates during filter-feeding (SR 9).

⁸ CF, e-mail from LeeAnn Neal, USACOE, to Diantha Robinson, DMR, October 6, 2015.

Figures 3 and 4 of the site report show 2002 and 2013 eelgrass maps, respectively (SR 9, 10). Both maps depict eelgrass surrounding the proposed lease site on the north, east, and south. Ms Nelson testified that general mapping of eelgrass along the Maine coast has not occurred recently, so that published maps may not accurately depict where eelgrass is currently located. Therefore, she said, DMR biologists used the information on eelgrass location obtained during the site visit to revise the boundaries of the proposed lease in order to create the 25-foot setback from the existing eelgrass beds recommended by the Army Corps.

Figure 5 of the site report accordingly depicts the "Suggested reduction in proposed lease to ensure greater than 25 foot separation from eelgrass observed by SCUBA on October 14, 2015. (Corners D and E relocated)" (SR 11). The revised coordinates for the lease site are listed in the site report at page 11; they reduce the size of the site from 8.82 to 8.68 acres.

Mr. Rogers expressed concerns at the hearing that he might have to alter his lease boundaries if eelgrass developed inside the boundaries in the future. Both Ms Neal of the Army Corps and the DMR hearing officer stated that, assuming the DMR lease and the Corps permit are granted, the boundaries of the lease site would not be changed on account of changes in the location of the eelgrass during the terms of the lease and the permit. Mr. Rogers then indicated that the boundaries as recommended in the site report are acceptable to him (Rogers, testimony).

Fisheries & wildlife. Copies of the application were provided to the Maine Departments of Environmental Protection and Inland Fisheries and Wildlife for review. John Perry, Environmental Review Coordinator for MDIF&W, stated in an email sent to MDMR on October 6, 2015 that "The applicant claims lease is out of the eelgrass beds but acknowledges that they 'come and go.' In our Agency's view, staying out of the eelgrass beds is definitely preferable. Otherwise, minimal impacts are anticipated" (CF, e-mail from John Perry, MDIF&W).

The site report notes that "the proposed lease activities are not located within any designated Essential or Significant Wildlife Habitat," and that "The eelgrass beds between the proposed lease and the adjacent shoreline are classified as Tidal Wading Bird and Waterfowl Habitat under the Natural Resources Protection Act" (SR 12).

With the adjustment of the lease boundaries to provide more separation from the eelgrass bed, the proposed lease does not appear to pose any harm to the ecology of the site or surrounding 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 public beaches, parks, or publicly-owned conserved lands within 1000 feet of the proposed lease" (SR 12).

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.

F. Source of Organisms

The application indicates that the source of stock of American oysters (*Crassostrea virginica*) for this proposed lease site is Muscongus Bay Aquaculture in Bremen, Maine (App, cover page).

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 installed at the lease site and that work beyond daylight hours would occur only in an emergency (App 8).

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 states:

The applicant intends to use a 46' lobster boat with hydraulics or a small skiff with outboard to tend this site. Both of the vessels are of the type commonly used along Maine's waterfronts. Grading of oysters would be done with the aid of hydraulics with 30% of the grader in the water to reduce noise and aid in washing. This is a creative and likely efficient method to mitigate an otherwise small amount of noise from grading. Washing would be done using a deck hose such as those commonly found on lobster boats in the area (SR 12).

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

According to the application, the work float will be gray, the cages and bags are black, and the marking buoys are red. Cages used for overwintering will be deployed under water and will not be visible.

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

Therefore, **I find** that the gear and structures 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. The lease boundaries will be revised in accordance with the description in the DMR site report, Figure 5 and page 11, in order to protect eelgrass.
- 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 American oysters (*Crassostrea virginica*) 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. DECISION

Based on the foregoing, the Commissioner grants the requested lease of 8.7 acres to Dogs Head Oyster, LLC for ten years for the purpose of cultivating American oysters (*Crassostrea virginica*) using suspended 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)⁹ 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. Recreational fishing and navigation, except in non-motorized vessels, are prohibited from areas of the lease site where surface gear is deployed.
- 3. Dragging and shellfish harvesting are prohibited on the lease site except with the authorization of the lessee.
- 4. 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: 3/28/14

Patrick C. Keliher, Commissioner, Department of Marine Resources

^{9 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."