

**STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES**

Butterfield Shellfish, LLC

CAS MI

Lease Assignment CAS MI

Little Mosier Island, Casco Bay, Yarmouth

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

A. Factual Summary

Keith Butterfield held a 2.72-acre standard lease, CAS MI, located southwest of Little Mosier Island, Casco Bay, Yarmouth, Cumberland County. The Department of Marine Resources (DMR) initially granted the lease on December 6, 2023, for the culture of American oysters (*Crassostrea virginica*) using suspended culture techniques. The lease was issued for a five-year term ending December 5, 2028.

An aquaculture lease authorizes the holder to conduct authorized aquaculture activities within a specified site located in State waters. If a lease is held by an individual, it terminates upon the lease holder's death. Mr. Butterfield died on March 20, 2026, and CAS MI terminated upon his death. In accordance with 12 M.R.S.A. §6072(11-A), a standard lease that has been terminated by the lessee or revoked by the Commissioner may be assigned by the Commissioner to a new lessee. DMR interprets the statute to mean that assignment is available when a lease is terminated by the lessee's death, as occurred here. An assignment may be made only for the same site and on the same terms and conditions for the amount of time remaining in the term of the previous lease, subject to the requirements of Section 6072(11-A).

In accordance with 12 M.R.S.A. §6072(11-A)(B), DMR gave notice to the public of the opportunity to submit assignment proposals to operate CAS MI. Notice was published on May 19, 2026 in the *Portland Press Herald*, sent to subscribers of DMR's aquaculture notices via email and published to DMR's website. The notice provided that the proposals must be received by 9:00 a.m. on June 29, 2026. DMR received one proposal from Butterfield Shellfish LLC on May 29, 2026. The administrative record before DMR regarding this lease assignment proposal includes the materials listed below.

List of Materials

Description	Date	Citation
Original lease decision for CAS MI	December 6, 2023	AR-1
Complete assignment proposal	July 2, 2026 <i>Date deemed complete</i>	AR-2

Case file for lease assignment	Various	AR-3
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B. Criteria and Findings of Fact

Pursuant to 12 M.R.S.A. §6072(11-A)(B)(1-5), before assigning a lease, DMR must first determine whether a proposal is eligible for consideration. A proposal is eligible for consideration if the proposal is complete, using forms provided by the Commissioner; the change in lessee would not violate any of the lease decision criteria in 12 M.R.S.A. §6072(7-A); the assignment is not intended to circumvent the intent of 12 M.R.S.A. §6072(8); the assignment is not for speculative purposes; and the assignment will not cause the assignee to be a tenant of any kind in leases covering an aggregate of more than 1,000 acres.¹

1. Correct Form and Completeness of Proposal

Pursuant to 12 M.R.S.A. §6072(11-A)(B)(1), DMR must determine that the proposal is complete, using forms provided by the Commissioner.

Butterfield Shellfish LLC submitted the proposal for assignment of CAS MI on forms provided by the Commissioner. DMR reviewed the proposal and determined that all questions were answered and attachments provided.

Therefore, DMR determined that the proposal was complete, using forms provided by the Commissioner.

2. Change in Lessee and Decision Criteria

Pursuant to 12 M.R.S.A. §6072(11-A)(B)(2), DMR must determine that the change in lessee would not violate any of the lease decision criteria in 12 M.R.S.A. §6072(7-A).

The lease decision criteria provide 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; navigation; fishing or other uses of the area, with considerations of other aquaculture uses of the area; the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; or 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 comply with the visual impact criteria adopted by the Commissioner.

¹ 12 M.R.S.A. §6072(11-A)(B)(5) states: "Except as provided in subsection 13-A, the assignment will not cause the assignee to be a tenant of any kind in leases covering an aggregate of more than 500 acres." Subsection 13-A(B) authorizes, via agency rulemaking, DMR to increase the aggregate limit not to exceed 1,500 acres. Regulation currently allows an aggregate of no more than 1,000 acres. 13-188 C.M.R. ch. 2.12(3).

A lease assignment must be made on the same terms and conditions of the previous lease; therefore, it does not allow any changes in operation that were not allowed under the previous lease, and the new holder would be required to operate the site according to currently authorized operating plans and procedures. The Commissioner previously determined that the lease as approved and conditioned would not violate any of the lease decision criteria. (AR-1.) The assignment proposal states that Butterfield Shellfish LLC is familiar with the existing lease terms and would comply with those terms (AR-2, 5). There is no evidence in the assignment proposal that the proposed change in lease holder would violate any of the lease issuance criteria.

Therefore, DMR determined that the assignment proposal submitted by Butterfield Shellfish LLC would not violate any of the lease decision criteria in 12 M.R.S.A. §6072(7-A).

3. Preference Criteria

Pursuant to 12 M.R.S.A. §6072(11-A)(B)(3), DMR must consider if the assignment is intended to circumvent the preference guidelines for treatment of competing applications as set forth in 12 M.R.S.A. §6072(8).

Prior to the assignment process, there were no pending lease applications for CAS MI. Butterfield Shellfish LLC was the only entity that filed a proposal for lease assignment. As there are no competing applications, the preference guidelines in 12 M.R.S.A. §6072(8) do not apply.

Therefore, DMR determined that the assignment proposal is not intended to circumvent the preference criteria in 12 M.R.S.A. §6072(8).

4. Speculative Purposes

Pursuant to 12 M.R.S.A. §6072(11-A)(B)(4), DMR must determine that the assignment is not intended for speculative purposes.

The proposal submitted by Butterfield Shellfish LLC states that the applicant had been operating CAS MI on behalf of Keith Butterfield before his death (AR-2). If the assignment is granted, the proposal states that Butterfield Shellfish LLC would continue operating the site as it had previously before Mr. Butterfield died (AR-2). There is no evidence to suggest that the assignment proposal is for speculative purposes.

Therefore, DMR determined that the assignment proposal is not intended for speculative purposes.

5. Aggregate Lease Holdings

12 M.R.S.A. §6072(11-A)(B)(5) states: "Except as provided in subsection 13-A, the assignment will not cause the assignee to be a tenant of any kind in leases covering an aggregate of more than 500 acres." Subsection 13-A(B) authorizes, via agency rulemaking, DMR to increase the aggregate limit not to exceed 1,500 acres. Regulation currently allows an aggregate of no more than 1,000 acres. 13-188 C.M.R. ch. 2.12(3)

According to the assignment proposal and a review of DMR records, Butterfield Shellfish LLC currently holds no other aquaculture leases. If the assignment is granted, Butterfield Shellfish LLC would only hold this site, which is 2.72 acres in size.

Therefore, DMR determined that if the assignment is granted, it would not cause Butterfield Shellfish LLC to hold leases covering an aggregate of more than 1,000 acres.

In accordance with 12 M.R.S.A. §6072(11-A)(B), DMR determined that the assignment proposal submitted by Butterfield Shellfish LLC is eligible for assignment.

6. Selection for Assignment

Pursuant to 12 M.R.S.A. §6072(11-A)(C), the Commissioner must consider the eligible proposals and shall either select for assignment the proposal that is best suited the lease site and in the best interests of the State; declare all proposals unsuitable and solicit new proposals; or suspend the assignment process for the lease site in question. Among other information, the lease assignment proposal form seeks information about the applicant's financial and technical capability to operate the lease, how the applicant will ensure public health and safe handling of shellfish, how the applicant will ensure compliance with the existing lease terms and conditions, why the applicant's proposal represents the best use of the lease area, and how the proposal supports economic development, workforce opportunities or other public benefit. The Commissioner considered all this information in determining whether Butterfield Shellfish LLC's assignment proposal best suited the lease site and is in the best interests of the State. In addition, because the current members of Butterfield Shellfish LLC, represented in the proposal that they were operating CAS MI on behalf of Mr. Butterfield for a period of time before his death, the Commissioner considered the history and record of operations at CAS MI.

On July 14, 2017, DMR issued an experimental lease, CAS MIx, to Keith Butterfield for the culture of American oysters and sea scallops (*Placopecten magellanicus*), in floating and submerged cages (AR-1, 2). The experimental lease expired on July 13, 2020. However, 12 M.R.S.A. §6072-A(20) allows the holder of an experimental lease to continue operating the site while DMR considers the standard lease proposal, so long as the standard lease proposal overlaps all or a portion of the boundaries of the experimental lease and the standard lease application is filed in accordance with statutory timeframes. Mr. Butterfield filed an application to convert a portion of CAS MIx into a standard lease.

The standard lease application requested a 20-year lease term and the use of different types of gear than what was previously authorized on CAS MIx, including unanchored gear (AR-1, 6). The standard lease application also proposed additional species including Arctic surf clams (*Mactromeris polynyma*), Atlantic surf clams (*Spisula solidissima*), Atlantic sea cucumbers (*Cucumaria frondosa*), waved whelks (*Buccinum undatum*), dog whelk (*Nucella lapillus*), sea urchins (*Strongylocentrotus droebachiensis*), northern quahogs (*Mercenaria mercenaria*), and sugar kelp (*Saccharina latissimi*).

In evaluating Mr. Butterfield's standard lease application, DMR considered Mr. Butterfield's compliance history and technical capability as it related to his operation of the experimental lease CAS Mix (AR-1). During the operation of the experimental lease, on September 4, 2020, Mr. Butterfield was summonsed for violating lease conditions (AR-1, 6). In April 2022, DMR investigated a complaint about Mr. Butterfield's site and determined it was not in the correct location and that Mr. Butterfield was using unauthorized gear (AR-1, 6). Additionally, riparian landowners had regularly been dealing with errant gear from Mr. Butterfield's lease (AR-1, 7). The Town of Yarmouth Harbormaster also raised concerns about Mr. Butterfield's ability to successfully scale to a standard lease in consideration of gear washing ashore and observed operations (AR-1, 7).

Mr. Butterfield acknowledged the concerns raised by his standard lease application and stated that many of the issues were the result of poor farm management practices (AR-1, 8). DMR found that Mr. Butterfield had a history of non-compliance, demonstrating that he lacked the technical capacity to operate the site as originally proposed (AR-1, 8). In consideration of the finding, DMR limited the lease term to five years instead of 20 years as proposed and limited the authorized species to American oysters. Additionally, a lease condition was added that prohibited the use of any unanchored gear (AR-1, 8). DMR determined that these limitations would provide Mr. Butterfield with an opportunity to demonstrate whether he could manage a lease of this scale for a longer term (AR-1, 8). CAS MI was issued to Mr. Butterfield on December 6, 2023.

From December 6, 2023, through March 20, 2026, the timeframe Mr. Butterfield held CAS MI, there were additional issues that required DMR follow-up. On September 5, 2024, Mr. Butterfield was summonsed by Marine Patrol for violating the lease conditions of CAS MI (AR-3). In August and September of 2025, DMR received a series of complaints from a riparian landowner that foul smells were coming from Mr. Butterfield's sites and that aquaculture gear had washed ashore (AR-3). DMR investigated these complaints and talked with Mr. Butterfield about modifying his farm management practices to reduce the foul smells. Mr. Butterfield was amenable to modifying his farm management practices to reduce odor.

The assignment proposal submitted by Butterfield Shellfish LLC states that the company was legally formed on July 11, 2014, and operated the experimental and standard leases on behalf of Mr. Butterfield for at least 12 years (AR-2, 5, 12). The proposal identifies Nathan Ingersoll and Hadlee Yescott as the current owners of Butterfield Shellfish LLC (AR-2, 10). The record does not specify when Mr. Ingersoll and Ms. Yescott began working for Mr. Butterfield or when they acquired ownership of Butterfield Shellfish LLC. However, the assignment proposal states that the applicant has operated CAS MI for at least five years (AR-2, 3). The proposal also states: "Butterfield Shellfish LLC was operating this lease [CAS MI] for [the] previous lease holder Keith Butterfield. We would continue to operate the site...as

we were when Keith owned the business” (AR-2, 4). The application supports the inference that Mr. Ingersoll and Ms. Yescott have been substantially involved in operating CAS MI for the last five years.

Accordingly, the Commissioner raises the prior compliance issues in considering the technical capacity of Mr. Ingersoll and Ms. Yescott to operate CAS MI. The record is unclear as to what control, if any, Mr. Ingersoll and Ms. Yescott exercised over the operations while the sites were leased to Mr. Butterfield, or if they were aware of the compliance issues. As the lease holder, Mr. Butterfield was responsible for ensuring that the operation of CAS MI complied with law and rules. If the assignment is granted, Mr. Ingersoll and Ms. Yescott, as the members of Butterfield Shellfish LLC, would become responsible for ensuring that the operation of CAS MI complies with law and rules. If they are found to be in violation of law, rule, or any terms or conditions of the lease, those issues will be considered in connection with any future applications they may submit, including but not limited to a renewal application for CAS MI.

The assignment proposal demonstrates that Mr. Ingersoll and Ms. Yescott have several years of experience working on aquaculture sites for the cultivation of American oysters. They are also familiar with the authorized operations on CAS MI including the authorized gear types. This existing site-specific experience indicates that Butterfield Shellfish LLC has the necessary technical capability to operate CAS MI. The proposal also demonstrates a commitment to making productive use of the lease site. Butterfield Shellfish LLC proposes to harvest 300,000 oysters annually, which would support at least three full-time and two part-time positions (AR-2, 5). The proposed level of production would provide additional economic benefit by supplying local seafood distribution companies and restaurants (AR-2, 5). The proposal would support area businesses and generally contribute to Maine’s seafood economy. The proposal also includes a letter from a financial institution stating that Butterfield Shellfish LLC has an account in good standing (AR-2, 9). Additionally, the proposal demonstrates that the applicant is familiar with and intends to comply with public health requirements governing the safe handling and processing of shellfish (AR-2, 4).

Given Butterfield Shellfish LLC’s existing familiarity with CAS MI, its experience cultivating American oysters, including public health requirements, financial capacity, and the anticipated employment and broader economic benefits associated with the operations, DMR finds that Butterfield Shellfish LLC’s proposal is best suited to the lease site and is in the best interests of the State.

Therefore, DMR selected the proposal for assignment pursuant to 12 M.R.S.A. §6072(11-A)(C)(1).

7. Public Comment and Final Decision on Proposed Assignment

After a proposal is selected for assignment, but before the lease is assigned, the Commissioner must give notice of the pending assignment to the public, the owners of riparian land within 1,000 feet of the lease site and the municipality where the lease is located and provide the opportunity to submit written comment within 14 days. 12 M.R.S.A. §6072(11-A)(D). On July 24, 2026, notice of the proposal selection

and opportunity for comment was published in the *Portland Press Herald*. Notice was also sent to owners of riparian land within 1,000 feet of the lease site, the Town of Yarmouth, and subscribers of DMR's aquaculture email list-serve. The comment period closed on August 8, 2026. During the comment period, DMR received one comment from the Maine Department of Inland Fisheries and Wildlife (MDIFW) stating that CAS MI "is not located in any MDIFW jurisdiction resources. Minimal impacts to wildlife are anticipated."

After the comment period, DMR may decline to assign the lease and select another proposal for assignment, declare the proposal unsuitable and solicit new proposals, or suspend the assignment process for the lease in question. (12 M.R.S.A. §6072(11-A)(D)). The single comment that DMR received during the comment period raised no concerns about the proposal.

C. Conclusions of Law

Based on the above findings, DMR concludes that:

- a. CAS MI terminated upon the death of the former lease holder, Keith Butterfield, and the Commissioner is authorized to assign CAS MI pursuant to 12 M.R.S.A. §6072(11-A).
- b. The assignment proposal submitted by Butterfield Shellfish LLC is eligible for consideration as it meets the requirements of 12 M.R.S.A. §6072(11-A)(B)(1-5).
- c. The assignment proposal is best suited to the lease site and in the best interests of the State.

Accordingly, the evidence in the record supports the conclusion that the proposal meets the requirements for lease assignment set forth in 12 M.R.S.A. §6072(11-A). Butterfield Shellfish LLC is required to comply with the original application, as modified by the original decision, as well as the terms and conditions set forth in the original decision.

D. Decision

The Commissioner grants the assignment proposal of Butterfield Shellfish LLC for CAS MI. The assigned lease is subject to the same terms, conditions, and obligations as set forth in the original lease. . 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 Chapter 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. Before beginning operations at CAS MI, Butterfield Shellfish LLC must enter into a lease agreement with the Department. No aquaculture activities may be conducted in the lease area until the lease agreement has been fully executed.

E. Conditions

Butterfield Shellfish LLC must comply with all existing conditions for CAS MI, established pursuant to 12 M.R.S.A. §6072(7-B), which are as follows:

1. All gear must be marked with the lease site ID (CAS MI), the name of the lease holder, and the lease holder's telephone number.
2. The use of unanchored gear is prohibited.

F. Revocation of Lease

The Commissioner may commence revocation procedures upon determining pursuant to 12 M.R.S.A. §6072(11) that no substantial aquaculture has been conducted over the course of the lease, that the lease activities are substantially injurious to marine organisms or public health, or that any minimum lease maintenance standard, condition of the lease, or applicable laws or regulations have been violated.

G. Date and Signature

Dated: 9.8.2026

Signature: 
Carl J. Wilson, Commissioner
Department of Marine Resources

**STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES**

Keith Butterfield

CAS MI

Standard Aquaculture Lease Application
Suspended and bottom culture of shellfish
SW of Little Mosier Island, Casco Bay, Yarmouth

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Keith Butterfield applied to the Department of Marine Resources (DMR) for a twenty-year standard aquaculture lease on 2.72 acres located, southeast of Little Mosier Island in Casco Bay, Yarmouth. The proposal is for the suspended and bottom culture of American/eastern oysters (*Crassostrea virginica*), Arctic surf clams (*Mactromeris polynyma*), Atlantic surf clams (*Spisula solidissima*), Atlantic sea cucumbers (*Cucumaria frondosa*), waved whelks (*Buccinum undatum*), dog whelk (*Nucella lapillus*), sea urchins (*Strongylocentrotus droebachiensis*), northern quahogs (*Mercenaria mercenaria*), sugar kelp (*Saccharina latissima*), and Atlantic sea scallops (*Placopecten magellanicus*).

1. THE PROCEEDINGS

The applicant submitted a draft application to DMR on May 26, 2020 and had originally scheduled the scoping session for November 13, 2020, to be held remotely. Due to technical issues, the alternate date of November 16, 2020, was utilized. After another technical failure, the applicant rescheduled, and the scoping session was held remotely on December 14, 2020. The final application was deemed complete by DMR on April 23, 2021. Notice of the completed application was provided to state agencies, riparian landowners, the Town of Yarmouth and its Harbormaster, and others on DMR's mailing list. DMR's site report was issued on April 24, 2023.

The public hearing on this application occurred on June 28, 2023. Public notice of the hearing was published in *The Forecaster* on May 25, 2023, and June 8, 2023. Notice of the hearing was also provided to riparian landowners within 1,000 feet of the proposed site, the Town of Yarmouth, other state agencies, and subscribers of DMR's aquaculture email list-serve.

As indicated on all notices of the hearing, persons who wished to ask questions of the parties or offer testimony were required to register. DMR received requests to provide sworn testimony from three people. Persons who registered to participate in the hearing, including the

applicant, were also sent information about participation in the proceeding, hearing agenda and testimony time limits.

Sworn testimony was given at the June 28, 2023, hearing by the following witnesses:

Name	Affiliation
Keith Butterfield	Applicant
Will Owen	Town of Yarmouth, Harbormaster
Claire LaBrecque Scott LaBrecque	Members of the Public

DMR staff and additional members of the public attended the hearing but did not offer testimony. The hearing was recorded by DMR. The Hearing Officer was Hannah Brazier.

The evidentiary record before DMR regarding this lease application includes 3 exhibits (see exhibit list below), and the record of testimony at the hearing itself. The evidence from these sources is summarized below¹.

LIST OF EXHIBITS²

1. Case file
2. Application
3. DMR site report

2. DESCRIPTION OF THE PROJECT

A. Site History

On July 14, 2017, DMR issued an experimental lease (CAS Mlx) to Keith Butterfield for the culture American oysters and sea scallops in floating and submerged cages of varying sizes. The experimental lease site was comprised of two tracts, for a total of 3.55 acres. Tract 1 is 2.72 acres and located in subtidal waters within a small cove formed by Little Moshier Island to the west and Moshier Island to the east, while Tract 2 is 0.83 acres and located in subtidal waters adjacent to the southeastern shoreline of Moshier Island.

The experimental lease expired on July 13, 2020. However, 12 M.R.S.A §6072-A(20), allows the holder of an experimental lease to continue operating the site while DMR considers the standard lease proposal, so long as the standard lease proposal overlaps a portion or all of the existing experimental lease and the application for the standard lease is submitted before the

¹ In references to testimony, “Smith/Jones” means testimony of Smith, questioned by Jones.

² Exhibits 1, 2, 3, and 4 are cited below as: Case file – “CF”; Application – “App”, site report – “SR”.

experimental lease expires. In this case, the standard lease proposal encompasses the entirety of Tract 1 of the experimental lease. The proposal does not include Tract 2 of the experimental lease as regulation requires standard leases to be one contiguous tract unless certain exceptions, not applicable in this case, are met (Figure 1, SR 2). Therefore, Tract 2 of experimental lease is not under consideration as part of the standard lease proposal.

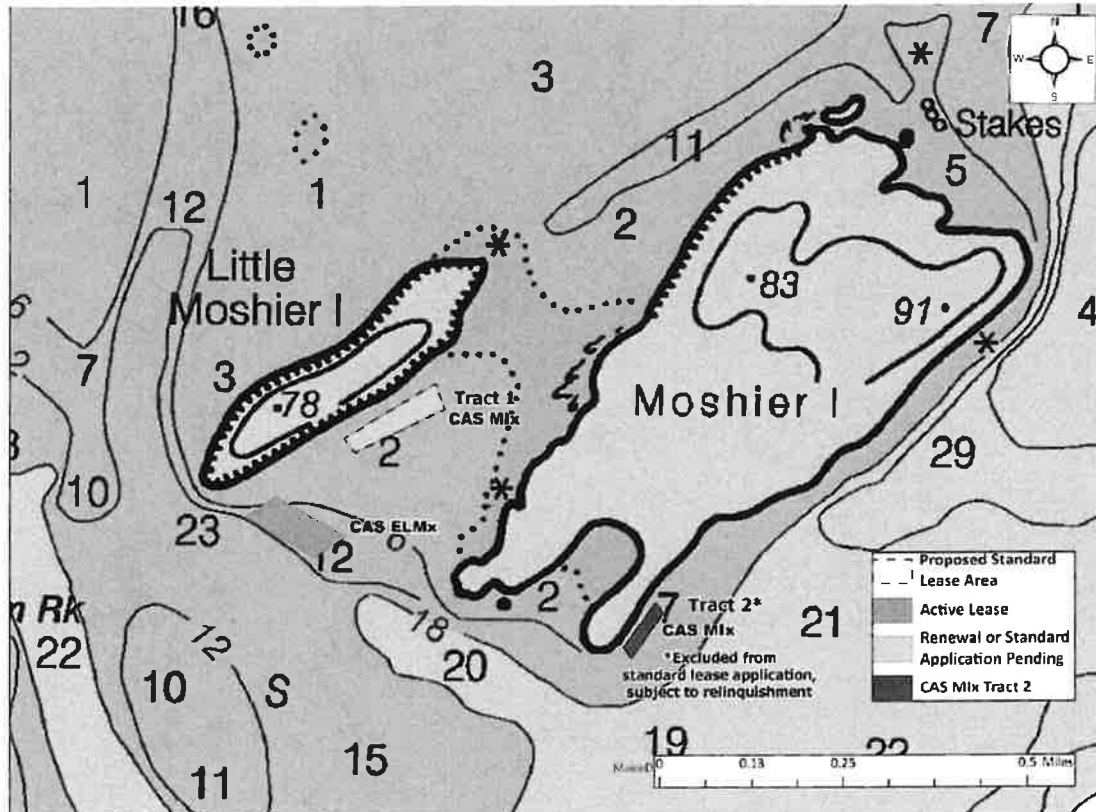


Figure 1. The applicant's standard lease proposal in comparison to current experimental operations. Image taken from DMR site report.

B. Site Characteristics

On June 29, 2021, DMR staff assessed the proposed lease site and the surrounding area in consideration of the criteria for granting a standard aquaculture lease. The proposed lease site occupies subtidal waters in an inlet between Moshier Island and Little Moshier Island, about 130 feet southeast of the shore of Little Moshier Island (SR, 3). The shorelines of both islands are rocky with low-lying ledges covered in seaweed (SR, 3). The uplands are forested (SR, 3). There is an intertidal sandbar located north of the proposal between Moshier and Little Moshier Islands (SR, 3).

Water depths were taken at 10:00 AM, about 20 minutes after low tide, and were 1.2-1.5 feet (SR, 3). Correcting for tidal variation, water depths at mean low water (MLW, 0.0 feet) range from 1.6 to 1.9 feet (SR, 3). According to the site report, the sea floor of the proposed site is composed of soft mud (SR, 4). The proposed lease site is in an area that is classified by DMR's Water Quality Program as "open/approved" for the harvest of shellfish (SR, 13). Classifications are subject to change, and it would be the responsibility of the lease holder to be aware of and comply with any changes.

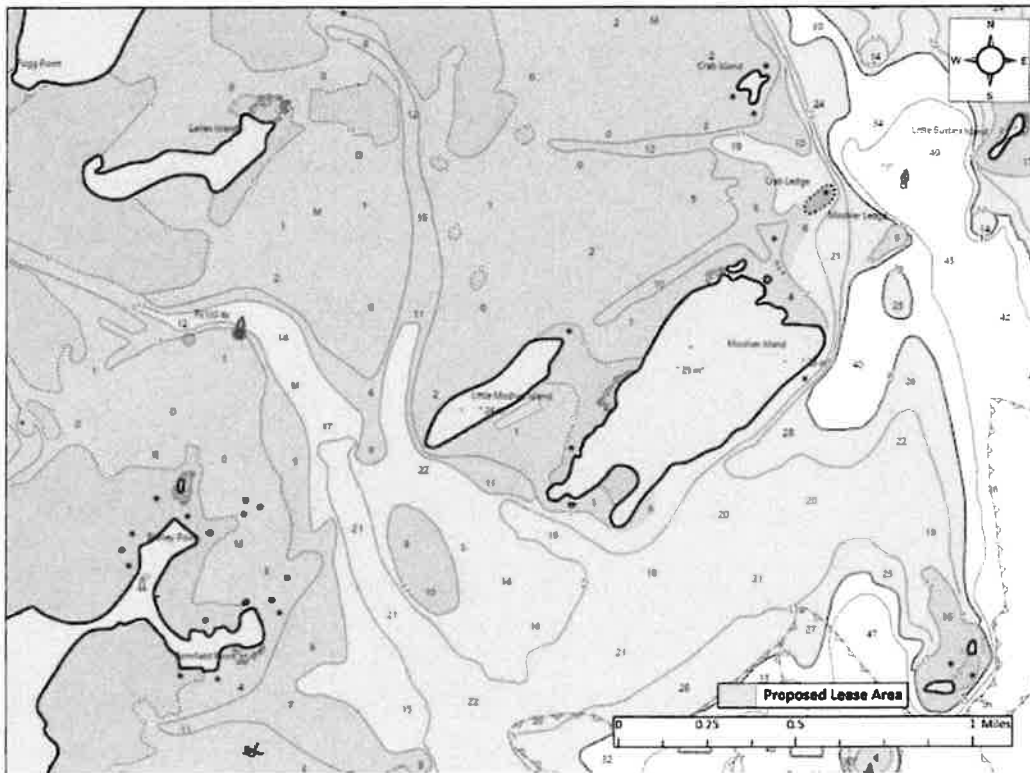


Figure 2: Proposed lease site, navigational channels, and channel markers. Image taken from DMR's site report.

C. Proposed Operations

The experimental lease authorized the culture of oysters and scallops using a combination of floating and submerged cages. This standard lease proposal also includes the addition of gear types and species not currently authorized on the experimental lease, so the operations vary between what is currently authorized and what is proposed (SR, 2).

The applicant is proposing to grow American/eastern oysters (*Crassostrea virginica*), Arctic surf clams (*Mactromeris polynyma*), Atlantic surf clams (*Spisula solidissima*), Atlantic sea cucumbers (*Cucumaria frondosa*), waved whelks (*Buccinum undatum*), dog whelk (*Nucella*

lapillus), sea urchins (*Strongylocentrotus droebachiensis*), northern quahogs (*Mercenaria mercenaria*), sugar kelp (*Saccharina latissima*), and Atlantic sea scallops (*Placopecten magellanicus*) using a variety of growing techniques and configurations.

The proposed site would contain up to 15 longlines, oriented northeast to southwest, that measure approximately 750 feet (App, 23). Each line would contain up to 600 Hexcyl baskets, for a total of 7,000 baskets on the site. The baskets would be used for the cultivation of oysters, Arctic and Atlantic surf clams, whelks, and sea urchins (App, 4). The applicant is also requesting the ability to utilize at least two lines, which would contain 100 OysterGro cages to cultivate oysters, Arctic and Atlantic surf clams, quahogs and whelks (App, 4). Each cage would contain up to 6 bags. The applicant is also proposing to grow oysters, whelks, scallops, and sea cucumbers within unanchored seafloor cages, with a maximum of 100 cages on site (App, 4).

Routine maintenance, work, and harvesting on the proposed site would be accomplished with a 24' and 19' foot skiff utilizing a 115 horsepower 4-stroke and a 75 horsepower 2-stroke, respectively (SR, 14). Powered equipment proposed to be used on site include a grader and a pressure washer (App 9). The grader will be used for approximately one week per year in June, July or August. The pressure washer will be used two times a year for two days during each use. During the growing season, which is from April through January (depending on weather), the applicant intends to work at the proposed lease site five days a week (App 7). During the growing season, cages would be flipped once per week and then flipped back 24 hours later for biofouling control (App 7). From January through April, the proposed site will be visited once per week for harvesting and maintenance (App, 7).

During the public hearing, Mr. Butterfield indicated that the deployment of gear would occur in phases. If the proposal is granted, one longline would be deployed every 2-3 weeks, with the addition of baskets and oysters occurring over at least a year, with a goal of being at capacity within 2-3 years (Butterfield/Ellis).

D. Compliance and Technical Capability

Mr. Butterfield also operates the experimental lease CAS ELMx, which was issued on February 14, 2020. CAS ELMx is currently authorized for the culture of American Oysters (*Crassostrea virginica*) and Arctic surf clams (*Spisula solidissima*) using suspended culture techniques. CAS ELMx is in the cove between Moshier and Little Moshier Islands and is approximately 170 feet at its nearest point from the standard lease proposal and the experimental lease, CAS Mlx.

Mr. Butterfield has had a series of compliance issues related to his existing aquaculture operations. On September 4, 2020, Mr. Butterfield was summonsed for violating lease conditions, and was summonsed on November 5, 2020, for conducting aquaculture without a lease. Although DMR was initially satisfied that Mr. Butterfield had demonstrated sufficient technical and financial capacity to operate the lease site in accordance with the application proposal for the purposes of a preliminary completeness determination, new information has come to DMR's attention that brings the issue of capacity into question as it relates to the lease decision criteria contained in 12 M.R.S.A. § 6072(7-A).³ In April 2022, DMR investigated a complaint about Mr. Butterfield's site and found that it was improperly located, and that Mr. Butterfield was using unauthorized gear. In addition, Mr. Butterfield has struggled to understand DMR's emergency water quality closures, which temporarily prohibit harvest to protect the health of consumers. In the weeks prior to the public hearing for this proposal, DMR also became aware that riparian landowners have regularly been dealing with gear, from Mr. Butterfield's operations, washing up on their property. Those landowners either contacted Mr. Butterfield directly to clean up the gear or the municipality.

The question of Mr. Butterfield's capacity to operate the lease in accordance with the application is pertinent as DMR evaluates the proposal under the lease decision criteria contained in 12 M.R.S.A. § 6072(7-A). Evidence relating to prior compliance issues and complaints is relevant as a history of such failures may suggest a likelihood that the proposed lease operations under review will involve future non-compliance with aquaculture lease requirements and result in violations of applicable standards under section 6072(7-A). Accordingly, under the limited circumstances of this case, DMR sought additional clarification from Mr. Butterfield about his technical capability and associated plans during the hearing. DMR also sought additional clarification from property owners in the area and municipal officials.

With the proposed addition of Arctic surf clams (*Mactromeris polynyma*), Atlantic surf clams (*Spisula solidissima*), Atlantic sea cucumbers (*Cucumaria frondosa*), waved whelks (*Buccinum undatum*), dog whelk (*Nucella lapillus*), sea urchins (*Strongylocentrotus droebachiensis*), northern quahogs (*Mercenaria mercenaria*), and sugar kelp (*Saccharina latissima*), Mr. Butterfield was asked to explain his experience with these species. Some of the species would also be subject to DMR testing given that they retain biotoxins or other considerations germane to public health. Mr. Butterfield testified that he did not have experience cultivating most of the additional species proposed. He noted that except for hard clams (i.e.

³ A completeness determination by DMR allows a lease application to move forward through the application process.

quahogs) all other species would be for recreational use or site enhancement purposes. Mr. Butterfield testified that if DMR had any concerns about the additional species he was proposing, they could be removed from consideration.

When asked to discuss plans to ensure all reasonable measures are taken to prevent gear on the site from breaking off from the lines or drifting outside the lease boundaries, Mr. Butterfield stated he intends to upgrade all existing gear to meet the quality control standards of any new gear. Mr. Butterfield explained that prior gear issues were the result of mechanical failures and his poor farm management practices (Butterfield/Brazier). Specifically, Mr. Butterfield testified that the baskets were overloaded with product, resulting in a mechanical failure that caused the baskets to break apart and float away.

When questioned about the use of unanchored sea floor cages, Mr. Butterfield testified that if the cages are filled with bags of oysters, they will stay in place within the lease boundaries, especially in deeper waters (Butterfield/Brazier/Ellis). Mr. Butterfield later clarified that he had no near-term intentions of farming with unanchored sea-floor cages on the proposed lease but included them in the proposed lease application to avoid having to possibly apply for an amendment (Butterfield, testimony).

Mr. Butterfield was asked how many cages he currently deploys on CAS ELMx and how that compared to what was proposed for the standard lease site. Mr. Butterfield testified that CAS ELMx currently holds approximately 6,000 Hexcyl baskets and the proposed lease would be an additional 7,000 Hexcyl baskets (Butterfield/Owen). When asked to describe his plan for deploying up to 7,000 Hexcyl baskets on site, Mr. Butterfield stated that the process would occur over 2-3 years, beginning with the longlines and attaching baskets with oysters over time (Butterfield/Ellis).

The Yarmouth Harbormaster testified that he has received numerous calls regarding Mr. Butterfield's gear washing along the shoreline. The Harbormaster also raised concerns about the ability of the applicant to successfully scale up operations in consideration of gear routinely washing ashore and observed operations. Scott and Claire Labreque, who own Little Moshier Island and are riparian landowners within 1,000 feet of the proposed site, testified that when they walk around the island, they observe a lot of lobster and aquaculture gear that has washed ashore. When asked how often they are removing aquaculture related gear from their property, the Labreque's noted that it is every weekend. They noted that most of the gear appears to be from Mr. Butterfield's (presumably from CAS ELMx given the gear described) but is also from other aquaculture sites within the area.

Everyone who provided testimony also expressed concerns about the 20-year term that Mr. Butterfield requested, especially in consideration of how he has operated within the area to date. Mr. Butterfield stated he requested a 20-year lease term to recoup financial investments (Butterfield/S. LeBrecque). The Harbormaster felt that a shorter lease term was warranted until Mr. Butterfield could demonstrate a working proof of concept (Owen, testimony).

Discussion:

The applicant acknowledged the concerns raised by members of the public and the Yarmouth Harbormaster. He also acknowledged that many of the concerns were the result of poor farm management practices. The applicant testified that the proposed unanchored sea floor baskets were placed within the application with no near-term intention of utilizing them. Mr. Butterfield has struggled to keep anchored gear within the boundaries of lease sites, and it was unclear what tangible measures he would take to keep unanchored gear within the site boundaries. In addition, the applicant testified that he intends to grow oysters and clams only commercially, while utilizing the other proposed new species for recreational use or site enhancement.

Based on the record, Mr. Butterfield has a history of non-compliance, which demonstrates that he lacks the technical capacity to operate this site as originally proposed. Because of this finding, DMR is using its discretionary authority to evaluate the application subject to a limitation on authorized species and the term of the lease, as follows: American/eastern oysters (*Crassostrea virginica*)⁴ will be the only authorized species to be grown on-site, and the lease will be issued for a five-year term. Furthermore, a condition will be placed on the lease prohibiting the use of unanchored gear. This would give the applicant an opportunity to better assess the feasibility of certain elements of the proposed operations, and to demonstrate that he can adequately manage a lease of this size for a longer term.

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 upon determining that the project will not unreasonably interfere with: the ingress and egress of riparian owners; navigation; fishing or other uses of the area, taking into consideration other aquaculture uses of the area; the ability of

⁴ During Mr. Butterfield's testimony, he stated that he is currently not culturing any other species other than American oysters and that the addition of other species would be for experimental purposes. Further, he agreed that the additional species he was requesting could be removed from consideration if there were concerns.

the lease site and surrounding areas to support existing ecologically significant flora and fauna; or 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 comply with visual impact criteria adopted by the Commissioner.

A. Riparian Access

DMR's Chapter 2 regulations require the Commissioner to examine whether riparian owners can safely navigate to their shore. In examining riparian owner ingress and egress, the Commissioner "shall consider the type of structures proposed for the lease site and their potential impact on the vessels which would need to maneuver around those structures." Chapter 2, § 2.37.

At the time of DMR's site assessment, staff observed one house on Little Moshier Island, set back approximately 300 from the southeastern shore. There are no houses along the subtidal western shoreline of Moshier Island adjacent to the proposed lease site (SR, 6). There are two docks to the north of the intertidal sandbar and one tidal dock located approximately 880 feet away on the intertidal sandbar to the east of the proposed site on the western shore of Moshier Island (SR, 6). During the hearing, Claire LaBrecque testified that her family's pier is located southwest of the proposal, on the opposite side of the island. The pier is the primary access point for the island. The nearest observed moorings were located north of the tidal sandbar (SR, 6).

According to the Harbormaster questionnaire, dated September 22, 2022, this proposal may affect riparian ingress and egress as there is a nearby beach that is occasionally accessed by boat by a riparian landowner. However, during the hearing, no testimony was provided by any riparian landowners to suggest that the proposal would impact their ingress or egress. DMR finds that sufficient area remains for reasonable ingress and egress by riparian owners. **Therefore**, the aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not unreasonably interfere with the ingress and egress of any riparian landowner.

B. Navigation

When examining navigation, the Commissioner considers whether the lease activities would interfere with commercial or recreational navigation around the lease area and considers the current uses of the navigational channels in the area. According to the site report, the

proposal is located approximately 115 to 160 feet off the southern shore of Little Moshier Island in an inlet between Little Moshier and Moshier Islands. During the site visit on June 29, 2021, no vessels were observed operating in the area (SR, 7). There is approximately 700 to 1,000 feet of navigable water at MLW between the proposed site and the immediate southwestern shore of Moshier Island (SR, 7). A tidal sandbar prevents transiting the inlet between Little Moshier and Moshier Island at all tidal stages (SR, 7/Figure 2).

The Harbormaster questionnaire indicates that there are no navigational concerns with the proposed lease site (CF, Harbormaster questionnaire). During the public hearing, there was no testimony or evidence presented indicating that the lease site would unreasonably interfere with navigation in the area.

Therefore, the aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not unreasonably interfere with navigation.

C. Fishing & Other Uses

When examining fishing and other uses, the Commissioner considers whether the lease activities would unreasonably interfere with commercial or recreational fishing or other water-related uses of the area. Additionally, the Commissioner considers any evidence concerning other aquaculture uses of the area.

Fishing. During DMR's site assessment on June 29, 2021, staff observed approximately two lobster (*Homarus americanus*) trap buoys within the vicinity of the proposed lease. However, DMR staff did not observe any lobsters within the boundaries of the proposed site (SR, 7). The lobster fishery in Maine follows the annual migration and molt cycle of lobsters and may be more prevalent in the area during other times of the year than when the site assessment was conducted. Moreover, the applicant is currently operating an experimental lease, CAS MIX, within the proposed lease footprint, which may deter a certain amount of nearby lobster fishing effort to avoid the potential for gear entanglement. While some European oysters (*Ostrea edulis*) were observed on underwater camera footage taken during the site assessment, DMR staff did not observe any shellfish harvesting within the area.

During the public hearing, no one in attendance identified themselves as a lobstermen or shellfish harvester and no testimony was provided concerning those uses of the area. The Harbormaster questionnaire indicated that recreational fishing occurs in the area. However, no testimony was provided concerning impacts to recreational fisheries.

Therefore, the aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not unreasonably interfere with commercial or recreational fishing.

Other water-related uses. The application indicates recreational vessels occasionally anchor within the open water of the cove during July and August (App, 12). The application also notes that individuals kayak within the cove and around the experimental lease site (App, 13). The Harbormaster questionnaire suggests that the gear being proposed on the site may preclude other uses within or near the site. During the hearing, no testimony was provided to indicate that the proposed operations will interfere with other water related uses of the area.

Other aquaculture leases. The proposed standard lease boundaries are located on the same footprint as Tract 1 of the applicant's experimental lease site, CAS Mlx (SR, 8). If the proposal were granted, the standard lease would replace the experimental lease (SR, 8). Tract 2 of experimental lease site, CAS Mlx, is not included in this standard lease proposal and in accordance with law would be relinquished within 30 days of the decision on this proposal being rendered.⁵ The applicant also operates experimental lease site CAS ELMx at the mouth of the inlet between Little Moshier and Moshier Islands, which is the only other lease site within 1,000 feet of the standard lease proposal. There were no active LPAs within 1,000 feet of the proposal.

Therefore, considering the number and density of aquaculture leases in the area, the aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not unreasonably interfere with fishing or other uses of the area.

D. Flora & Fauna

DMR observations. During the site assessment, staff observed several species and recorded their respective abundance:

Species	Abundance
Rockweed (<i>Ascophyllum nodosum</i>) – unattached	Abundant
European oysters (<i>Ostrea edulis</i>), Tunicate species (not classified)	Occasional
Eelgrass (<i>Zostera marina</i>) – unattached blades	Rare

Eelgrass. Based on historical survey data, the closest record of eelgrass to the proposed lease site was located approximately 85 feet into the southern portion of the proposal, with a percent

⁵ Mr. Butterfield testified that there is no gear or product on Tract 2.

coverage of 0%-10% (Figure 3/ SR,11). During the June 29, 2021, site assessment, unattached blades of eelgrass were observed within the boundaries of the proposed site. The blades were observed at an infrequent or rare level of abundance (SR, 11).

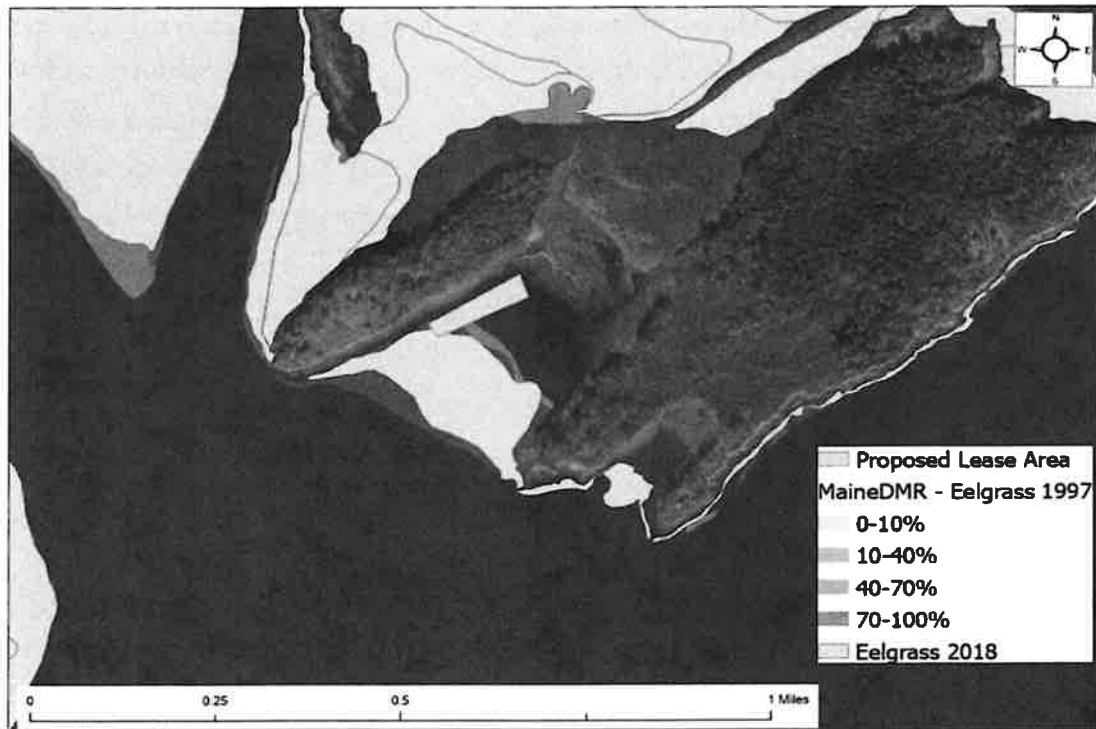


Figure 3. Historical eelgrass (*Z. marina*) near and within the proposed lease site from historical data. Image take from DMR site report.

During the hearing, Mr. Butterfield was asked to describe his observations of eelgrass within the cove and around his lease site. Mr. Butterfield testified that the area has experienced an increased presence of eelgrass during the operation of his existing lease site (Butterfield/Brazier). When asked to estimate the distance between observed eelgrass beds and the proposed site, Mr. Butterfield stated that the nearest observed bed was located approximately 500 feet to the south of the site (Butterfield/Ellis). Mr. Butterfield testified that he has not seen any eelgrass beds within the proposed lease site (Butterfield/Ellis).

Fisheries & wildlife.

During MDMR's site assessment on June 29, 2021, staff observed terns (*Sterninae sp.*) feeding at the mouth of the cove as well as double-crested cormorants (*Phalacrocorax auritus*) and Canada geese (*Branta canadensis*) in the general vicinity of the proposal (SR, 11). According

to data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), the proposed lease site is located approximately 100 feet to the southwest of mapped Tidal Waterfowl and Wading Bird Habitat (TWWH). DMR sent a copy of the application to MDIFW for their review and comment. MDIFW indicated that minimal impacts to wildlife are anticipated for this project.

Based on the evidence, the aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not interfere with the ecological functioning of the area.

Therefore, the aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, 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

When examining interference with public facilities, the Commissioner considers the degree to which the lease interferes with public use or enjoyment within 1,000 feet of beach, park, docking facility, or certain conserved lands owned by the Federal, State, or municipal governments.

There are no beaches, parks, docking facilities, or conserved lands owned by federal, state, or municipal government within 1,000 feet of the proposed lease site.

Therefore, the aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, docking facilities, or certain conserved lands owned by municipal, state, or federal governments.

F. Source of Organisms

The applicant intends to obtain stock from the approved sources listed below. If stock is not available from these sources another DMR approved source may be used.

Source	Location	Species
Mook Sea Farm	Walpole, ME	Eastern Oyster (<i>Crassostrea virginica</i>)
Muscongus Bay Aquaculture	Bremen, ME	Eastern Oyster (<i>Crassostrea virginica</i>)

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

G. Light

The application indicates that no lights will be used at the proposed lease site, and no work would be conducted beyond daylight hours (App, 9). During the hearing, Mr. Butterfield clarified that lights would only be used in an emergency, and it would be the spotlights on his boats (Butterfield/Brazier).

Therefore, the aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not result in an unreasonable impact from light at the boundaries of the lease site.

H. Noise

DMR evaluates noise in accordance with 12 M.R.S.A §6072-A(G) and the regulatory standards specified in Chapter 2.37(1)(A)(9). The statutory criterion specifies that a lease must not result in an unreasonable impact from noise at the boundaries of the proposed site. The applicable regulation requires that all motorized equipment be designed or mitigated to reduce the source sound levels to the maximum practical extent and that the applicant has taken reasonable measures to mitigate noise impacts associated with the lease activities.

Powered equipment to be used on site would include a 24-foot skiff utilizing a 115 horsepower 4-stroke engine, a 19-foot skiff utilizing a 75 horsepower 2-stroke, respectively. A grader/ tumbler/sorter would be used for approximately 1 week per year in June, July, or August and a pressure washer would be used two times during the year for one to two days (SR, 14). The applicant intends to replace the 24' skiff with a 26' deck boat and may use electric propulsion or a 115 horsepower 4-stroke engine.

During the hearing, Scott LaBrecque stated that the noise generated by the power washers, generators, and tumbler being used on the water carries to his residence (S. LaBrecque, testimony). Mr. Butterfield stated that boat engines will be turned off whenever possible to conserve fuel and reduce noise (Butterfield, testimony). In addition, Mr. Butterfield proposed that the grader/ tumbler/sorter would only be used 1 week out the year and the power washer would only be used twice during the year. 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 and the applicant has satisfied the standards specified in Chapter 2.37(1)(A)(9). **Therefore**, the aquaculture activities at this site, as modified by DMR with respect to authorized species and

term, and with a condition that no unanchored aquaculture gear may be used, will not result in an unreasonable impact from noise at the boundaries of the lease.

I. Visual Impact

The applicant is currently using a 30'x12' work raft as part of current operations on CAS Mix, which is always moored outside of the proposed lease boundaries (SR, 14,). If the proposed lease is granted, the work raft would remain outside the boundaries of the proposed lease. All grow-out gear is proposed to be black (SR, 14).

In accordance with DMR Rule 2.80(2)(A)(1), lease holders are required to have yellow boundary markers which must be readily distinguishable from the interior buoys. According to the application, the corner markers are proposed to be 55-gallon yellow buoys and string lines would be marked with smaller yellow buoys. Based on the varying sizes between the yellow corner marker buoys and the line buoys, the applicant has satisfied DMR's marking requirements. DMR assesses visual impacts in accordance with Chapter 2.37(1)(A)(10), which requires gear and structures on the proposed lease site to comply with certain requirements governing color, height, and building profiles. The regulation requires gear and structure to be a color that does not contrast with the surrounding area. Acceptable hues listed in regulation include black, brown, gray, green, and blue. If the proposed lease is granted and aside from the required yellow corner marker buoys, the holder is responsible for ensuring gear meets the allowable hues.

In accordance with applicable regulations, structures cannot exceed 20 feet in height as measured from the waterline. gear proposed by the applicant complies with DMR's height and visual impact limitations.

Therefore, the equipment, buildings, and watercraft to be used at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, 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:

- a. The aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not unreasonably interfere with the ingress and egress of any riparian owner.

- b. The aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not unreasonably interfere with navigation.
- c. The aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in the area.
- d. The aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.
- e. The aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments.
- f. The applicant has demonstrated that there is an available source of American/eastern oysters (*Crassostrea virginica*) to be cultured for the lease site.
- g. The aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not result in an unreasonable impact from light at the boundaries of the lease site.
- h. The aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, will not result in an unreasonable impact from noise at the boundaries of the lease site.
- i. The aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, 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 aquaculture activities at this site, as modified by DMR with respect to authorized species and term, and with a condition that no unanchored aquaculture gear may be used, 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 2.72 acres for five years for the purpose of cultivating American/eastern 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 M.R.S.A §6072(7-B).⁶ 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. Given the documented issues with gear being found offsite, the Department will require the holder to mark each piece of gear with the lease site ID, name of the lease holder, and lease holder's telephone number.

1. All gear must be marked with the lease site ID (CAS MI), the name of the lease holder, and the lease holder's telephone number.
2. The use of unanchored gear is prohibited.

7. REVOCATION OF LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 M.R.S.A §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: _____

12/6/23



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

⁶ 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."

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES

Keith Butterfield
CAS Mlx
Docket #2016-11-E

Experimental Aquaculture Lease Application
Suspended culture of American/Eastern oysters
and sea scallops,
Southeast of Moshier and Little Moshier Islands,
Casco Bay, Yarmouth, Maine

Date: July 14, 2017

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Keith Butterfield applied to the Department of Marine Resources (“DMR”) for an experimental aquaculture lease on 3.55 acres¹ located in Casco Bay, southeast of Moshier and Little Moshier Islands, Yarmouth, Cumberland County, Maine, for the purpose of cultivating American/Eastern oysters (*Crassostrea virginica*) and sea scallops (*Placopecten magellanicus*) using suspended culture techniques. DMR accepted the application as complete on August 29, 2016. No requests for a public hearing were received during the comment period and no hearing was held.

1. THE PROCEEDINGS

Notice of the application, the DMR site report, and the 30-day public comment period were provided to state and federal agencies which were requested to review the project, as well as to riparian landowners, the Town of Yarmouth and its Harbormaster, members of the Legislature, representatives of the press, aquaculture and environmental organizations, and others on the Department’s mailing list. Notice of the application and comment period was published in the *Forecaster* on September 1, 2016.

The evidentiary record before the Department regarding this lease application includes the application and the Department’s site report dated June 28, 2017, as well as the case file. The evidence from all of these sources is summarized below.²

¹ Applicant originally requested 3.21 acres, but DMR calculated the proposed area to be 4.29 acres. Pursuant to 12 M.R.S.A. §6072-A, experimental leases cannot exceed 4 acres in size. The proposed acreage has been reduced, with the applicant’s consent, to 3.55 acres. All descriptions of Tract 1 reflect the reduction in acreage as documented in the site report.

² These sources are cited below, with page references, as CF (case file), App (application), and SR (site report).

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The purpose of the proposed lease site is to explore the commercial feasibility of oyster and scallop production using a combination of floating and submerged cages (App 3). Tract 1 will contain a maximum of 1,250 cages distributed along 50 long-lines (App 8-11, SR 2)³. Tract 2 will contain a maximum of 500 cages supported by 20 long-lines (App 8-11, SR 2). The long-lines on each tract will be spaced 20 feet apart (SR 2). Oysters, the primary species to be cultured, will be grown in a combination of floating screen boxes and cages. The floating gear will be deployed in spring and removed in late fall or early winter (App 5). Scallops will be grown in submerged cages and/or ear-hung from vertical buoy lines (App 3). The oysters and scallops will be overwintered in sinking cages on the bottom of the proposed tracts, with Tract 2 being the primary overwintering site (App 5). Oysters and scallops will be sorted and harvested by hand (App 5). The applicant will access the site using a 24 foot Carolina Skiff.

Eventually, the applicant intends to sell whole scallops (App 4). The possession, transport, and, or sale of whole or roe-on scallops is prohibited pursuant to 12 M.R.S.A. §6073-C and Chapter 96.22 unless the applicant first obtains a Memorandum of Understanding from the DMR Bureau of Public Health. The applicant is aware of this prohibition and will obtain the necessary permissions (App 4). A condition reflecting this restriction will be included in the lease.

B. Site History

The applicant has four Limited Purpose Aquaculture License (LPA) sites; two sites are within the vicinity of the proposed lease tracts, one site is located in the proposed lease boundary of Tract 1, and one site is located in the proposed lease boundary of Tract 2 (App 2, SR 10)⁴. The LPAs were originally granted in 2014 for the cultivation of American/Eastern oysters (*Crassostrea virginica*), and sea scallops (*Placopecten magellanicus*). The LPAs have been renewed each year and the Department has not received any complaints regarding the operation of any of these licenses. The applicant notes: "the LPA sites that I currently utilize will not be renewed as long as this experimental lease is approved" (App. 2). The oysters and scallops on the license sites will be transferred to the proposed lease site (App 2).

³ It is likely that less gear will be used as the acreage of Tract 1 was reduced.

⁴ BUTT114, BUTT214, BUTT314, BUTT414

C. Site Characteristics

On June 2, 2017, DMR scientists visited the proposed lease site and assessed it and the surrounding area in light of the criteria for granting an aquaculture lease. The proposed lease site is comprised of two tracts.

Tract 1 is 2.72 acres and located in subtidal waters within a small cove formed by Little Moshier Island to the west and Moshier Island to the east (SR 2). The upland is characterized by a steep, rocky shoreline that leads to a combination of mature forest, shrubs, and fields (SR 2). One residential property, set back from the shoreline, was observed near the southwest corner of the proposed lease tract (SR 2). At mean low water, the distance from the northwest corner of the proposed tract to the northeastern side of Little Moshier Island is ~30 feet; the southwest corner of the proposed tract is ~60 feet from the shore (cf., email from Marcy Nelson to Amanda Ellis 07/05/17). Water depths are between 4.75-5.25 feet at mean low water between the southwest and southeast corners of the proposed tract (SR 6). DMR scientists were unable to assess water depth at the northern corners of the proposed lease, because the water depth was less than 3 feet during low water (SR 6). The site report indicates that the northern corners remained submerged at low water (SR 6). The bottom of Tract 1 is characterized by mud with flat topography (App 6). The current speed is approximately 1-3 knots (App 6).

Tract 2 is 0.83 acres and located in subtidal waters adjacent to the southeastern shoreline of Moshier Island. The upland is characterized by ledges that give way to a combination of mixed forest, bushes, and residential properties (SR 4). At mean low water the distance from the southwest corner of the proposed tract to the northeast side of Moshier Island is ~80 feet; the northwest corner of the proposed tract is ~85 feet from the shore (SR 9). Water depths are between 13.8-14.95 feet at mean low water between the southwest and northwest corners of the proposed tract (SR 5). Water depth ranged between 18.35-21.2 feet at mean low water between the northeast and southeast corners of the proposed tract (SR 5). The bottom of Tract 2 is characterized by mud with flat topography (App 6). The current speed is approximately 1-3 knots (App 6).

The proposed lease is in an area currently classified by the Department of Marine Resources Water Quality Classification program as “open/approved for the harvest of shellfish” (SR 14).

3. STATUTORY CRITERIA & FINDINGS OF FACT

Approval of experimental aquaculture leases is governed by 12 M.R.S.A. §6072-A. This statute provides that a lease may be granted by the Commissioner of DMR upon determining that the project will not unreasonably interfere with the ingress and egress of riparian owners; with navigation; with fishing or other 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 applicant indicates that the proposed tracts will not interfere with riparian access (App 5). During the June 2, 2017 site visit DMR staff observed:

Riparian access to Little Moshier Island (Tract 1) appears to be by way of a dock located along the southwestern shore of the island and ~800 feet (straight-line distance over land) from proposed Tract 1. Similarly, on June 2, 2017, no docks or moorings were observed in the general vicinity of proposed Tract 2 (Moshier Island). The nearest observed docks are located in a small cove on the southern end of Moshier Island and approximately 450 feet (straight line distance over land) to the west of the proposed lease site (SR 9).

The Harbormaster notes that there are no permitted moorings within the proposed lease area and that the proposed lease would not interfere with riparian ingress and egress (CF, Harbormaster Questionnaire). No comments were received regarding interference with shore access. The evidence shows that docks used for access to both islands are located well away from the proposed lease tracts. Activities at the lease site in subtidal waters are unlikely to hamper access to and from the shore.

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 proposed lease tracts are located in shallow subtidal waters outside of any navigational thruways (SR 9). Tract 1 is situated more than 2,000 feet from the main navigation channel, and there is more than 4,500 feet of navigable waters between Tract 2 and the nearest navigational hazard (SR 9). The Harbormaster indicates that the proposed lease will not interfere with navigation (CF, Harbormaster Questionnaire).

It appears from this evidence that the proposed lease tracts lie far away from the areas where navigation in the area is most likely to occur and thus are unlikely to affect boat traffic. 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. The lease site must be marked in accordance with U.S. Coast Guard requirements.

C. Fishing & Other Uses

The site report describes the following:

On June 2, 2017 no commercial or recreational fishing activity was observed within the immediate vicinity of Tract 1 (Little Moshier Island). A single lobster pot buoy was noted to the southwest, outside of the cove. Six lobster pot buoys were observed within the vicinity of Tract 2 (Moshier Island); 3 to the south of the proposal, 1 to the north, and 2 to the west. Based on varying buoy colors, there appeared to be 3 different individuals utilizing the area at the time (SR 9).

The Harbormaster noted that there is little commercial fishing activity in the area and did not anticipate any conflicts with fishing, or other water related activities (CF, Harbormaster Questionnaire). The applicant notes that “fisherman and recreational paddle boarders, kayakers, etc., are welcome and they will not be excluded from boating and fishing at or around the lease site” (App 5).

It appears from this evidence that the proposed lease site is unlikely to affect what little fishing in the area

Exclusivity. The applicant requests that motorized vessels be prohibited within the proposed lease boundaries in order to avoid gear entanglement (App 5). Such a restriction is reasonable in order to enable the aquaculture project to be carried out while encouraging the greatest number of compatible uses of the area, as provided in 12 MRS §6072-A (15). A condition reflecting this restriction will be included in the lease.

Other aquaculture leases. In addition to the four existing LPA licenses held by the applicant, the site report details the following:

Four LPA licenses are located 563-2,186 feet to the east/northeast of the proposed site, for the suspended culture of marine algae⁵. Two LPAs are located approximately 4,713 feet to the northwest of the proposed site, for the suspended culture of American oysters. An experimental lease is located 1.1 miles from the proposed site for the culture of American oysters.⁶ A standard lease is located 1.6 miles to the northwest of the proposed lease site for the culture of American Oysters.⁷

According to the site report, “the proposed activities are unlikely to negatively impact existing aquaculture operations in the area” (SR 11).

Based on this evidence, it appears that the proposed lease will not unreasonably interfere with fishing or other uses of the area. The lease must be marked in accordance with DMR Rule 2.80⁸ Navigation and fishing will be permitted on the lease site.

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.

⁵ TJAG116-TJAG416

⁶ CAS LJIX, 1.97 acres

⁷ ROY LAM, 6.59 acres

⁸ **2.80 Marking Procedures for Aquaculture Leases**

1. When required by the Commissioner in the lease, aquaculture leases shall be marked with a floating device, such as a buoy, which displays the lease identifier assigned by the Department and the words SEA FARM in letters of at least 2 inches in height in colors contrasting to the background color of the device. The marked floating device shall be readily distinguishable from interior buoys and aquaculture gear.
2. The marked floating devices shall be displayed at each corner of the lease area that is occupied or at the outermost corners. In cases where the boundary line exceeds 100 yards, additional devices shall be displayed so as to clearly show the boundary line of the lease. In situations where the topography or distance of the lease boundary interrupts the line of sight from one marker to the next, additional marked floating devices shall be displayed so as to maintain a continuous line of sight.
3. When such marking requirements are unnecessary or impractical in certain lease locations, such as upwellers located within marina slips, the Commissioner may set forth alternative marking requirements in an individual lease.
4. Lease sites must be marked in accordance with the United State's Coast Guard's Aids to Private Navigation standards and requirements.

D. Flora & Fauna

Site Observations. During the site visit, Department staff identified eelgrass (*Zostera marina*) along the southeastern boundary of proposed Tract 1 (SR 14). To prevent aquaculture gear from being deployed over the eelgrass bed and ensure compliance with the 25 foot setback required by the Army Corps of Engineers, the southern boundary of Tract 1 will be shifted approximately 275 feet to the northeast (SR 14). This will reduce the total size of Tract 1 from the original calculated size of 3.46 acres to 2.72 acres. The applicant has been notified of the changes to Tract 1 and is amenable to the reduction in acreage (SR 14).

Fisheries and Wildlife. During the site visit, Department staff observed wild turkeys (*Meleagris gallopavo silvestris*) on Little Moshier Island (SR 14). Common eiders (*Somateria mollissima*), some with chicks, were also observed in the cove between Moshier and Little Moshier Islands. The site report notes that tidally exposed mud flats to the northeast of proposed Tract 1 are classified as Tidal Wading Bird and Waterfowl Habitat by the Maine Department of Inland Fisheries and Wildlife (MDIFW) (SR 14). DMR sent a copy of this lease application to MDIFW for their review and comment. No comments were received. Normally MDIFW comments on aquaculture applications when it has concerns about potential effects on wildlife. DMR interprets the absence of any comment as indicating that MDIFW has no concerns in this instance.

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

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

E. Public Use & Enjoyment

According to the site report, there are no public docking facilities or beaches within 1,000 feet of the proposed lease (SR 14).

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

F. Source of Organisms

According to the application, seed stock for this proposed lease site will be obtained from Mook Sea Farm in Walpole, Maine and Pine Point Oysters in Cape Elizabeth, Maine.

Therefore, I find that the applicant has demonstrated that there is an available source of American/Eastern oysters (*Crassostrea virginica*), and sea scallops (*Placopecten magellanicus*) 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 the ingress and egress of any riparian owner.
- B. The aquaculture activities proposed for this site will not unreasonably interfere with navigation.
- C. The aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in the area.
- D. The aquaculture activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.
- E. The aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments.
- F. The applicant has demonstrated that there is an available source of American/Eastern oysters (*Crassostrea virginica*), and sea scallops (*Placopecten magellanicus*) to be cultured for the lease site.

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

5. DECISION

Based on the foregoing, the Commissioner grants the requested experimental lease of 3.55 acres to Keith Butterfield 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 lessee⁹; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.

⁹ 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.”

This lease is granted to the lessee for the purpose of cultivating American/Eastern oysters (*Crassostrea virginica*), and sea scallops (*Placopecten magellanicus*) 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)¹⁰. Conditions are designed to encourage the greatest multiple compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the lease.

- A. The following conditions shall be incorporated into the lease:
- B. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.
- C. Dragging and shellfish harvesting are prohibited except by authorization of the leaseholder.
- D. Navigation by motorized vessels is prohibited within the lease boundaries, except in open areas of the lease site.
- E. Other public uses that are not inconsistent with the purposes of the lease are permitted within the lease boundaries.
- F. The possession, transport and, or sale of whole or roe-on scallops shall be prohibited unless the applicant first obtains a Memorandum of Understanding from DMR Bureau of Public Health.

¹⁰ 12 MRSA §6072-A (15) provides that:

“The commissioner may establish conditions that govern the use of the leased area and limitations on the aquaculture activities. These conditions must encourage the greatest multiple, compatible uses of the leased area, but must also address the ability of the lease site and surrounding area to support ecologically significant flora and fauna and preserve the exclusive rights of the lessee to the extent necessary to carry out the lease purpose. The commissioner may grant the lease on a conditional basis until the lessee has acquired all the necessary federal, state and local permits.”

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: 7.14.17



Patrick C. Keliher, Commissioner,
Department of Marine Resources