STATE OF MAINE DEPARTMENT OF MARINE RESOURCES

FV 11th Hour Inc.

Experimental Aquaculture Lease Application Suspended Culture of Marine Algae Penobscot Bay, Searsport

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

FV 11th Hour Inc., applied to the Department of Marine Resources (DMR) for a three-year experimental aquaculture lease located southwest of Sears Island, Penobscot Bay, Searsport, Waldo County. The proposed lease is 3.95 acres¹ and is for the suspended cultivation of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail/fingered kelp (*Laminaria digitata*), dulse (*Palmaria palmata*), and sea lettuce (*Ulva lactuca*) for commercial aquaculture research and development.

1. THE PROCEEDINGS

DMR accepted the application as complete on March 8, 2023. Notice of the application and the 30-day public comment period was provided to state agencies, the Town of Searsport, and others on DMR's email listsery. There are no riparian landowners within 1,000 feet of the proposed site. A Harbormaster Questionnaire was also sent to the Town of Searsport requesting information about designated or traditional storm anchorages, navigation, and fishing among other considerations. Notice of the complete application and comment period was published in the March 23, 2023, edition of the *Courier-Gazette*. At the time notice of the completed application was processed, 12 M.R.S.A. § 6072-A(6) provided that the Commissioner shall hold a public hearing if five or more persons request a public hearing within the 30-day comment period.² No requests for a public hearing were received and no hearing was conducted. The evidentiary record regarding this lease application includes the application, DMR's site report dated April 16, 2024, and the case file. The evidence from each of these sources is summarized below.³

LIST OF EXHIBITS

- 1. Case file
- 2. Application
- 3. DMR site report, issued on April 16, 2024

Applicant originally requested 3.94 acres. DMR calculations indicate the area is 3.95 acres.

² A subsequent statutory change, enacted after the proposal was deemed complete and subsequently noticed, increased the minimum number of hearing requests to ten to require that a public hearing be held.

³ These sources are cited, with page references, as App (Application), CF (case file), and SR (site report).

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The purpose of the proposed experimental lease site is to determine the commercial viability of the site for marine algae cultivation (App 7). The applicant is proposing to culture marine algae using 15 1,000-foot longlines (App 7). During the growing and harvest season, October 1-June 15, the longlines would be suspended seven feet below the surface of the water with a maximum of seven, depth-control buoys deployed along each longline at the surface of the water (App 7, 16). During the winter and spring, the site would be monitored on a regular basis and counterweights may be added to the longlines to ensure that they remain suspended at least seven feet below the surface of the water (App 8). The applicant would harvest marine algae in May and June (App 8). The hydraulic hauler on the applicant's lobster boat would be used to hoist each longline, and marine algae would be cut, by hand, from the longline and loaded into bags (App 8). From June 16-September 30, sixteen moorings and associated buoys would remain within the boundaries of the site until the longlines and associated gear were redeployed on October 1 (App 8).

B. Site Characteristics

On October 26, 2023, DMR scientists assessed the proposed lease site. The southwestern shore of Sears Island, approximately 2,749 feet from the proposal, consists of rocky and muddy coastline leading to a mixed forest upland (SR 2). A walking trail with hikers could be seen from the vicinity of the proposal during the site visit (SR 2). Measured depths at the corners of the proposed lease site ranged from 53.6 to 58.8 feet (SR 2). Correcting for tidal variation derives water depths at the corners of the proposal at mean low water (MLW, 0.0 feet) to be from 43.5 to 48.7 feet (SR 2).

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 for commercial aquaculture research and development or for scientific research 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 other aquaculture uses in the 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 applicants have demonstrated that there is an available source of organisms to be cultured for the lease site.

A. 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. 12 M.R.S.A. § 6072-A(13)(B); Chapter 2.37(1)(A)(2). DMR's Chapter 2 regulations⁴ require the Commissioner to examine whether any lease activities requiring surface and/or subsurface structures would interfere with commercial or recreational navigation around the lease area. Chapter 2, § 2.37(1)(A)(2). In examining navigation, the Commissioner "shall consider the current uses and different degrees of use of the navigational channels in the area in determining the impact of the lease operation." Chapter 2, § 2.37(1)(A)(2).

The application states that the site is on the eastern boundary of a federally marked navigational channel (App 10). The application also states that tugboats transit through the area once every couple of months to reach Mack Point in Searsport (App 10). DMR is aware that Mack Point is a privately owned port facility that receives bulk shipments of liquid and dry cargo and can accommodate vessels up to 800 feet. The application characterized recreational and commercial boating activities as minimal during the summer months when the site would not be in use and greatly reduced in winter months when the site is active (App 10).

Based on DMR's site report, the proposal is located along a line between two navigational channel buoys. The proposal lies approximately 944.3 feet northwest of the red navigational channel buoy "2" and 3,114.3 feet south of the next red navigational channel buoy (SR 4). The center of the navigational channel is located approximately 3,539.4 feet to the west of the proposal (SR 4). Figure 1 includes the location of navigational channels and buoys in relationship to the proposed site. At MLW, Sears Island is located 2,250 feet east of the northeastem corner of the proposal (SR 5). Sears Island Ledge, located between the proposal and Sears Island, is approximately 1,196.4 feet east of the proposal (SR 5). During the site visit, DMR staff observed one recreational powerboat navigating to the west of the proposed site (SR 5). A vessel marked "security" was observed to the north of the proposal near Mack Point (SR 5). DMR staff observed one commercial fishing vessel in the area (SR 6). DMR staff also observed 6-10 lobster buoys within 1,000 feet of the proposed site, which indicates that lobster fishing vessels would be present in the area during the time the proposal would be active.

^{4 13-188} C.M.R. ch. 2

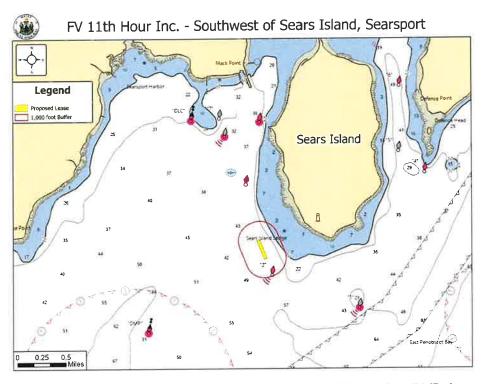


Figure 1: Navigational channels and buoys in the vicinity of the proposal. Image from DMR site report.

On April 20, 2023, the Searsport harbormaster commented that the proposed lease is "right on a direct line between two navigational buoys many vessels use to navigate the area, both commercial and recreational" (CF: Harbormaster Questionnaire). The comment also stated that the location would lead to potential vessel interactions and recommended that the site be moved 400 feet to the east to avoid such interactions (CF: Harbormaster Questionnaire).

The site report, published on April 16, 2024, notes that the State of Maine had selected a state-owned portion of Sears Island, reserved for port development, as the preferred port location for the Maine Offshore Wind Initiative (SR 9). This could lead to the construction of a port facility on the western shore of Sears Island for offshore wind fabrication, staging, assembly, and deployment (SR 10). Figure 2 depicts the location of the proposed wind power port. DMR is aware that, since the site report was published, the Maine Department of Transportation (MDOT) continues to pursue development of the Sears Island site.

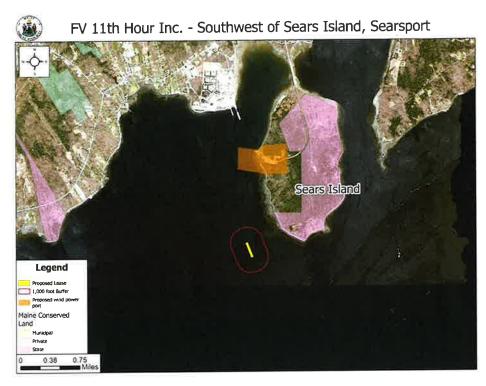


Figure 2: Approximate location of proposed wind power port. Image from DMR site report.

In consideration of MDOT's development plans and the location of the proposed lease site, on October 22, 2024, DMR provided MDOT with an opportunity to review and comment on the application.⁵ The request for review and comment included a copy of the application and DMR's site report. On October 24, 2024, MDOT submitted the following comment:

Our port project would not be directly impacted if outside the navigation channel. However, if our port project were to advance, there would be increased vessel traffic in this area. It would be better for it to be located further east on the other side of the island if possible. During port construction there could also be soil disturbances during pile driving and ocean-fill activities. Port construction could occur in 2027 if funding is available.⁶

Most recently, in November, after the comment was filed, the project failed to receive federal funding to help with planning costs. However, DMR is aware that MDOT intends to continue to advance the project.

Discussion:

In rendering a final decision, the Commissioner shall consider the following regarding navigation:

The Commissioner shall examine whether any lease activities requiring surface and or subsurface structures would interfere with commercial or recreational navigation around

⁵ CF: Email from A. Ellis (DMR) to N. Benoit (MDOT) dated October 22, 2024. MDOT would not have been directly notified of the initial comment period because they are not a stakeholder required to receive direct notice in accordance with applicable law. However, given plans for the port facility and other concerns raised regarding navigation, DMR provided MDOT with the opportunity to comment.

⁶ CF: Email from N. Benoit (MDOT) to A. Ellis (DMR) dated October 24, 2024.

the lease area. The Commissioner shall consider the current uses and different degrees of use of the navigational channels in the area in determining the impact of the lease operation...⁷

The applicant is applying to cultivate marine algae using suspended gear. Longlines would be deployed seven feet below the surface of the water and associated buoys would be deployed at the surface of the water from October 1-June 15. From June 16-September 30, sixteen moorings and associated buoys would remain within the boundaries.

The proposal lies along the eastern boundary of a marked navigational channel, between two navigational buoys on a course that many recreational and commercial vessels regularly traverse. The application indicates that vessels traverse the area year-round with at most minimal frequency, varying by season (App 10). For example, the application states that there are minimal boating activities in summer, and it is further reduced in winter. However, the application also requested that if the lease is granted, DMR prohibit commercial and recreational boating activity within the boundaries of the site from October 1-June 15 to avoid the potential for navigational hazards (App 12).

During the site assessment, which occurred on October 26, a time of year when the site would be active, DMR staff observed three vessels in the area and evidence of fishing activities that are contingent upon vessel use. The harbormaster commented that the site is directly on the boundary of a channel that many vessels use to navigate the area, and there is potential of vessel interactions with the location of the proposed lease site. In order to avoid interactions between vessels and the lease, the harbormaster recommended moving the site 400 feet to the east, which would place the site further away from the marked navigational channel and the established navigational course that vessels routinely take. Considering all the evidence presented about the existing navigation in this area, the location of the proposed lease directly along the boundary of the navigational channel, and the risk of interactions between vessels and the lease site identified by the harbormaster, DMR determines that the lease as proposed would unreasonably interfere with navigation.

The State of Maine is pursuing the development of a wind port on the western side of Sears Island. MDOT stated that if funding is secured construction could begin in 2027. At this time, sources of funding have not been secured so it is unclear when and if construction would commence. DMR is aware that MDOT intends to continue pursuing the project and that if it advances there will be increased vessel traffic in the area. If construction occurs, MDOT recommended that the proposal be moved to the eastern side of Sears Island. Due to the uncertainty surrounding the wind port project, DMR is not relying on evidence of the potential impacts of the lease proposal on navigation activities associated with wind port construction.

⁷ See Chapter 2.37(1)(A)(2). In considering an application for an experimental lease, the Commissioner considers the applicable criteria contained in Chapter 2.37 pursuant to Chapter 2.64(11)(A).

Instead, DMR is relying on the reasons previously discussed to determine that the lease as proposed would unreasonably interfere with navigation.

Having determined that the lease as proposed would unreasonably interfere with navigation, the analysis turns to whether any proposed modifications or conditions are appropriate and would sufficiently mitigate the interference. The harbormaster recommended moving the site 400 feet to the east, which would place the site further away from the marked navigational channel and the established navigational course that vessels routinely take. At this stage of the leasing process, however, allowing a modification that differs substantially from what was originally proposed in the final application would circumvent the public and personal notice requirements set forth in Chapter 2.15(1). Moving the proposal 400 feet differs substantially from the lease as proposed. Therefore, instead of modifying this proposal, the applicant would need to submit a new proposal with new coordinates to provide the opportunity for meaningful public input and to ensure the proposal goes through all the experimental lease application review stages.

In accordance with 12 M.R.S.A. §6072-A(15) and Chapter 2.64(11)(B), DMR *may* impose conditions on an experimental lease. Specifically, "[t]he Commissioner ... may establish any reasonable requirement to mitigate interference, including but not limited to those restrictions outlined in Chapter 2.37(1)(B)." Chapter 2.64(11)(B). Chapter 2.37(1)(B)(4) allows DMR to place conditions on a lease restricting the deployment and placement of gear and the timing of project operations to mitigate impacts. Based on the record, and considering the proposed operations, conditions specific to the timing of operations and the deployment of gear would not adequately mitigate interference with navigation in this case. For example, the site is contingent upon being operated from October 1 to June 15, and the Harbormaster Questionnaire states that many commercial and recreational vessels regularly operate in this area year-round. In addition, during the site assessment, which occurred on October 26, a time of yearwhen the site would be active, DMR staff observed three vessels in the area and evidence of fishing activities that are contingent upon vessel use.

Therefore, further restrictions on the season of operation or the gear to be used would not adequately mitigate interference with navigation.

Therefore, the aquaculture activities proposed for this site will unreasonably interfere with navigation.

B. Riparian Access

Before granting a lease, the Commissioner must determine that the proposed project "will not unreasonably interfere with the ingress and egress of riparian owners[.]" 12 M.R.S.A. § 6072-

A(13)(A). 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(1)(A)(1).

During the site assessment, DMR did not observe any docks, houses, or moorings in the vicinity of the proposal (SR 4). Nearby Sears Island, located to the northeast of the proposal, is owned by the State of Maine and no docks or other structures were observed at the time of the site visit (SR 4). The proposal is over 1,000 feet from any shoreline (SR 4). The State of Maine has chosen a portion of Sears Island for the development of a wind port facility. As noted in section 3.A. of this decision, the State of Maine, via MDOT, provided a comment on the proposal. The comment was specific to an increase in vessel traffic associated with possible construction of the facility. Navigation is addressed in section 3.A. of this decision.

MDOT did not provide feedback to suggest that the proposal would unreasonably interfere with riparian ingress or egress to Sears Island. The harbormaster stated that there are no permitted moorings within the boundaries of the proposed site and that there are no riparian owners within 1,000 feet of the site (CF: Harbormaster Questionnaire). The harbormaster did not provide any feedback to suggest that the proposal would unreasonably interfere with riparian ingress and egress (CF: Harbormaster Questionnaire). Based on the record, the proposed lease would not unreasonably interfere with riparian ingress and egress.

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

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 uses, including water-related uses, of the area. 12 M.R.S.A. § 6072-A(13)(C); Chapter 2.37(1)(A)(3).

Fishing. In examining fishing, the Commissioner "shall consider such factors as the number of individuals that participate in recreational or commercial fishing, the amount and type of fishing gear utilized, the number of actual fishing days, and the amount of fisheries resources harvested from the area." Chapter 2, § 2.37(1)(A)(3). The application characterizes lobster fishing within the boundaries of the proposal as "very rare" with no more than five traps observed within the boundaries of the proposed lease during the summer months (App 10). The application states that from late June through mid-October there may be up to 200 traps deployed in shallow water, approximately 600 to 1,000 feet, to the east of the proposed site (App 10). The application characterizes recreational fishing for Atlantic mackerel (*Scomber scombrus*) and striped bass (*Morone saxatilis*) as "rare near the proposed site" and mostly occurring during the summer months (App 10). The harbormaster characterized commercial fishing in the area as "light" and recreational fishing as "non-existent" (CF: Harbormaster Questionnaire). DMR did not receive any other

feedback concerning commercial or recreational fishing. During the October 26, 2023, site assessment, DMR staff observed 6-10 lobster buoys within 1,000 feet of the proposal and one commercial fishing vessel in the area (SR 6).

If granted, the proposed site would be in operation from October 1-June 15. From June 16-September 30 only the boundary markers and ten mooring buoys (a total of 16 buoys) would be on the proposed site. Based on the evidence in the record, commercial fishing likely occurs year-round but is most frequent during the summer months when the site would be inactive. Although commercial fishing likely occurs year-round, its frequency is very rare or low within the boundaries of the proposed site, especially during times the site is active. Most commercial fishing activity occurs outside the boundaries of the proposed site in shallower water. If the proposal were granted, commercial fishemen may avoid the lease area but given the level of fishing activity and the timing of lease operations any impacts would be minimal. Recreational fishing is also very rare and is most likely to occur when the site is inactive. Given the evidence and proposed operations, the lease would not unreasonably interfere with commercial or recreational fishing.

Other uses. No other uses were observed at the time of the site visit nor were comments received concerning other uses.

Therefore, the activities proposed for this site will not unreasonably interfere with fishing or other uses of the area.

D. Other Aquaculture Uses

DMR's Chapter 2 regulations require the Commissioner to consider any evidence submitted concerning other aquaculture uses of the area. "The intensity and frequency of such uses as well as the degree of exclusivity required for each use shall be a factor in the Commissioner's determination of whether any interference is unreasonable. The number, size, location, and type of other aquaculture leases shall be considered by the Commissioner." Chapter 2, § 2.37(1)(A)(4).

There are no active aquaculture leases or Limited Purpose Aquaculture sites within 1,000 feet of the proposal or to the west of Sears Island (SR 6). No comments were received regarding interference with other aquaculture activities in the area.

Therefore, the activities proposed for this site will not unreasonably interfere with other aquaculture uses of the area.

E. Flora & Fauna

When examining existing system support, the Commissioner considers the degree to which the use of the lease site will interfere with significant wildlife habitat and marine habitat or with the ability of the lease site and marine and upland areas to support ecologically significant flora and fauna. 12 M.R.S.A. § 6072-A(13)(D); Chapter 2, § 2.37(1)(A)(5). "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, § 2.37(1)(A)(5).

During the site assessment, DMR used a remotely operated vehicle to assess the epibenthic ecology present within the boundaries of the proposed site (SR 7). Shrimp (*Crangon septemspinosa*) were commonly observed, rock crab (*Cancer irroratus*) were occasionally observed; and hermit crab (*Pagurus spp.*) and moon jellyfish (*Aurelia aurita*) were rarely observed (SR 7).

According to historical records of eelgrass distribution collected by DMR in 2010, there is no mapped eelgrass within the vicinity of the proposal (SR 7). No eelgrass was observed within the proposal boundaries during DMR's site assessment (SR 7).

According to Geographic Information System (GIS) data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), the proposed lease is not located within 1,000 feet of mapped Tidal Waterfowl and Wading Bird Habitat (SR 8). 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 2.0 miles east of the proposal; with another bald eagle nest located 2.25 miles to the northwest of the proposal (SR 8). On June 22, 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 (SR 9). During the site assessment on October 26, 2023, DMR staff observed double-crested cormorants (Nannopterum auritum), ring billed gulls (Larus delawarensis), and black guillemots (Cepphus grille) in the general vicinity of the proposal (SR 8).

DMR did not receive any comments to suggest that the proposed site would unreasonably interfere with flora and fauna. Based on the evidence above, it appears that the proposed aquaculture activities for this lease site will not interfere with the ecological function of the area.

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

F. Public Use & Enjoyment

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, or docking facility owned by the Federal Government, the State Government, or a municipal government. 12 M.R.S.A. § 6072-A(13)(F); Chapter 2, § 2.37(1)(A)(7); Chapter 2, § 2.64(11)(A).

There are no beaches, parks, or docking facilities owned by federal, state, or municipal government within 1,000 feet of the proposed lease site (SR 9). The State of Maine has chosen a state-owned portion of Sears Island, reserved for port development, as the preferred port location for the Maine Offshore Wind Initiative (SR 9). Subject to funding, the State of Maine may construct a port facility on the western shore

of Sears Island. The State of Maine, via MDOT, was provided with the opportunity to comment on the proposal and their concerns were specific to navigation during construction, which is addressed in section 3.A. of this decision. Currently, it is not known if or when construction may occur, and no facility currently exists.

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

G. Source of Organisms

When examining the source of organisms, the Commissioner shall include but not be limited to, consideration of the source's biosecurity, sanitation, and applicable fish health practices. 12 M.R.S.A. § 6072-A(13)(E); Chapter 2, § 2.37(1)(A)(6).

The applicant proposes obtaining stock for sugar kelp (Saccharina latissima), skinny kelp (Saccharina angustissima), winged kelp (Alaria esculenta), horsetail/fingered kelp (Laminaria digitata), dulse (Palmaria palmata), and sea lettuce (Ulva lactuca) from Atlantic Sea Farms in Biddeford, Maine. Atlantic Sea Farms is a DMR approved source of stock for all the species proposed.

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

4. CONCLUSIONS OF LAW

Based on the above findings, DMR concludes that:

- 1. The aquaculture activities proposed for this site will unreasonably interfere with navigation.
- 2. The aquaculture activities proposed for this site will not unreasonably interfere with riparian ingress and egress.
- 3. The aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area.
- 4. The aquaculture activities proposed for this site will not unreasonably interfere with other aquaculture uses.
- 5. The aquaculture activities will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

6. The aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of any beach, park or docking facility owned by federal, state, or municipal governments.

7. The applicant has demonstrated that there is an available source of stock.

Accordingly, the evidence in the record supports the conclusion that the proposed aquaculture activities do not meet all the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072-A.

5. <u>DECISION</u>

Based on the foregoing, the Commissioner denies the requested experimental lease for commercial aquaculture research and development to FV 11th Hour Inc.

Dated: 7.22.25

Carl J. Wilson

Department of Marine Resources