

**STATE OF MAINE  
DEPARTMENT OF MARINE RESOURCES**

**Downeast Institute**

**EAST MHCx**

Application for Change in Species and Gear Authorization  
Mud Hole Cove, Beals

July 13, 2022

**FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION**

Downeast Institute (DEI) applied to the Department of Marine Resources (DMR) to change the species and gear authorization on experimental lease EAST MHCx, located in Mud Hole Cove, Eastern Bay, Beals, Washington County, Maine. The leaseholder is seeking authorization to cultivate blue mussels (*Mytilus edulis*) and sea scallops (*Placopecten magellanicus*) on EAST MHCx, and to deploy lantern nets, mussel dropper ropes, and bottom cages on the experimental lease.

**1. THE PROCEEDINGS**

The amendment application was submitted to DMR on January 27, 2021 and was deemed complete by DMR on February 18, 2021. Notice of the application and the 14-day public comment period were provided to other state and federal agencies, riparian landowners, the Town of Beals and its Harbormaster, and others on DMR's mailing list. The evidentiary record before DMR regarding this lease amendment application includes five exhibits (see exhibit list below).

**A. List of Exhibits<sup>1,2</sup>**

1. Application for a change of gear and species authorization
2. Case file
3. Species amendment decision for EAST MHCx signed August 24, 2020
4. Executed lease document for EAST MHCx signed June 4, 2020
5. Original lease decision signed April 21, 2020
6. Original lease application, deemed complete June 10, 2019

**2. STATUTORY CRITERIA & FINDINGS OF FACT**

Approval of experimental aquaculture lease amendments is governed by 12 M.R.S.A. § 6072-A (8) and Chapter 2.44 of DMR regulations. The statute and regulations provide that the Commissioner may grant amendments for the use of specific gear, species, and/or operational modifications on an existing lease site provided the proposed changes are consistent with the findings for the underlying lease

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<sup>1</sup> Exhibits 1-5 are cited below as: Amendment Application – “App”, Case File – “CF”, Species amendment decision for EAST MHCx – “Exhibit 3”, Executed lease document for EAST MHCx – “Exhibit 4”, DMR Decision on Lease EAST MHCx – “Exhibit 5”, and Original Experimental Lease Application for EAST MHCx – “Exhibit 6”.

<sup>2</sup> Page numbers are cited using the PDF page number, which may not always match the page number written on documents.

application, do not materially alter the findings of the original decision, and would not result in a change to the original lease conditions.

### **A. Original Lease Decision**

On April 21, 2020 DMR granted lease EAST MHCx to Downeast Institute (DEI) (Exhibit 5, page 13). DMR's Findings of Fact, Conclusions of Law, and Decision, henceforth referred to as "the decision", found that the evidence in the record supported the conclusion that the aquaculture activities proposed by DEI met the requirements for granting an experimental aquaculture lease as set forth in 12 M.R.S.A. § 6072-A (Exhibit 4, pages 12-13).

The decision provided authorization to cultivate soft-shell clams (*Mya arenaria*), arctic surf clams (*Mactromeris polynyma*), American/eastern oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), and razor clams (*Ensis leei*) using suspended culture techniques (Exhibit 5, page 13). Compartment floats (12.5' x 23.5' x 4' and 8' x 12' x 4', with associated trays and wire baskets), ADPI bags (18" x 32" x 3"), and floating wooden trays (36" x 48" x 3"), comprise the gear authorized for the suspended culture of shellfish on EAST MHCx (Exhibit 6, page 18 & Exhibit 5, page 3). ADPI bags and floating wooden trays are permitted to be deployed along longlines that run northwest-southeast and the compartment floats are permitted to be deployed in the southeast corner of the lease (Exhibit 6, page 48). During the winter months, the floating wooden trays are removed from the lease site and ADPI bags are submerged on site in the midwater column<sup>3</sup> (Exhibit 6, page 51). Compartment floats remain in place throughout the year (Exhibit 5, pages 2-3 & Exhibit 6, page 48).

Conditions imposed on lease EAST MHCx, pursuant to 12 M.R.S.A § 6072-A (15) and located on page 14 of Exhibit 5, are as follows:

1. DEI is required to coordinate with the Town of Beals to ensure community members can use Mud Hole Cove for safe harbor and passage and have space to anchor boats in Mud Hole Cove during severe storm situations, if needed. Should aquaculture gear need to be relocated on the lease site to create space for boats, DEI has 48 hours after the conclusion of the storm event to move gear back into the approved configurations.

### **B. Species Amendment Granted August 24, 2020**

On August 24, 2020, DMR granted a species amendment to DEI for EAST MHCx, which permitted them to culture hard clam/northern quahog (*Mercenaria mercenaria*) on the experimental lease, along with the originally permitted species.

### **C. Proposed Gear Changes and Findings**

DEI is requesting the authorization to add gear for the cultivation of blue mussels (*M. edulis*) and sea scallops (*P. magellanicus*) on experimental lease EAST MHCx. Specifically, the leaseholder is proposing to deploy up to 10 lantern nets (which measure 6' in length and 20" in diameter) and 10 bottom cages (36" x 18" x 9") for sea scallop culture, and up to (80) 8' dropper ropes<sup>4</sup> for blue mussel culture (App, page 5).

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<sup>3</sup> Exhibit 5, the original lease decision, indicates that ADPI bags would be sunk to the bottom of the lease during the winter months.

<sup>4</sup> Resulting in a total of 640' of dropper rope deployed at maximum layout.

Lantern nets and dropper ropes would be deployed along horizontal longlines (App, pages 12-14). According to the amendment application, the proposed gear would be deployed approximately northeast-southwest, and perpendicular to the lines of gear currently permitted (App, page 12). Longlines holding dropper ropes would be secured with 400-pound pyramid anchors and held afloat by multiple buoys deployed along the longline, while longlines holding lantern nets would be secured with cement-filled cinder blocks and suspended at the surface with a maximum of 12 buoys (App, pages 13-14). Bottom cages would be weighted, and would be marked at the surface with a single buoy (App, page 13). If this amendment is granted, dropper ropes and bottom cages would be deployed on the lease throughout the year, and lantern nets would be deployed from May to October, annually (App, page 5).

As EAST MHCx is already permitted to deploy longlines on the lease site to hold floating wooden trays and ADPI bags, the longlines proposed in this amendment application to hold dropper ropes and lantern nets are similar in type to the gear already authorized on the lease site. Instead of floating cages at the surface, these longlines would be attached to surface buoys (App, pages 12-15). Additionally, as the applicant suspends ADPI bags in the middle of the water column during the winter months, lantern nets and dropper ropes, which would be suspended in the midwater column, would be deployed in a similar style to existing gear. Furthermore, the proposed bottom cages are akin in style and purpose to the floating wooden trays, ADPI bags, and wire trays enclosed in the compartment floats already permitted on the site.

When considering the impact of proposed gear change on other users of the area, the main difference between the two proposals is that less space would be available within the lease site for other uses. Specifically, the proposed gear would occupy the gear-free space that currently runs northeast-southwest through the lease site. In the decision, the majority of the finding of fact and discussion of the original application's impact on riparian access, navigation, fishing, and other uses of the area considered the lease area as a whole and did not discuss gear location or seasonality. For example, when discussing how the proposal might impact riparian access, page 7 of the decision states:

*As discussed in section 3A of this decision, large boats are not able to get into Mud Hole Cove at low water due to the narrow entrance and shallow depths. Members of the public who attended the hearing indicated that in order to get into the cove with a large vessel, you must do so at high water, but that there would be plenty of room to go around the lease when water levels are high (K. Beal, testimony). At mean low water, small boats like canoes and kayaks are likely still able to navigate into the cove and around the lease without issue (SR 7).*

Page 10 of the decision goes on to state:

*"...because the proposed lease would not take up the entirety of the cove, some lobstering would still be able to occur within the cove, and because the lease is entirely subtidal shellfishing could still occur on mud flats surrounding the cove."*

These excerpts from the original lease decision are representative of the majority of the document in that they show that the original finding of fact focused on how other users of the area would be impacted by the occupation of the lease area as a whole, as opposed to discussing how gear deployment could accommodate other uses within the lease area. The one exception to this is found on page 8 of the decision, which states:

*DEI also indicated that the layout of the gear would not prevent boats from transiting through the lease area in an emergency, as their gear would not create a total blockade, and that the gear layouts provided in the application show the maximum possible extent of gear, not necessarily what will be there all the time (Robinson, testimony).*

As the condition placed on the EAST MHCx requires DEI to “coordinate with the Town of Beals to ensure community members can use Mud Hole Cove for safe harbor and passage and have space to anchor boats in Mud Hole Cove during severe storm situations”, if the proposed amendment is granted, DEI would still be required to allow boats to transit through the lease in an emergency. Furthermore, although the proposed gear changes would decrease the amount of space available for boats to maneuver within the lease, it would not create a total blockade. Lastly, DMR did not receive public comments regarding this amendment application. Therefore, it appears that the proposed gear modifications would not materially alter the findings in the original decision.

As the proposed lantern nets, mussel dropper ropes, and bottom cages are similar to the gear already permitted, the proposed gear change would not cause a material deviation from the currently permitted operations. Additionally, the original lease proceedings focused on the entirety of the lease area proposed for use, as opposed to the location and timing of gear proposed. Furthermore, it appears that the proposed gear change is unlikely to unreasonably alter the behavior of other users of the area, beyond the impact already imposed by EAST MHCx. Lastly, as the leaseholder is not requesting to restrict community members from using Mud Hole Cove for safe harbor and passage, the requested gear change would not result in a change to the lease conditions.

#### **D. Proposed Species Changes and Findings**

The leaseholder is seeking authorization to cultivate blue mussels (*Mytilus edulis*) and sea scallops (*Placopecten magellanicus*) on EAST MHCx. These species are proposed to be cultured on gear discussed in Section 2.C of this decision (App, pages 3 & 4). The leaseholder has demonstrated that there is an available source of blue mussel (*M. edulis*) and sea scallop (*P. magellanicus*) for cultivation, as they propose to provide their own seed stock (App, page 2). Sea scallops (*P. magellanicus*) are also proposed to be sourced from LPA licenses held by Alex de Koning from Trenton, Maine, and Nate Perry from Cape Elizabeth Maine. All proposed sources are approved by DMR so long as the sources listed above maintain the required licensing for scallop spat collection.

As the proposed sources of stock are all approved by DMR, and because Section 2.C of this decision found that the proposed gear change required for the culture of blue mussel (*M. edulis*) and sea scallop (*P. magellanicus*) on EAST MHCx is consistent with the findings on the underlying lease application and would not materially alter the findings of the original decision, the presence of these species on EAST MHCx are also consistent with these findings. Furthermore, the proposed species change would not result in a change to the original lease conditions. However, biotoxin testing under a Memorandum of Understanding (MOU), and at the leaseholder’s expense, will be required for the harvest

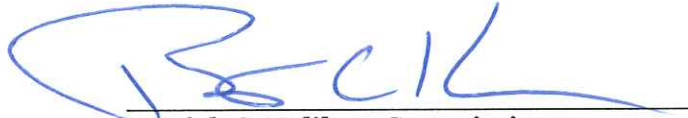
of sea scallops (*P. magellanicus*). If sea scallop (*P. magellanicus*) harvest will consist only of the adductor muscle (and therefore will not result in whole or roe-on scallop products), no MOU would be required.<sup>5</sup>

### 3. DECISION

Based on the foregoing, the Commissioner grants the requests from Downeast Institute for the authorization to cultivate blue mussels (*Mytilus edulis*) and sea scallops (*Placopecten magellanicus*) on EAST MHCx, and for the authorization to deploy longlines, lantern nets, and bottom cages on the experimental lease.

Dated: \_\_\_\_\_

7/13/21



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

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<sup>5</sup> The leaseholder should contact DMR's Bureau of Public Health for more information on establishing this MOU. A list of certified biotoxin labs can be found on the DMR website.



JANET T. MILLS  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF MARINE RESOURCES  
21 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333-0021

PATRICK C. KELIHER  
COMMISSIONER

Dear Ms. Tilton:

DMR has reviewed your application for a species amendment for your experimental lease, EAST MHCx, located in Mud Hole Cove, Eastern Bay, Beals, Maine. Your request was processed in accordance with DMR Regulations Chapter 2.44. After careful review, we find that the request to add hard clams/northern quahogs (*Mercenaria mercenaria*) to the site does not violate any of the lease issuance criteria set forth in 12 M.R.S.A. §6072(7-A), is consistent with the findings of the original decision, and would not result in a change to the original lease conditions. Therefore, your request has been approved, effective on the date of this letter.

An updated summary of the species approved for your lease with this amendment is provided below.

Approved Species
Soft-shell clam ( <i>Mya arenaria</i> )
Arctic surf clam ( <i>Mactromeris polynyma</i> )
American/eastern oyster ( <i>Crassostrea virginica</i> )
European oyster ( <i>Ostrea edulis</i> )
Razor clam ( <i>Ensis leei</i> )
Hard clam/northern quahog ( <i>Mercenaria mercenaria</i> )

The following conditions, which were imposed on your lease, remain in place:

1. DEI is required to coordinate with the Town of Beals to ensure community members can use Mud Hole Cove for safe harbor and passage and have space to anchor boats in Mud Hole Cove during severe storm situations, if needed. Should aquaculture gear need to be relocated on the lease site to create space for boats, DEI has 48 hours after the conclusion of the storm event to move gear back into the approved configurations.

Please retain a copy of this letter for your records. Your original lease application and decision, any previously approved amendments, and this amendment approval letter, may serve as the operational plan for the lease.

Patrick C. Keliher, Commissioner,  
Department of Marine Resources

Date 8/24/2020

**STATE OF MAINE**  
**DEPARTMENT OF MARINE RESOURCES**

Experimental Aquaculture Lease Application  
Suspended Culture of soft-shell clams, arctic surf  
clams, American oysters, European oysters, and razor  
clams

Mud Hole Cove, Eastern Bay, Beals, Maine

**Downeast Institute**  
**EAST MHCx**

**April 21, 2020**

**FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION**

The Downeast Institute (DEI), applied to the Department of Marine Resources (DMR) for a scientific experimental aquaculture lease on 3.95 acres<sup>1</sup> located in Mud Hole Cove, Eastern Bay, Beals, Washington County, Maine, for the cultivation of soft-shell clams (*Mya arenaria*), arctic surf clams (*Mactromeris polynyma*), American/eastern oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), and razor clams (*Ensis leei*) using suspended culture techniques.

**1. THE PROCEEDINGS**

DMR accepted the application as complete on June 10, 2019. Notice of the completed application and 30-day comment period was provided to riparian landowners within 1,000 feet of the proposed site, the Town of Beals, including the Town of Beals Harbormaster, and other state and federal agencies. Notice of the 30-day comment period and opportunity to request a public hearing was published in the *Machias Valley News Observer* on July 17, 2019. The Downeast Institute had initially submitted two applications for sites in Mud Hole Cove but withdrew their second application in October 2019. Although DMR did not receive more than five written requests for a public hearing, DMR opted to schedule a hearing due to confusion that existed surrounding the two applications originally submitted, and comments DMR had received from the Beals Harbormaster. The site report was issued on December 19, 2019 and the public hearing was scheduled for February 4, 2020 in Beals.

Notice of the hearing, copies of the application and DMR's site report were provided to state and federal agencies, the Town of Beals, riparian landowners within 1,000 feet of the proposed site, and subscribers of DMR's aquaculture email listserv for their review. Notice of the

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<sup>1</sup> Applicant originally requested 4 acres. Based on the provided coordinates, DMR calculated the area at 3.95 acres.

hearing was published in the *Machias Valley News Observer* on January 1, and January 22, 2020. There were no intervenors in this case.

The hearing was held as scheduled on February 4, 2020. Sworn testimony was given at the hearing by the following witnesses:

<b>Name</b>	<b>Affiliation</b>
Diane Tilton, Kyle Pepperman, Jeff Robinson	Applicant, The Downeast Institute
Flora Drury	Marine Scientist, DMR Aquaculture Division
Isaac Beal	Harbormaster, Town of Beals
Shawn Mahaney	United States Army Corps of Engineers
Mark Carver	Carver Industries, riparian landowner
Kevin Beal	Member of the public

The hearing was recorded by DMR. The Hearing Officer was Erin Wilkinson.

**Exhibits**

The evidentiary record before DMR regarding this lease application includes the following:

1. Case file (CF)
2. Application (App)
3. Site Report (SR)

**2. DESCRIPTION OF THE PROJECT**

**A. Proposed Operations**

The applicant is proposing to culture soft-shell clams (*Mya arenaria*) and razor clams (*Ensis leei*) using floating wooden trays, arctic surf clams (*Mactromeris ploynyma*) using substrate-filled plastic boxes placed within a compartment float, and American/eastern oysters (*Crassostrea virginica*) and European oysters (*Ostrea edulis*) using floating ADPI bags.

The applicant has proposed to deploy two compartment floats, one measuring 12.5' x 23.5' x 4' and the other measuring 8' x 12' x 4'. The applicant's gear list included in the application references two floats, but the gear layout included only shows the location of one compartment float. Because DEI submitted two applications for leases in Mud Hole Cove, but later withdrew the second application, they worked to maximize the usable space of the current application. During the hearing, DEI testified that while the application indicated two work



floats, they will most likely have only one deployed on the site at a time because of space (Robinson, testimony).

In addition to the compartment floats and associated boxes, the applicant has proposed to deploy a maximum of 500 wooden trays for the culture of soft-shell clams, 500 wooden trays for the culture of razor clams, 400 ADPI bags for the culture of American oysters, and 500 ADPI bags for the culture of European oysters. In their testimony, representatives of DEI indicated that the proposed lease will primarily serve as a nursery site, with product placed on the site in the spring and cultured over the summer. Clam species and associated gear will likely be returned to the applicant's hatchery, located in Beals, for overwintering. In their application, the Downeast Institute did indicate they may experiment with placing the Arctic surf clams and razor clams in the compartment float, in which case they would remain on the lease site year-round. American and European oysters would remain on the lease site year-round but the ADPDI bags will be sunk to the bottom of the lease site during the winter months.

DEI submitted the application for a scientific experimental aquaculture lease. Pursuant to 12 M.R.S.A §6072-A, DMR may issue both scientific and commercial experimental aquaculture leases. A lease issued for scientific research may be renewed while a lease for commercial aquaculture research and development may not. Scientific research is not kept confidential, while results of commercial research are kept confidential. At the hearing, DEI indicated in their testimony that much of the product developed on the lease site is sold to municipal communities for stock enhancement. While DEI is a nonprofit institution, selling shellfish stock to communities is primarily a commercial endeavor. Pursuant to Chapter 2.05 (1)(H) of its regulations, when determining whether a lease application is for a scientific experimental lease, DMR considers the final disposition of organisms used in research. Because the ultimate disposition of the organisms cultured on the proposed lease site is intended for sale to municipalities or others, any lease granted for this application will not be for a scientific experimental lease and would not be renewable. After the three-year lease term expires, should DEI wish to continue their operations they would need to apply for a standard aquaculture lease for and would be subject to all applicable rules and procedures.

## **B. Site Characteristics**

On November 26, 2019, DMR staff visited the proposed lease site and assessed it and the surrounding area in consideration of the criteria for granting an experimental aquaculture lease. The proposed site occupies subtidal waters in Mud Hole Cove, Great Wass Island, in Eastern Bay. The mouth of Mud Hole Cove connects to the larger Eastern Bay via a narrow, restricted

entrance (SR 2). Because of the narrow constriction at the mouth of the cove, at mean low water the entrance to the cove is approximately 45 feet wide (SR 8). At low tidal stages mudflats are exposed at the head of the cove, and the uplands surrounding the site are undeveloped and dominated by a coniferous forest (SR 2). According to NOAA charts, water depths at the proposed lease range between 2 and 16 feet at mean low water (SR 6). Figure 1 shows the proposed lease location within Mud Hold Cove.



**Figure 1:** Location of proposed lease within Mud Hole Cove

### **3. STATUTORY CRITERIA & FINDINGS OF FACT**

Approval of experimental aquaculture leases is governed by 12 M.R.S.A. §6072-A. This statute provides that a lease may be granted by the Commissioner 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, or docking facilities 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.

### **A. Riparian Access**

The proposed lease is located near the head of Mud Hole Cove (SR 7). The surrounding shoreline of Mud Hole Cove is undeveloped, and during DMR's visit to the site, no docks were observed (SR 7). At mean low water, the northwest and southeast corners are approximately 60 and 40 feet from the Mud Hole Cove shoreline. As such, the ability of riparian landowners to access their shorelines could be impacted by the proposed lease. However, because of the narrow entrance to the cove at mean low water, boats that can enter and navigate within the cove at low tide would likely be able to navigate around the proposed lease (SR 7). The proposed lease is unlikely to pose an access issue at higher tidal stages. At the hearing, comments made by community members confirmed the information provided in the site report that at low tide only small boats can navigate into the cove, and that at high tide access likely would not be a problem. Figure 1 shows the narrow entrance to Mud Hole Cove, and the location of the proposed lease.

At the hearing, Mark Carver, one of the riparian landowners on Mud Hole Cove, indicated that he has listed his property for sale, and has advertised the property as having deep water frontage (Carver, testimony). Mr. Carver's property is located to the north of the proposed lease site. His testimony indicated that his property has shorefront both within Mud Hole Cove and beyond, and the tax map included with the application confirms this (App 22). He expressed concern that if the proposed lease is granted, it will impact his ability to effectively market and sell his property because, as he stated, no one wants to look at aquaculture gear. Kevin Beal, a member of the public, present at the hearing questioned if there would be adequate room for future owners to install a dock on the property should the lease be approved. DMR's site report noted that the proposed lease may interfere with installation and subsequent use of docks along the Mud Hole Cove shoreline, but that no existing docks were observed within the cove during the visit to the site (SR 7-8). Mr. Carver's testimony did not indicate that access to his property would be prohibited with the approval of the lease, or that the Mud Hole Cove shoreline is the only location on his property where there would be shorefront available for a dock. When questioned at the hearing about the process the U.S. Army Corps of Engineers (USACE) would take to review and approve any new dock, Shawn Mahaney, a representative from USACE, indicated that any project would have to go through the appropriate review channels, that it would be evaluated at that time, and that it is typically 'first come first serve'. The location of the lease would not necessarily prohibit a dock from being installed, but all relevant information would be considered (Mahaney, testimony). If both the applicant (DEI) and landowner agreed on a location that did not interfere with the lease, and the dock met all

other criteria, it may be approved. In their testimony, DEI indicated they'd be willing to have a conversation with anyone regarding putting in a dock, but that they considered all current uses of the cove when submitting their application, and that they were unaware the property was listed for sale (Tilton, testimony). Currently, there is no dock located along Mr. Carver's Mud Hole Cove shorefront, and testimony at the hearing indicated there is no immediate plan to install one, only discussion that a hypothetical future owner may want to install one. Whether or not a future dock may co-exist with the proposed lease would depend on several factors, including location and size of the proposed dock. Since there are no immediate plans to install a dock, and because no evidence was presented to indicate that a dock could not be located somewhere else on the property, it does not appear that the proposed aquaculture activities would expressly prohibit this riparian owner from accessing or using their property.

An experimental lease has a term of 3 years, after which point DEI would have to apply for a standard lease application if they wish to continue using the site for aquaculture. Should Mr. Carver's property sell within the next three years, that new owner would be able to testify about their plans for and use of their property. Any existing or new riparian owners would also be notified at that time and have an opportunity to provide testimony as it relates to their uses of the property and the lease application. Should Mr. Carver not sell his property within that time, he would be notified of the application for a standard lease and have an opportunity to provide additional testimony and indicate if his use or plans for the property, such as installing a dock, have changed.

Therefore, under current circumstances, including the fact that there are no existing docks, the lack of evidence that a riparian has a current intention to install a dock, the lack of evidence that docks could not be installed on riparian property in a location where the aquaculture lease site would not be an undue hinderance, and the fact that any boat that is able to navigate into the cove at low tide should also be able to navigate around the proposed lease, I find that the aquaculture activities proposed for this site will not unreasonably interfere with riparian ingress and egress.

## **B. Navigation**

The proposed lease is located within Mud Hole Cove, and as such, is unlikely to interfere with navigation outside of the cove (SR 8). Within the cove, however, navigation may be impacted by the proposal due to its location in the center of the cove, and the proximity to the cove's shorelines. At mean low water, the northwest and southeast corners of the proposed lease are approximately 60 and 40 feet from the shoreline, and these distances may impact the ability

of vessels to navigate the area (SR 8). As discussed in section 3A of this decision, large boats are not able to get into Mud Hole Cove at low water due to the narrow entrance and shallow depths. Members of the public who attended the hearing indicated that in order to get into the cove with a large vessel, you must do so at high water, but that there would be plenty of room to go around the lease when water levels are high (K. Beal, testimony). At mean low water, small boats like canoes and kayaks are likely still able to navigate into the cove and around the lease without issue (SR 7). DEI's testimony at the hearing also confirmed this (Robinson testimony).

During DMR's visit to the site, three buoys that appeared to be marking moorings were observed near the lease site, one of which was within the proposed lease boundaries (SR 8). According to the applicant, these moorings appeared after they had submitted their application (Robinson testimony), and they do not know who they belong to. According to Isaac Beal, the Beals Harbormaster, the moorings were approved under the assumption that they would be outside the lease, and that both the moorings and lease could be used in conjunction (I. Beal, testimony). It is not evident who owns the mooring within the proposed lease boundaries, but Mr. I. Beal's testimony indicated all three moorings are supposed to be located outside of the proposed lease boundaries. As such, owners of the moorings should still be able to access and use their moorings. During the comment period no comments were received to indicate there was concern about the proposed lease and interference with existing moorings.

Prior to the hearing, and after the close of the comment period, DMR received a comment letter from Paula McCormack, Assistant Harbormaster for the Town of Beals, indicating that the Harbormaster and Beals Harbor Committee were not in support of DEI's applications for limited purposed aquaculture (LPA) licenses submitted for Mud Hole Cove because it will interfere with navigation and other uses<sup>2</sup>. While this letter referenced LPA applications, upon follow up conversations with DEI and the Harbormaster, and submission of an additional letter<sup>3</sup>, it was apparent that the Harbor Committee and Harbormaster had concerns about LPA applications submitted by employees of DEI for sites within Mud Hole Cove and the experimental lease applications submitted by DEI. At the time of the hearing there were eight active LPA licenses within Mud Hole Cove. At the hearing, DEI testified that they had several conversations with the Beals Harbormaster over the summer about concerns regarding DEI's applications for leases and licenses in Mud Hole Cove. As a result of those conversations, DEI withdrew one of their experimental lease applications, and because of concern surrounding the ability for boaters to use Mud Hole Cove during storms, agreed to allow for safe harbor and

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<sup>2</sup> CF: Letter from Paula McCormack to John Lewis, dated September 18, 2019

<sup>3</sup> CF: Letter from Paula McCormack to John Lewis, dated October 9, 2019

passage through the proposed lease area of the remaining application during emergency situations (Robinson, Tilton, testimony). A subsequent ‘memorandum of understanding’ between DEI and the Beals Harbor Committee was provided to DMR, indicating that with the withdrawal of DEI’s 2<sup>nd</sup> application, and contingent upon a condition that DEI allow for safe harbor and passage within the perimeter of a lease, the Beals Harbor Committee endorsed the proposed lease application<sup>4</sup>. There was no further discussion regarding the LPA licenses as it relates to this lease application, and the number of LPAs within Mud Hole Cove has since been reduced to four. At the hearing, Paula McCormack, commented that the Harbor Committee is in support of the proposal.

At the hearing on February 4, 2020, there was further discussion and testimony from those in attendance that Mud Hole Cove is used as ‘five-star anchorage’, and safe anchorage during storms, and that it is marked on all the charts (Carver, testimony). While this anchorage is not indicated on the NOAA chart, it is described in *A Cruising Guide to the Maine Coast*<sup>5</sup> as a ‘well protected anchorage’, and testimony indicates the cove has been used as safe harbor by members of the Beals community. There was also concern expressed by those in attendance, that in the case of a storm, there would be insufficient time for DEI to have their aquaculture gear moved out of the way in time for the community to move boats into the cove to use the area as safe harbor and anchorage. There was no information provided in testimony about what constitutes an ‘emergency’, and individuals testifying at the hearing could not provide an estimate of how often in the past the cove has been used as anchorage, and testimony indicated the cove is not used as heavily as anchorage as it once was. In response to questions and testimony DEI indicated they would be willing to move their gear out of the way if it came to a storm situation, and that they’d do the best they could to make sure people have time to get boats into the cove during a storm situation. DEI also indicated that the layout of the gear would not prevent boats from transiting through the lease area in an emergency, as their gear would not create a total blockade, and that the gear layouts provided in the application show the maximum possible extent of gear, not necessarily what will be there all the time. (Robinson, testimony). The Harbor Committee expressed their support for the application as their concerns about there being enough space and access to use the cove for safe harbor were alleviated when DEI dropped its second application for a lease site within the cove, and DEI agreed to allow for safe harbor and passage. Based on this understanding, the lease will be

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<sup>4</sup> CF: MOU between DEI and Beals Harbor Committee, signed October 16, 2019

<sup>5</sup> Taft, H., Taft, J. and Rindlaub, C., *A Cruising Guide to the Maine Coast: The Definitive Guide For Cruising The Maine Coast*. pp.341-342.

conditioned to require DEI to coordinate with the Town of Beals, as needed, to ensure boaters can appropriately use Mud Hole Cove as safe harbor during severe weather.

As discussed earlier in this document, larger boats are prohibited from entering Mud Hole Cove at low tide due to shallow depths and the narrow entrance to the cove, and as a result space to navigate around the proposed lease is limited. Because the proposed lease from DEI would not take up the entirety of available space within Mud Hole Cove, during storms there would still be some space available for boaters to use the cove as anchorage, and at low tide, parts of the cove with the deepest water would still be available for boaters, and because the lease will be conditioned to require DEI to coordinate with the Town of Beals to allow for safe harbor and passage during storms, the proposed aquaculture activities will not prohibit boaters from navigating into the cove or using it as anchorage.

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with navigation. The lease site must be marked in accordance with U.S. Coast Guard requirements.

### **C. Fishing & Other Water Related Uses**

During the site visit on November 26, 2019, approximately 17 lobster buoys were observed within Mud Hole Cove, but none were observed within the boundaries of the proposed lease (SR 8). It is likely that lobstering activity is heavier during summer months, and at maximum capacity, the proposed lease operations would likely prevent any lobstering from occurring within the boundaries of the lease (SR 8).

No other commercial or recreational fishing activity was observed by DMR during the visit to the site. However, it is possible other fishing activities occur within the vicinity of the proposal (SR 9). Because the proposed lease is entirely subtidal, it should not prevent any shellfish harvesters from reaching the mudflats at the head of Mud Hole Cove (SR 8). On September 18, 2019 DMR received a letter from the Beals Assistant Harbormaster expressing concern that the proposed operations would interfere with fishing and other activities within the cove.<sup>6</sup> Comments in the letter were not specific about how or what impact on fishing the lease would have, just that it may interfere. As referenced earlier in this document, while this letter referenced LPA applications, upon follow up conversations with DEI and the Harbormaster, and an additional letter<sup>7</sup>, it was apparent that the Harbor Committee and Harbormaster had concerns and questions about LPA applications submitted by employees of DEI, as well as about

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<sup>6</sup> CF: Letter from Paula McCormack to John Lewis, dated September 18, 2019

<sup>7</sup> CF: Letter from Paula McCormack to John Lewis, dated October 9, 2019

the experimental lease applications submitted by DEI. Much of the concern was related to navigation, and there was not further discussion referencing the impact the proposed lease may have on fishing. The follow up letter submitted by the Harbor Committee did not mention any concern about the proposed lease and interference with fishing. At the public hearing no comments or testimony was provided regarding fishing. One written comment<sup>8</sup> was received during the comment period for this application that was not in support of the proposed aquaculture activities and expressed concern about the impact on fishing. Comments made in the letter were not specific to fishing activities or direct impact to fishing occurring within the cove, and the comment referenced aquaculture activities occurring outside the cove within Eastern Bay. While DMR did observe some lobster buoys in the cove during their visit to the site, no comments were received from fishermen during the comment period, and no testimony was provided to indicate Mud Hold Cove is heavily used by lobstermen or others for commercial or recreational fishing. In their application, DEI indicated that there is no commercial fishing on the proposed site (App 15). However, because the proposed lease would not take up the entirety of the cove, some lobstering would still be able to occur within the cove, and because the lease is entirely subtidal shellfishing could still occur on mud flats surrounding the cove.

Because there was no evidence to suggest Mud Hole Cove is heavily used for fishing, and no comments or testimony were received indicating the proposed lease would prevent fishing in the cove, it is reasonable to assume that the proposed aquaculture activities will not unreasonably interfere with commercial or recreational fishing in the area.

**Other aquaculture uses.** At the time of DMR's site visit, and the hearing on this application, there were eight LPA licenses and one aquaculture lease located within one mile of the proposed lease site (SR 9). The LPAs were held by individuals who appeared to be employed by the applicant, the Downeast Institute. Since the hearing and the close of the record on this application, the number and location of LPA licenses within Mud Hold Cove has changed. Presently, there are only four LPA applications pending<sup>9</sup> for a location near the head of the cove, while previous LPAs were located closer to the proposed lease site. If approved, these will be the only LPAs within the cove. Previous license holders for LPAs within the cove appeared to be employees of DEI, and the applicant of the currently pending LPAs appears to also be an employee of the Downeast Institute. The Town of Beals approved the application for these LPAs knowing there is the pending lease application, and approval from DMR on the LPAs is pending as of April 21, 2020. No comments or testimony was provided at the hearing that was specific to

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<sup>8</sup> CF: Email from Glenda Beal received on July 17, 2019.

<sup>9</sup> These applications were pending final approval as of April 21, 2020.



the LPAs in existence at the time, and overall, the number of LPAs within Mud Hole Cove has decreased.

Based on the evidence, it is reasonable to conclude that the proposed operations will not unreasonably interfere with other aquaculture leases in the area.

**Exclusivity.** The applicant has requested that dragging and installation of future moorings be prohibited within the lease boundaries (App 16). However, there was no evidence provided in the application or through testimony at the hearing that dragging occurs at the site, or that this was of concern by the applicant. The Town of Beals will be notified when the decision on this application is finalized, and as a result will be aware of the lease and its location and may consider that when reviewing applications for moorings within Mud Hole Cove.

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

#### **D. Flora & Fauna**

Historical eelgrass (*Zostera marina*) data collected by DMR did not indicate the presence of eelgrass within Mud Hole Cove (SR 10). Data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) indicates that the proposed lease site is located more than 3,000 feet from designated harlequin duck (*Histrionicus histrionicus*) habitat (SR 10). The proposed lease is also located within one mile of mapped Tidal Wading Bird and Waterfowl Habitat, habitat for the cowberry blue butterfly (*Plebejus idas empetri*), and a bald eagle nest (*Haliaeetus leucocephalus*) (SR 10).

DMR sent a copy of the lease application to MDIFW for their review and comment, but no response was received. There were no comments or testimony made at the hearing related to concern regarding the proposed lease and the impact on flora and fauna in the surrounding area. Based on this evidence, it appears that the proposed lease will not interfere with the ecological functioning of the area.

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

#### **F. Public Use & Enjoyment**

Per the site report, there are no beaches, parks, or docking facilities owned by federal, state, or municipal government within 1,000 feet of the proposed lease site (SR 11). The Great Wass Island Preserve, held in conservation by the Nature Conservancy, is located along the

southern shore of Mud Hole Cove (SR 11). Hiking trails in the preserve bring visitors through the upland forests, wetlands, and along the rocky shores of Mud Hole Cove and beyond. DMR sent a copy of the lease application to the Nature Conservancy for their review and comment, but no response was received, and no comments or testimony was made at the hearing to indicate any concern with access or use of the Great Wass Island Preserve. One written comment was received that stated the proposed aquaculture gear would detract from the 'beautiful scenery' that visitors and other admire<sup>10</sup>. However, the comment did not indicate that the presence of the lease would preclude people from enjoying Mud Hole Cove, the surrounding preserve, or that the proposed lease would interfere with wildlife, just that it would take away from the natural beauty. No other comments of this nature were received.

Therefore, 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.

#### **G. Source of Organisms**

The applicant proposed to source seed from their hatchery, located in Beals, Maine. DEI is an approved source of seed for American oysters, soft-shell clams, Arctic surf clams, razor clams and European oysters.

Therefore, the applicant has demonstrated that there is an available source of seed to be cultured for the lease site.

#### **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 riparian ingress and egress.
- 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 existing aquaculture uses 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.

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<sup>10</sup> CF: Email from Glenda Beal received on July 17, 2019

- 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 seed to be cultured for the lease site.

Accordingly, the evidence in the record supports the conclusion that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072-A.

## **5. DECISION**

Based on the foregoing, the Commissioner grants a commercial experimental lease of 3.95 acres to the Downeast Institute., for three years, the term of the lease to begin within twelve months of the date of this decision, on a date chosen by the lessee<sup>11</sup>; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.

This lease is granted to the lessee for the cultivation of soft-shell clams (*Mya arenaria*), arctic surf clams (*Mactromeris polynyma*), American/eastern oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), and razor clams (*Ensis leei*) using suspended culture techniques. The lessee shall pay the State of Maine rent in the amount of \$100.00 per acre per year. Since this is an experimental lease with more than 400 sq. ft. of structures and no discharge, a bond or escrow account is required. The lessee shall post a bond or establish an escrow account pursuant to DMR Rule 2.64 (10) (D) 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-A (15)<sup>12</sup>. Conditions

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<sup>11</sup> DMR Rule 2.64 (14) provides:

“The term of the lease shall begin within 12 months of the Commissioner’s decision, on a date chosen by the applicant. No aquaculture rights shall accrue in the lease area until the lease term begins and the lease is signed.”

<sup>12</sup> 12 MRSA §6072-A (15) provides that:

“The commissioner may establish conditions that govern the use of the leased area and limitations on the aquaculture activities. These conditions must encourage the greatest multiple, compatible uses of the leased area, but must also address the ability of the lease site and surrounding area to support ecologically significant flora and fauna and preserve the exclusive rights of the lessee to the extent necessary to carry out the lease purpose. The


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 condition shall be incorporated into the lease:

1. DEI is required to coordinate with the Town of Beals to ensure community members can use Mud Hole Cove for safe harbor and passage and have space to anchor boats in Mud Hole Cove during severe storm situations, if needed. Should aquaculture gear need to be relocated on the lease site to create space for boats, DEI has 48 hours after the conclusion of the storm event to move gear back into the approved configurations.

**7. REVOCATION OF EXPERIMENTAL LEASE**

The Commissioner may commence revocation procedures upon determining pursuant to 12 MRSA §6072-A (22) and DMR Rule Chapter 2.64 (13) that no substantial research has been conducted on the site within the preceding year, that research has been conducted in a manner injurious to the environment or to marine organisms, or that any conditions of the lease or any applicable laws or regulations have been violated.

Dated: 4/21/2020



Patrick C. Keliher, Commissioner,  
Department of Marine Resources

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commissioner may grant the lease on a conditional basis until the lessee has acquired all the necessary federal, state and local permits.”