

STATE OF MAINE**DEPARTMENT OF MARINE RESOURCES**

Standard Aquaculture Lease Application

Suspended culture of oysters, October through April

Damariscotta River, South Bristol

Mook Sea Farms, Inc.**DAM PI2**

Docket # 2015-14

October 21, 2016

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Mook Sea Farms, Inc., a Maine corporation, applied to the Department of Marine Resources (“DMR”) for a standard aquaculture lease on four tracts totaling 3.66 acres¹ located in the coastal waters of the State of Maine, north and east of Peters Island in the Damariscotta River, in the Town of South Bristol in Lincoln County, for production of American oysters (*Crassostrea virginica*) using suspended culture techniques between October 1 and April 30 annually. DMR accepted the application as complete on July 14, 2015. The owners of four parcels of riparian land intervened in this case. A public hearing on this application was held on July 13 and 18, 2016, in South Bristol.

1. THE PROCEEDINGS

Notices of the hearing and copies of the application and DMR site report were provided to numerous state and federal agencies for their review, as well as to various educational institutions, aquaculture and environmental organizations, the Town of South Bristol and the South Bristol Harbormaster, members of the Legislature, representatives of the press, riparian landowners, and other private individuals. Notice of the hearing was published in the *Lincoln County News* on June 2, 2016 and June 18, 2016, and in the *Commercial Fisheries News* July, 2016 edition.

The intervenors, all of whom own shorefront land within 1,000 feet of the proposed lease site, are:

- Thomas and Susan Lamia, owners of mainland shore east of Peters Island;
- The Lamia Children’s Trust II, owner of Peters Island, represented by Nicholas Lamia;
- Jay Robinson, owner of mainland shore north of Peters Island; and
- Sigrid Sproul, owner of mainland shore east and southeast of Peters Island.

Sworn testimony was given at the hearing by Bill Mook and Jeff Auger on behalf of Mook Sea Farms, Inc., DMR Aquaculture Division Director Jon Lewis, Peter Tischbein on behalf of the U.S. Army Corps of Engineers, Thomas Lamia, Susan Lamia, Nick Lamia, Jay Robinson, Sigrid Sproul, South Bristol Selectman Chester Rice, and South Bristol Harbormaster Cecil Burnham.

¹ The application lists the size of the proposed lease as 3 acres (application, p. 1). The site report calculates the size as 3.66 acres (site report, p. 5-6).

Mr. Mook and Mr. Auger described the proposed aquaculture operation. Mr. Lewis described the site visit and presented a video of the bottom. Mr. Tischbein commented on the Army Corps permit. The intervenors described their concerns about the proposed aquaculture project. Mr. Rice and Mr. Burnham questioned other witnesses and offered comments on the application. Each witness was subject to questioning by the Department, the applicant, the intervenors, and members of the public. The hearing was recorded by DMR. The hearing officer was Diantha Robinson.

On July 23, 2016, after the hearing had concluded, the hearing officer and a Marine Patrol Officer visited the site by boat. The hearing officer observed and photographed the Lamia mainland pier with ramp and float, the Peters Island ramp and float, one mooring with a motorboat on it, and one unoccupied mooring in the area between the east side of Peters Island and the mainland shore, as well as the water between Peters Island and the mainland, and the shore of the island and mainland.

The evidentiary record before the Department regarding this lease application includes thirteen exhibits introduced at the hearing (see exhibit list below) and the record of testimony at the hearing itself. The evidence from all of these sources is summarized below.² The parties also submitted written closing arguments following the hearing.

LIST OF EXHIBITS³

1. Case File, Mook Sea Farms, Inc., standard lease application, Peters Island, multiple documents (DMR exhibit)
2. Application dated June 29, 2015, revised July 14, 2015, complete July 14, 2015, 26 pages (DMR exhibit)
3. Site Report dated May 20, 2016, 18 pages (DMR exhibit)
4. Document, Mook Sea Farm Testimony, 6 pages (Mook Sea Farms exhibit)
5. Aerial photo of Peters Island, cove, and mainland shore with gear plan, one page (Mook Sea Farms exhibit)
6. Document, 7 e-mails between Bill Mook and Tom Lamia, 3-25-16 to 6-9-16, 5 pages (Mook Sea Farms exhibit)
7. Document, MSF Testimony, Jeff Auger, 3 pages (Mook Sea Farms exhibit)
8. Document, Statement by Intervenors Thomas and Susan Lamia (Thomas Lamia exhibit)
- 8A. Aerial photo of Peters Island, cove, and mainland shore with proposed lease tracts highlighted and docks and moorings labeled (Thomas Lamia exhibit)
- 8B. Aerial photo of Peters Island, cove, and mainland shore with proposed lease tracts highlighted, docks and moorings labeled, and home site shown (Thomas Lamia exhibit)

² In references to testimony, "Smith/Jones" means testimony of Smith, questioned by Jones.

³ Exhibits 1, 2, and 3 are cited below as: Case file – "CF"; Application – "App", site report – "SR". Other exhibits are cited by number.

8C. Aerial photo of Peters Island, cove, and mainland shore with docks and moorings labeled and home site shown (Thomas Lamia exhibit)

8D. Photo of black buoy atop rockweed-covered ledge (Thomas Lamia exhibit)

8E. Photo, close-up of Exhibit 8D (Thomas Lamia exhibit)

8F. Aerial photo of Peters Island, cove, and mainland shore with proposed lease tracts marked and colored arrows attached per testimony of Thomas Lamia 7-13-16 (Thomas Lamia exhibit)

8G. Aerial photo of Peters Island, cove, and mainland shore labeled "image date: 12-30-02" (Thomas Lamia exhibit)

9. Document labeled "Sigrid & Associates, LLC, Seasonal Rental – Damariscotta River – 34," 14 pages (Sigrid Sproul exhibit)

10. Document, Susan Lamia testimony, 3 pages including 1-page illustrated map (Thomas Lamia exhibit)

11. Document, Statement by Nick Lamia, Intervenor, 4 pages (Nick Lamia exhibit)

12. Document, MSF Proposal to address intervenor access concerns 7/18/16, 7 pages (Mook Sea Farms exhibit)

13. Document, Sigrid Sproul testimony and photo of shore at low water 7/18/16, 4 pages (Sigrid Sproul exhibit)

2. DESCRIPTION OF THE PROJECT

A. Site History

In 2011, Bill Mook, President of Mook Sea Farms, Inc., obtained four Limited-Purpose Aquaculture (LPA) licenses from the Department for 15 oyster cages each to be located southeast of Peters Island to hold market-sized oysters for winter harvest. In 2012, the LPA licenses were discontinued when the Department granted Mook Sea Farms an experimental lease for 250 cages on one tract of 0.625 acres in approximately the same location (lease DAM PI). In 2014, a second experimental lease was granted to Mook Sea Farms for one tract of 0.80 acres and 360 cages northwest of Peters Island (lease DAM PIN).

In 2015, Mook Sea Farms submitted this application for a standard lease on four tracts in the waters between Peters Island and the mainland. Although the cover page of the application states the proposed lease size as 3 acres, the DMR site report calculates it as 3.66 acres. After the application was declared complete, but before DMR biologists conducted their site visit, Mr. Mook revised the layout of the S-SE tract, moving the entire tract slightly to the south. This reduced the size of that tract from 1.34 to 1.33 acres. The DMR site report, Figure 3 (SR 7), reproduced below, illustrates the current and proposed lease tracts, which are:

- The N-NW tract, consisting of the original DAM PIN tract northwest of Peters Island, unchanged in size at 0.80 acres;

- The NW tract (0.88 acres), a new tract in the northwest portion of the passage between Peters Island and the mainland, near the northeast shore of Peters Island;
- The SW tract, consisting of the original DAM PI tract in the southwest portion of the passage near the southeast shore of Peters Island, slightly enlarged to 0.65 acres; and
- The S-SE tract (1.33 acres as later revised by Mr. Mook), a new tract in the southeast portion of the passage, close to the mainland shore.⁴



B. Proposed Operations

Bill Mook testified that Mook Sea Farms has grown American oysters in the Damariscotta River for 31 years, operating both a hatchery and two lease sites in the upper portion of the river. The company has “quadrupled in size” in the past five years, Mr. Mook said,

⁴ The change in the location of the S-SE tract is described in the site report as follows: “In an email to the Department, dated April 17, 2016, the applicant provided revised coordinates for the proposed S-SE Tract. The stated intent of the revision was ‘...to provide some more space between Mr. Lamia’s existing dock and the northern boundary of the southeast tract.’ According to the applicant these revised coordinates were used to place the buoys observed by MDMR on April 6, 2016.” (SR 6)

...because of improvements in our hatchery technology, switching from bottom culture to the use of OysterGro™ cages, and most importantly maintaining sales of market oysters throughout the winter months (Exhibit 4, p. 1).

The upper river's warm waters are conducive to growth of oysters in summer, Mr. Mook said, but the area commonly freezes in winter. The lower river, conversely, is too cold for commercial oyster production, but because of its proximity to the warmer waters of the Gulf of Maine, it has less ice in winter.

Beginning in 2011, Mook Sea Farms experimented with moving cages of market-size oysters from the upper to the lower river beginning in October, using the LPA license sites and later the experimental lease sites at Peters Island. There, the lines of cages float at the surface; the oysters are removed from the cages through the winter and shipped to market. By contrast, cages of oysters on the Mook lease sites in the upper river are sunk to the bottom in winter for protection from ice. Beginning in mid-March, the empty cages at Peters Island are towed back upriver to the lease sites to be stocked for the summer (Exhibit 4, page 2; Mook, testimony).

The company has found this winter harvest practice to be a successful method for expanding its business year-round. It now wishes to obtain a larger, 10-year standard lease to accommodate more of the increased number of oysters grown on the upriver lease sites (Exhibit 4, page 1; Mook, testimony). The proposed lease site would contain "an estimated 1,559 OysterGro™ cages deployed in parallel strings of up to 50 cages each and spaced over 4 lease tracts" (SR 2).

The application describes a gear layout in which "strings" of 45-50 cages attached to a "system" line are moored in parallel with other strings along the long axis of a lease tract. The strings are attached at each end to a "head line" that runs across the short axis of the tract, perpendicular to the strings (App 3, 17-19). The application notes that the same system of securing the cages is used on the Mook leases in the upper river and has withstood "numerous severe storms with storm force winds over 60 mph" (App 3). The 50-cage strings are 325 feet long; the 45-cage strings are 293 feet long (App 19). The proposed size of the tracts and the number of strings are as follows (App 18, SR 5-6):

- N-NW: 0.80 acres, 111 feet x 313 feet, 8 strings of cages (approximately 400)
- NW tract: 0.88 acres, 81 feet x 474 feet, 6 strings of cages (approximately 300)
- SW tract: 0.65 acres, 81 feet x 355 feet, 6 strings of cages (approximately 300)
- S-SE tract: 1.33 acres, 78-83 feet x 720 feet, 12 strings of cages, 6 in the north half, 6 in the south half (Mook/N. Lamia) (approximately 600)

As described by Mr. Mook and Mr. Auger in their testimony (Exhibits 4 & 7) and in the application (App 4-5), the strings of cages are towed downriver to Peters Island beginning in October; installation is completed by late December. Towing the cages of oysters downriver is a carefully planned operation, as Mr. Mook and Mr. Auger testified. The opportunity to make the trip downriver is limited by

tides, weather, and daylight. It takes over four hours to tow the cages the seven to nine miles from the upriver lease sites to Peters Island (Exhibit 4, p. 2; Exhibit 7, p. 1; Mook, testimony).

Mr. Auger, who manages the operations of Mook Sea Farms on the river, testified that on each trip downriver, he expects to use three boats, each towing one string of cages, followed by one "chase boat" to ensure that no lobster gear is entangled with the oyster gear in the course of the trip (Auger/Lewis). Mr. Auger testified that there are only two weeks each month when the tides are right for towing gear downriver (Auger/S. Lamia).⁵

Harvesting begins at the winter lease site in late December or early January and continues until all gear is removed by the end of April and towed back upriver. The application states that harvest crews travel to Peters Island from the Mook Sea Farms wharf in the upper river as long as the company's ramp and float are in place there. Once the ramp and float are hauled out for winter, harvest crews keep boats at the Gamage Shipyard in South Bristol, about an hour downriver from Peters Island. They travel to Peters Island about once a day from January to March to harvest oysters which are taken back to the shipyard, unloaded, and trucked to the packing plant at the Mook facility upriver (App 5; Exhibit 4, pp 1-2; Auger, testimony & Exhibit 7, pp. 1-2).

Mr. Mook and Mr. Auger testified that the harvesting trips to and from the proposed lease site in winter are dangerous when the weather is cold and there is little, if any, other boat traffic on the river. The trips are kept as short as possible, usually to a maximum of one hour at a time on the lease site each day, once the cages are installed (Auger, testimony & Exhibit 7, p. 1). If it is necessary to break the ice in order to reach the cages for harvest, the trip would take longer (Mook/D. Robinson).

Mr. Mook explained that the upper river needs to be free of ice in spring before he can move gear north to his upriver lease sites from Peters Island (Mook, testimony). Once this happens, the ramp and float at the company's wharf are re-installed in the water, the lease sites upriver are prepared to receive the empty cages, and towing cages upriver will begin, usually in mid-March (Ex 4, p. 2; Mook, testimony). All cages will be removed from the proposed lease site by April 30 (App 4; Mook, testimony & Exhibit 4, p. 2).

The winter of 2014-15 was unusually cold, Mr. Mook testified, and even the water at Peters Island froze. Harvesters had to break the ice there every day to keep the cages accessible to harvest. The company's ramp and float upriver were frozen in the ice until early April, so gear was not completely removed from the Peters Island sites until the end of April, 2015 (Mook/D. Robinson; Exhibit 4, p. 4; Auger testimony; Exhibit 7, p. 1).

From May 1 to October 1, all mooring gear for the cages will be sunk to the bottom, site markers will be removed, and no gear will be visible on the lease tracts (Mook/D. Robinson; Auger/D. Robinson). Mr. Mook stated that he would work with riparian landowners to site moorings within the lease tracts, should they wish. He indicated that anchoring within a lease tract when the cages have been removed, even over the sunken mooring gear, would not be a problem (Mook/D. Robinson).

⁵ See also CF, Mook Sea Farms Responses to proposed decision, September 28, 2016

C. Site Characteristics

The four proposed lease tracts are located in shallow subtidal waters east of the main channel in the lower Damariscotta River, between Peters Island and the mainland shore to the east and north (SR Fig.1, p. 1). The tracts are situated in a narrow passage that permits navigation between the island and the mainland at most stages of the tide. An area of intertidal mud flats is located northeast of Peters Island that limits navigation in that area at lower stages of the tide. The surrounding shoreline on both the island and the mainland is ledge with woods above. The main channel of the Damariscotta River lies approximately 100 feet west of Peters Island, where the river is approximately 2,600 feet wide (SR 7).

On April 6, 2016, DMR biologists visited the proposed lease site and assessed it and the surrounding area in light of the criteria for granting an aquaculture lease, as described in the site report. The site report describes the proposed lease site and its surroundings as follows:

Throughout the majority of the proposed lease area, the bottom is characterized by a substantial layer of fine sediments with little topographical variation. The relative abundance of leaf litter and unattached filamentous algae suggest a low-current depositional area. Sediment composition is coarser and includes rock, cobble, and shell over a layer of firm mud and sand in the shallow subtidal waters between the proposed lease areas and the mainland/Peters Island. (SR 4)

The site report notes that “the area around the site is currently classified by the Department’s Water Quality Classification program as ‘open/approved for the harvest of shellfish.’” (SR 18)

Department biologists recorded water depths during two SCUBA dives on the proposed lease tracts. According to the site report: “Water depths at MLW are conducive to the use of the cages and lines described above” (SR 5).

Measurements taken by DMR biologists and referred to below indicate approximate distances between the proposed lease tracts and points on the surrounding shores (SR 7-8; and see Figure 3 of the site report, reproduced at page 5, above).

N - NW Tract (111 x 313 feet). The N-NW tract lies in the passage north of Peters Island, owned by the Lamia Children’s Trust II, and south of the mainland shore owned by intervenor Jay Robinson. The shoreline on both sides of the N-NW tract is undeveloped. This tract is currently leased to Mook Sea Farms under lease DAM PIN.

The distance between the north boundary of the tract and the mainland shore to the north ranges from 80 feet at northeast corner of the tract to 230 feet at the northwest corner. The distance between the southern boundary of this tract and the northwest shore of Peters Island to the south is 95 feet at the southeast corner but only 10 feet at the southwest corner. Water depths on this tract are deeper at the west end, closer to the main channel of the river; they decrease to the east and north, toward the intertidal zone (SR 7).

NW - SW Tracts (81 x 829 feet). The NW and SW tracts as proposed share a boundary and appear in Figure 3 as a single long, narrow tract lying close to most of the east shore of Peters Island. These tracts lie in shallow subtidal waters south of the intertidal zone in the narrow passage between Peters Island and the mainland to the east.

The application shows these two tracts filled with strings of cages, except for an area at the southern end of the proposed NW tract (App 18). Mr. Mook testified on July 13 that he mapped the proposed NW tract as an extension of the existing SW tract of lease DAM PI, using the north boundary of the SW tract as the common boundary between the two tracts. He noted that the “Maximum Plan View” shown on page 18 of the application does not show any gear in the southern portion of the NW tract. He said he was willing to delete that portion of the tract from the proposed lease and create a new south boundary for the NW tract or simply agree to keep this area free of gear (Mook, colloquy w/ Lewis, Auger, Costigan).

In his written closing argument following the hearing, Mr. Mook describes this space as “a 150-foot gear free zone in front of the Peter’s Island dock” that he has maintained “from the very start” to allow “adequate access” to the Peters Island dock (Mook closing argument 07/29/2016, p. 1). The area without gear depicted on p. 18 of the application is not labeled on the drawing as a gear-free zone, although no gear is shown within it. This “zone” appears to encompass both the island dock and the second of the two Lamia moorings (Thomas & Susan Lamia closing argument, 07/29/2016, p. 3; Exhibits 8 A, 8B). It is not described or discussed in the application but was discussed at the hearing.

As the site report measurements show (SR 7-8), the approximate distances between the western boundary of the NW and SW tracts and the nearest shore of Peters Island range from 70 feet at the northwest corner to 17 feet along the west side of the tracts. Distances between the east side of these tracts and S-SE tract across the passage range from 40 feet at the north end of the S-SE tract to 103 feet at the south end of the SW tract. To the north of the S-SE tract, the distance between the Lamia pier on the mainland and the east side of the NW tract is 102 feet as measured in April when the ramp and float were not attached to the pier (SR 8). With the ramp and float in place, the distance would be less.

The site report also notes the existence of a U.S. Army Corps of Engineers permit for a ramp and float off the east side of Peters Island, approximately 34.6 feet from the western boundary of the proposed NW tract (SR 11). According to Mr. Lewis, the Peters Island dock is located 154 feet north of the proposed SW tract.⁶ Other than the dock, the shore of Peters Island is undeveloped. The only other development in the area noted at the time of the site visit was the Sproul cottage and dock; since that time, however, clearing has begun near the Lamia dock and shore for construction of a house (T. Lamia, testimony; Exhibit 8-B).

S-SE Tract (78-83 x 720 feet). The S-SE tract lies on the east side of the passage, 24-25 feet west of the undeveloped mainland shore, which is owned by Thomas and Susan Lamia to the north and by Robert and Sigrid Sproul to the south (see tax map at App 23). The distance between this tract and the proposed NW-SW tracts across the passage ranges from 103 to 40 feet, narrowest at the north end of the S-SE tract and widest at the south end of the SW tract (SR Fig 3, see p. 5). The northern boundary of the S-SE tract, as its boundaries were revised by Mr. Mook prior to the site visit, lies 92 feet south of the Lamia dock on the mainland shore and 270 feet north of the Sproul dock on the mainland shore (SR 8).

⁶ CF, email from Jon Lewis to Diantha Robinson, 8-9-16

As Figure 3 and these measurements show, the four proposed lease tracts occupy much of the space in the passages between Peters Island and the mainland to the east and the north.

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 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, 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 be in compliance with visual impact criteria adopted by the Commissioner relating to color, height, shape and mass.

A. Riparian Access

Most of the testimony and arguments regarding this application focus on the potential effect of the proposed aquaculture activities on the use of the waters between Peters Island and the mainland shores by the riparian landowners. These uses include installation and use of moorings; use and maintenance of piers, ramps, and floats; navigation; and access to the mainland and island shores. Testimony and exhibits presented by the various riparians provided the following information.

Thomas Lamia. The primary riparian users of the waters in and around the four proposed lease tracts are the members of the Lamia family. Together, they own all of Peters Island and much of the mainland shore to the east of the island. Thomas and Susan Lamia have a pier with ramp and floats on the mainland shore opposite Peters Island, 92 feet north of the proposed S-SE tract (SR 8). This pier is approximately 102 feet from the east boundary of the proposed NW tract when the ramp and float are not deployed (SR 7, Fig 3; SR 8). When the ramp and float are attached to the pier, presumably the distance is less. A second dock, consisting of a ramp and float, but no pier, was constructed on the east shore of Peters Island in the summer of 2016, southwest of the mainland dock (Exhibit 8, p. 2). That dock apparently lies within the “gear-free zone” at the south end of the proposed NW tract (Exhibit 8, p. 2).

The Lamias store the floats for their dock on the east shore of Peters Island, a short distance north of the proposed NW tract (N. Lamia/Costigan). Floats were previously stored at another location farther south on the island’s east shore, opposite the northern half of the NW tract, according to Nick Lamia. He stated that with the addition of a second dock at Peters Island, that site might be used again, as there are only a limited number of places along the shore above high water where floats can be stored for the winter (N. Lamia/Costigan).

Thomas Lamia's written testimony states:

The Lamias' dock and floats are used throughout the spring and summer months and into the fall. The floats have historically been installed in April or May and removed anywhere from October to December, depending on conditions. The floats are removed by barge and stored on Peter's Island. With Tom Lamia, and soon Susan, living on the property year-round, they plan to leave the floats in and access the water as long as conditions will allow. Once the floats are removed, the Lamias and their children intend to continue to cross the cove to Peter's Island from the shore. (Exhibit 8, pp. 1-2).

At the time of the DMR site visit on April 6, 2016, the Lamia mainland dock did not have its ramp and floats connected to the pier, and the Peters Island dock did not exist, although it has since been constructed. DMR biologists observed two floats tied to a tree on the northeast shore of Peters Island (presumably the Lamia mainland floats), as depicted in the site report (SR p.10, Image 5). Nick Lamia testified that if possible, the family likes to keep the floats in the water until late November or even December, and to set them out again in early March (N. Lamia/Costigan).

Thomas and Susan Lamia have a mooring for a 20-ft. motorboat that is located within the boundaries of the NW tract (Exhibit 8, pp. 1, 2, 3). In 2016, a second mooring for a future sailboat to be used by the Lamia children was installed near the island dock in the vicinity of their other mooring (Exhibit 8, p. 2). The sailboat is likely to be approximately 20 feet in length (T. Lamia, testimony). Mr. and Mrs. Lamia's written closing arguments describe the mooring as being located "just south of the modified NW tract" (Thomas & Susan Lamia closing arguments, 07/29/2016, p. 3); presumably, "modified" means in the "gear-free-zone" south of the proposed NW tract.

The Lamias have used their property since 1980, primarily from spring through fall, as well as at Christmas, New Year's and "often Thanksgiving" (Exhibit 8; T. Lamia, testimony; S. Lamia, testimony) In July, 2014, Thomas Lamia said that he became a year-round Maine resident and began to oversee preparations for and construction of a new year-round house near the shore, not far from the mainland dock (Exhibit 8, p. 1; Exhibit 8B). Mr. Lamia testified that with the change from seasonal to year-round residence and the move from the old house some distance away to a new house close to the shore, he expects that the family's use of the shore will start earlier in the spring and extend later into the fall (T. Lamia/Costigan).

Thomas Lamia stated in his written testimony:

Both the Lamias and the Lamia children will require access to their docks and moorings at least April through October/November and will need access to the float storage area on Peter's Island for installation in April and Storage in October/November. In addition, they will need access to the shoreline of both properties year-round. (Exhibit 8, p. 2)

Mr. Lamia's objections to the proposed lease tracts are:

As proposed, the lease configuration leaves insufficient space in which to navigate to and from the cove. The distance between the NW Tract and the S-SE Tract is too narrow to navigate in the Lamias' 20' outboard runabout, as well as the Lamia children's sailboat and the float contractor's barge used to move the floats and runways. In addition, the location of the N-NW Tract makes it very difficult to navigate around the northwestern corner of Peter's Island into the cove. There is a campsite located on the northern end of Peter's Island and the location of the N-NW Tract impedes access to the campsite. (Exhibit 8, p. 3)

Mr. Lamia testified that the campsite on Peter's Island had been made available to users of the Maine Island Trail for several years, until the site was misused and the Lamias withdrew the site from the Trail. In future, he said, it is possible that the site will once again be open to users of the Trail (T. Lamia, testimony).

Mr. Lamia requested that the aquaculture operation be limited to the months of November through March. His testimony states, "We have consistently put our floats in the water as early as April and removed them as late as December. Now that we live at the property year-round we expect the use of the shoulder season to increase" (Exhibit 8, p. 3). He also argued that the proposed N-NW tract should be narrowed in order to allow room "for navigation to the campsite on the northern end of the island" (Ibid). He did not object to the proposed SW tract, "provided that it is located at least 50 feet from the Peter's Island dock," and he had no objection to the proposed S-SE tract with the northern boundary shifted an additional 30 feet to the south (Ibid). He did, however, object to the proposed NW tract, on the grounds that it interferes unreasonably with riparian ingress and egress, as well as navigation.

The NW Tract is in complete conflict with both moorings, the Peter's Island Dock, access to Peter's Island to store and remove the floats in winter and spring, and general year-round access to the shore from the Lamia property. We therefore request that the NW Tract not be included in any lease approval. (Ibid)

Mr. Lamia stated that he believes that the assessment of the potential impact of an aquaculture lease on riparian ingress and egress should start with an absolute right of access for the landowner to his property before addressing the needs of the aquaculture project (T. Lamia, testimony).

Susan Lamia testified that she has used boats in the waters around Peters Island for most of her life (S. Lamia, testimony; Exhibit 10). She said that she has "enjoyed rowing and kayaking and even some years swimming until mid-October and later" (S. Lamia, testimony; Exhibit 10). She said that she had not been inconvenienced "so far" by the Mook aquaculture operations on the two experimental lease sites (which are the proposed N-NW and SW tracts); however, she believes that the proposed expansion would more than double the space used for oyster cages in the waters around Peters Island and would mean that during October and April the Lamias could not use small boats and docks with floats or gain access to the river or to Peters Island (S. Lamia, testimony). She testified that the Lamias' use of the waters around Peters Island extends longer than just the months from May through September and that she uses the

area “well into October” (S. Lamia, testimony). She wants to be able to put the Lamia floats in the water as early as possible in spring and leave them in the water through October (S. Lamia, testimony).

Nick Lamia testified on behalf of himself and his five siblings, all beneficiaries of the Lamia Children’s Trust II, which owns Peters Island. His siblings provided written comments describing their uses of the waters and shore around Peters Island, but they did not attend the hearing and so were not available to be questioned. Nick Lamia submitted and read his written testimony (Exhibit 11) and described his use of the island and its surrounding waters.

He testified that he is a professional artist and that “I access Peter’s Island throughout the year for recreational and professional purposes” (Exhibit 11, p. 2). He uses the island more frequently from April to October, he said, going there to paint, and painting on the mainland, as well (N. Lamia/Costigan).

He uses a kayak, a rowboat, or a skiff to travel between the mainland and the island (N. Lamia/Mook), navigating from the mainland dock to various locations on the island shore, including the new dock. When the ramps and floats of both docks are hauled out for winter, he launches from the mainland shore and lands on any of four sites on the eastern shore of the island, “each of which would be blocked by the NW Tract in the lease proposal” (Exhibit 11, p. 2). The places where he lands on the island include the float storage area on the northeast shore, the east shore north of the dock, the new dock on the east shore, and the southeast shore south of the dock, as well as the campsite at the northwest corner (N. Lamia/Costigan).

In winter, he said his goal is to get off the water as safely as possible, so he uses the most direct route between the mainland and the island (N. Lamia/Costigan). This would mean crossing the water from east to west. With strings of cages deployed from north to south on the NW tract, however, he would instead have to navigate around the tract to the north or the south, as it would be impossible to cross the tract perpendicularly to the strings of cages (Mook/N. Lamia). Mr. Mook stated that this would add 150 feet to the route (Mook/N. Lamia).

Nick Lamia testified that he navigates to the N-NW tract by traveling around the north end of Peters Island from the protected waters to the east when the tide permits. When the water depths are too low to reach the north shore of the island from the east, he travels around the south end of the island and northward along the west side to reach the northern shore (N. Lamia/Mook). He said that at low tide, the proposed N-NW tract blocks such access from the west to the northwest shore of the island and that “simply removing a few strings of cages” from this tract “would allow access to the northwest corner of the island” (Exhibit 11, p. 3).

Nick Lamia also stated that both the Lamia moorings and the Peter’s Island dock are within the proposed NW tract, so the presence of aquaculture gear there “would clearly interfere with ingress and egress” (Exhibit 11, p. 2). The NW tract would also interfere “with our ability to access the floats and to move them to Peter’s Island for storage or removal from the island” (Ibid).

Sigrid Sproul testified that she and her husband own land on the mainland shore opposite Peters Island. They have a rental cottage with a dock south of the proposed S-SE tract (S. Sproul, testimony; Exhibits 9, 13). She presented a photograph taken her shore, looking north toward the passage between Peters Island and the mainland where the NW, SW, and S-SE tracts are proposed to be located (Exhibit 13, first page). She stated that “there is not much space” in this area, noting in Exhibit 13 that “The current lease proposal clearly crowds the cove between Peter’s Island and the shore.”

Mrs. Sproul said that renters from her cottage use kayaks in the waters between the island and the mainland. In October, they like to view the fall foliage along the shore (S. Sproul, testimony). She stated that “The October month is an important time for our rental property as people enjoy the fall foliage” (Exhibit 13, S. Sproul, testimony). She is concerned that oyster cages in the S-SE tract would interfere with this activity by taking up much of the navigable waters in the passage (Sproul, testimony).

Mrs. Sproul testified that the portion of the Sproul shore north of the rental cottage, opposite the proposed S-SE tract, is undeveloped and accessible only by foot at the present time. The Sprouls have no immediate plans to develop this land and no pending application for a permit to build a dock, but they want to maintain their ability develop this portion of their shore, if they wish, by building additional cottages and docks (S. Sproul, testimony; Exhibit 13). Mrs. Sproul expressed concern about whether there is sufficient space between the proposed S-SE tract and her shore to allow for a dock in future. None of the witnesses at the July 13 hearing was able to answer this question.

At the July 18, hearing, Mr. Mook presented a letter from David Lash, who has a marine construction business, indicating that there would be room to construct “several seasonal docks” consisting of fixed piers with pilings on the Sproul shore, opposite the proposed S-SE tract. Mr. Lash stated in the letter, however, “The floats and ramps would have to be removed before cages are deployed along that shore to avoid interference” (Exhibit 12, letter labeled “Fig 2”). Mr. Lash was not present to testify or be questioned at the hearing; however, Mr. Mook apparently accepted his assessment and proposed to minimize any potential conflict by delaying placing any gear on the proposed S-SE tract until November 1 (Exhibit 12; Mook/D. Robinson). Mrs. Sproul advocated a November 1 start date for the project (S. Sproul, testimony; Exhibit 13).

Jay Robinson, a riparian owner of the mainland opposite the proposed N-NW tract, testified that although he does not actively use his shore to any significant extent at present, he might do so in future. He wants the ability to install a mooring in the deeper water northwest of the proposed N-NW tract (J. Robinson, testimony). He noted that most of his concerns fall outside the subjects addressed by the lease criteria. He is concerned that the proposed lease is too large in scale compared to the area of water around Peters Island and is “too much for such a small area.” He is also concerned that while one aquaculture project may be appropriate, incremental development without an overall plan could lead to overdevelopment that “would change the nature of the place” (J. Robinson, testimony).

The DMR site report concludes that the gear proposed for the proposed N-NW tract would “limit access to the northern shore of Peters Island, particularly at lower tidal stages.” The site report also characterizes the effect of the proposed NW, SW, and S-SE tracts in narrowing the passage between the mainland and Peters Island:

A minimum of 40 feet and a maximum of 103 feet separate the proposed S-SE Tract from the two westerly proposed lease tracts (NW and SW). Between the months of October and May, riparian landowner ingress and egress would be confined to this corridor. While adequate for smaller vessels that can also navigate the area at MLW, larger vessels and those under sail would be limited in maneuverability at any tidal stage. (SR 11)

With gear on the proposed NW/SW and S-SE tracts, sailboats could only navigate through the corridor from October to May if they were very small or under power; larger sailboats and motor vessels would be limited in maneuverability. “The proposed tracts, if granted, will limit water-borne access to the eastern shore of Peters Island” (SR 11).

Jon Lewis testified that lines of floating cages typically do not remain taut and straight but respond to the forces of currents and wind by bowing outward in catenary curves, potentially intruding into the open water bordering the lease tracts (Lewis, testimony).

Mr. Mook emphasized that the proposed tracts would not all be completely filled with gear until late December or early January, so they “are typically full of gear for only January, February and part of March,” and “the access lanes are at the minimums shown in the lease application *only during the winter*” (Ex 4, p. 2; emphasis in original).

The application states that when using the existing lease tracts in the past, Mr. Mook and his staff have never seen the Lamias’ ramp and floats attached the mainland dock, have never seen a boat on the Lamias’ mooring, have not seen people on the waterfront along the Lamias’ shore, and have not seen recreational or commercial uses of the area between October and April (App 6-7). Mr. Lamia noted that Mr. Mook and his staff are, by their own testimony, on the lease tracts for limited periods, usually no more than an hour a day, so their opportunity for observation is limited (T. Lamia/Costigan).

Changes in the proposal. As Exhibit 7 shows, Mr. Mook and Thomas Lamia attempted before the hearing to resolve Mr. Lamia’s concerns about the expanded aquaculture project. Although these attempts were apparently unsuccessful, in his testimony at the beginning of the July 13 hearing, Mr. Mook offered to adjust his project in various ways to address the riparians’ concerns (Exhibit 4; Mook, testimony). These proposals included:

- No oyster cages in October on the proposed NW tract and the north half of the proposed S-SE tract;
- By April 1, the three easternmost strings of cages on the proposed NW tract and the two westernmost strings on the north half of the proposed S-SE tract would be removed, unless

prevented by ice conditions, in which case, these strings would be the first gear to be removed from the lease;⁷ and

- No cages on the proposed NW/SW tracts within 55 feet of the Peters Island dock (Exhibit 4) .

Thomas Lamia testified on July 13 that the proposals did not fully resolve his concerns (T. Lamia, testimony). In particular, he said he wanted the proposed N-NW tract reduced to hold six strings of cages, instead of eight, to free up space for navigation south of the tract at low tide; to limit the aquaculture operations to the period November 1 through March 31; and to eliminate the proposed NW tract because of the multiple ways it interferes with the Lamias' use of the surrounding waters and shores (T. Lamia, testimony).

The hearing could not be completed on July 13 and was continued to July 18, when Nick Lamia also testified that his concerns about the project were not allayed by Mr. Mook's July 13 proposals (Exhibit 11; N. Lamia, testimony). Nick Lamia said that even with these proposed changes,

I and my sisters would still be blocked from access to most of the eastern shore, as well as a common landing area on the northwest corner of the island for half of the year. With one dock and two moorings within the NW Tract of the lease area, too many conflicts of use exist that we already know about, let alone those that will arise during the next 10 years....As proposed, we cannot navigate safely to our shore. (Ex 11, pp 2-3)

He argued:

It is simply unreasonable to cover the vast majority of a cove with an aquaculture lease for 7 months out of the year, leaving only [a] narrow channel to navigate through the equipment and to the dock. If the Department were to set this precedent, I see a future where the vast majority of the Damariscotta River is occupied by aquaculture equipment, leaving only narrow channels of passage. That would certainly be unreasonable, as is this application. (Ex 11, p. 3)

Susan Lamia testified to similar effect (Exhibit 10; S. Lamia, testimony). After all parties had completed their initial testimony on July 18, Mr. Mook proposed additional changes to the project (Exhibit 12; Mook, testimony). These included:

- No gear on the entire proposed NW and S-SE tracts until November 1;
- An offer to move the west end of the proposed N-NW tract 16 feet northwest to enable low tide access to the northwest shore of Peters Island; and
- A commitment that on April 1, Mook Sea Farms will ensure that the access channel between the NW/SW and S-SE tracts is 100 ft. wide; if this is not possible, Mr. Mook will notify the Lamias, DMR, and the U.S. Army Corps of Engineers and create a plan for compliance.

⁷ Mr. Mook stated, "This would leave a 100-foot wide lane between the NW tract and the S-SE tract and more than 100 feet between gear in the NW tract and Mr. Lamia's float when it is attached to the dock" (Exhibit 4, p. 3).

Mr. Mook presented maps in Exhibit 12 showing depths at mean low water between Peters Island and the west side of the NW/SW tracts which he said provide

ample room and depth for low tide access by kayaks, canoes, and shallow drafted outboards along the entire boundary and around the north end of the NW tract, and the key access point show by Mr. Lamia at the SE corner of the island. At this access point, as shown, there is 40 feet between the western boundary of the SW tract and the place where boats are pulled up. As we stated last Wednesday, we routinely operate between the shore and our gear with our work boats. (Exhibit 12; Mook, testimony)

Mr. Mook stated that he had received no complaints about access to the northwest shore of Peters Island during the two years that gear has been deployed on the N-NW tract under lease DAM PIN (Mook, testimony). He reiterated his need to use the proposed lease tracts in April, citing the severe winter of 2015 when ice prevented him from returning gear to the upper river until later in April. He said that he would meet his proposed commitment to free up 100 feet of space east of Peters Island by April 1 by tying strings of empty cages close together on the proposed NW, SW, and S-SW tracts (Mook, testimony).

Thomas Lamia proposed instead a requirement that all gear be removed from the lease tracts by April 1, putting the burden on Mook Sea Farms to show why it is unable to meet the deadline, rather than on the riparians to monitor the company's compliance with less clear, more complex conditions (Mook/T. Lamia). Mr. Lamia said he wanted a firm deadline for gear to be removed and that he did not want to have to perform "gyrations" on the water to navigate around the gear on the proposed NW tract to reach the shore of Peters Island. He argued that the space between the island shore and the NW/SW lease tracts is not 40 feet everywhere and that access in this area is not as simple as Mr. Mook claims. He said it was unreasonable to expect riparians to gain access to their shore by paddling around the ends of the lease tracts when gear is deployed there (Mook/T. Lamia).

Mr. Mook stated that he cannot reliably meet a condition requiring all gear to be removed by April 1, because of the variability of weather and winter conditions. He said he would try to get as much gear out of the area as fast as possible (Mook/T. Lamia).

Discussion. Following the hearing, the parties submitted written closing arguments. Taken together, the arguments focus the parties' concerns about the application and reveal areas of agreement as well as disagreement.

The proposed change by Mook Sea Farms from the two existing tracts leased at Peters Island to the four proposed tracts would more than double the size of the lease from 1.4 acres to 3.6 acres. The number of cages would rise from 610 to 1,600, nearly a three-fold increase. The company's proposed aquaculture activities are carefully tailored to the waters between Peters Island and the mainland and to a schedule based primarily on the seasons and the weather. The company clearly has much at stake in its request to expand its winter harvest activities, and it needs clarity and certainty, as well as space and time, to conduct its operations.

The Lamias, in particular, are active users of the waters between their mainland and island properties, and their use is likely to increase as the family grows and inhabits its new house by the shore. Their use of the two properties is interconnected: the mainland shore is their base for access to the island and to the waters beyond, while the island is a destination for various activities, a sheltering shore for circumnavigation in small boats, and a storage space and staging area for floats from both mainland and island docks. Travel between the mainland and various points on the island is clearly part of the Lamias' use of their property throughout the year. Access to and from their shoreland via the water is a vital part of their use of their property, and they ask that it remain as unrestricted as it traditionally has been.

The Sprouls are concerned to protect their current commercial use of their property and to retain maximum flexibility to make greater use of the rest of their shoreland in future. Mr. Robinson acknowledges that his use of his shore is currently slight, but he also wants his future use not to be foreclosed by the aquaculture project.

The passages around Peters Island on the east and north are narrow. In such close quarters, the details of the parties' existing, proposed, and potential uses of the waters have impacts in time and space that resulted in testimony on numerous seemingly minor points as they responded to each other's proposals and counter-proposals throughout the hearing. Some details of the proposed operations shifted repeatedly as Mr. Mook proposed changes in response to the riparians' concerns, up to the end of the hearing. If the Lamias occasionally appeared to overstate their winter use of Peters Island, Mr. Mook appeared to understate the impact of his proposed operation on their access to and from their shores. Yet the evidence overall reflects clear conflicts between the riparians' uses of the waters and the proposed aquaculture activities, as discussed below with respect to each of the proposed lease tracts.

DMR Rule Chapter 2.37 (1)(A)(1) lists several considerations that the Commissioner must examine in determining whether the proposed lease meets the statutory criterion that it will not unreasonably interfere with the ingress and egress of riparian owners (12 MRS §6072 (7-A)(A)).⁸ These include:

1. What type of structure is proposed for the lease?
2. What type of shore is involved?
3. What type of vessel can reasonably land on the shore?
4. What is the potential impact of the structures on the vessels that would need to maneuver around them?

⁸ Title 12 MRS §6072 (7-A) lists the statutory criteria for granting aquaculture leases and states in part:

In evaluating the proposed lease, the commissioner shall take into consideration the number and density of aquaculture leases in an area and may grant the lease if the proposed lease meets the following conditions as defined by rule.

A. The lease will not unreasonably interfere with the ingress and egress of riparian owners.

The Department of Marine Resources adopted Chapter 2.37 of its rules, which elaborates on the statutory language as follows:

C. 2.37 (1) (A) (1) Riparian Owners Ingress and Egress. The Commissioner shall examine whether the riparian owners can safely navigate to their shore. The Commissioner shall consider the type of shore involved and the type of vessel that can reasonably land on that shore. He/she shall consider the type of structures proposed for the lease and their potential impact on the vessels which would need to maneuver around those structures.

5. Can riparian owners safely navigate to their shore?

In this case, each of the four proposed tracts affects riparian access differently, so each must be evaluated individually; however, all the tracts are proposed to have the same structures, i.e., “strings” of floating oyster cages, as described above. All the shore involved is rocky intertidal shore with a few small areas of sand and gravel (SR 4). The vessels that can reasonably land on the shore, as described in testimony cited above, include kayaks, skiffs, rowboats, and similar smaller vessels, as well as barges used in the installation and removal of ramps and floats from the two docks and in repairs to the mainland pier. Vessels, in addition to these, that would reach the shore by landing at the mainland and island docks include the Lamias’ 20-foot motorboat as well as a planned 20-foot sailboat, and other vessels that might visit the area.

N-NW Tract

The proposed N-NW tract would contain eight strings of 50 cages each. The evidence shows that the gear physically blocks access to the northwest side of Peters Island at low tide for as much as three hours per day (Lewis/Auger; SR 11). The Lamias object to this loss of access, however limited their use of the northwest shore of the island may have been in the past, arguing that it constitutes unreasonable interference with their ingress and egress (N. Lamia Final Comments, p. 1; T. and S. Lamia Closing Arguments, p. 3; Mook Sea Farms Closing Arguments 7/29/2016, p. 2).

Nick Lamia advocates reducing the gear on the tract from eight strings to six to provide access to this shore (N. Lamia Final Comments, p. 4). Mr. Mook asserts that there is adequate space for navigation around the tract, but he offered to move the northwest and southwest corners of the tract 16 feet to the northwest to resolve the access issue (Exhibit 12, p. 1). Thomas and Susan Lamia find this proposal acceptable (T. & S. Lamia Closing Arguments, p. 3).

The evidence is clear that the gear on the proposed N-NW tract would interfere with the vessels that would need to maneuver around it to reach the shore on the northwest side of Peters Island from the west at low tide. The Lamias could not safely navigate to that portion of their shore at such times; thus, the gear would interfere with the Lamias’ ingress and egress at that location. Mr. Mook has proposed to alter the location of the tract to remedy this interference. This proposal would mitigate the interference without depriving Mr. Mook of the use of any portion of the proposed tract. It is a reasonable compromise.⁹

Jay Robinson argues that “If we were to sell part of our property or put in a mooring for ourselves on the Damariscotta River, the most logical and safest place would be within the boundaries of the proposed lease to the North West of Peter’s Island (Jay Robinson Summary of Testimony, p. 2). The site report indicates that there is a “sharp increase in water depths from the mainland shore” on the proposed

⁹ Coordinates for the re-located N-NW tract are listed in the Findings of Fact at the end of this Section 3A, below and in Appendix 2 to this decision.

N-NW tract, so that “Small vessels will maintain the ability to navigate around the northern edges of the proposed tract” (SR 11). The distance between the northwest corner of the N-NW tract and the mainland to the north is approximately 230 feet (SR 7). It appears that there is adequate space for a mooring northwest of the proposed N-NW tract, even if the west boundary is moved 16 feet to the northwest. The distance between the north side of the tract and the Robinson shore ranges from 230 feet to 80 feet, leaving adequate room for access by water to and from that shore, even when there is gear on the lease tract.

The evidence thus supports the following findings regarding the proposed N-NW tract:

As originally proposed, the N-NW tract would interfere with riparian ingress and egress to the northwest shore of Peters Island.

That interference can be adequately mitigated by moving the northwest and southwest corners of the tract 16 feet northwest, as proposed by Mr. Mook, using the corrected coordinates provided by Mr. Lewis.

There is adequate space northwest of the N-NW tract, even with the change in location described above, for a mooring for Jay Robinson to be placed between the tract and his mainland shore to the north. The tract will not interfere with his ingress and egress to and from his shore.

NW Tract

The proposed NW tract would contain six strings of 50 cages each. The evidence is clear that this tract is close to the Peters Island shore and, in conjunction with the SW tract to the south and the S-SE tract to the east, reduces the already-limited navigable water between the island and the mainland shore to a very narrow channel that ranges from 40 feet at the north end to 103 feet at the south end. According to the site report, “Between the months of October and May, riparian landowner ingress and egress would be confined to this corridor. While adequate for smaller vessels that can also navigate the area at MLW, larger vessels and those under sail would be limited in maneuverability at any tidal stage” (SR 11). Mr. Lewis agreed with Thomas Lamia that the 40-foot access corridor would constrain access by all boats under sail and all vessels larger than skiffs, canoes, kayaks, or similar small boats (Lewis/T. Lamia). Mr. Mook emphasized that the limit of the corridor to 40 feet would only occur once the tracts are filled with gear, normally between late December and mid-March when other users of the waters are least likely to be active (Exhibit 4, p. 2).

As modified by Mr. Mook at the July 18 hearing, the proposed NW tract would not contain gear until after November 1, and on April 1, gear would be either removed or tied back (as it would on the SW and S-SE tracts, as well) to widen the 40-foot channel to at least 100 feet, weather permitting (Exhibit 12, p. 1). Mr. Mook argued that there is space to navigate between the tract and the island and that the 40-foot channel is sufficient for navigation by a barge (Mook/T.Lamia).

At the July 18 hearing, Mr. Mook presented a copy of an email exchange in which Mr. Mook asks Jamie Brinkler of Round Pond Marine:

“Two questions: 1) Does an 80 to 120 foot lane into the cove between the strings of cages give you enough room to move your barge in and out? And, 2) if the cage strings are a minimum of 55 feet from the float does that give you enough room to hook and unhook them from the Peter’s island dock?” Mr. Brinkler’s entire response is, “Bill, yes to both your questions. That will give me enough room to operate. Thanks, Jamie” (Exhibit 12, p. 6).

Mr. Mook also presented a copy of a letter from David Lash of David Lash Marine Construction, which states in part that Mr. Lash sees no problem in getting his equipment “in and out of the cove [at Peters Island] with an 80- to 100-foot access lane. There is plenty of room to move floats to the float storage area and for connecting them to the docks in the spring” (Exhibit 12, p. 3, “Figure 2”).

The Lamias argue that

Mr. Mook attempted to counter this concern [regarding limits on barge access and float movement and storage] with unsworn and untimely letters from two individuals who are in the business of installing floats. Because the Department and other parties were unable to ask questions of those individuals and be sure they were given accurate information regarding the proposal, their letters should be disregarded or at least given very minimal weight as evidence. (T. & S. Lamia Closing Arguments, Footnote 1, p. 4)

The Lamias are correct that, without having sworn testimony from Mr. Lash and Mr. Brinkler and the opportunity to question them, their letters can be given only minimal weight. It is notable, however, that neither letter refers to an access corridor 40 feet wide. Mr. Lash refers to an “80 to 100 foot access lane,” and Mr. Brinkler responds to Mr. Mook’s statement regarding “an 80 to 120 foot lane into the cove.” Mr. Mook proposed widening the corridor to 100 feet by April 1 each year, weather permitting, but it is not clear whether this would also be feasible at any other time when the gear is in place.

Regarding navigable space between the proposed NW/SW tracts and the shore of Peters Island, Mr. Mook also states in his written and oral testimony presented on July 18 that his map marked “Figure 3:”

shows depths at MLW along the western boundaries of the NW and SW tracts. There is ample room and depth for low tide access by kayaks, canoes, and shallow drafted outboards along the entire boundary and around the north end of the NW tract, and the key access point shown by Mr. (Nick) Lamia at the SE corner of the island [south of the Peters Island dock]. At this access point, as shown, there is 40 feet between the western boundary of the SW tract and the place where boats are pulled up. As we stated last Wednesday [at the July 13 hearing], we routinely operate between the shore and our gear with our work boats. (Exhibit 12, p. 1, item 8; p. 7, Figure 3).

Although Mr. Mook said that his work boats “routinely operate” between the gear and the shore, it should be noted that the NW tract would be new, so such navigation presumably has not yet occurred at that location.

Mr. Lamia noted that there is not 40 feet of width at all points between the west boundary and the shore (Mook/T. Lamia). As Mr. Mook’s map shows, the location marked as 40 feet wide is one of the widest spots between the shore and the two tracts; much of that area is considerably narrower. It is unclear whether the Lamias’ 20-foot boat or a contractor’s barge could navigate freely in this space.

Mr. Mook acknowledged that with gear on the proposed NW tract, boats and barges would have to go around his gear to the north or south. He said he did not know if Mr. Brinkler’s barge could reach the southerly float storage site, as opposed to the northerly one (which is not blocked directly by the proposed NW tract) (Mook/Costigan). He said he had asked Mr. Lash and Mr. Brinkler only about barge access to “hook and unhook” the floats and not about replacing pilings at the mainland pier (Mook/N. Lamia). He said he would “make room” if necessary for repairs to the “wharf” (i.e., the Lamias’ mainland pier) (Mook/T. Lamia).

Although inconclusive in establishing facts, this evidence regarding access to the passage with the gear in place on the NW tract demonstrates the difficulty of accommodating both the aquaculture gear and the equipment needed to install, remove, and store the Lamias’ floats and repair their pier. Although Mr. Mook proposed successive measures to widen the 40-foot access corridor, their effectiveness with respect to barge access is unclear. It is likewise not clear whether a wider corridor would be available at any time between November 1 and April 1, as opposed to April 1 and thereafter. None of these measures allayed the Lamias’ concerns, and all would be dependent on Mr. Mook’s schedule and operations during the time his gear was deployed. The fact that so many changes and contingent plans would be needed to attempt to mitigate the interference by the gear with the Lamias’ access suggests that it is unreasonable to place the aquaculture gear in this location.

The Lamias argue that it is this NW tract that most interferes with their ingress and egress between the mainland and Peters Island. Throughout the hearing, they repeatedly emphasized that their use of the waters between the island and the mainland does not end on October 31 or begin on May 1 and that they want to maintain their freedom to keep, install, and use boats, moorings, and docks as late or early as the weather allows in fall and spring (e.g., T. & S. Lamia Closing Arguments, pp. 3-5; Exhibit 8, pp. 1-2; T. Lamia, S. Lamia, N. Lamia, testimony). They note that “the family owns the shorefront property on both sides of the cove, greatly enhancing the need and likelihood that there will be activity on the water in the cove year-round” (T. & S. Lamia Closing Arguments, p. 3). The Sproul family and Jay Robinson presented no specific objections to the NW tract, other than their concerns about the amount of gear proposed for the area overall.

With gear in place on the proposed NW tract, the Lamias say they “would have to store their floats prior to October 31st and could not install their floats until after May 1st every year for the foreseeable future. That gives only a six-month window for the floats to be in the water.” They argue that

they would be prohibited “from leaving their mooring in the water beyond October 31st and [the lease] would prevent them from installing the mooring until after May 1st every year for the foreseeable future.”

They argue that should their docks, floats, or moorings need repair when the full amount of gear is deployed, “it would be impossible to get the necessary equipment into the cove to do the work. It is unreasonable to delay needed repairs because of the gear that is in the way and to limit repair activities to the months in which the Lamias wish to be using their docks and floats” (T. & S. Lamia Closing Arguments, p. 5).

The Lamias also contend that, although the Peters Island mooring is apparently not located within the portion of the proposed NW tract where gear would be located, “access to the mooring by sailboat once the gear is in place November 1 through April 30th will be very difficult” (T. & S. Lamia Closing Arguments, p. 4). With the gear in place, they contend that their access to the island by kayak or other small boat from the mainland would be impeded, requiring them to navigate around the lines of cages and extending their time on the water in the coldest months of the year. Finally, they argue that gear on the proposed NW tract from November 1 to April 30 will mean that those

wishing to cross the cove from the Lamia property to Peter’s Island in a kayak or other small vessel will be unable to take the safe route directly across to the island. Rather, they will have to travel to the north or south and around and behind the gear in order to access the island. It is important to note that this travel is taking place in the coldest months of the year when the most direct route is unquestionably the safe route. To require landowners to maneuver around the gear and travel at least twice as long to get to their intended destination in the winter is unreasonable. (T. & S. Lamia Closing Arguments, pp. 4-5).

The Lamias argue that the deployment of the gear on the proposed NW tract would unreasonably interfere with their ingress and egress as riparian owners of the shore on both sides of the tract. They contend that all of these conflicts with the gear on the proposed NW tract could be resolved by eliminating the tract and limiting the months of operation of the lease to November 1 – March 31 (T. & S. Lamia Closing Arguments, p. 5).

Thomas Lamia testified that eliminating the proposed NW tract would separate Mr. Mook’s operations from the Lamias’ use of Peters Island and resolve much of the conflict between them (T. Lamia /Costigan). He said he found it difficult to get “certainty” as to Mr. Mook’s proposals, and as noted above, he dismissed Mr. Mook’s proposal to tie back lines of empty cages in spring to widen the channel if weather permitted, objecting to having conditions placed on the proposed lease that would not be clear and enforceable. Mr. Lamia argued that the riparian landowners should not bear the burden of monitoring the lessee’s activities for compliance. He said he wants reasonable access to his shore and should not be required to “negotiate” around the oyster cages; he thinks it is not reasonable for him and his family to be required to adjust their schedules to accommodate the aquaculture operation (T. Lamia/Mook).

The evidence shows that the proposed NW tract significantly limits the ability of the Lamias to navigate to and from their shore and to use the waters off their shore as they have in the past. The oyster cages arrayed along the east shore of Peters Island would inhibit access to that shore by boat or barge. The gear would restrict access for a barge to reach the Peters Island dock and remove or install floats there, as well as to conduct repairs at the mainland pier. It would limit access to the southerly float storage site, should the Lamias wish to use it.

The Lamias' mooring lies within the proposed NW tract. The boat that uses this mooring would need to be moved and the mooring gear removed or dropped to the bottom before November 1 in order to accommodate the oyster gear. With the gear in place, access to the second mooring in the "gear-free zone" between the proposed NW and SW tracts would be limited by the narrow channel between those tracts and the proposed S-SE tract to the east. Sailing would be impossible in this channel. Depending on wind and currents, the lines of cages could bow out closer to or beyond the boundary of the lease at times, further reducing available space for access to the shore on either side. Travel between the mainland and the island shores with the gear in place would require navigating around the north or south end of the proposed NW tract, making the trip longer and less direct in cold weather.

The applicant bears the burden of proving that the proposed lease will not unreasonably interfere with riparian ingress and egress. Evidence that is unclear or not accorded weight because the witnesses providing information were not available to be questioned at the hearing does not aid him in meeting that burden.

This evidence demonstrates that the deployment of oyster cages as proposed for the NW tract would clearly limit the Lamias' ability to navigate to their shores, to manage the seasonal installation and removal of their boats, moorings, and docks, and to carry out repairs and maintenance to their docks and piers. It would make their travel between the mainland and the island in winter longer and potentially less safe, particularly in cold weather. It would force them to accommodate their use of their shore to the lessee's schedule.

While the Lamias' navigation between the island and mainland shores is likely to be less in the coldest months of the year, the fact is that they own the shores and should be able to reach them when they wish to, without being unduly inconvenienced by aquaculture gear. Similarly, the timing of their water-based activities and tasks in this narrow passage between their mainland and island properties should not be subjugated to the schedule of the aquaculture operations. The activities proposed for the NW tract infringe on the riparians' access and use to an unreasonable degree.

The evidence thus supports the following finding regarding the proposed NW tract:

The aquaculture activities proposed for the NW tract would interfere unreasonably with riparian ingress and egress by the riparian Lamia family with respect to both the mainland shore and the shore of Peters Island.

SW Tract

The proposed SW tract, currently leased as DAM PI, would contain six strings of 50 cages each. The Lamias have no objection to this tract, providing it is located at least 55 feet south of the Peters Island dock (N. Lamia Final Comments, p. 4, T. & S. Lamia Closing Arguments, p. 3).¹⁰ As noted above, the proposed SW tract is located 154 feet south of the Peters Island dock (see p. 8). The Sproul family and Jay Robinson presented no specific objections to the SW tract, other than their concerns about the amount of gear proposed for the area overall.

The evidence thus supports the following finding regarding the proposed SW tract:

The aquaculture activities proposed for the SW tract will not interfere unreasonably with riparian ingress and egress.

S-SE Tract

The proposed S-SE tract, located approximately 25 feet from the Lamias' and Sprouls' mainland shore, would contain two sets of six strings of 50 cages each. Thomas and Susan Lamia do not object to this tract provided it is located as shown on Exhibit 12 (T. & S. Lamia Closing Arguments, p. 3). Nick Lamia has no objection to this tract if it is located at least 80 feet south of the Lamias' mainland dock (N. Lamia Final Comments, p. 4). The site report indicates that the S-SE tract lies approximately 92 feet south of the Lamias' mainland dock (SR 8) after the revision of the location by Mr. Mook prior to the site visit.

The Sproul family objects to the S-SE tract because its proximity to their shore would limit their access to and from the water when gear is in place. Sigrid Sproul requests that this tract be shortened on both ends and narrowed by removing two strings of cages to "allow for sufficient use of our property as riparian property owners" (Exhibit 13). She argues that "Conditions allowed if the proposed lease is granted should include that the site would not inhibit any permitted dock and float. It should also be clear that this is a winter seasonal lease" (Exhibit 13).

The Sprouls' shore is undeveloped north of their present cottage and dock, which is 270 feet south of the S-SE tract. The proposed tract does not appear to interfere with access to and from that dock. Mrs. Sproul testified that she is concerned about the effect of the proposed S-SE tract on tenants of her cottage who use kayaks in the waters around Peters Island in October. Mr. Mook proposed on July 18 that he would not place any gear on the S-SE tract in October; this would leave the area open to kayaking by the Sprouls' tenants during the foliage season. He proposed on July 13 that he would remove the westernmost strings in the north half of the tract by April 1, "barring ice conditions that prevent us doing so" but added, "In that event, these cage strings will be the first to be moved" (Exhibit 4, p. 4-5). On July 18, he proposed to tie back strings of empty cages to widen the access corridor to 100 feet by April 1, weather permitting (Exhibit 12).

¹⁰ This assumes that the reference on p. 3 of the T. & S. Lamia Closing Arguments to "S-SE" in the second paragraph, item 3, is intended to read "SW".

Placing gear on the S-SE tract on or after November 1, rather than October 1, would mitigate the interference of the gear with access to the Sproul shore and is a reasonable compromise. Mr. Mook's proposals to remove or tie back strings of cages by April 1, weather permitting, would also mitigate interference with that shore in the spring. Given the denial of the proposed NW tract, requiring instead that the gear on the S-SE tract be the first to be removed from the lease in the spring is a simpler way to open these waters to access as soon as possible.

While it appears that another pier could be installed on the Sproul shore to the north of the present dock, a ramp and float appear to conflict with the oyster cages proposed for the site. As noted above, the Sprouls do not have plans for such a pier, ramp, and float; they want to be assured that they could build one in future, should they wish, and be able to use it without unreasonable interference from the oyster gear. Therefore, it is reasonable to require that, should an additional dock actually be constructed by the Sproul family on their shore opposite the tract, a 50-foot navigation corridor will be created across the S-SE tract and maintained free of gear to enable access to and from the dock(s) and the open water outside the S-SE tract.¹¹ The requirement for actual construction of a dock or docks is intended to prevent the situation where a permit for a dock is obtained from the U.S. Army Corps of Engineers but no dock is constructed.

The evidence thus supports the following finding regarding the proposed S-SE tract:

As originally proposed, the S-SE tract would interfere with riparian access to and from the adjacent mainland shore.

That interference can be adequately mitigated by requiring that no gear is to be installed on the S-SE tract before November 1; that all gear on the S-SE tract be the first to be removed from the lease in the spring; and that should an additional dock actually be constructed by the Sproul family on their shore opposite the S-SE tract, a 50-foot-wide navigation corridor will be created across the S-SE tract in front of the dock and maintained free of gear.

Therefore, I find that the aquaculture activities proposed for this site on the proposed NW tract will unreasonably interfere with riparian ingress and egress; the application to lease that tract is denied.

I further find that the proposed N-NW, SW, and S-SE tracts will not unreasonably interfere with the ingress and egress of any riparian owner, provided the following conditions are included in the lease:

1. The location of the N-NW tract must be revised using the following coordinates (underlined items have been changed from those in Mr. Mook's proposal in Exhibit 12 following a review by Jon Lewis of DMR):

¹¹ CF, Sigrid Sproul responses to proposed decision. Mrs. Sproul indicated in her comments dated September 28, 2016, that she and her family feel that "it is not unreasonable to allow for the future development of two more docks with a float on the currently undeveloped property. This would total three docks with float [including the existing dock] on our property as there are three direct heirs to the shorefront." This information was not provided to the Department and parties in the course of the hearing or in the written closing arguments that the Sproul family submitted. Given that gear will not be placed on the S-SE tract until after November 1 and will be removed by April 30, and given that this tract will be the first to be cleared of gear in the spring, the Department believes that any interference by the aquaculture gear with possible future docks on the now-undeveloped Sproul shore will be minimal. Therefore, the provision for a single 50-foot navigation corridor across the tract should suffice to provide access to this shore when the gear is in place.

N-NW Tract – 0.80 acres (underlined items have changed from those in original application, per Exhibit 12)

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>
NW	<u>43° 54' 34.16"N</u>	<u>69° 34' 00.04"W</u> then 312.8 feet at 59.71° True to
NE	43° 54' 35.72"N	69° 33' 56.35"W then 111.62 feet at 146.57° True to
SE	43° 54' 34.80"N	69° 33' 55.51"W then <u>313.4 feet at 239.78°</u> True to
SW	<u>43° 54' 33.24"N</u>	<u>69° 33' 59.21"W</u> then 111.22 feet at 326.89° True to NW.

2. No gear is to be installed on the S-SE tract before November 1.
3. All gear on the S-SE tract must be the first to be removed from the lease in the spring.
4. Should an additional dock actually be constructed by the Sproul family on their shore opposite the S-SE tract, a 50-foot-wide navigation corridor will be created across the S-SE tract in front of the dock and maintained free of gear.

B. Navigation

As described above, the proposed lease site occupies a narrow passage between the mainland and Peters Island, east of the main channel of the Damariscotta River. The site report notes that "Vessels moving through the main channel of the Damariscotta River, more than 100 feet to the west, would in no way be impeded by the proposed activities" SR 11). The effect of the proposed N-NW tract on navigation is described as follows:

There remains a minimum of 80 feet of navigable waters between the mainland shore and the northern boundary of the proposed N-NW Tract. Due to the sharp increase in water depths from the mainland shore, small vessels will maintain the ability to navigate around the northern edge of the proposed tract. Access to the inner coves and tidal flats will be limited more by tidal stage and the resulting water depths than the presence of the aquaculture gear, as described. The proposed N-NW tract, if granted will limit access to the northern shore of Peters Island, particularly at lower tidal stages. (SR 11)

The issues regarding access to the northwest shore of Peters Island, particularly by the riparian landowners, but also potentially by the public, are discussed under Riparian Access, above. With the change in location of the west boundary of the tract as discussed above, access to that shore at all tides is possible, even when gear is deployed on the lease tract. In terms of navigation by others in this area, it appears that there is room for small vessels, such as skiffs for clamming, to navigate around the north side of this tract, although they will continue to be limited by tides and water depths in reaching the tidal flats to the northeast of the island.

The effects of the proposed NW, SW, and S-SE Tracts on navigation are discussed in the site report as follows:

If granted, navigation between the eastern shore of Peters Island and the mainland, between the months of October and May, would be limited to the ~40-103 foot corridor remaining between the NW/SW and S-SE Tracts. Skiffs, canoes, kayaks, etc. would maintain their ability to access the tidally exposed mud flats and shorefront to the north. Larger vessels and sailboats are expected to have some limitations on maneuverability. Considering the narrow span between Peters Island and the mainland, sailboats entering the area are likely to be small or under auxiliary power. The proposed tracts, if granted, will limit water-borne access to the eastern shore of Peters Island. (SR 11)

Navigation through this area during the months of October through April would be greatly reduced from what is expected during the summer months. (SR 11)

Cecil Burnham, the South Bristol Harbormaster, testified that the cove at Peters Island is public waters, and that more people are boating through October and leaving their boats in the water later in the fall. He said that he believes the proposed gear is too dense for the area (Burnham, testimony).

Nick Lamia observed that with the gear in place on the proposed NW, SW, and S-SE tracts, there would not be sufficient room in the 40-foot channel for a 20-foot motorboat, and sailing would be impossible (Exhibit 11, p. 3). Mr. Lewis testified that he was concerned about maneuverability of boats even with a 40-foot access lane (Lewis, testimony).

Sigrid Sproul expressed her concerns regarding access to the water for her tenants who kayak in the area in October (S. Sproul, testimony); Exhibit 13).

Mr. Mook argued that in the four years he has used the two leases at Peters Island, he has observed that "recreational and commercial uses are relatively low during the times we are storing oysters at Peter's Island" (Mook Closing Arguments 7/29/16, p. 4). He testified that it is possible to navigate around the gear and that the 40-foot channel is large enough for boats and even for a barge (Mook, testimony). As discussed under Riparian Access, above, he offered to delay placing gear on the proposed NW and S-SE tracts until November 1 and made two different proposals regarding removal of gear from the proposed NW and S-SE tracts in spring and widening the channel to 100 feet by April 1.

With the denial of the proposed NW tract, the most severely constricted portion of the proposed channel between Peters Island and the Lamias' mainland shore will be considerably shorter. With the conditions placed on the S-SE tract, gear will not be placed on the east side of the channel until November 1 or after, and it will be removed first in the spring, so the constriction will also not last as long. As the site report notes, there will be much less navigation in this area during the months when the gear would be in place than during the summer.

Access issues for the riparian landowners are addressed under Riparian Access, above. No one other than the riparians testified about the need to navigate between Peters Island and the mainland between November and May, but with these modifications to the proposed lease, it appears that such

navigation for the types of vessels likely to operate there at that time will continue largely as before, subject to water depths and tidal stages.

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with navigation. Aquaculture lease sites are required to be marked for navigation purposes in accordance with U. S. Coast Guard requirements.

C. Fishing & Other Uses

The site report indicates that when gear is deployed on the proposed lease site, fishing, including lobstering and hook-and-line fishing, would be limited, and so would interference with such fishing activities (SR 12). No evidence was presented to dispute this conclusion.

Cecil Burnham, the South Bristol Harbormaster, answered the DMR Harbormaster Questionnaire about fishing by noting that occasional clam harvesting occurs in the intertidal flats around Peters Island but that there is “little commercial use in close to the proposed area” (SR 12). The site report observes that “The small outboard vessels typically used by clam harvesters to access mudflats are unlikely to be impeded by the proposed lease activities” (SR 12).

Mr. Mook testified that the propose aquaculture operation would not affect lobstering, clamming, or recreational fishing (Mook, testimony).

The evidence indicates that while some level of commercial and recreational fishing is likely to occur in the waters around Peters Island, especially in the summer months, it is unlikely that the presence of the aquaculture lease site from October through April will interfere significantly with fishing of any kind. The lease must be marked in accordance with DMR Rule 2.80.¹²

Other aquaculture leases. The nearest aquaculture sites to those proposed at Peters Island are two Limited-Purpose Aquaculture (LPA) licenses, SHAW-1-14 and SHAW-2-14, for mussel rafts located 221 and 248 feet northwest of the proposed N-NW tract, in the open waters of the Damariscotta River (SR 12). The proposed lease will not interfere with activities on these LPA sites. Other aquaculture sites in the river are over a mile distant; the proposed lease activities will not interfere with them.

¹²**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.

Exclusivity. The application indicates that navigation and hook-and-line fishing are compatible with the lease activities, even when the cages are deployed (App 7). Mr. Mook testified that he would work with the riparians to site additional moorings within the lease tracts, should they wish (Mook/D. Robinson). He indicated that anchoring would not be a problem in the lease tracts in summers and that should an anchor snag the mooring gear on the bottom, it would be easy to disentangle (Mook/N.Lamia).

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.

D. Flora & Fauna

Site observations. Department biologists made the following observation about the marine species observed during the site visit in April, 2016:

The bottom within the proposed lease areas is generally characterized by soft mud bottom habitat with an overlay of diatom mats, filamentous algae, and leaf litter. Crabs and snails were the dominant species observed, although their presence was most notable in the shallows closer to Peters Island and the mainland where sediment composition was significantly coarser. (SR 14)

Fisheries & wildlife. Copies of the application were provided to the Maine Departments of Environmental Protection and Inland Fisheries and Wildlife for review, but no comments were received by DMR from either agency. The Maine Department of Inland Fisheries and Wildlife (MDIF&W) reviewed the application at the applicant's request before it was submitted to DMR; the application includes a copy of a letter from MDIF&W noting that there are no locations of "Endangered, Threatened, or special Concern species within the project area" and that to their knowledge, no "Essential or Significant Wildlife Habitats or fisheries habitats would be directly affected by the project" (App 21). The site report notes:

According to GIS (Geographic Information System) data maintained by The Maine Department of Inland Fisheries and Wildlife there is a bald eagle (*Haliaeetus leucocephalus*) nest located on Hodgsons Island, more than 4,000 feet to the southwest of the proposed aquaculture lease. The tidal mudflats to the north, south, and west of Peters Island and in the shallow cove to the north and east of the proposed lease tracts are designated as moderate to high value Tidal Wading Bird and Waterfowl Habitat. (SR 17)

The proposed lease tracts are all subtidal and will not affect the intertidal mudflats used by any wading birds that may be present between October and April.

Nick Lamia noted the sentence in the MDIF&W letter in the application which reads: "Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program and Maine Department of

Environmental Protection in order to avoid unintended protected resource disturbance” (App 21). Mr. Lamia argues that DMR should require that Mr. Mook should document that he has conducted this consultation and that it establishes that there is no reason to believe that the aquaculture operation would “cause ecological harm” (N. Lamia Final Comments, p. 5).

The purpose of the DMR site visit and report is to document that the proposed aquaculture operation will not cause “ecological harm.” The municipality has been consulted, by providing a copy of the application, requesting a Harbormaster Questionnaire be completed by the Harbormaster, and by taking testimony of town officials at the public hearing. The Department of Environmental Protection received a copy of the application to review, as well. Oyster aquaculture has been conducted elsewhere in the Damariscotta River, and along the Maine coast, for many years. The Department is not aware of any ecological harm that has resulted from this activity. The recommendation in the MDIF&W letter is not a requirement. Mr. Mook is free to follow it. Given the detailed environmental review that this project has already received, particularly by DMR, no purpose would be served by requiring documentation of any such additional consultation.

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 publicly-owned beaches, conserved lands, or docking facilities within 1000 feet of the proposed lease” (SR 17).

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, docking facilities, or certain conserved lands owned by municipal, state, or federal governments.

F. Source of Organisms

The application indicates that the source of stock for this proposed lease site is Mook Sea Farms’s hatchery in Walpole, Maine (App 1).

Therefore, I find that 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 “There will be no lights or other power equipment used” and that “Presence on the site after dark is not anticipated, but might be necessary in the event of some unforeseen emergency” (App 5). The site report states that “No lighting is proposed for use at this lease site, if granted. An exception would be made for emergency situations such as a boat malfunction” (SR 17).

Therefore, I find that the aquaculture activities proposed for these sites will not result in an unreasonable impact from light at the boundaries of the lease site.

H. Noise

According to the site report,

The applicant proposes to use a combination of four-stroke and two-stroke outboard engines on vessels tending the site, if granted. These outboards are typical of those used throughout coastal Maine. Four-stroke outboards are the quietest gasoline powered outboards available. No other powered equipment is proposed for use. (SR 18)

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.

Therefore, I find that the aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease.

I. Visual Impact

The site report states:

The applicant proposes to use floating cages and bags to contain the cultured oysters. The surface gear is black in color with black floatation and would protrude a maximum of 20" above the water's surface, when in the drying position. (SR 18)

No other structures will be placed on the site, other than any navigational aids that may be required.

The Department's visual impact rule requires structures and gear on lease sites to blend with the surroundings as much as possible. The evidence shows that this will be the case on the proposed lease site.

Therefore, I find that the equipment, buildings, and watercraft to be used at the proposed lease site will comply with the visual impact criteria contained in DMR Regulation 2.37 (1) (A) (10).

J. Timing of Aquaculture Activities

The Lamias want the aquaculture operations on all tracts to be limited to the period from November 1 to March 31, to minimize conflict with their shore access (e.g., N. Lamia Final Comments, p. 4; T. & S. Lamia Closing Arguments, p. p. 5). Mr. Mook offered not to place gear on the proposed NW and S-SE tracts until November 1, but said repeatedly that he needs to use the N-NW and SW tracts from October 1 to April 30 (e.g., Mook Sea Farms Closing Arguments, 7/29/16, p. 4).

Other than the fact that the N-NW tract as originally proposed would block access to the northwest corner of Peters Island when gear is in place, there is no additional evidence of interference between this tract and the ingress and egress of any of the riparians to and from either the mainland or the shores of Peters Island, or with navigation, fishing, or other uses of the area. With the change in the tract boundary noted above, that interference is mitigated. Mr. Mook is reasonable in his request to use

the tract between October 1 and April 30, given the evidence showing the unpredictability of ice conditions in the upper river in late winter and early spring and the lack of evidence of interference with riparian access, navigation, fishing, or other uses of the area.

The proposed NW tract is denied, so the main source of interference with the Lamias' access between the mainland and Peters Island has been removed.

The proposed SW tract does not interfere unreasonably with riparian access, navigation, fishing, or other uses of the area, and the Lamias and other riparians have not argued that it does. Mr. Mook is reasonable in his request to use this tract from October 1 to April 30, the same schedule as the proposed N-NW tract, for the same reasons.

Based on Mr. Mook's proposals as discussed above, gear will not be placed on the proposed S-SE tract until November 1, and all gear will be removed from that tract first in the spring, by no later than April 30.

Therefore, I find that the N-NW and SW tracts may be used from October 1 to April 30, and the S-SE tract from November 1 to April 30, with all gear to be removed from this tract first in the spring. Conditions to this effect will be included in the lease.

K. Determination that proposed activities constitute aquaculture and require a lease

Thomas and Susan Lamia argue that Mr. Mook's application for a lease should be denied on the grounds that placing cages of market-sized oysters on a lease site over the winter and removing them periodically to sell does not constitute aquaculture (see T. & S. Lamia, Closing Arguments, pp. 1-2). They note that when Mr. Mook initially proposed this project in 2011, he argued that it did not require an aquaculture lease because it is "wet storage" of shellfish and should require only a wet storage permit from the DMR Bureau of Public Health and a permit from the U.S. Army Corps of Engineers to place the gear in the water.

As the Lamias note, the Department found that the activity did constitute aquaculture and thus required a lease or license. The Department considered the following statutes and rules:

12 MRS §6001 (1) Aquaculture. "Aquaculture" means the culture or husbandry of marine organisms by any person.

12 MRS § 6072 (1-A). Lease requirement; finfish and suspension culture. Except as provided in paragraphs B and B-1 and sections 6072-A, 6072-B and 6072-C, it is unlawful for a person who does not have a lease issued by the commissioner under this section to construct or operate in the coastal waters of the State a facility for the culture of finfish in nets, pens or other enclosures or for the suspended culture of any other marine organism.

DMR rules 13-188 CMR Chapter 2.05 (1) Definitions**A. Aquaculture.**

“Aquaculture” means the culture or husbandry of marine organisms by any person. Storage or any other form of impounding or holding wild marine organisms, without more, shall not qualify as aquaculture. In order to qualify as aquaculture, a project must involve affirmative action by the lessee to improve the growth rate or quality of the marine organism.

B. Culture or husbandry.

“Culture or husbandry” means the production, development, or improvement of a marine organism.

The Lamias describe Mr. Mook’s unsuccessful legislative efforts to establish a fourth form of aquaculture authorization to expedite winter-storage projects like this one (in addition to the present two types of lease and the LPA license) and conclude that “This activity is still not permitted under the current statutory and regulatory scheme”. They contend that until legislation is enacted “that allows the storage of oysters in a 3.66 acre area for 7 months of the year, that activity is not permitted.” In fact, the Legislature did not formally consider the issue raised by Mr. Mook. The law did not change as a result of his efforts.

The Lamias cite language in the application that says that the site will be used as storage for market-size oysters and that oysters will not be cultured at the lease site. Because, they say, Mr. Mook will be “storing and not growing oysters on the site, his lease application must be denied.” They reinforce their argument by quoting the sentence “Storage or any other form of impounding or holding wild marine organisms, without more, shall not qualify as aquaculture,” although they admit that Mr. Mook’s organisms are not wild. Nevertheless, they say, to constitute “culture or husbandry,” the project must involve “production, development, or improvement” and “affirmative action” to improve the growth rate or quality of the oysters. Without active cultivation, they say, the project does not qualify as aquaculture and cannot be granted a lease.

The Department reviewed these same arguments when Mr. Mook made them in 2012 and concluded that his winter storage project does constitute aquaculture. The Department’s reasoning reflects several considerations. While holding or storage of wild shellfish is specifically exempted from the definition of aquaculture, the holding of cultured shellfish, such as Mr. Mook’s oysters, is not exempt. It can be considered aquaculture. If it does not rise to the level of being aquaculture, it normally requires a wet storage permit.

In producing the oysters he hopes to keep at Peters Island, Mr. Mook has undertaken all of the activities of “culture and husbandry” described in the Chapter 2.05, including “production, development, and improvement,” as well as “affirmative action ... to improve the growth rate or quality.” If his upriver lease sites remained reliably ice-free in winter, he could keep the oysters there, and there would presumably be no argument about whether his activity still constituted aquaculture. It would be seen for what it is: the last step in the process that began when oyster seed was first set out on his lease sites.

Mr. Mook's project uses oysters he has grown on his aquaculture lease sites for at least two years, using identical gear, and placing that gear on the bottom for the winter when the oysters are below market size. Since he needs an ice-free site to be able to retrieve his larger oysters for market in winter, however, he now tows part of his upriver lease gear down to the winter site in the fall. In the spring, when all the oysters have been taken to market, the empty cages are taken back to the upriver lease sites to begin the growing season once again. The operation on the winter site is virtually identical to that on the upriver lease sites in summer. This winter site is part of the overall aquaculture business, which consists of production, development, and improvement of oysters. It would not exist but for the aquaculture operation upriver. It is an inextricable part of the process of "production, development, and improvement;" to cut this stage out of the aquaculture regulatory system based on the argument that the oysters may not be actively growing for several months is to miss the forest for the trees.¹³

The Department considers it unwise to fragment the aquaculture process as the Lamias propose. Creating such loopholes in the regulatory scheme could result in creating sites that are indistinguishable from aquaculture sites in every way except for the time of year when they are used, without any review under the aquaculture laws and rules. If a project like Mr. Mook's were not required to be reviewed under the aquaculture laws and regulations, riparians like the Lamias and others would not have the same opportunity to present their concerns about potentially conflicting uses of the lease area. Rather than a detailed site visit and report and a public hearing and decision process, a wet storage permit and an Army Corps permit could be issued with much less, if any, opportunity for riparians and other users of an area to present their positions.

Moreover, if projects that are essentially aquaculture, use aquaculture gear, are identical to other aquaculture lease sites, and are operated by aquaculturists can avoid the detailed review of siting issues created by the statute, there is likely to be interference with other uses, confusion on the part of the public, and additional hostility toward aquaculture.

In short, everything about Mr. Mook's project looks like aquaculture and functions like aquaculture. The Department considers that it is an aquaculture project that must have an aquaculture lease in order to be conducted in Maine coastal waters.

Therefore, I find that this application is appropriately before the Department for review under the provisions of 12 MRS §6072 and DMR Rules 13-188 CMR Chapter 2.

L. Bond

Chapter 2.40 of the Department's rules provides that the Department may prorate the performance bond amount for a structure, no-discharge lease where structures are in excess of 2,000 square feet in order to increase the bonding requirement to satisfy the requirements of the rules. The

¹³ In fact, Mr. Mook argues that the oysters do continue to improve in quality during the winter at Peters Island (see Mook Sea Farm's Response, 8/1/2016). He observes that the oysters continue to filter water, purging themselves of impurities, and that they remain saltier than oysters upriver that are exposed to fresh water spring runoff. He says he has observed occasional improvements in meat quality during the winter, probably caused by small phytoplankton blooms occurring when the surface water is warmed even slightly for brief periods. His observations indicate that defining "culture" is not simple.

largest bond the rule specifically authorizes the Department to require is \$25,000. Mook Sea Farms holds two other leases using oyster cages identical to those proposed for this lease. Because of the amount of square footage by which the cages on each of those lease sites exceeds the 2,000 square foot threshold, the Department increased the bond for each of those leases. DAM EL3, with 1,400 cages, has a bond of \$10,000. DAM PP2, with 3,600 cages, has a bond of \$25,000. This lease will hold 1,300 cages; the bond required will be \$10,000.

4. CONCLUSIONS OF LAW

Based on the above findings, I conclude that the Department of Marine Resources has jurisdiction under 12 MRS § 6072 and 13-188 CMR Chapter 2 to consider this aquaculture lease application and issue a decision thereon.

I further conclude that:

1. The aquaculture activities proposed for the N-NW, SW, and S-SE tracts of this site will not unreasonably interfere with the ingress and egress of any riparian owner. The aquaculture activities proposed for the NW tract of this site will interfere with the ingress and egress of the riparian owners, and no lease will be granted for that tract.
2. The aquaculture activities proposed for this site will not unreasonably interfere with navigation.
3. 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.
4. 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.
5. 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.
6. The applicant has demonstrated that there is an available source of American oysters (*Crassostrea virginica*) to be cultured for the lease site.
7. The aquaculture activities proposed for this site will not result in an unreasonable impact from light at the boundaries of the lease site.
8. The aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease site.
9. The aquaculture activities proposed for this site will comply with the visual impact criteria contained in DMR Regulation 2.37(1)(A)(10).
10. The aquaculture activities proposed for this site may be conducted on Tracts NW and SW from October 1 to April 30 and on Tract S-SE from November 1 to April 30, but the gear on the S-SE tract shall be the first to be removed from the lease site in the spring.

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.

5. DECISION

Based on the foregoing, the Commissioner grants the lease of 2.78 acres to Mook Sea Farms, Inc. for ten years for the purpose of cultivating American 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 \$10,000.00, 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 (7-B)¹⁴. 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:

1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.

2. The location of the N-NW tract must be revised using the following coordinates:

N-NW Tract – 0.80 acres

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>
NW	43° 54' 34.16"N	69° 34' 00.04"W then 312.8 feet at 59.71° True to
NE	43° 54' 35.72"N	69° 33' 56.35"W then 111.62 feet at 146.57° True to
SE	43° 54' 34.80"N	69° 33' 55.51"W then 313.4 feet at 239.78° True to
SW	43° 54' 33.24"N	69° 33' 59.21"W then 111.22 feet at 326.89° True to NW.

3. Gear may not be deployed on the S-SE tract before November 1, and all gear on the S-SE tract shall be the first to be removed from the lease site in the spring, with all gear to be removed from this tract no later than April 30.

4. Gear may not be deployed on the N-NW and SW tracts until October 1. All gear must be removed from these tracts by April 30.

5. Should an additional dock actually be constructed by the Sproul family on their shore opposite the S-SE tract, the lessee is required to establish a 50-foot-wide navigation corridor across the S-SE tract in front of the dock and maintain this space free of gear, to enable access between the dock and the waters west of the tract.

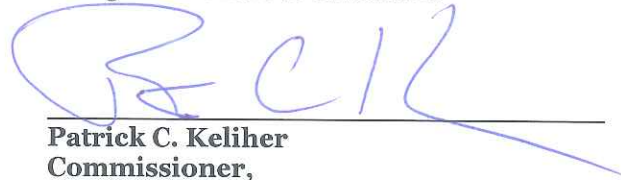
¹⁴ 12 MRSA §6072 (7-B) states: "The commissioner may establish conditions that govern the use of the leased area and limitations on the aquaculture activities. These conditions must encourage the greatest multiple, compatible uses of the leased area, but must also address the ability of the lease site 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."

6. Other public uses that are not inconsistent with the purposes of the lease are permitted within the lease boundaries.

7. **REVOCATION OF LEASE**

The Commissioner may commence revocation procedures upon determining pursuant to 12 MRSA §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.

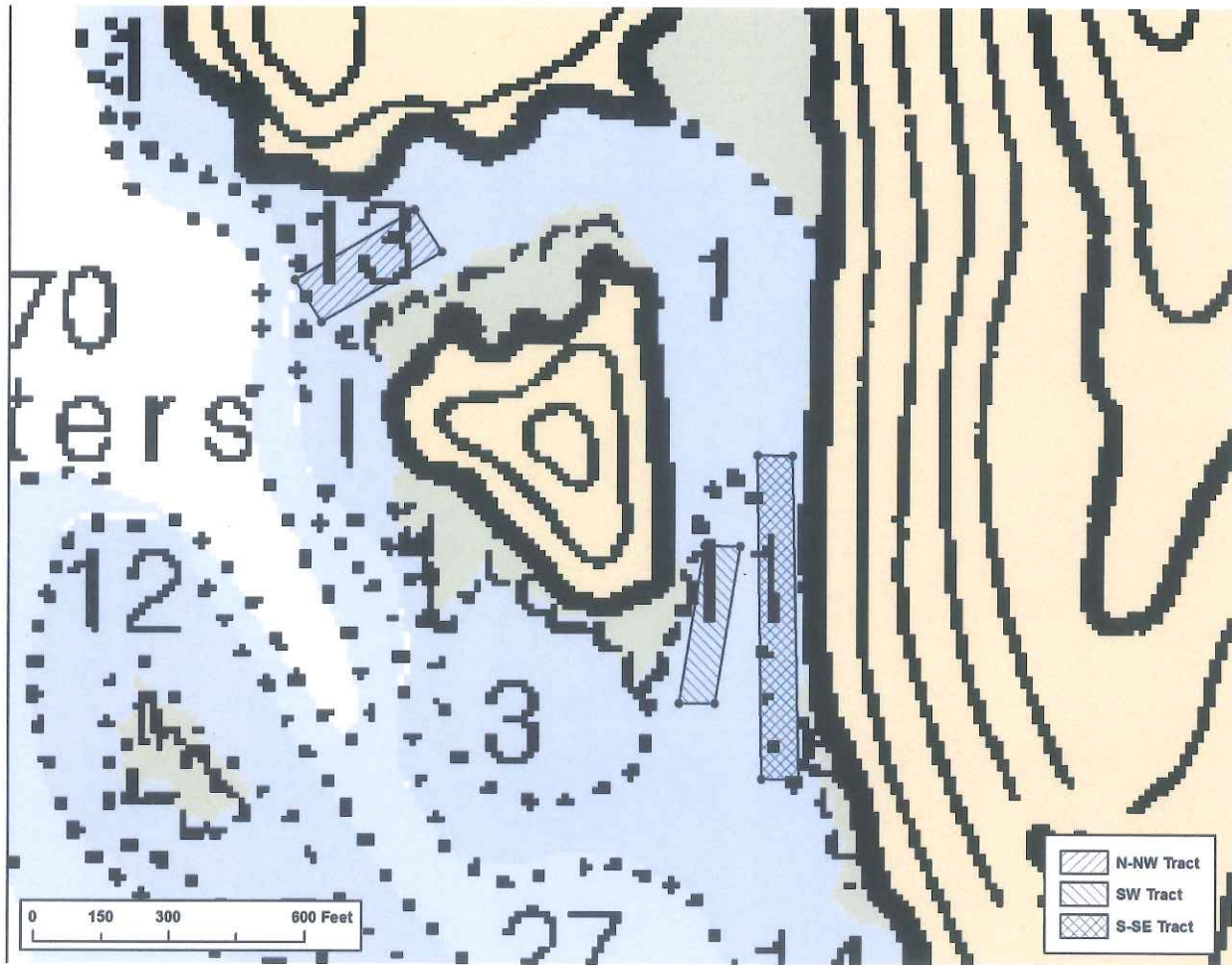
Dated: Oct 21, 2016



Patrick C. Keliher
Commissioner,
Department of Marine Resources

APPENDIX 1 – Maps of N-NW, SW, and S-SE lease tracts as granted by this decision





APPENDIX 2 - Coordinates of N-NW, SW, and S-SE lease tracts as granted by this decision**N-NW Tract – 0.80 acres (as modified from original application by Exhibit 12)**

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>
NW	43° 54' 34.16"N	69° 34' 00.04"W then 312.8 feet at 59.71° True to
NE	43° 54' 35.72"N	69° 33' 56.35"W then 111.62 feet at 146.57° True to
SE	43° 54' 34.80"N	69° 33' 55.51"W then 313.4 feet at 239.78° True to
SW	43° 54' 33.24"N	69° 33' 59.21"W then 111.22 feet at 326.89° True to NW.

SW Tract – 0.65 acres (as proposed in application)

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>
NW	43° 54' 28.42"N	69° 33' 47.40"W then 81.26 feet at 90.00° True to
NE	43° 54' 28.42"N	69° 33' 46.29"W then 354.75 feet at 189.02° True to
SE	43° 54' 24.96"N	69° 33' 47.05"W then 81.26 feet at 270° True to
SW	43° 54' 24.96"N	69° 33' 48.16"W then 354.75 feet at 09.02° True to NW.

S-SE Tract Revised – 1.33 acres (per site report and application)

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>
NW	43° 54' 30.42"N	69° 33' 45.80"W then 78.34 feet at 90.74° True to
NE	43° 54' 30.41"N	69° 33' 44.73"W then 720.23 feet at 178.43° True to
SE	43° 54' 23.30"N	69° 33' 44.46"W then 83.48 feet at 271.39° True to
SW	43° 54' 23.32"N	69° 33' 45.60"W then 719.10 feet at 358.83° True to NW.