Repurposing Marine Infrastructure to Provide New Economic Opportunities for Downeast Maine

Presented to the Governor’s Economic Recovery Committee

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Background

1. Lobster pounds have existed in Maine for 145 years and are iconic features of our working waterfronts. Traditionally, pounds were used to store and harden soft-shell, or low value, lobsters over the fall until market prices strengthened during mid-winter. They remain an important tool for lobster buyers to be strategic in supply chain investments, but in recent years, lobster pounds have often been underutilized because overwinter shrinkage (mortality) rates are too high to make storing lobsters worthwhile.

Most pounds in downeast Maine were created by building dams across the mouths of coves (see photos), for which owners received permits from the U.S. Army Corps of Engineers and relevant state agencies. Water levels in a pound are manipulated by opening and closing gates in its dam. Once constructed, they become the real property of the owner, are assessed property taxes, and can be purchased and sold.

According to Maine’s Department of Marine Resources (DMR) and private sources, there are 65-75 lobster pounds in Maine. While current information is difficult to obtain, it appears 43 active lobster pounds exist in downeast Maine - 30 in Washington County and 13 in Hancock County.

2. In 2019, Maine aquaculture raised 13.9 million pounds of American oysters (*Crassostrea virginica*) with a dockside value of $9,670,100.\(^1\) 68% of those oysters were harvested from farms in the Damariscotta River area, compared to 76% in 2015, when 7.6 million pounds were harvested.

While American oyster aquaculture is growing, it does not occur east of Franklin, Maine. The downeast region’s ocean water, fed by the Eastern Maine Coastal Current (EMCC), rarely reaches the 70°F temperatures needed to grow oysters economically to achieve market size. Other factors contribute to the lack of shellfish aquaculture in general, including potential gear conflicts with lobster fishing.

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3. The Downeast Institute (DEI) is a nonprofit marine research organization established in 1995 with a mission to improve the quality of life for the people of downeast and coastal Maine through marine research, marine science education, and innovations in wild and cultured fisheries. DEI’s research campus that is located on the site of a former lobster buying and storage facility in Beals includes two lobster pounds. While monitoring several environmental variables in each, technicians noticed water temperatures in the pounds were consistently higher than outside, perhaps because the dams partially restrict water flow. If it were determined that this is common in lobster pounds, some idle infrastructure could be put to use growing oysters, or other commercially-important shellfish, enabling downeast lobster pound owners to diversify species and revenue, as well as encourage new businesses start-ups.

In June, 2020, with support from the Maine Technology Institute and the Maine Aquaculture Innovation Center, DEI deployed a study of 14 lobster pounds from Beals to Deer Isle to compare temperatures inside and outside their enclosures. Temperatures inside the pound are being measured in the middle of the water column as well as in an oyster bag on the surface, since it is expected the black bag will conduct heat. In most of the lobster pounds, juvenile oysters cultured at DEI’s research hatchery were added to the bag to measure growth results.

Opportunity

- To expedite or facilitate business growth, diversification and resilience.
- To advance Maine’s economic development strategy.
- To help individuals and downeast coastal communities lessen their reliance on lobster fishing.

The benefits of using lobster pounds for shellfish aquaculture:

- Pound owners and others will have access to other sources of income.
- No fishermen or other users will be displaced because there is no expectation of public access in a lobster pound. This marine real estate has already been removed from the public domain.
- Aquaculture lease acreage will increase to help meet the projected need of 400 additional acres by 2030 to satisfy demand for Maine oysters. Lobster pounds vary in size, which is typically measured in storage capacity. The pounds in DEI’s study represent 20 total acres, or an average of 1.4 acres. One lobster pound being used in a separate DEI study is 3 acres.
- Other shellfish species with smaller markets, such as Atlantic surf clams and northern quahogs, are also commercially raised in Maine. DEI is researching hatchery methods for scallops and European oysters, and grow-out methods for Arctic surf clams and razor clams. These

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2 Maine Farmed Shellfish Market Analysis, The Hale Group, LTD for Gulf of Maine Research Institute, 2016
innovations could create new candidates for shellfish aquaculture. Lobster pounds can provide excellent sites for growing niche products and help accelerate market development.

Problem

Currently, lobster pounds are not widely utilized for shellfish aquaculture, but interest is growing.

Even though the pound owner has all the rights and responsibilities associated with private property when it comes to their pound, DMR asserts State authority over the water that enters and exits the pound, therefore requiring lobster pound owners to obtain aquaculture leases in order to grow shellfish. The State does not assume such authority when the pounds are used only for storing lobsters.

Great care is taken by DMR to ensure that the interests of all parties are taken into account before granting an aquaculture lease. One of the interests the State protects in its lease process is that of the riparian landowners, especially if the proposed lease is in the intertidal area. Because lobster pounds typically were built in intertidal areas, DMR considers them intertidal for the purposes of a lease application, even though they are rarely drained completely. This status triggers additional requirements of lease applicants.

There are three lease options available to lobster pound owners, all of which are based on the principle that the State has the right to take ocean and intertidal areas out of the common public domain and grant exclusive rights to individuals if all requirements are met. These include:

**Limited Purpose Aquaculture license (LPA)**

An LPA is by far the easiest aquaculture “right” to obtain. The application exempts lobster pounds from the requirement for riparian landowner permission. It does not exempt them from the requirement to obtain a signature from the Chair of the local shellfish committee to certify the LPA won’t interfere with wild harvests, or from the local harbormaster to certify the LPA won’t interfere with navigation. While these two requirements are not burdensome, by definition it would seem they are also unnecessary for lobster pounds since no public shellfish harvesting or boating is taking place inside them.

The relative ease of obtaining an LPA is outweighed by their size limitations. One individual is limited to 4 LPAs of 400 sq. ft. each. A lobster pound owner interested in utilizing one acre of space inside their pound would need 26 LPAs at a cost of $1,300. LPAs are also the most restrictive in terms of the species that growers are allowed to raise.

**Experimental Lease**

A lobster pound owner could obtain a commercial experimental lease of adequate size. Experimental applications are more difficult to complete and take longer to gain DMR approval – both of which present barriers to converting lobster pounds to shellfish farms. After three years, commercial experimental leases are required to be converted to standard leases, another level of complexity that represents additional obstacles to expanding shellfish aquaculture in a way that does not remove ocean or intertidal from the public domain.

No portion of the application includes exemptions for lobster pounds. When DEI applied for experimental leases in its two lobster pounds, DMR sought counsel from the Attorney General’s office. It was determined that since DEI owns the pounds, and is also the riparian owner, it did not need to obtain permission from other landowners to be granted a lease in its “intertidal” lobster pounds, but DEI is still
required to obtain permission from the local selectmen to use their private property to grow shellfish seed. Apparently, this is to ensure DEI’s activities inside its pounds won’t interfere with local clam harvesting outside the pounds.

**Standard Lease**

A standard lease is the most difficult and expensive to obtain, but is the most appropriate of the three options for a commercial grower. Once again, the application process treats the space to be leased as an area that is currently in the public domain. As the attached flow chart indicates, this process is designed to make it difficult to obtain a lease of this kind, which is appropriate when exerting private individual rights over what is essentially public property. In the case of a lobster pound, however, this process is not appropriate, because the area in question has already been removed from the public domain and in all other respects, including right of access, is under the control of the owner.

**Potential Solution**

Removal of the current regulatory barriers to the use of lobster pounds for shellfish aquaculture is the only way American oysters, or other commercially valuable shellfish, can be grown downeast in the near term. Removal of these barriers may also encourage lobster pound aquaculture in other regions of the state.

At least two potential solutions exist that would require changes in regulations and/or laws. Both solutions would allow reasonable controls by DMR without forcing lobster pound owners into inapplicable legal requirements.

1. Exempt from aquaculture laws lobster pounds that are owned by the riparian land owners. Since most lobster pounds are partially constructed by incorporating the adjoining shoreline, one could assume most lobster pounds are owned by riparian landowners. Public health would be protected through their Shellfish Dealer’s license.

2. Treat aquaculture in lobster pounds as Land Based Aquaculture. Land Based Aquaculture licenses are issued by DMR with the understanding that the State only controls the water being used and must protect public health. The application process is reasonable, and is more consistent with the fact that a lobster pound is private property.

**Conclusion**

Current laws were written without considering that lobster pounds also could serve as commercial sites for aquaculture. This has forced DMR to apply rules and processes that are not applicable, are difficult to navigate, and impose unnecessary barriers to innovation and economic opportunities.

This paper was prepared for consideration by the Governor’s Economic Recovery Committee by Dianne Tilton, Executive Director of the Downeast Institute.

The following individuals and organizations have expressed agreement with the problems, opportunities and solutions it outlines:
Maine Aquaculture Innovation Center
A.S. Francis Lobster, Inc., Steuben
Downeast Fisheries Partnership
A.C. Inc, Beals
Sunrise County Economic Council
Jeff Libby, Beals
MEDMR Standard Lease Application Process
12 MRS § 6072 and DMR Rules Chapter 2.07 and following sections

Pre-Application Meeting
- Applicant
- DMR
- Harbormaster

Draft Application
- Applicant has 4 months from Pre-App meeting to submit a draft application and $500 fee

Draft Application Review
- DMR has 30 days to deem the draft application adequate to go to scoping session

Schedule Scoping Session
- Scheduled by applicant in site town, advertised in local paper by applicant, proof of advertising sent to DMR no less than 20 days prior to date of scoping

Scoping Session
- DMR notifies riparians, town, HM, agencies, mailing list, and public.
- Applicants meeting for the public, DMR may or may not attend

Application Review
- Applicant can submit a revised application, or DMR may review draft application for completeness, remainder of the application fee must be paid at this time.

Incomplete Applications
- Once reviewed, if more information is needed, DMR will send an incomplete letter to applicant. Applicant has 90 days to submit a final complete application.

Deemed Complete
- Once the application has been deemed complete, it will move forward to be scheduled for a site visit and site report by DMR staff.

Site Visit and Report
- DMR notifies riparians, town, HM, agencies, mailing list, and public

Public Hearing
- DMR
- Assistant Attorney General

Draft Decision/DMR Review
- DMR
- Assistant Attorney General

10-day Review of Proposed Decision
- Applicant
- Intervenors

Final Decision
- Commissioner

Notice of Decision and Appeal Period
- 30 Day Notices to Parties
- 40 Day notices to all others

Lease Paperwork
- DMR
- Applicant
MEDMR Experimental Lease Application Process

12 MRS § 6072-A and DMR Rules Chapter 2.64

Application
- DMR Reviews, Accepts as complete, and sends notifications

30 Day comment
- Hearing required if 5 or more written requests received at this time

Site Visit and Site Report
- DMR

If hearing
- Public Hearing
  - Hearing at DMR’s option unless 5 or more requests

If no hearing
- Draft Decision / DMR Review
  - DMR and Assistant Attorney General

Parties’ 10 Day Review of Proposed Decision
- Applicant
- Intervenors

Final Decision
- Commissioner

Notice of Decision and Appeal Period
- 30 day notices to Parties
- 40 day notice to all others

Lease Paperwork
- DMR
- Applicant