

Figure 1. Vicinity map.¹

Location: Denny Reed Point, New Meadows River, Phippsburg, Sagadahoc County, Maine

Purpose: Experimental lease for suspended culture of American/eastern oysters (*Crassostrea virginica*), hard clams/quahogs (*Mercenaria mercenaria*), surf clams (*Spisula sachalinensis*)², and bay scallops (*Argopecten irradians*).

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Report Preparation: Geoffrey Shook and Meryl Grady

¹ Unless otherwise noted, all figures in this report were created in ArcGIS Pro version 3.5 using digitized NOAA Nautical Charts or georeferenced aerial photographs provided by The Maine Office of GIS.

² The application lists the species of surf clam to be cultured as *Spisula sachalinensis*. Merrymeeting Shellfish Company is not listed as an approved source for *Spisula sachalinensis*. The applicant is likely intending to culture the Atlantic surf clam (*Spisula solidissima*).



Application Overview

The applicant, Brightwater Oyster Company LLC, is requesting a 3.38-acre³ experimental lease in the vicinity of Denny Reed Point in the New Meadows River for the suspended and bottom culture of shellfish. The applicant intends to have oyster ranches on site year-round with rebar staples and floating grow tubes on site from April 1- November 30. The applicant intends to utilize both gear and free planting to culture organisms.⁴

General Characteristics

On September 30, 2025, Department of Marine Resources (DMR) scientists visited the proposed lease site to assess the proposal area. DMR scientists arrived on site at approximately 10:58 AM. On October 23, 2025, DMR scientists conducted a second visit to the proposal area to investigate the presence of eelgrass and conduct additional depth investigations. The proposal is located in the New Meadows River within a partially enclosed waterbody known as The Basin. Denny Reed Point, in the immediate vicinity, consisted of a rocky shoreline with mixed forest uplands. A bench overlooking The Basin was observed on the northwestern tip of Denny Reed Point (Image 1, Figure 2). Basin Island, located approximately 350 feet to the east, was observed to be undeveloped and contained “No camping/No hiking” signs due to the posted presence of an eagle’s nest. During the site visit, DMR scientists did not observe an eagle’s nest on Basin Island.



Image 1. Observed bench in the vicinity of the proposal

³ Applicant originally requested 3.5 acres. DMR calculations indicate the area is 3.38 acres.

⁴ Application page 10, 36



Depth

On September 30, 2025, DMR scientists began collecting depths at the proposed site at approximately 11:05 AM. The tide was ebbing with the next low tide predicted at 11:42 AM (Table 1). On October 23, 2025, DMR scientists began collecting depths at approximately 12:33 PM. The tide was flooding with the next high tide predicted at 12:53 PM (Table 1). Depths were measured to be between 4.3-31.3 feet near the proposal corners on September 30, 2025, and 9.4-9.8 feet near corners 5 and 6 on October 23, 2025. Correcting for tidal variations derives depths at mean low water (MLW, 0.0 feet) to be between 0.2-29.3 feet at the proposal corners. Approximate depths at mean high water (MHW, 8.5 feet⁵) are between 8.7-37.8 feet. Based on current navigational charts for the area, corner 5 is charted approximately 9.5 feet within the intertidal zone and corner 6 is charted approximately 1.6 feet within the intertidal zone (Figure 1). DMR calculations indicate all proposal corners are subtidal at MLW (Table 2). On September 30, 2025, DMR scientists observed two areas of intertidal ledge within the proposal boundaries in the vicinity of corners 2-3 and 7-8 (Images 1-2, Figure 2). Water current was slack at the beginning of the site visit and shifted to a northeasterly direction during the visit on September 30, 2025.

Table 1. Predicted tidal heights at Hunniwell Point, Maine.⁶

Date	Time	Height (ft)
2025/09/30	05:54 AM	6.6 H
2025/09/30	11:42 AM	1.9 L
2025/09/30	06:07 PM	7.6 H
2025/10/23	12:48 AM	7.8 H
2025/10/23	06:38 AM	0.9 L
2025/10/23	12:53 PM	8.6 H
2025/10/23	07:09 PM	0.1 L

Table 2. Collected and derived depths at corners of the proposed lease area on September 30, 2025.

Corner	Measured Depth (ft)	MLW Depth (ft)	MHW Depth (ft)
1	31.3	29.3	37.8
2	19.4	17.4	25.9
3	12.8	10.8	19.3
4	4.3	2.3	10.8
5 ⁷	9.4	0.2	8.7
6 ⁸	9.8	0.6	9.1
7	5.1	3.1	11.6
8	8.6	6.6	15.1
9	11.5	9.5	18.0

⁵ MHW in Hunniwell Point, ME is 8.5 feet, NOAA Tide Station 8417177

⁶ <https://tidesandcurrents.noaa.gov/stationhome.html?id=8415709>

⁷ Depth measurement collected near corner 5 on October 23, 2025.

⁸ Depth measurement collected near corner 6 on October 23, 2025.



Image 2. Intertidal ledge observed within the proposal boundaries near corners 7-8.⁹



Image 3. Intertidal ledge observed within the proposal boundaries near corners 2-3.

Bottom Characteristics

DMR scientists observed the bottom characteristics of the proposed lease site via a remotely operated vehicle (ROV). Bottom characteristics were categorized using the Coastal and Marine Ecological Classification Standard (CMECS), a national standard for describing features of the marine environment (Table 3). Sediment information was determined based on visual analysis of the video. The bottom of the proposed lease site is primarily composed of mud and sandy mud with areas of shell rubble.

⁹ At the time of the site visit, the ledge was covered with approximately 6 inches of water. Subtracting tidal height above MLW of 1.9 feet indicates that this area is intertidal at MLW.



Table 3. Bottom characteristics of the proposed site.

Substrate Origin	Substrate Class	Substrate Subclass	Substrate Group
Geologic Substrate	Unconsolidated Mineral Substrate	Fine Unconsolidated Substrate	Mud
Geologic Substrate	Unconsolidated Mineral Substrate	Fine Unconsolidated Substrate	Sandy Mud
Biogenic Substrate	Shell Substrate	Shell Rubble	Not Classified

Position and Distances to Shore

The geodesic measuring tool in ArcGIS Pro 3.5 was used to verify the distances and bearings between proposed lease corners. Distances to shore were determined using the measuring tool in ArcGIS Pro 3.5, a nautical chart provided by the National Oceanic and Atmospheric Administration (NOAA), and the application coordinates (Table 4, Figure 2,3).

Application Coordinates (WGS84) – 3.38 Acres

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>					
1	43.803808°	-69.854789°	then	263	feet at	055°	True to
2	43.804217°	-69.853969°	then	369	feet at	076°	True to
3	43.804472°	-69.852618°	then	533	feet at	165°	True to
4	43.803060°	-69.852091°	then	199	feet at	226°	True to
5	43.802686°	-69.852638°	then	182	feet at	329°	True to
6	43.803115°	-69.852994°	then	175	feet at	029°	True to
7	43.803536°	-69.852672°	then	255	feet at	346°	True to
8	43.804217°	-69.852897°	then	500	feet at	237°	True to
9	43.803470°	-69.854485°	then	147	feet at	326°	True to 1

Table 4. Approximate distances from proposal corners to surrounding features (Figure 2,3).

Feature	Distance
Corner 1 to Brightwater shoreline at MLW	~957' to west
Corner 1 to northern shoreline of The Basin at MLW	~1,595' to the north-northeast
Corner 2 to Brightwater shoreline at MLW	~1,117' to the northwest
Corner 2 to northern shoreline of The Basin at MLW	~1,368' to the north-northwest
Corner 3 to Basin Island at MLW	~696 to the southeast
Corner 3 to northern shoreline of The Basin at MLW	~1,047' to the northwest
Corner 4 to Basin Island at MLW	~350' to the east
Corner 5 to Denny Reed Point shoreline at MHW	~213' to the northwest
Corner 6 to Denny Reed Point shoreline at MHW	~73' to the northwest
Corner 7 to Denny Reed Point shoreline at MLW	~20' to the west
Corner 8 to Denny Reed Point shoreline at MLW	~73' to the south-southwest
Corner 9 to Denny Reed Point shoreline at MLW	~24' to the southeast



Brightwater Oyster Company LLC
Denny Reed Point, New Meadows River
Phippsburg

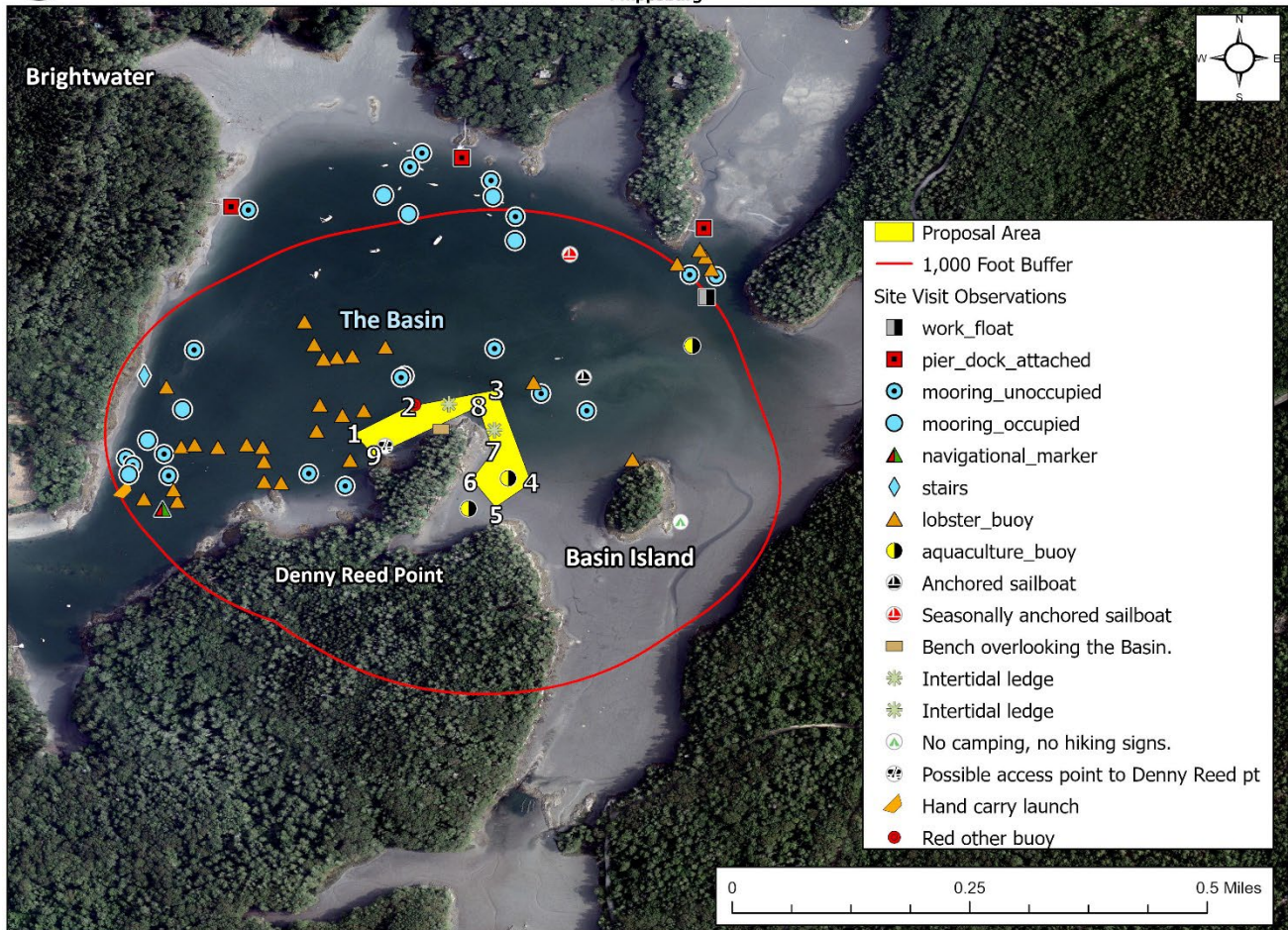


Figure 2. Proposed lease area with site visit observations.

Pursuant to statute and regulation, aquaculture leases are evaluated in consideration of applicable decision criteria. The Site Report documents DMR’s observations of the area and other information, in consideration of those criteria, as noted below:

(1) Riparian Ingress and Egress

During the site visit on September 30, 2025, DMR scientists did not observe any houses in the vicinity of the proposal area. DMR scientists observed three piers with docks attached approximately 1,316 feet northwest, 1,295 feet north, and 1,224 feet northeast of the proposal. DMR scientists also observed seven occupied moorings with the closest located approximately 831 feet north and 702 feet west of the proposal. Occupied moorings were observed to contain both sailboats and powerboats ranging from approximately 12 feet to 40 feet. A total of 19 unoccupied moorings, with the closest located approximately 203 feet and 273 feet southwest, 164 feet and 229 feet north, and 167 feet and 321 feet east of the proposal were observed by



DMR scientists. Additionally, DMR scientists observed the following: two anchored sailboats located approximately 356 feet east and 807 feet northeast of the proposal, a work float located approximately 987 feet to the northeast, a set of stairs located approximately 959 feet west, and a small launch/ramp (Image 4) located approximately 1,194 feet to the west the proposal (Figure 2). The work float also appeared to be used for swimming and recreation as lobster traps, a kayak, a paddleboard, and two innertubes were observed being stored on the float at the time of the site visit on September 30, 2025.



Image 4. Ramp/launch within the vicinity of the proposal

A Municipal Questionnaire was sent by DMR to the Town of Phippsburg on July 10, 2025. No response was received.

(2) Navigation

The proposal is located within a partially enclosed waterbody known as The Basin. This area is along the eastern shore of the New Meadows River. The nearest marked navigational channel is located approximately 4,055 feet to the west of the proposal. There is approximately 957 feet of navigable water between corner 1 of the proposal and the western shoreline of The Basin, approximately 1,047 feet of navigable water between corner 3 of the proposal and the northern shoreline of The Basin, and approximately 350 feet of shallow water between corner 4 of the proposal and Basin Island at MLW (Figure 3).

The proposal encompasses the northern end of Denny Reed Point on both the east and west shores. Denny Reed Point contains publicly accessible walking trails to the shoreline. At the time of the site visits, DMR scientists observed at least one potential area along the shoreline within the vicinity of the proposal that could be utilized as a small boat landing area to access Denny Reed Point from the water (Figure 2). The proposal is charted within the intertidal of Denny Reed



Point on the eastern shore and at the northern tip at MLW. The proposal is charted approximately 21 feet to the northwest of the western shore of Denny Reed Point at MLW (Figure 3).

During the site visit on September 30, 2025, DMR scientists observed a lobster boat entering The Basin and docking at the southern end of the waterbody and then proceed to haul traps within The Basin. DMR scientists also observed a recreational powerboat entering The Basin, navigating around the proposal to the north and then into the cove located southeast of the proposal (Figure 3). A “Slow/No Wake” navigational buoy was observed approximately 874 feet to the west of the proposal (Figure 2).

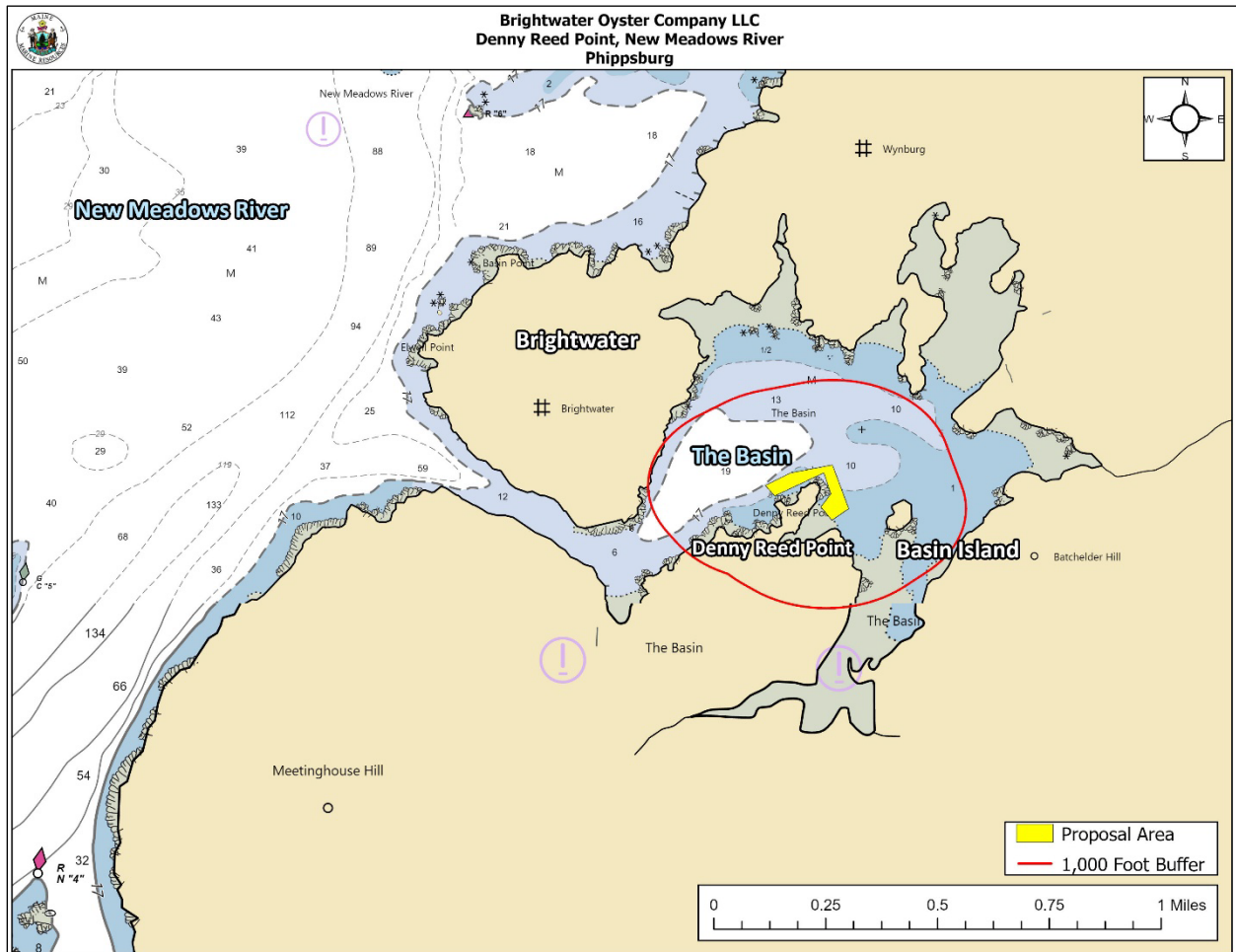


Figure 3. Navigational channels in the vicinity of the proposed lease area.



(3) Fishing and Other Uses

During DMR's site visit on September 30, 2025, scientists observed 29 lobster buoys within the vicinity of the proposal with the closest located approximately 89 feet north of the proposal. DMR scientists observed one lobster boat actively hauling traps in The Basin within the vicinity of the proposal. No other commercial or recreational fishing activity was observed in the vicinity of the proposal. An unknown buoy was observed approximately 3.3 feet to the north of the proposal (Figure 2, Image 5).



Image 5. Unknown buoy within the vicinity of the proposal.

Denny Reed Point is part of The Basin Preserve that contains publicly accessible land owned by The Nature Conservancy. Denny Reed Point contains a hiking trail that provides access to the shoreline of The Basin within the vicinity of the proposal.¹⁰

(4) Other Aquaculture Uses

There are no aquaculture leases within 1,000 feet of the proposal. There are currently five Limited Purpose Aquaculture (LPA) sites licensed within 1,000 feet of the proposal. LPAs RSAU1126 and RSAU1226 are held by the applicant and located within the proposal boundaries. LPAs ESAU125, ESAU225, and HEDB125 are located approximately 978 feet, 973 feet, and 970 feet northeast of the proposal, respectively (Figure 4).

During both site visits, DMR scientists observed aquaculture buoys (Figure 2) and aquaculture gear in the southeastern corner of the proposal area. This gear was related to LPAs held by the applicant that were active at the time of the site visits, but were not renewed for 2026.

¹⁰ <https://www.nature.org/>

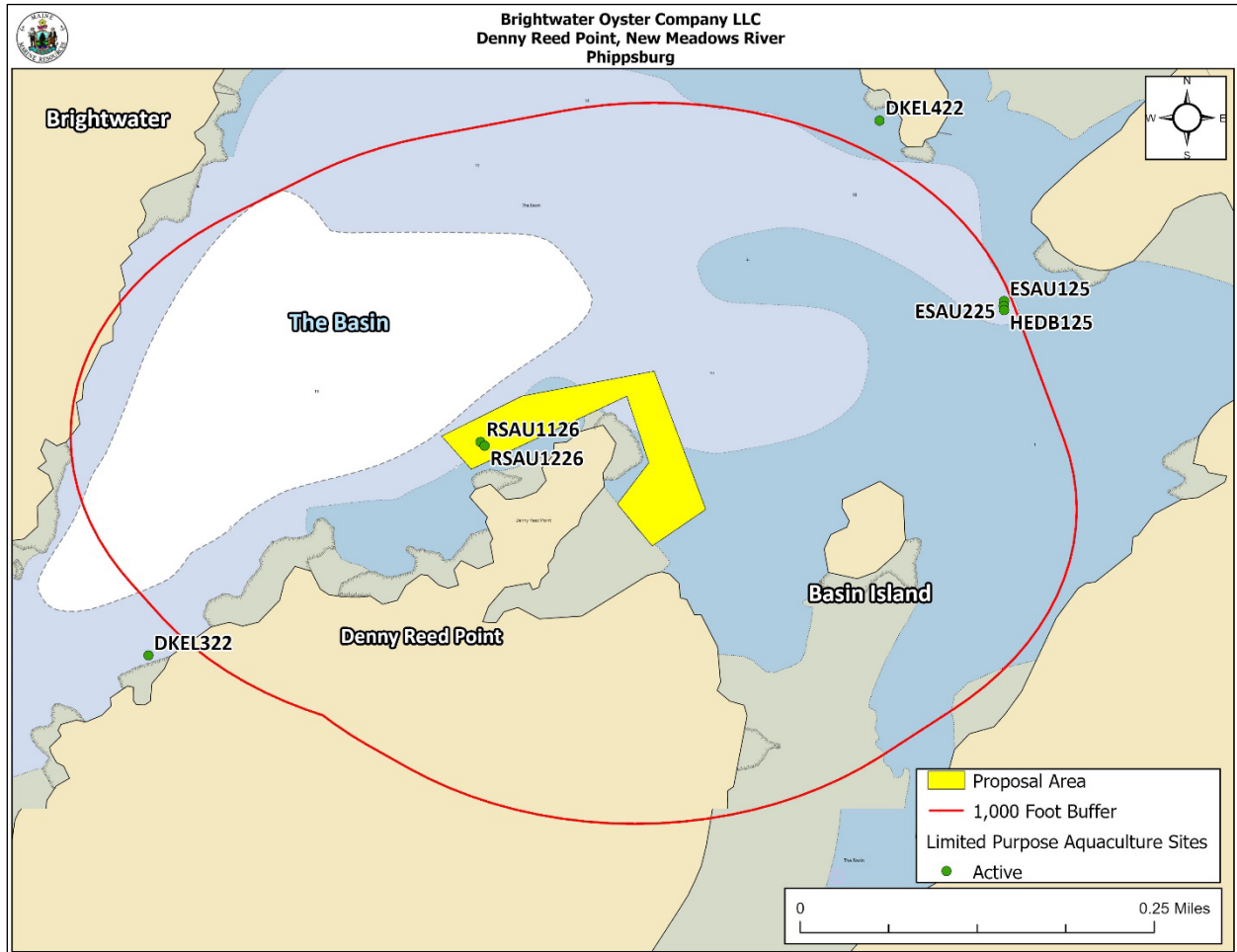


Figure 4. Aquaculture leases and LPA licenses in the vicinity of the proposed lease area.

(5) Existing System Support

Epibenthic Flora and Fauna

DMR scientists utilized an ROV to assess the epibenthic ecology of the proposed lease. The relative abundance of epibenthic flora and fauna observed in the video footage is described below in Table 5.

Table 5. Species observed on underwater video footage.

Species Observed	Abundance
American lobster (<i>Homarus americanus</i>)	Rare
American oyster (<i>Crassostrea virginica</i>)	Rare
European oyster (<i>Ostrea edulis</i>)	Rare
Green crab (<i>Carcinus maenas</i>)	Rare
Rock crab (<i>Cancer irroratus</i>)	Rare
Right eyed flounder (<i>Pleuronectidae</i> sp.)	Rare
Hermit crab (<i>Pagurus</i> sp.)	Occasional



Species Observed	Abundance
Colonial tunicate (<i>Didemnum vexillum</i>)	Occasional
Siphoned feather weed (<i>Dasysiphonia japonica</i>)	Occasional
Red weed (<i>Gracilaria tikvahiae</i>)	Occasional
Rockweed (<i>Ascophyllum nodosum</i>)	Occasional
Eelgrass (<i>Zostera marina</i>)	Occasional

Eelgrass (*Zostera marina*)

Records of seagrass collected by the Department of Environmental Protection (DEP) in 2022¹¹ indicate there is eelgrass mapped within 1,000 feet of the proposal. The nearest mapped eelgrass is approximately 654 feet southwest of the proposal (Figure 5).

During DMR’s site visits, scientists observed eelgrass within the proposal boundaries in the vicinity of corners 2 and 3 (Figure 5). Observed eelgrass appeared green and healthy, was rooted to the seafloor, and the largest observed patch was moderate to dense in density (Image 6). The eelgrass bed dimensions were estimated to be at least 3-4 feet x 10 feet. Additional sporadic, scattered small, green and healthy, patches of eelgrass that were sparse in density were observed in the vicinity of the larger patch of eelgrass and within the proposal boundaries. Water depth in the area where the eelgrass was observed is approximately 5 feet at MLW. In this area of the proposal, the applicant is proposing to use longlines containing suspended cages that are sunk to the seafloor from November through April. The applicant is also proposing to free plant oysters, surf clams, and hard clams in this area of the proposal.¹²

¹¹Data obtained from The Maine Office of GIS “GISVIEW.MEDEP.Seagrass2022”. Widgeon grass was observed only in the New Meadows River area off Old Brunswick Road near shore. 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.

¹² Application pages 10, 34

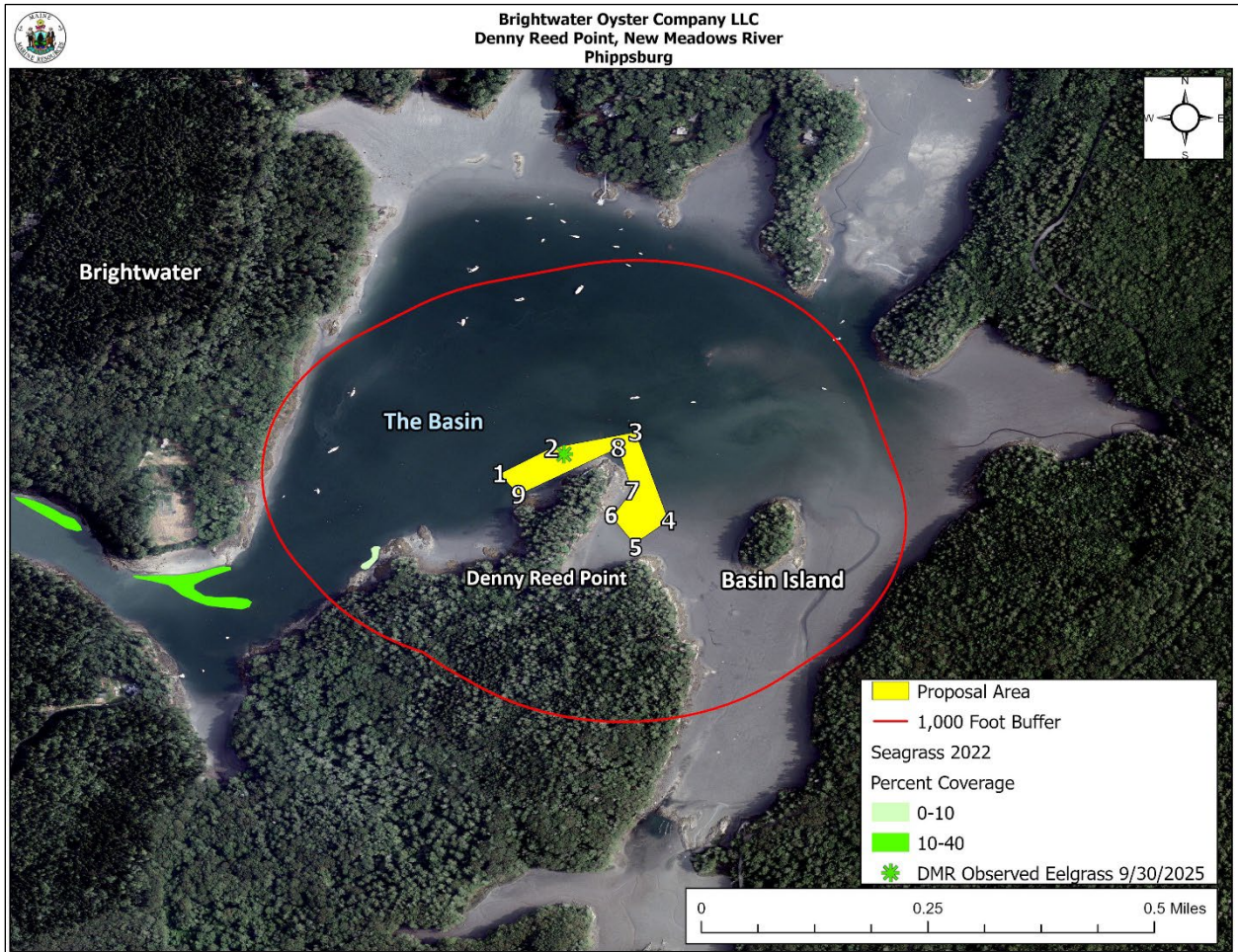


Figure 5. Mapped eelgrass (*Z. marina*) in the vicinity of the proposed lease area.

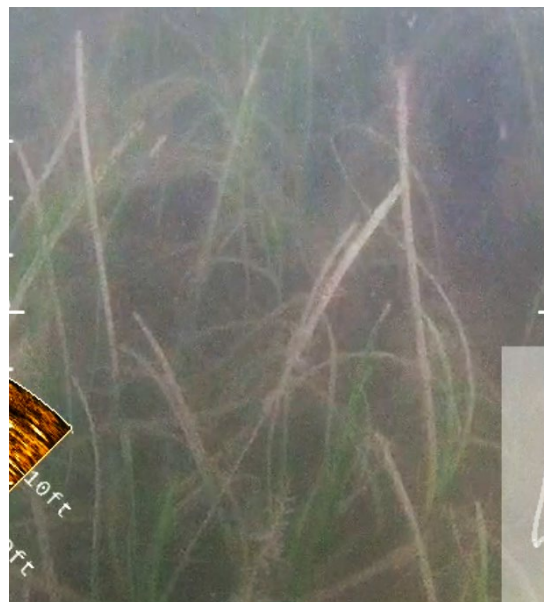


Image 6. Observed eelgrass within the boundaries of the proposal.



Department of Marine Resources Site Report

Brightwater Oyster Company LLC
Denny Reed Point, New Meadows River
Phippsburg

Wildlife

During the site visit on September 30, 2025, DMR scientists observed herring gulls (*Larus argentatus*), great blue heron (*Ardea herodias*), common eider (*Somateria mollissima*), American crow (*Corvus brachyrhynchos*), greater yellow legs (*Tringa melanoleuca*), harbor seal (*Phoca vitulina*), belted kingfisher (*Megasceryle alcyon*), bald eagle (*Haliaeetus leucocephalus*), osprey (*Pandion haliaetus*), turkey vulture (*Cathartes aura*), great cormorants (*Phalacrocorax carbo*), and double crested cormorants (*Nannopterum auritum*) in the vicinity of the proposal. At the time of the site visit, seals were observed swimming in the water.

The Department of Inland Fisheries and Wildlife (IFW) has jurisdiction over inland fisheries and wildlife resources of the State. IFW also has the authority to conserve wildlife populations and their ecosystems through applicable state laws and rules. DMR provides IFW with notice and the opportunity to comment on all complete lease applications. In addition, the Site Report also includes IFW designated and mapped habitat types that are within 1,000 feet of the lease proposal, if applicable.

According to Geographic Information System (GIS) data maintained by IFW and available through the Maine Office of GIS (MEGIS), there is one mapped habitat type within 1,000 feet of the lease proposal. The proposal is within Tidal Waterfowl and Wading bird Habitat (TWWH), which is a type of Significant Wildlife Habitat designated and regulated by IFW.¹³ Based on data maintained by IFW, approximately 1.56 acres of the proposal are located within TWWH (Figure 6).

Though bald eagles are no longer listed on Maine's Endangered and Threatened Species List, the United States Fish and Wildlife Service (USFWS) may also have jurisdiction over the management and conservation of the species based on applicable law and rule. Data collected by USFWS in 2023 by aerial nest survey shows there is a mapped bald eagle nesting site on Basin Island approximately 455 feet east of the proposal (Figure 6). During the site visit on September 30, 2025, DMR scientists observed several signs posted along the shoreline of Basin Island that stated restricting access to the island due to the presence of an eagle's nest. DMR scientists did not observe an eagle's nest on Basin Island at the time of the site visit.

IFW was provided with the opportunity to comment on this proposal. DMR did not receive a response.

¹³ <https://www.maine.gov/ifw/programs-resources/environmental-review/significant.html>

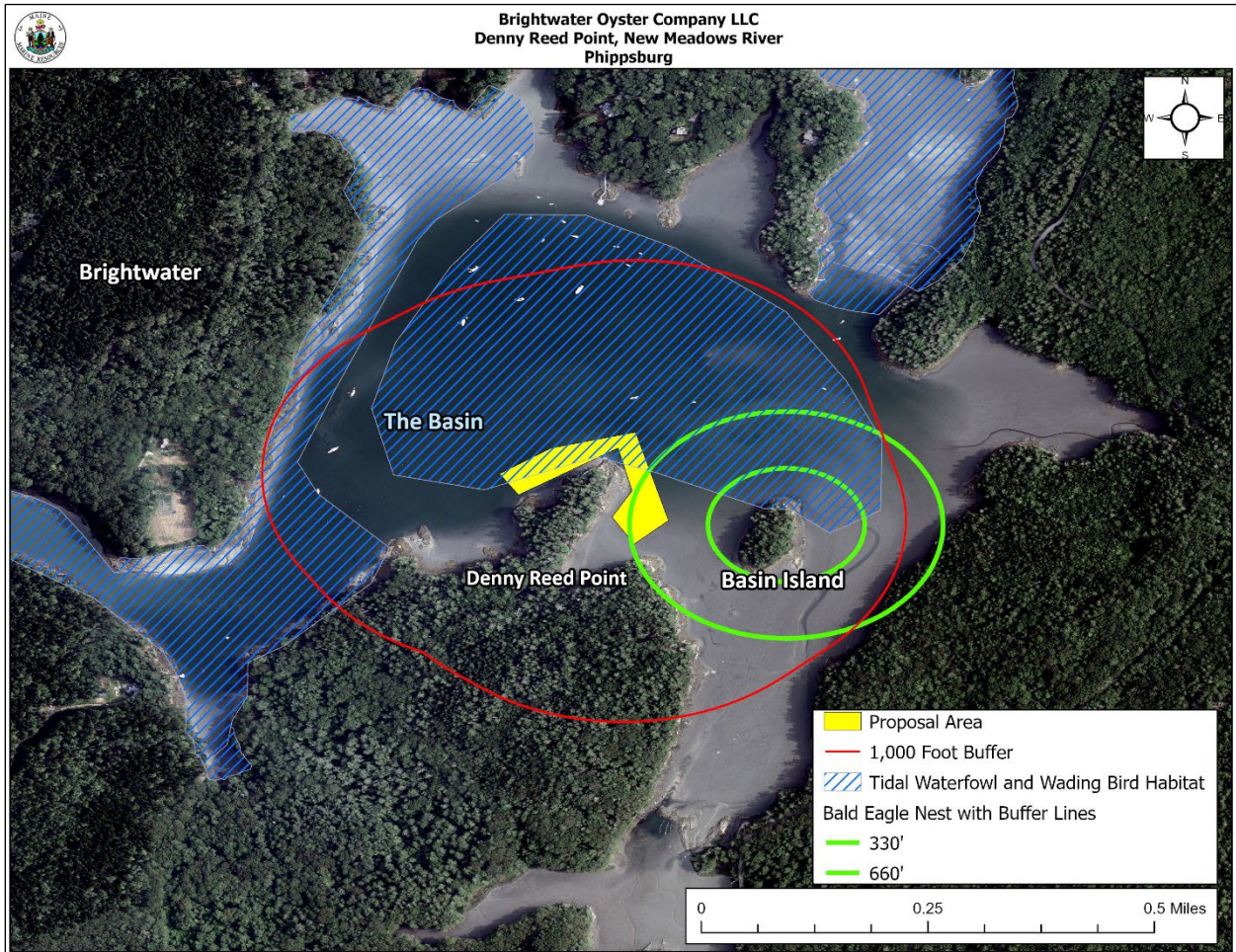


Figure 6. Mapped habitats in the vicinity of the proposed lease area. ¹⁴

(6) Interference with Public Facilities

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

(7) Water Quality

The proposed lease is currently located within an area classified as Conditionally Approved (seasonal) by the DMR Bureau of Public Health and Aquaculture. Due to seasonal pollution, water quality area CA5 is closed to shellfish harvest from August 1 – September 30 annually¹⁵ (Figure 7).

¹⁴ Data obtained from USFWS “Bald_Eagle_Nests_-_Maine_2023” and IFW “EHRTERN”, “EHLVTRN”, “GISVIEW.MEIFW.Twwh”, “ShorebirdAreas”, and “SNI”.

¹⁵ <https://www.maine.gov/dmr/sites/maine.gov/dmr/files/closures/WL.pdf>

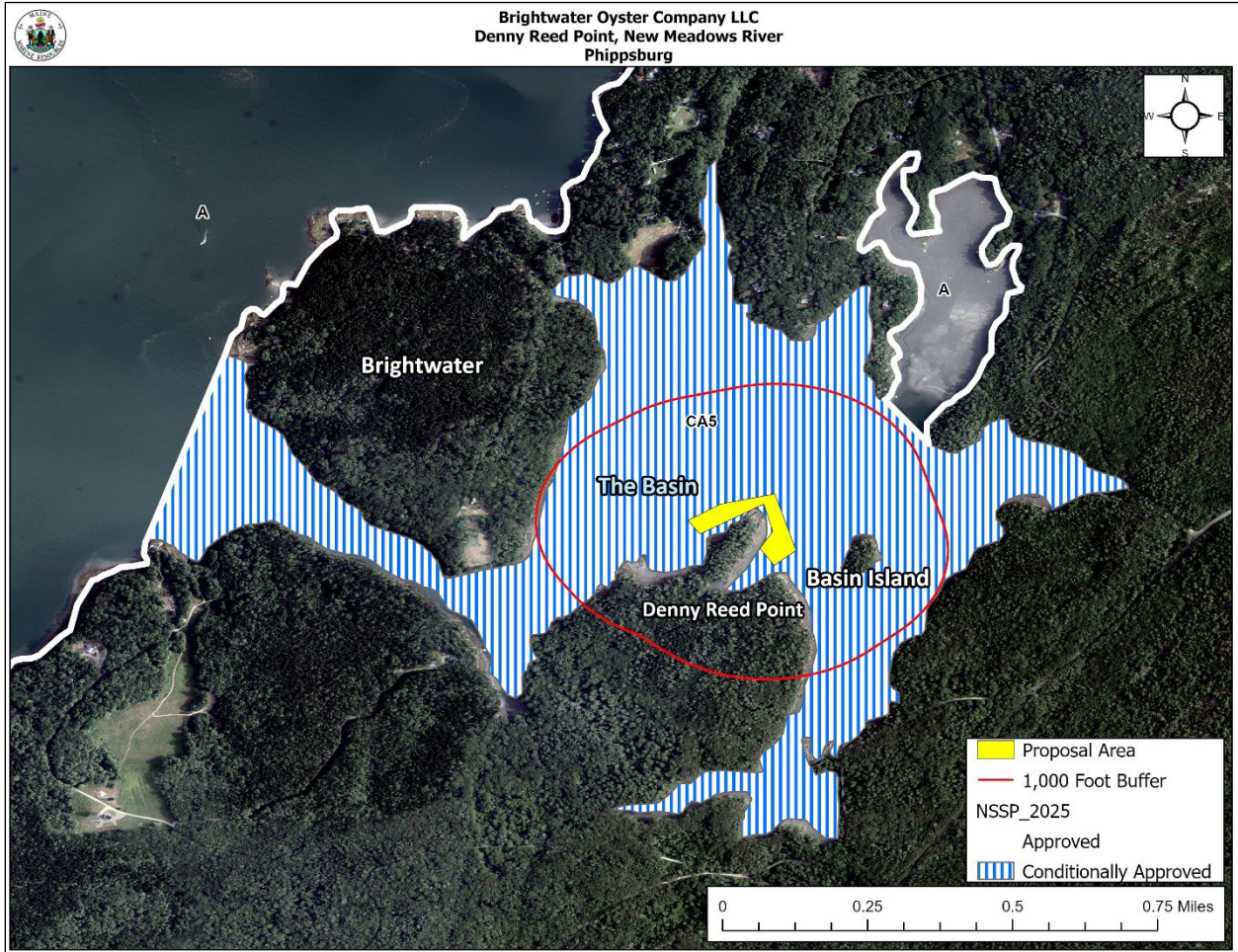


Figure 7. Water quality classifications in the vicinity of the proposed lease area