

Experimental Aquaculture Lease Application
Suspended Culture of Marine Algae
St. George River, St. George

STG CI2x

Findings of Fact, Conclusions of Law, and Decision

Miss Madisyn, LLC applied to the Department of Marine Resources (DMR) for a three-year experimental aquaculture lease on 3.98¹ acres located East of Caldwell Island², St. George River, St. George, Knox County. The proposal is for the suspended culture of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail/fingered kelp (*Laminaria digitata*), shotgun kelp (*Agarum clathratum*)³, dulse (*Palmaria palmata*), Irish moss (*Chondrus crispus*), and sea lettuce (*Ulva lactuca*). The proposal is for commercial research and development.

1. Proceedings

DMR accepted the final application as complete on October 2, 2023. Notice of the completed application and the 30-day public comment period was provided to state agencies, the Town of St. George, riparian landowners within 1,000 feet of the proposed site, and subscribers to DMR's aquaculture email listserv. On October 10, 2023, DMR sent a Harbormaster Questionnaire to the Harbormaster for the Town of St. George, requesting information about designated or traditional storm anchorages, navigation, riparian ingress and egress, fishing or other uses of the area, among other considerations. No response from the Harbormaster was received by DMR. Notice of the complete application and comment period was published in the *Courier-Gazette* on October 12, 2023. Title 12 M.R.S.A. §6072-A(6) provides that the Commissioner shall hold a public hearing if five or more persons⁴ request a public hearing within the 30-day comment period. The comment deadline ended on November 11, 2023. DMR did not receive any requests for a public hearing and did not conduct a public hearing. The evidentiary record regarding this lease application includes the application, DMR's site report dated June 4, 2025, and the case file. The evidence from each of these sources is summarized below.

¹ Applicant originally requested 4.0 acres. DMR calculations indicate the area is 3.98 acres.

² Application lists the general description as west of Caldwell Island, but the proposal is east of Caldwell Island.

³ Application lists the scientific name as *Agarum cribosum*, however the accepted scientific name is *Agarum clathratum*.

⁴ Title 12 M.R.S.A. §6072-A (6) now requires 10 or more hearing requests to be received for the Commissioner to hold a hearing, however, at the time of this comment period, the requirement was five or more.

A. List of Exhibits

1. Case file (CF)
2. Application (App)
3. DMR site report, issued on June 4, 2025 (SR)

The case file, application and site report are referred to in the decision with their designated abbreviations.

2. Description of the Project

A. Site History

Based on DMR records, no prior aquaculture activities have occurred in the area of this proposed lease site.

B. Proposed Operations

The purpose of the proposed experimental lease site is to determine the viability of culturing marine algae at this location (App 5). The applicant is proposing to culture sugar kelp, skinny kelp, winged kelp, horsetail/fingered kelp, shotgun kelp, dulse, Irish moss, and sea lettuce using seventeen 1,000-foot longlines. The applicant also proposes to use cross-lines, counterweights, moorings with lines and chains, and buoys (App 14-15). The culture lines, cross-lines, and depth control buoys will be removed from the site from June 16 to September 30 each year. The application states moorings (with lines and chains) will remain on-site year-round, however, the mooring buoys will be removed and the lines sunk to the bottom. Lease marker buoys will remain on-site year-round (App 6).

No power equipment is proposed to be used at this lease site.

The applicant proposes to use a lobster boat and skiff at the lease site during seeding, tending, and harvesting (App 7).

C. Site Characteristics

Description. On August 23, 2024, DMR scientists assessed the proposed lease site. The site is located in the St. George River in the Town of St. George. The site is situated in subtidal waters. The eastern shore of nearby Caldwell Island consists of a rocky coastline leading to forested uplands with one pier approximately 285 feet northwest of the proposal.

Water depths at the corners of the proposal at mean low water (MLW) are predicted to be from approximately 31 to 34 feet. The bottom of the proposed lease site is composed of mud and sheet algal bed (SR 2).

Growing Area Classification. Growing Area Classifications are pertinent to bivalve shellfish species cultured and harvested for human consumption. The proposal does not include the cultivation or harvest of any bivalve shellfish species, so Growing Area Classifications do not apply. However, if the lease is granted, and bivalve shellfish were proposed to be added within the boundaries of the site, it would be the responsibility of the leaseholder to comply with any harvest requirements applicable to the respective Growing Area.

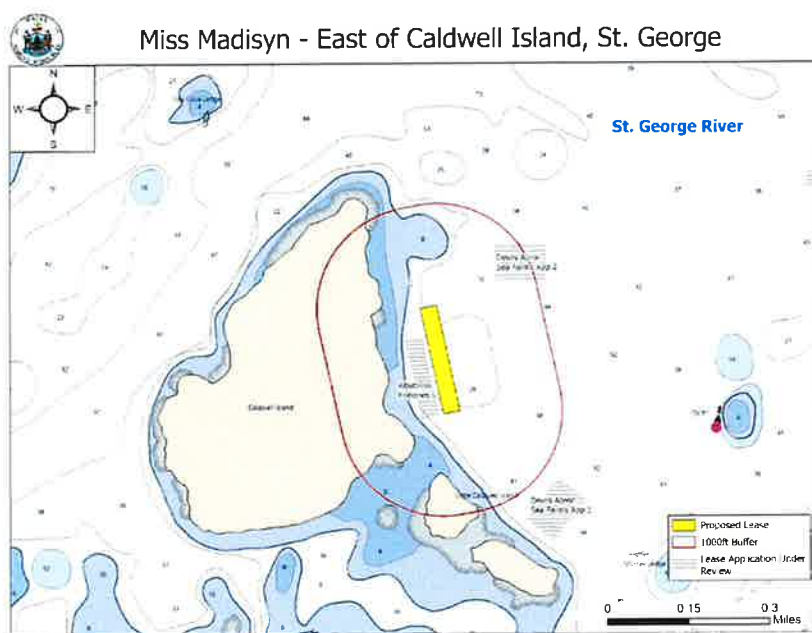


Figure 1. Aquaculture applications under review by DMR in the vicinity of the proposal⁵.

3. Legal Criteria and Findings of Fact

Approval of experimental aquaculture leases is governed by 12 M.R.S.A. §6072-A and DMR Regulations. The statute and regulations provide that a lease for commercial aquaculture research and development or for scientific research 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; other aquaculture uses in the area; the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; and public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments. The

⁵ Unless otherwise noted, all figures in this report were created in ArcGIS Pro version 2.9 using digitized NOAA Nautical Charts or geo-referenced aerial photographs provided by The Maine Office of GIS.

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 Owners Ingress and Egress

When examining riparian access, the Commissioner considers whether the proposed lease will unreasonably interfere with the ingress and egress of riparian owners. 12 M.R.S.A. § 6072-A(13)(A). The Commissioner shall examine whether the riparian owners can safely navigate to their shore and consider the type of shore, the type of vessel that can reasonably land on that shore and the types of structures proposed for the lease and their potential impact on the vessels which would need to maneuver around those structures. Chapter 2.37(1)(A)(1).

During the site visit, DMR scientists observed one riparian dock on the eastern shore of Caldwell Island located approximately 285 feet northwest of the proposal. DMR scientists observed four kayaks stored on the riparian dock, as well as a 20-foot powerboat tied to the dock. In the vicinity of the proposal, DMR scientists observed three unoccupied moorings located approximately 133 feet, 191 feet, and 222 feet west of the proposal (Figure 2). Little Caldwell Island is approximately 580 feet south of the proposal at MLW. Aerial imagery⁶ shows a residential property and mooring on the northern shoreline of Little Caldwell Island approximately 1,640 feet southeast of the proposal. No docks or moorings were observed on Little Caldwell Island during the site visit.



Figure 2. Proposed lease area with site visit observations.

⁶ Maine Orthoimagery Coastal Midcoast 2023

A Harbormaster Questionnaire was sent to the town of St. George. DMR did not receive a response.

Given the distance from the proposed lease to any riparian structures and seasonal nature of the gear deployment, the proposed lease activities will not impede access.

Therefore, the aquaculture activities as proposed will not unreasonably interfere with riparian owner ingress and egress.

B. Navigation

When examining navigation, the Commissioner considers whether the proposed lease will interfere with navigation. 12 M.R.S.A. § 6072-A(13)(B). The Commissioner shall examine whether any lease activities requiring surface and or subsurface structures would interfere with commercial or recreational navigation around the lease area and consider the current uses of the navigational channels in the area. Chapter 2.37(1)(A)(2).

The proposal is located 345 feet east of Caldwell Island at MLW. When approaching from the north, the navigational channel divides and continues on both the eastern and western sides of Caldwell Island. On the eastern side of Caldwell Island, there is approximately 2,511 feet of navigable water between the SE corner of the proposal and isolated danger buoy “DCR” (Figure 3). During DMR’s site visit, three sailboats, two recreational powerboats, and one commercial fishing vessel were transiting in the channel to the east of the proposal. Kayakers were observed paddling along the shoreline in the area of Hupper Point for the duration of DMR’s site visit.

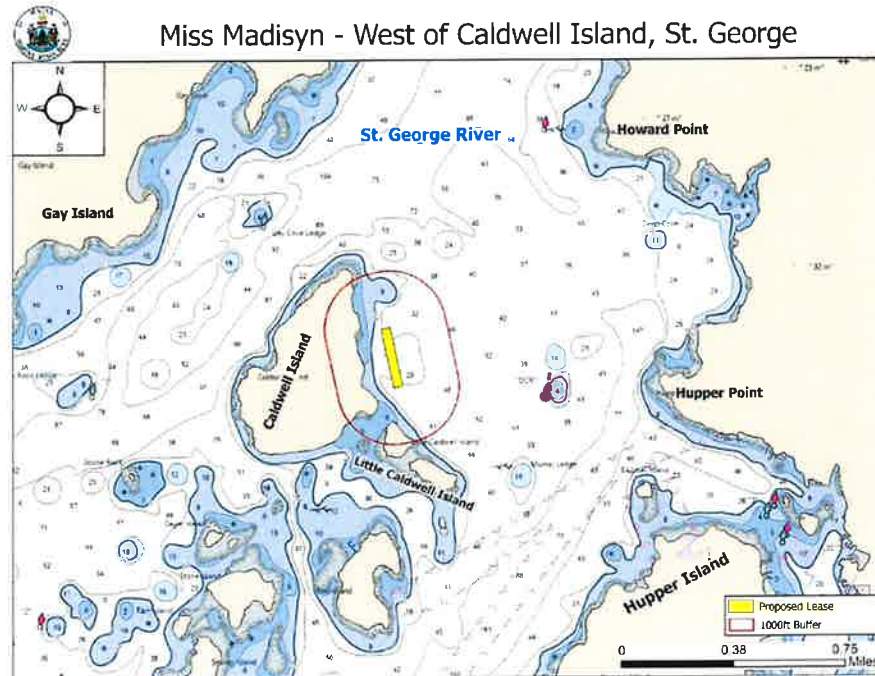


Figure 3. Navigational channels in the vicinity of the proposed lease area.

Given the water depths and extensive open water to the east of the proposed lease site, and the seasonal nature of the gear deployment, the proposed lease will not unreasonably interfere with navigation.

Therefore, the aquaculture activities as proposed will not unreasonably interfere with navigation.

C. Fishing and Other Uses

When examining fishing and other uses, the Commissioner considers whether the proposed lease activities will unreasonably interfere with fishing or other uses of the area. 12 M.R.S.A. § 6072-A(13)(C). The Commissioner shall examine whether the lease activities would unreasonably interfere with commercial or recreational fishing or other water-related uses of the area. Chapter 2.37(1)(A)(3).

Fishing. During the site visit, DMR scientists documented 15 lobster buoys in the general vicinity of the proposal. The lobster buoys were predominately located east and north of the proposal with the closest buoy approximately 320 feet to the east (Figure 2). DMR scientists observed a commercial fishing vessel actively hauling lobster gear south of Little Caldwell Island. Additionally, three powerboats were observed recreationally fishing with rod and reel along the shoreline of Caldwell Island west and south of the proposal.

In response to a request for information, a local Marine Patrol officer stated the area in the vicinity of the proposal is heavily used to harvest menhaden (*Brevoortia tyrannus*) in the summer months as early

as June (CF). Lobster fishing occurs in the area throughout the year, including some winter fishing, with most lobster gear present from June through November (SR 6).

Menhaden fishing occurs during a typically brief season (~11 weeks in duration) that opens in early to mid-June. Once a quota established by the State is reached, the fishery closes. Therefore, potential gear conflicts with aquaculture can be detrimental to menhaden fisherman. To ensure this area is cleared of gear and open for menhaden fishing, if granted, DMR will establish a condition, pursuant to 12 M.R.S.A § 6072-A(15), that mandates gear removal by May 31 each year, including site markers and moorings.

While there is documented lobster fishing in the area, it was observed several hundred feet from the proposed lease boundaries. A Marine Patrol Officer stated that lobster fishing occurs in the area throughout the year, including some winter fishing, with most lobster gear present from June through November. Therefore, given the ample space available for commercial fishing outside of the proposed lease area, and the conditional removal of gear during peak fishing months, the proposed lease activities will not unreasonably interfere with lobster fishing.

Other Uses. According to the application, no other uses of the area have been observed (App 8).

Therefore, the aquaculture activities proposed for the site, as modified, will not unreasonably interfere with fishing or other uses, including water-related uses of the area.

D. Other Aquaculture Uses

Pursuant to 12 M.R.S.A. § 6072-A(13)(C), in evaluating the proposed lease, the commissioner shall take into consideration the number and density of aquaculture leases in an area. The Commissioner shall consider any evidence submitted concerning other aquaculture uses of the area, the intensity and frequency of such uses, the degree of exclusivity required for each use as well as the number, size, location, and type of other aquaculture leases. Chapter 2.37(1)(A)(4).

There are no licensed aquaculture leases or limited purpose aquaculture (LPA) sites within 1,000 feet of the proposal. There are two applications under review by DMR within 1,000 feet of the proposal. Albatross Fisheries is an experimental application requesting a lease located approximately 50 feet west of this proposal. The application was deemed complete prior to this proposal. Devil's Apron Sea Farms App 2 is an experimental application requesting a lease located approximately 617 feet northeast of this proposal. The application was deemed complete after this proposal (Figure 1).

Albatross Fisheries and Miss Madisyn have previously operated experimental leases in close proximity to each other without conflict. Both pending lease applications are for similar gear and culture techniques and should be able to operate in close proximity without interference. This lease as proposed will not interfere with existing aquaculture in the area.

Therefore, the aquaculture activities as proposed will not unreasonably interfere with other aquaculture uses in the area.

E. Existing System Support

When examining existing system support, the Commissioner considers whether the proposed lease activities will unreasonably interfere with significant wildlife and marine habitat or with the ability of the lease site and surrounding marine and upland areas to support existing ecologically significant flora and fauna. 12 M.R.S.A. § 6072-A(13)(D). Such factors as the degree to which physical displacement of rooted or attached marine vegetation occurs, the amount of alteration of current flow, increased rates of sedimentation or sediment resuspension, and disruption of finfish migration shall be considered by the Commissioner in this determination. Chapter 2.37(1)(A)(5).

Site Observations. On August 23, 2024, DMR scientists assessed the epibenthic ecology of the proposed lease via SCUBA. The relative abundance of epibenthic flora and fauna observed in the video footage is described below in Table 1.

Table 1. Species observed during the site visit on August 23, 2024.

Species Observed	Abundance
American Lobster (<i>Homarus americanus</i>)	Abundant
Sand shrimp (<i>Crangon septemspinosa</i>)	Common
Crab (<i>Cancer</i> spp)	Occasional
Kelp (<i>Saccharina latissima</i>)	Occasional

Marine Vegetation. Records of eelgrass collected by the Maine Department of Environmental Protection (MDEP) in 2023 indicate mapped eelgrass presence in the vicinity of the proposal. The nearest mapped eelgrass is approximately 286 feet west of the proposal.⁷ DMR scientists observed eelgrass blades drifting on the surface of the water in the vicinity of the proposal. Unattached eelgrass blades were observed drifting on the seafloor on underwater video footage within the proposal boundaries during DMR’s site visit. No eelgrass was observed attached to the seafloor within proposal boundaries.

Wildlife. According to Geographic Information System (GIS) data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) and available through the Maine Office of GIS

⁷ Data obtained from The Maine Office of GIS “GISVIEW.MEDEP.Seagrass2023”. Widgeon grass was observed only in a tributary to the Great Salt Bay, upstream of a culvert that likely restricts tidal flow. Eelgrass was the dominant vascular species in all other locations. This is the most current record of mapped eelgrass within the vicinity of the proposal.

(MEGIS), the proposed lease is located approximately 269 feet to the east of mapped Tidal Waterfowl and Wading Bird Habitat (TWWH). Data collected by the United States Fish and Wildlife Service in 2023 by aerial nest survey shows the closest mapped bald eagle nesting site to be approximately 711 feet west of the proposal.

During the site visit, DMR scientists observed double-crested cormorants (*Nannopterum auritum*), osprey (*Pandion haliaetus*), black guillemot (*Cepphus grylle*), herring gull (*Larus argentatus*), laughing gull (*Leucophaeus atricilla*), and harbor seal (*Phoca vitulina*) in the general vicinity of the proposal.

On October 27, 2023, a Wildlife Biologist with MDIFW responded by email to a “Request for Agency Review and Comment” stating minimal impacts to wildlife are anticipated for this project (CF).⁸

Given the absence of mapped significant wildlife habitat in close proximity to the proposed lease site, MDIFW’s comment, and the absence of eelgrass, the proposed activities will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

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

F. Source of Organisms to be Cultured

Pursuant to 12 M.R.S.A. § 6072-A(13)(E), in evaluating the proposed lease, the commissioner shall determine that the applicant has demonstrated there is an available source of organisms to be cultured for the lease site. The Commissioner shall include but not be limited to, consideration of the source’s biosecurity, sanitation, and applicable fish health practices. Chapter 2.37(1)(A)(6).

The applicant proposes to obtain sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail/fingered kelp (*Laminaria digitata*), shotgun kelp (*Agarum clathratum*), dulse (*Palmaria palmata*), Irish moss (*Chondrus crispus*), and sea lettuce (*Ulva lactuca*) from Atlantic Sea Farms (ASF) (Biddeford, Maine). ASF is an approved source of stock for all of these species except *Ulva lactuca*. ASF has a land-based aquaculture license for the culture of *Ulva fenestrata*, a different species of sea lettuce, replacing the previously cultured *Ulva lactuca*. Due to this change in source for sea lettuce, *Ulva fenestrata*, not *Ulva lactuca* will be approved for the lease.

⁸ Email correspondence between MDIFW and DMR

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

G. Interference with Public Facilities

When examining interference with public facilities, the Commissioner considers whether the proposed lease will unreasonably interfere with public use or enjoyment within 1,000 feet of a beach, park, or docking facility owned by the Federal Government, the State Government or a municipal governmental agency. 12 M.R.S.A. § 6072-A(13)(F). Chapter 2.37(1)(A)(7) and 2.64(11)(A)).

The proposed lease is not within 1,000 feet of any beach, park, or docking facility owned by federal, state, or municipal governments.

Therefore, the aquaculture activities as proposed will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks or docking facilities owned by federal, state, or municipal government.

4. Conclusions of Law

Based on the above findings, DMR concludes that:

- a. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of riparian owners.
- b. The aquaculture activities proposed for this site will not unreasonably interfere with navigation.
- c. The aquaculture activities proposed for this site, as modified, will not unreasonably interfere with fishing uses of the area, including water-related uses of the area.
- d. The aquaculture activities proposed for this site will not unreasonably interfere with other aquaculture uses of the area.
- e. The aquaculture activities proposed will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.
- f. 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 federal, state, or municipal government.
- g. The applicant has demonstrated that there is an available source of stock 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 an experimental lease to Miss Madisyn, LLC, for 3.98 acres for three years, the term of the lease to begin within 12 months of the date of this decision, on a date chosen by the lessee; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.

This lease is granted to the lessee for the cultivation of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail/fingered kelp (*Laminaria digitata*), shotgun kelp (*Agarum clathratum*), dulse (*Palmaria palmata*), Irish moss (*Chondrus crispus*), and sea lettuce (*Ulva lactuca*) using suspended culture techniques. The lessee shall pay the State of Maine rent at \$100.00 per acre per year. The lessee shall post a bond or establish an escrow account pursuant to Chapter 2.64(12)(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. Lease Conditions

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-A(15) and Chapter 2.64(11)(B). Conditions are designed to encourage the greatest multiple compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the lease. The following conditions shall be incorporated into the lease:

All gear including moorings, lines, buoys, and site markers must be removed from the water between May 31 and October 1 each year.

7. Revocation of Lease

The Commissioner may commence revocation procedures upon determining pursuant to 12 M.R.S.A. §6072-A(22) that no substantial aquaculture or research has been conducted on the site over the course of the lease, that aquaculture has been conducted in a manner substantially injurious to marine organisms, or that any condition of the lease or any applicable laws or regulations have been violated.

Dated: 11.6.25



**Carl J. Wilson, Commissioner
Department of Marine Resources**

Appendix

Granted Lease Coordinates

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>	
NW	43.93892°	-69.29125°	then 164 feet at 076° True to
NE	43.93901°	-69.29064°	then 1,057 feet at 167° True to
SE	43.93618°	-69.28976°	then 164 feet at 256° True to
SW	43.93609°	-69.29037°	then 1,057 feet at 347° True to NW