STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES

Black Stone Point Oysters LLC

Experimental Aquaculture Lease Application
Suspended Culture of Shellfish
Great Salt Bay, Damariscotta, Maine

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Black Stone Point Oysters LLC applied to the Department of Marine Resources (DMR) for a 3.47[1] acre experimental lease east of Blackstone Point in Great Salt Bay, in the town of Damariscotta, Lincoln County, for the suspended culture of American/eastern oysters (*Crassostrea virginica*), hard clam/quahog (*Mercenaria mercenaria*), and bay scallop (*Argopecten irradians*) for commercial aquaculture research and development.

1. THE PROCEEDINGS

DMR accepted the application as complete on May 4, 2023. Notice of the application and the 30-day public comment period was provided to state agencies, riparian landowners within 1,000 feet of the proposed site, the Town of Damariscotta and its Harbormaster, and others on DMR's email listserv. Notice to the municipality included a Harbormaster Questionnaire requesting information related to designated or traditional storm anchorages, navigation, riparian ingress and egress, and fishing or other uses of the area, among other considerations. No response was received from the Harbormaster. Notice of the complete application and comment period was published in the May 11, 2023, edition of *The Lincoln County News*. Title 12 M.R.S.A. §6072-A (6) provides that the Commissioner shall hold a public hearing if five or more persons[2] request a public hearing within the 30-day comment period. The comment deadline expired on June 10, 2023. No requests for a public hearing were received during the comment period, and no hearing was conducted. The evidentiary record regarding this lease application includes the application, DMR's site report dated November 14, 2024, and the case file. The evidence from each of these sources is summarized below.[3]

LIST OF EXHIBITS

[1] Applicant originally requested 3.45 acres. DMR calculations indicate the area is 3.47 acres.
[2] Title 12 M.R.S.A. §6072-A (6) now requires 10 or more hearing requests to be received for the Commissioner to hold a hearing, however, at the time of this comment period, the requirement was five or more.
[3] These sources are cited, with page references, as App (Application), CF (case file), and SR (site report).

1. Case file
2. Application
3. DMR site report, issued on November 14, 2024

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

The purpose of the proposed experimental lease site is to compare growth rates and logistics of this site for a potential nursery in comparison to an existing lease site held by the applicant near Hog Island in the Damariscotta River (App 6). The applicant is proposing to culture shellfish using a maximum of 578 floating grow cages (67.5-inches by 36-inches by 24-inches), 6,210 hard plastic hex cages (31.5-inches by 11-inches by 9.7-inches), 3,840 floating mesh Zapco tubes (35-inches by 13-inches by 13-inches) as well as line, rebar, helix anchors, and buoys (App 18-20).

The cages would remain on-site year-round but would be submerged from November to March (App 20). The Zapco tubes and rebar would be on-site from late May to October (App 7, 20). The applicant intends to seed the site from June to August and to harvest from April to October (App 6). Site tending would occur April to December, 1-3 times per week (App 6).

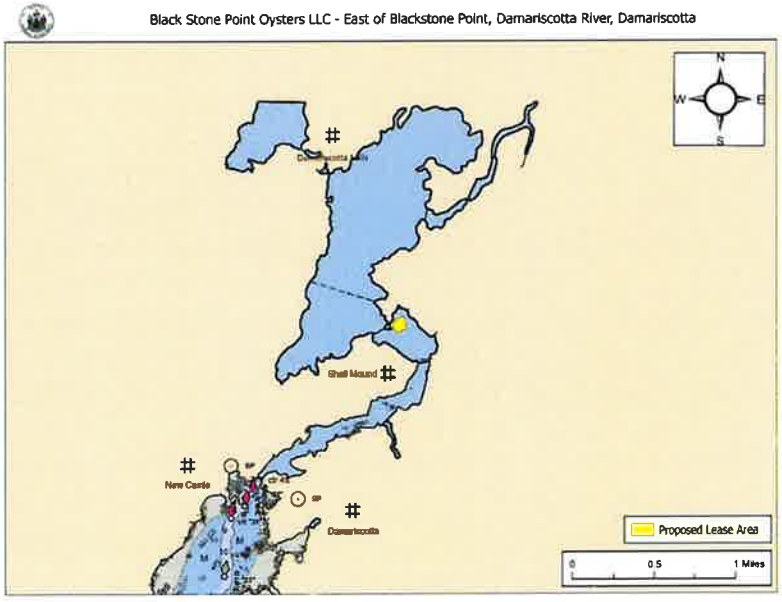

Figure 1: Vicinity map. Image generated by DMR staff. [4]

B. Site Characteristics

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

On July 17, 2024, DMR assessed the proposed lease site. The shoreline in the area is mud leading to a mixture of cobble and boulders and mossy, mixed forest uplands with areas of residential lawn. Three residential homes are visible from the proposal to the northeast. Blackstone Point, to the west of the proposal, is owned by Coastal Rivers Conservation Trust. The land is held in private conservation and contains recreational trails for year-round public use. State Route 1 is nearby and a bridge over the Damariscotta River is approximately 1,200 feet to the southeast and is visible from the proposal. On November 1, 2024, DMR revisited the site to collect additional information on eelgrass distribution within the boundaries of the proposal (SR 2).

DMR began collecting depths at the proposed site shortly after the predicted low tide in Newcastle at approximately 2:44 PM on July 17, 2024. Measured depths at corners of the proposed lease site ranged from 0.95 to 39.04 feet. While collecting depth measurements, DMR observed the tide was still ebbing so upon concluding the site visit, DMR recorded a second set of depths for corners W, NW, and NE. These depths were collected at 4:25 PM on July 17, 2024, approximately 1.75 hours after the predicted low tide in Newcastle, and ranged from 0.33 to 1.67 feet. The site was determined to be subtidal (SR 2).

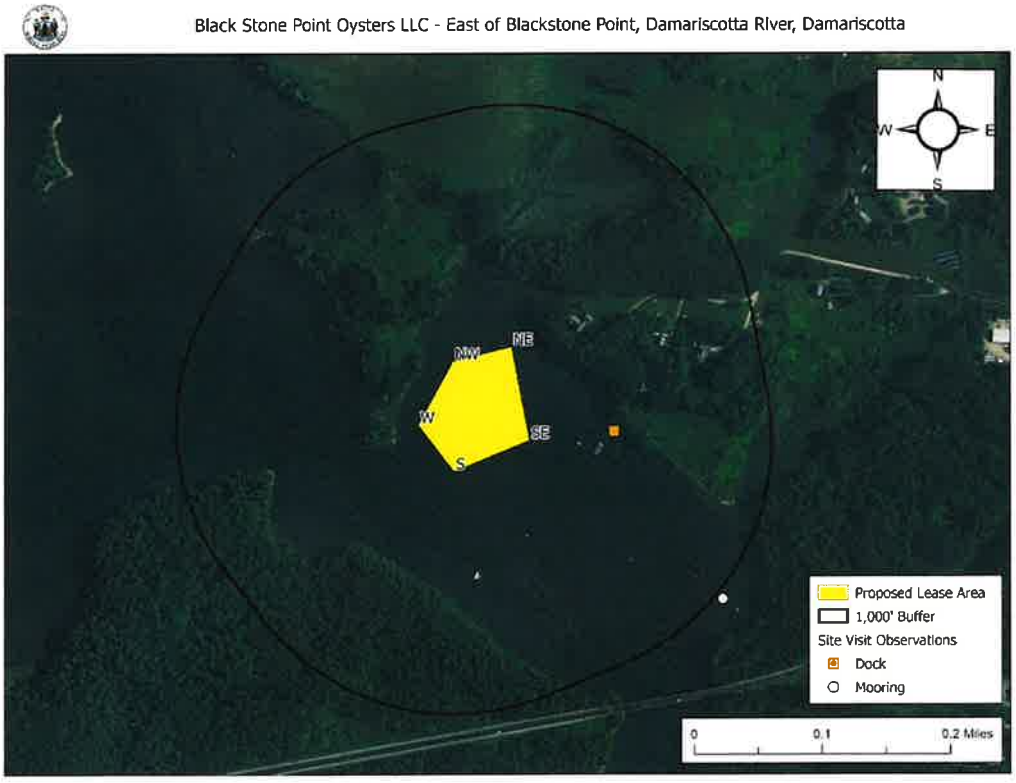

Figure 2. Proposed lease area with site visit observations. Image from DMR site report.

3. STATUTORY CRITERIA & FINDINGS OF FACT

Approval of experimental aquaculture leases is governed by 12 M.R.S.A. §6072-A. This statute provides that a lease for commercial aquaculture research and development or for scientific research may be granted by the Commissioner of DMR upon determining that the project will not unreasonably interfere with the ingress and egress of riparian owners; with navigation; with fishing or other uses of the area, taking into consideration other aquaculture uses in the area; with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; or with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured for the lease site.

A. Riparian Access

Before granting a lease, the Commissioner must determine that the proposed project "will not unreasonably interfere with the ingress and egress of riparian owners[.]" 12 M.R.S.A. § 6072-A(13)(A). DMR's Chapter 2 regulations require the Commissioner to examine whether riparian owners can safely navigate to their shore. In examining riparian owner ingress and egress, the Commissioner "shall consider the type of structures proposed for the lease site and their potential impact on the vessels which would need to maneuver around those structures." Chapter 2, § 2.37(1)(A)(1).

During the site visit, DMR observed one dock and three residential homes within 1,000 feet of the proposal located along the northern shoreline of Blackstone Narrows (Figure 2). The dock was approximately 357 feet east of the proposal, and there was no boat present at the time of the site visit on July 17, 2024. DMR also observed one mooring located approximately 1,030 feet southeast of the proposal. The mooring had a 15-foot aquaculture working vessel attached to it (SR 5).

In evaluating riparian ingress and egress, the commissioner must consider the following pursuant to Chapter 2.37(A)(1):

> 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. The Commissioner 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.

DMR did not receive any comments from riparian owners concerning the proposed lease. Based on the distance to riparian structures, it is unlikely the proposed lease will adversely impact access.

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

B. Navigation

When examining navigation, the Commissioner considers whether the lease activities would interfere with commercial or recreational navigation around the lease area and considers the current uses of the navigational channels in the area. 12 M.R.S.A. § 6072-A(13)(B); Chapter 2.37(1)(A)(2). In examining navigation, the Commissioner "shall consider the current uses and different degrees of use of the navigational channels in the area in determining the impact of the lease operation." Chapter 2, § 2.37(1)(A)(2).

The proposal is situated in a cove to the east of Blackstone Point. There is 75 feet of navigable water at MHW between the boundaries of the proposal and Blackstone Point, the likely approach for someone tending the LPA AGRO123 site (shown on Figure 4, below) by boat. As the west and northwest corners of the lease are very shallow subtidal (0.33 to 1.67 feet), this distance would be significantly reduced at any tidal stage less than MHW. There is 155 feet of navigable water at MHW between the northeast corner and the nearby shoreline, the likely approach for someone tending the lease site DAM BP or the LPA KATW117 site by boat. As the northwest and northeast corners of the lease are very shallow subtidal (0.33 to 1.67 feet), this distance would be significantly reduced at any other tidal stage less than MHW (SR 9). There is 162 feet of navigable water between the south corner of the proposal and nearby aquaculture lease DAM GP. The nearest navigation channel marker is over 1.5 miles downriver (Figure 3). Due to natural constraints and rapids downriver, powered vessels not associated with aquaculture activities are not common in the area (SR 6). However, vessels associated with aquaculture activities would utilize this area regularly.

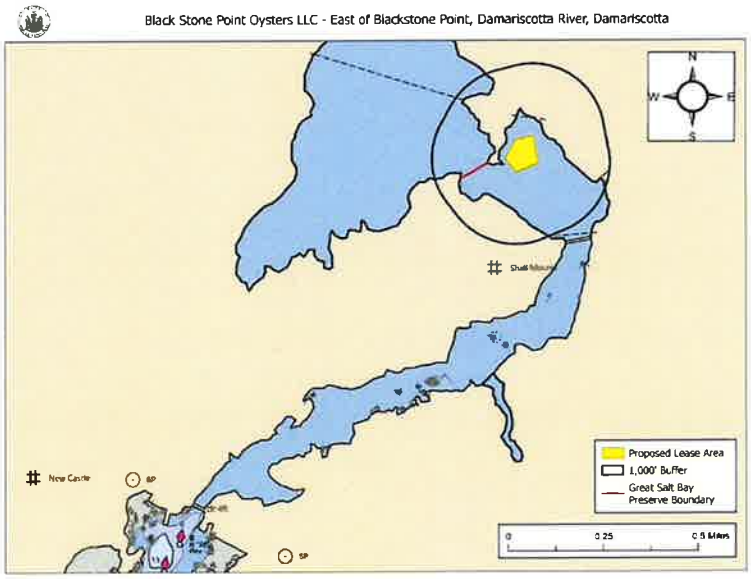

Figure 3. Navigational channels in the vicinity of the proposal. Image from DMR site report.

In evaluating navigation, the commissioner must consider the following pursuant to Chapter 2.37(A)(2):

> The Commissioner shall examine whether any lease activities requiring surface and or subsurface structures would interfere with commercial or recreational navigation around the lease area. The Commissioner shall consider the current uses and different degrees of use of the navigational channels in the area in determining the impact of the lease operation.

A Harbormaster Questionnaire was sent to the Town of Damariscotta. No response was received by DMR. No comments regarding impacts to navigation were received by DMR.

Given the distance to the designated navigation channel, the proposed lease will not unreasonably interfere with general navigation. However, navigation to and around existing aquaculture leases will be impacted. Due to the shallow nature of the lease proposal in the west, northwest and northeast corners (0.33 to 1.67 feet at MLW), access to existing aquaculture sites would be significantly reduced at any tidal stage less than MHW. The proposal includes installed bottom gear in the shallowest portion of the lease further reducing navigation.

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

C. Fishing & Other Uses

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

Fishing. In accordance with 12 M.R.S.A. §6961 a portion of the Great Salt Bay, located to the north of the proposed lease, is designated a marine shellfish preserve (Figure 3). The harvesting of any shellfish species and other harvesting activities involving bottom disturbance are generally prohibited in the area designated a marine shellfish preserve. During DMR's site visits, no commercial or recreational fishing activity was observed in the vicinity of the proposal (SR 6).

The application states that striped bass and trout fishing occur infrequently in this area (App 8).

In evaluating fishing and other uses, the commissioner must consider the following pursuant to Chapter 2.37(A)(3):

> The Commissioner shall examine whether the lease activities would unreasonably interfere with commercial or recreational fishing or other water-related uses of the area. This examination shall consider such factors as the number of individuals that participate in recreational or commercial fishing, the amount and type of fishing gear utilized, the number of actual fishing days, and the amount of fisheries resources harvested from the area.

No comments regarding impacts to fishing were received by DMR. Given the limited level of activity reported, it is unlikely that the proposed lease would interfere with commercial and recreational fishing activities in the area. Impacts to commercial aquaculture activities are discussed in Sections B. Navigation and D. Other Aquaculture Uses.

Other uses. According to the application, kayaking and swimming occur infrequently in the area, typically 20-100 feet from the proposed lease site (App 9). No comments regarding impacts to other uses of the lease area were received by DMR. Given that swimming and kayaking typically occur 20 to 100 feet outside the boundaries of the proposal, the lease as proposed would not prevent swimming and kayaking from occurring in the area.

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

D. Other Aquaculture Uses

In considering the proposal's effect on other uses of the area pursuant to 12 M.R.S.A. § 6072-A(13)(C), DMR's Chapter 2 regulations require the Commissioner to consider any evidence submitted concerning other aquaculture uses of the area. "The intensity and frequency of such uses as well as the degree of exclusivity required for each use shall be a factor in the Commissioner's determination of whether any interference is unreasonable. The number, size, location, and type of other aquaculture leases shall be considered by the Commissioner." Chapter 2, § 2.37(1)(A)(4).

There are four aquaculture leases within 1,000 feet of the proposed lease site (Figure 4). The leases in the area include DAM BP, which is held by Coastal Rivers Conservation Trust, and is 267 feet to the north of the proposal. DAM BN, held by Johns River Shellfish LLC, is 207 feet to the southeast. DAM GS2, held by Muscongus Bay Aquaculture Inc, is 305 feet to the south. DAM GP, held by George Faux Inc, is 162 feet to the south. During the site assessment on July 17, 2024, one aquaculture vessel was observed tending to DAM BN (SR 7).

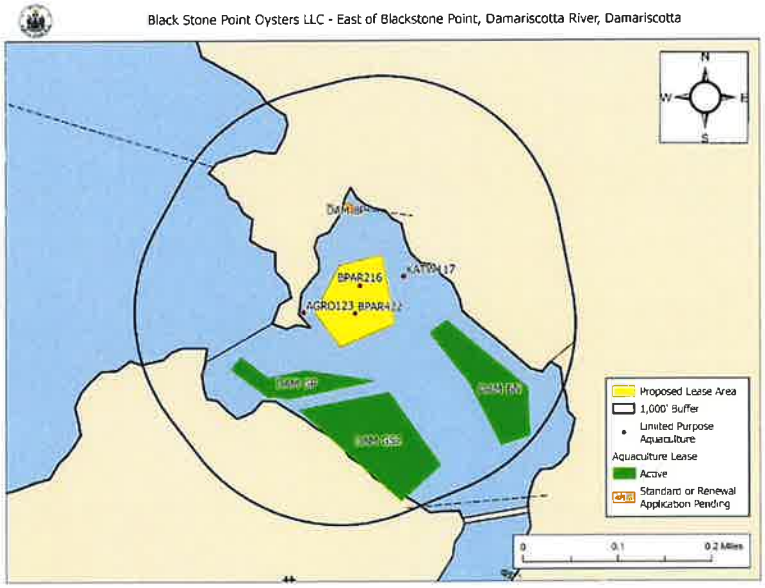

Figure 4. Aquaculture leases and LPA licenses in the vicinity of the proposed lease area.

Chapter 2, § 2.37(1)(A)(4) states that "The number, size, location, and type of other aquaculture leases shall be considered by the Commissioner" when determining if a proposed lease will unreasonably interfere with existing aquaculture operations. Within 1,000 feet of the proposed lease site, there are four existing aquaculture leases, located between 162 to 305 feet from the proposed lease. For tending/harvesting, most of these aquaculture sites utilize vessels. During the growing season, the presence of these sites will entail significant vessel activity in this area. As noted above in Section B, navigable water in the area can be reduced due to the tidal changes. The addition of this proposed lease in this area would interfere with the operations of the existing leases by limiting maneuverability when lease holders are accessing their sites.

Therefore, the aquaculture activities proposed for this site will unreasonably interfere with existing aquaculture uses in the area.

E. Flora & Fauna

When examining existing system support, the Commissioner considers the degree to which the use of the lease site will interfere with significant wildlife habitat and marine habitat or with the ability of the lease site and marine and upland areas to support ecologically significant flora and fauna (12 M.R.S.A. § 6072-A(13)(D); Chapter 2, § 2.37(1)(A)(5)). "Such factors as the degree to which physical displacement of rooted or attached marine vegetation occurs, the amount of alteration of current flow, increased rates of sedimentation or sediment resuspension, and disruption of finfish migration shall be considered by the Commissioner in this determination." Chapter 2, § 2.37(1)(A)(5).

On July 17, 2024, DMR scientists snorkeled to assess the epibenthic ecology of the proposed lease. On November 1, 2024, DMR returned and utilized a remotely-operated vehicle (ROV). The relative abundance of epibenthic flora and fauna observed during both visits is described below in Table 1 (SR 8).

Table 1. Species observed on underwater camera footage.

Species Observed	Abundance
Periwinkle (*Littorina* spp)	Common
Green algae (*Cladophora* sp)	Common
Hermit crab (*Paguroidea* spp)	Common
Pancake batter tunicate (*Didemnum vexillum*)	Common
Gracilaria sp.	Occasional
Sea vase (*Ciona intestinalis*)	Occasional

Species Observed	Abundance
Hard clam/quahog (*Mercenaria mercenaria*)	Occasional
Quahog shells	Occasional
Atlantic razor clam (*Ensis directus*)	Occasional
Atlantic razor clam shells	Occasional
Rockweed (*Ascophyllum nodosum*)	Occasional
Crab (*Cancer* sp)	Occasional
Horseshoe crab (*Limulus polyphemus*)	Occasional

Eelgrass (*Zostera marina*)

Recent records of seagrass collected by the Maine Department of Environmental Protection (MDEP) in 2023 indicate mapped eelgrass approximately 237 feet north of the proposal (Figure 5).[5] During the site assessments, DMR observed detached eelgrass floating on the surface of the water, drifting eelgrass submerged in the water column, as well as rooted eelgrass attached to the seafloor within the boundaries of the proposal (SR 8).

On July 17, 2024, and November 1, 2024, in the northern portion of the proposal, DMR observed numerous single blades of eelgrass rooted to the seafloor scattered throughout. DMR also observed larger, denser patches of eelgrass throughout the northern portion of the proposal (Figure 5). The patches of observed eelgrass ranged in size from approximately two square inches up to one square foot. The northern portion of the proposal sits on a shelf. There is a steep drop off that leads to deeper water in the southern portion. The water depth in the northern portion is very shallow, estimated between four inches at mean low water and approximately five feet at mean high water (MHW), which is generally conducive to supporting the photosynthesis of eelgrass. The applicant is proposing to use Zapco tubes attached to the seafloor by rebar staples in this area of the proposal that would be installed by wading in the shallow water each spring and removing the rebar staples each winter (SR 7-9).

In the southern portion of the proposal, where water depths are deeper, DMR observed detached eelgrass floating on the surface of the water, drifting eelgrass submerged in the water column, as well as drifting eelgrass on the seafloor. The observed eelgrass was not attached to the seafloor in this area of the proposal, rather drifting across the seafloor and becoming entangled in bottom substrate (SR 9).

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

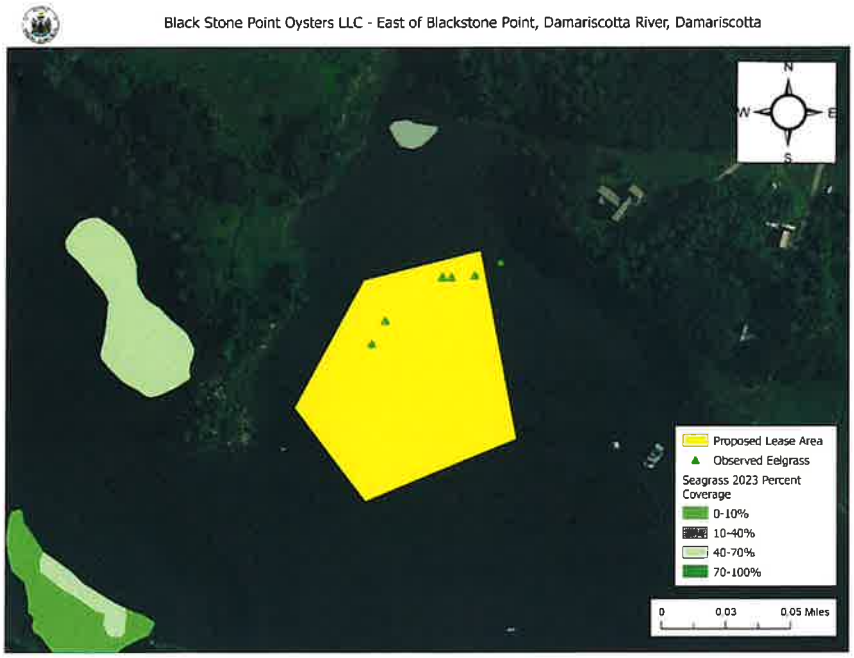

Figure 5. Mapped and observed eelgrass (*Z. marina*) in the vicinity of the proposal.

According to Geographic Information System (GIS) data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) and available through the Maine Office of GIS (MEGIS), the proposed lease is located partially within mapped Tidal Waterfowl and Wading Bird Habitat (TWWH). On August 4, 2023[6], a Resource Biologist with MDIFW responded by email to a "Request for Agency Review and Comment" stating a portion of the lease is within TWWH and MDIFW recommends the proposal be relocated outside of mapped TWWH.[7] The extent of TWWH within the proposed site and immediate vicinity is depicted in Figure 6.

Data collected by the United States Fish and Wildlife Service in 2022 by aerial nest survey shows the closest mapped bald eagle nesting site to be approximately 0.35 miles northwest of the proposal (Figure 6).

During the site assessment on July 17, 2024, DMR scientists observed herring gull (*Larus argentatus*), osprey (*Pandion haliaetus*), laughing gull (*Leucophaeus atricilla*), great cormorant (*Phalacrocorax carbo*), and a seal (Unknown spp.) in the general vicinity of the proposal.

[6] The comment was received after the application comment period had closed, however, the remarks were incorporated in the site report dated November 14, 2024 (which is part of the evidentiary record), and therefore were considered by DMR when evaluating this proposal.
[7] Email correspondence between MDIFW and DMR.

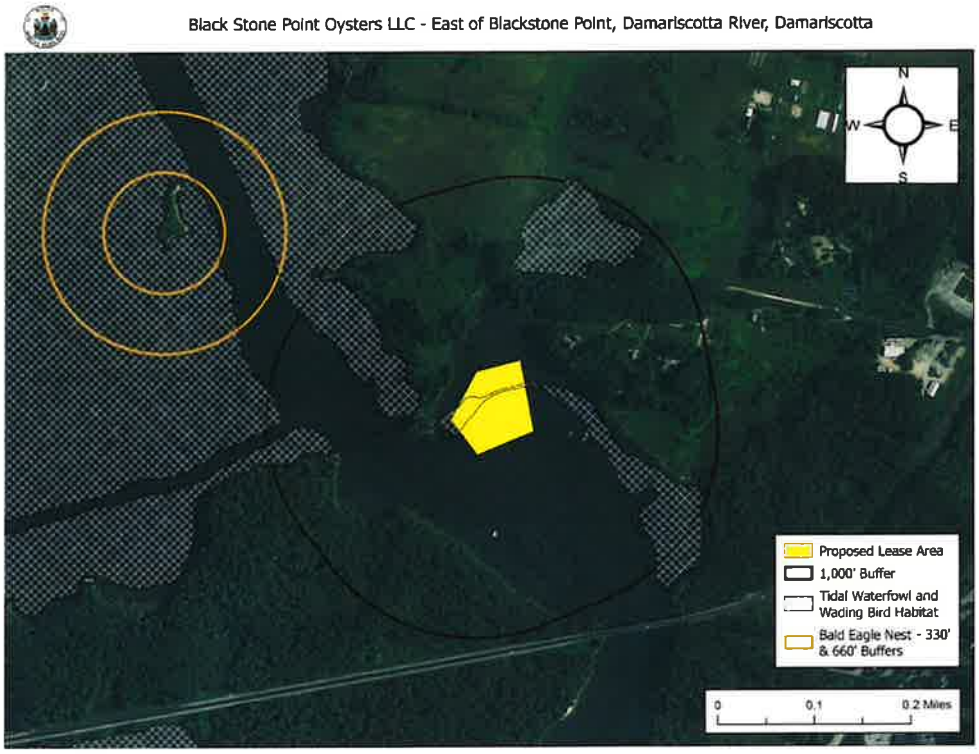

Figure 6. Mapped bald eagle nests and TWWH. [8]

Eelgrass beds form an important marine and estuarine coastal aquatic habitat. Eelgrass provides shelter for juvenile fish, and invertebrates, is a site for primary settlement of the larvae of some bivalve mollusks and invertebrates, and in certain locations helps to stabilize unconsolidated sediments and shorelines. The northern portion of the proposed lease is located in water depths that DMR would expect to support eelgrass growth/development. DMR observed rooted eelgrass during the site assessment, at a density and level of establishment that indicates the proposed lease area is supporting a viable eelgrass stand.

Physical disturbance and shading may negatively impact the health of established eelgrass stands. In the shallow portion of the site, the applicant proposes to use rebar "staples' that are driven into the substrate. The staples are installed and removed each year and require walking throughout the shallow portions of the proposed lease (App 7). The staples are then used to support Zapco tubes, which shade the bottom. The culture technique would result in shading and direct benthic impact to the documented eelgrass stand. Given the evidence presented in the site report, the proposed operations will unreasonably interfere with the ability of the lease site and surrounding areas to support eelgrass stands.

[8] Data obtained from USFWS "Bald_Eagle_Nests_-_Maine_2023" and MDIFW maintained SDE Feature Class "GISVIEW.MEIFW.Twwh"

The proposed lease is also partially located in designated TWWH. MDIFW provided comments that recommended relocation of the project outside of TWWH.

The site report states that horseshoe crab (*Limulus polyphemus*) were observed occasionally in the ROV footage. In 2015, horseshoe crabs were listed as a Priority 1 Species of Greatest Conservation Need[9]. According to MDIFW[10], the Great Salt Bay is "one of the best breeding locations for horseshoe crabs in the State."

This section of the Damariscotta River is also bound by a designated marine shellfish preserve to the north and natural constraints including rapids downriver (SR 6). These bounds and natural constraints concentrate aquaculture activities, within this area, between the preserve and rapids. There are eight existing aquaculture leases or licenses within 1,000 feet of the proposal. Four of the eight sites are already located in the area designated as TWWH. This includes a 3.36-acre standard lease, DAM BN and three Limited Purpose Aquaculture (LPA) licenses: KATW117, BPAR216, and AGRO123. Each of the four sites are authorized for the suspended culture of shellfish. 12 M.R.S.A. § 6072-A(13)(D) states the Commissioner shall take into consideration "the degree to which the use of the lease site will interfere with significant wildlife habitat and marine habitat or with the ability of the lease site and marine and upland areas to support ecologically significant flora and fauna". DMR must consider cumulative impacts within an area. In this case, a large portion of this area is already supporting aquaculture leases or licenses with four sites already located in TWWH. The addition of a 3.47-acre lease in this area, which would be located in TWWH and disturb significant benthic habitat, would exert additional stress on the flora and fauna documented in the record, including tidal birds, horseshoe crabs, and eelgrass.

Given the existing uses of this area, and the presence of eelgrass and impacts to a designated habitat type, the proposed operations will unreasonably interfere with the ability of the lease site and surrounding areas to support flora and fauna.

Therefore, the aquaculture activities proposed will unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

F. Public Use & Enjoyment

When examining interference with public facilities, the Commissioner considers the degree to which the lease interferes with public use or enjoyment within 1,000 feet of a beach, park, or docking facility owned by the Federal Government, the State Government, or a municipal government (12 M.R.S.A. § 6072-A(13)(F); Chapter 2.37(1)(A)(7)) and 2.64(11)(A)).

[9] Maine 2015 Wildlife Action Plan Revision, dated January 13, 2016
[10] MDIFW Beginning with Habitat, Focus Areas of Statewide Ecological Significance, Salt Bay

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

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

G. Source of Organisms

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

The applicant proposes to obtain American/eastern oysters (*Crassostrea virginica*), clam/quahog (*Mercenaria mercenaria*), and bay scallop (*Argopecten irradians*) stock from Muscongus Bay Aquaculture (Bremen, Maine) and Mook Sea Farm (Walpole, Maine). These are approved sources for stock.

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

4. CONCLUSIONS OF LAW

Based on the above findings, the Department concludes that:

1. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of riparian owners.

2. The aquaculture activities proposed for this site will unreasonably interfere with navigation.

3. The aquaculture activities proposed for this site will not unreasonably interfere with fishing uses of the area.

4. The aquaculture activities proposed for this site will unreasonably interfere with other uses of the area, specifically existing aquaculture uses of the area.

5. The aquaculture activities proposed will unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

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

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

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

5. DECISION

Based on the foregoing, the application of Black Stone Point Oysters LLC for an experimental lease to cultivate shellfish using suspended culture techniques in the Great Salt Bay, Damariscotta River is denied.

Dated: 4.14.25

Carl J. Wilson, Commissioner

Department of Marine Resources