



Department of Marine Resources
Site Report

Brightwater Oyster Company LLC
Upper Goose Island, Middle Bay
Harpswell

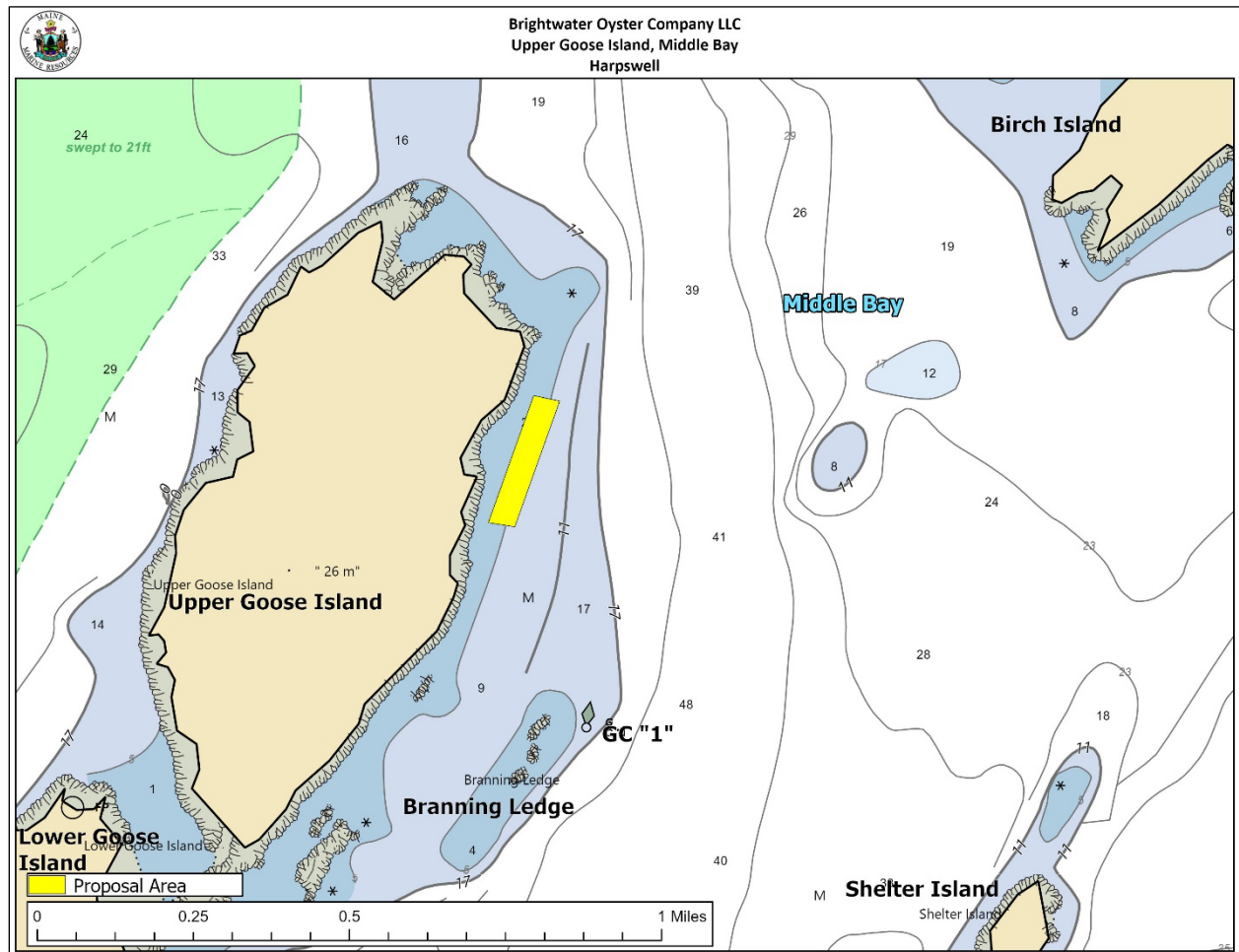


Figure 1. Vicinity map.¹

Location: East of Upper Goose Island, Middle Bay, Harpswell, Cumberland County, Maine

Purpose: Experimental lease for suspended culture of American/eastern oysters (*Crassostrea virginica*)

Site Review: Geoffrey Shook, Peter Craig, and Meryl Grady

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 geo-referenced aerial photographs provided by The Maine Office of GIS.



Department of Marine Resources Site Report

Brightwater Oyster Company LLC
Upper Goose Island, Middle Bay
Harpswell

Application Overview

The applicant, Brightwater Oyster Company LLC, is requesting a 3.02-acre² experimental lease east of Upper Goose Island in Middle Bay for the suspended culture of American oysters (*Crassostrea virginica*). The applicant intends to have suspended oyster cages on site year-round with a 28' x 20' x 4' wet storage float on site from March 1 – December 31 annually. The applicant intends to utilize both gear and free planting to culture organisms.³

General Characteristics

On June 10, 2026, Department of Marine Resources (DMR) scientists visited the proposed lease site to assess the proposal area. DMR scientists arrived on site at approximately 11:11 AM. The proposal is located in Middle Bay approximately 88 feet to the east of Upper Goose Island at MLW. The Upper Goose Island shoreline in the vicinity of the proposal was observed to have rock ledge with extensive rockweed coverage and occasional pebble and rock beaches leading to forested uplands. Areas of exposed, intertidal ledges were observed approximately 1,160 feet to the south-southeast of the proposal (Figure 1).

Depth

On June 10, 2026, DMR scientists began collecting depths at the proposed site at approximately 12:50 PM. The tide was ebbing with the next low tide predicted at 1:04 PM (Table 1). Depths were measured to be between 5.9-10.2 feet near the proposal corners. Correcting for tidal variations derives depths at mean low water (MLW, 0.0 feet) to be between 5.5-9.8 feet at the proposal corners. Approximate depths at mean high water (MHW, 9.1 feet⁴) are between 14.6-18.9 feet. Water current was southerly at the beginning of the site visit and shifted to a northerly direction during the visit.

Table 1. Predicted tidal heights at Portland, Maine.⁵

Date	Time	Height (ft)
2026/06/10	12:48 AM	0.6 L
2026/06/10	06:57 AM	8.5 H
2026/06/10	01:04 PM	0.4 L
2026/06/10	07:25 PM	9.5 H

Table 2. Collected and derived depths at corners of the proposed lease area on June 10, 2026.

Corner	Measured Depth (ft)	MLW Depth (ft)	MHW Depth (ft)
1	7.5	7.1	16.2
2	10.2	9.8	18.9
3	9.3	8.9	18
4	5.9	5.5	14.6

² Applicant originally requested 3.00 acres. DMR calculations indicate the area is 3.02 acres.

³ Application page 10

⁴ MHW in Portland, ME is 9.1 feet, NOAA Tide Station 8418150

⁵ <https://tidesandcurrents.noaa.gov/stationhome.html?id=8418150>



Department of Marine Resources Site Report

Brightwater Oyster Company LLC
Upper Goose Island, Middle Bay
Harpswell

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.

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

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) – 3.02 Acres

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>					
1	43.808002°	-70.026625°	then	162	feet at	102°	True to
2	43.807908°	-70.026026°	then	814	feet at	200°	True to
3	43.805807°	-70.027065°	then	164	feet at	279°	True to
4	43.805878°	-70.027677°	then	823	feet at	020°	True to 1

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

Feature	Distance
Corner 1 to Upper Goose Island at MLW	~107' to the west
Corner 1 to Hayward Point Island at MLW	~3,016' to the north-northeast
Corner 2 to Birch Island at MLW	~3,192' to the northeast
Corner 2 to Harpswell Neck shoreline at MLW	~1.5 miles to the east
Corner 3 to Shelter Island at MLW	~3,746' to the southeast
Corner 3 to green navigational aid "1"	~1,298' to the southeast
Corner 3 to Branning Ledge at MLW	~1,160' to the south-southeast
Corner 4 to Upper Goose Island at MLW	~88' to the west

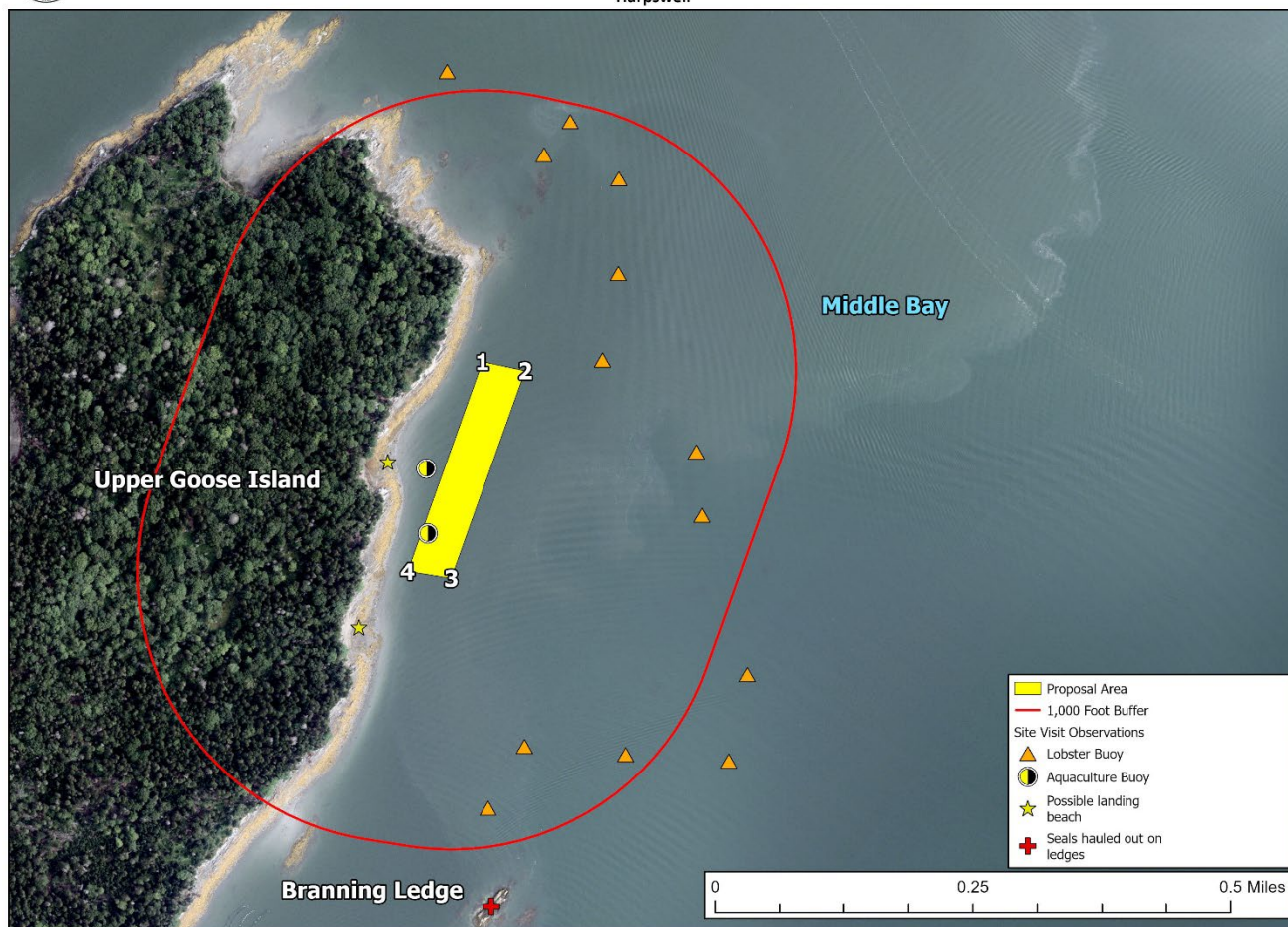


Figure 2. Proposed lease area with site visit observations.

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, DMR scientists did not observe any structures on Upper Goose Island in the vicinity of the proposal area. DMR scientists did not observe any structures on aerial imagery⁶ in the vicinity of proposal area on Upper Goose Island (Figure 2). DMR scientists did not observe any moorings, piers, or docks within the vicinity proposal. The proposal is approximately 88 feet east of Upper Goose Island at MLW.

A Municipal Questionnaire was sent by DMR to the Town of Harpswell on March 26, 2026. The response indicated that there are not any moorings or docks nearby or within the boundaries of the proposal.

⁶ Maine Orthoimagery Coastal Casco Bay 2022



Department of Marine Resources
Site Report

Brightwater Oyster Company LLC
Upper Goose Island, Middle Bay
Harpwell

(2) Navigation

The proposal is located approximately 88 feet to the east of Upper Goose Island at MLW. The proposal is approximately 250 feet to the west of and outside the deepwater navigable channel as indicated by depth contours on navigational charts and approximately 1,298 feet northwest of green navigational aid "1" (Figure 3).

During the site visit, DMR scientists observed two powerboats and a jet ski operating in the deepwater channel to the east of the proposal. DMR scientists also observed a working aquaculture vessel transit from the navigational channel southeast of the proposal to the active aquaculture lease site, MID GI, located approximately 1,250 feet to the south of the proposal (Figure 4).

The Municipal Questionnaire indicated that approximately 20 commercial fishing boats on a peak day navigate the area in a northeast and southwest direction. The indicated lengths of commercial vessels are approximately 14-45 feet and types of commercial vessels indicated are vessels that engage in lobster fishing, scallop diving, and oyster dragging. The Questionnaire also indicated that hundreds of recreational boats, such as kayaks, sailboats, and powerboats, from approximately 10-50 feet navigate the area on a peak day, typically in a northeast and southwest direction, but boats also go ashore, particularly kayaks.

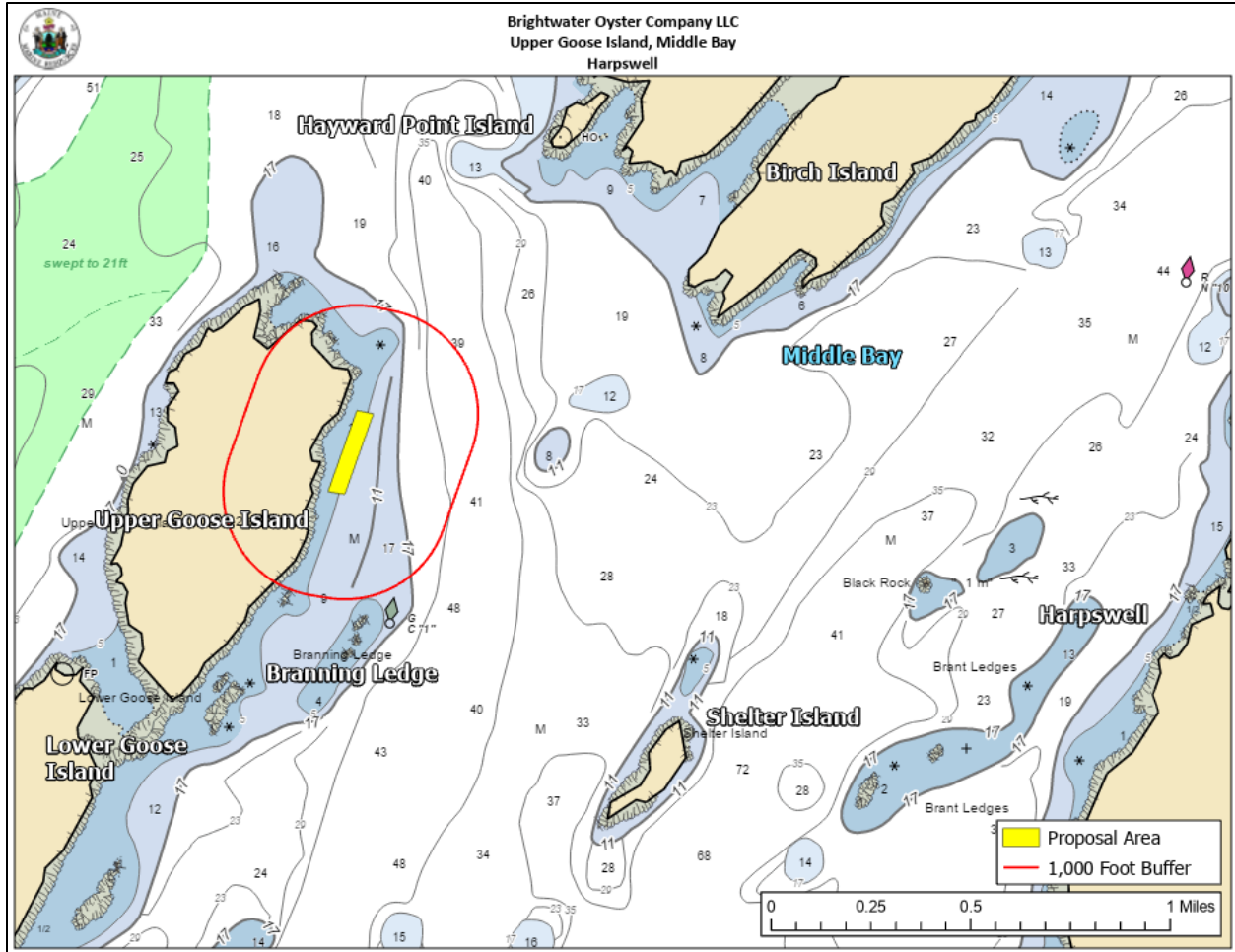


Figure 3. Navigational channels in the vicinity of the proposed lease area.

(3) Fishing and Other Uses

During DMR's site visit, scientists observed 13 lobster buoys within the vicinity of the proposal with the closest located approximately 300 feet east of the proposal (Figure 2). DMR scientists did not observe any other commercial or recreational fishing during the site visit.

The Municipal Questionnaire indicated that commercial lobstering, scallop diving, oyster harvesting, and pogie (*Brevoortia tyrannus*) fishing occurs in the area from May 1-December 31 annually. It was estimated that approximately 40-50 commercial boats fish the area of the proposal. It was also indicated that "dozens" of recreational fishing boats fish for striped bass (*Morone saxatilis*), Atlantic mackerel (*Scomber scombrus*), bluefish (*Pomatomus saltatrix*), and Atlantic pollock (*Pollachius virens*) between June- September/October. The area in and around the proposal is also indicated as a storm anchorage for recreational vessels on windy days with a northwest wind direction and as a safe fishing area in bad weather. The Municipal Questionnaire also indicated that kayaking and duck hunting occur within the proposal boundaries and in the



Department of Marine Resources Site Report

Brightwater Oyster Company LLC
Upper Goose Island, Middle Bay
Harpswell

vicinity of the proposal. Swimming occurs within the vicinity of the proposal, as well as there is additional vessel traffic in the summer months to camp on [Upper Goose] Island.

(4) Other Aquaculture Uses

There are no licensed aquaculture leases within 1,000 feet of the proposal. There is one active Limited Purpose Aquaculture (LPA) site located within 1,000 feet of the proposal. LPA EPET624 is located within the proposal boundaries (Figure 4).

During the site visit, DMR scientists observed one aquaculture buoy within the proposal boundaries and one aquaculture buoy approximately 62 feet to the west of the proposal (Figure 2). The two buoys were associated with EPET624.

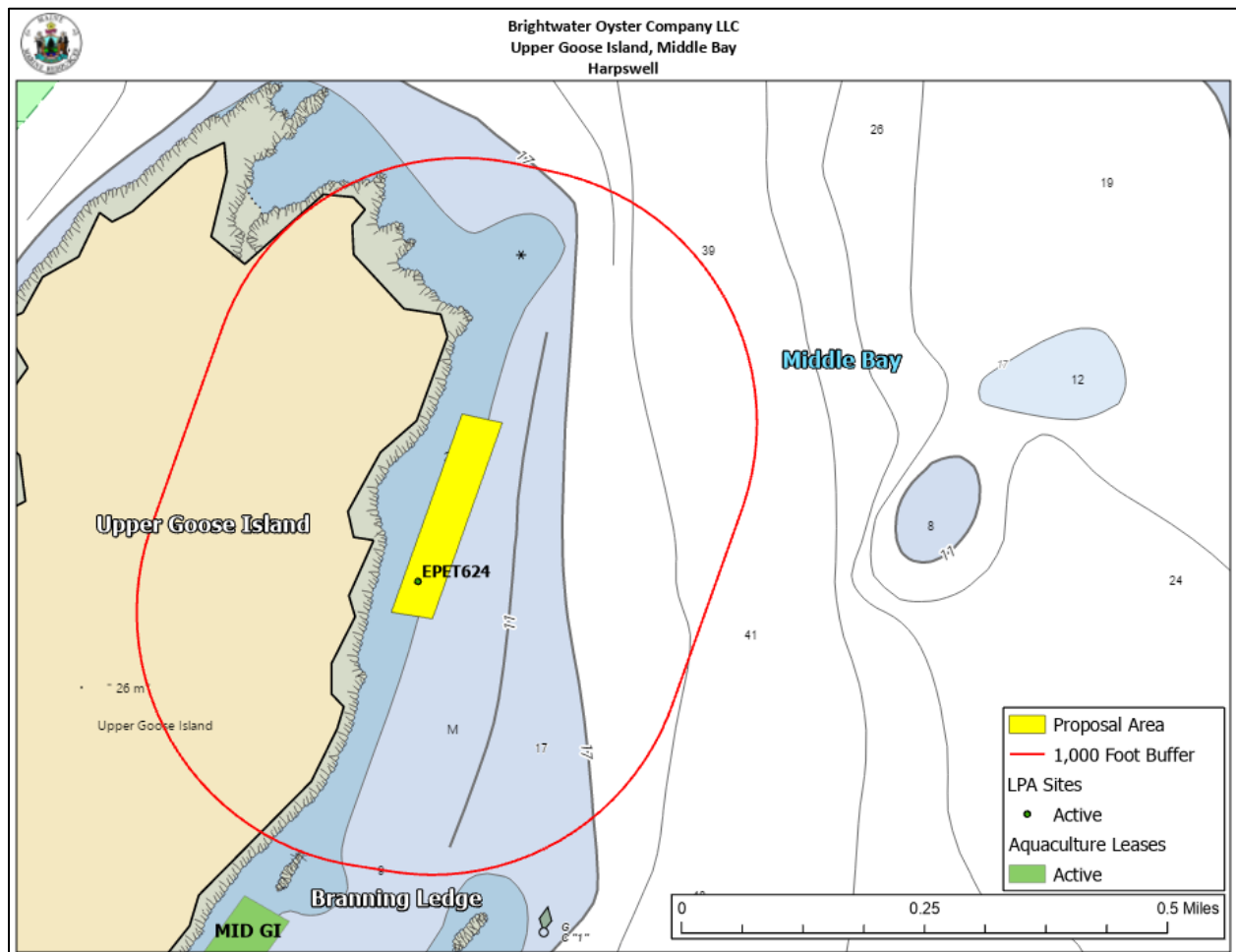


Figure 4. Aquaculture leases and LPA licenses in the vicinity of the proposed lease area.



(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
European oyster (<i>Ostrea edulis</i>)	Rare

Eelgrass (*Zostera marina*)

Records of seagrass collected by the Department of Environmental Protection (DEP) in 2022⁷ indicate there is not eelgrass mapped within 1,000 feet of the proposal. The nearest mapped eelgrass is approximately 0.8 miles south and 1.1 miles southeast of the proposal (Figure 5).

During DMR’s site visit, scientists observed eelgrass unattached and floating at the surface of the water within the vicinity of the proposal. No eelgrass was observed on underwater video footage within the proposal boundaries.

The application indicates that no eelgrass was observed within the vicinity of the proposal in May 2025.⁸

The Municipal Questionnaire indicated that eelgrass was observed within the area of the proposal in October 2025.

⁷Data 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.

⁸ Application page 6

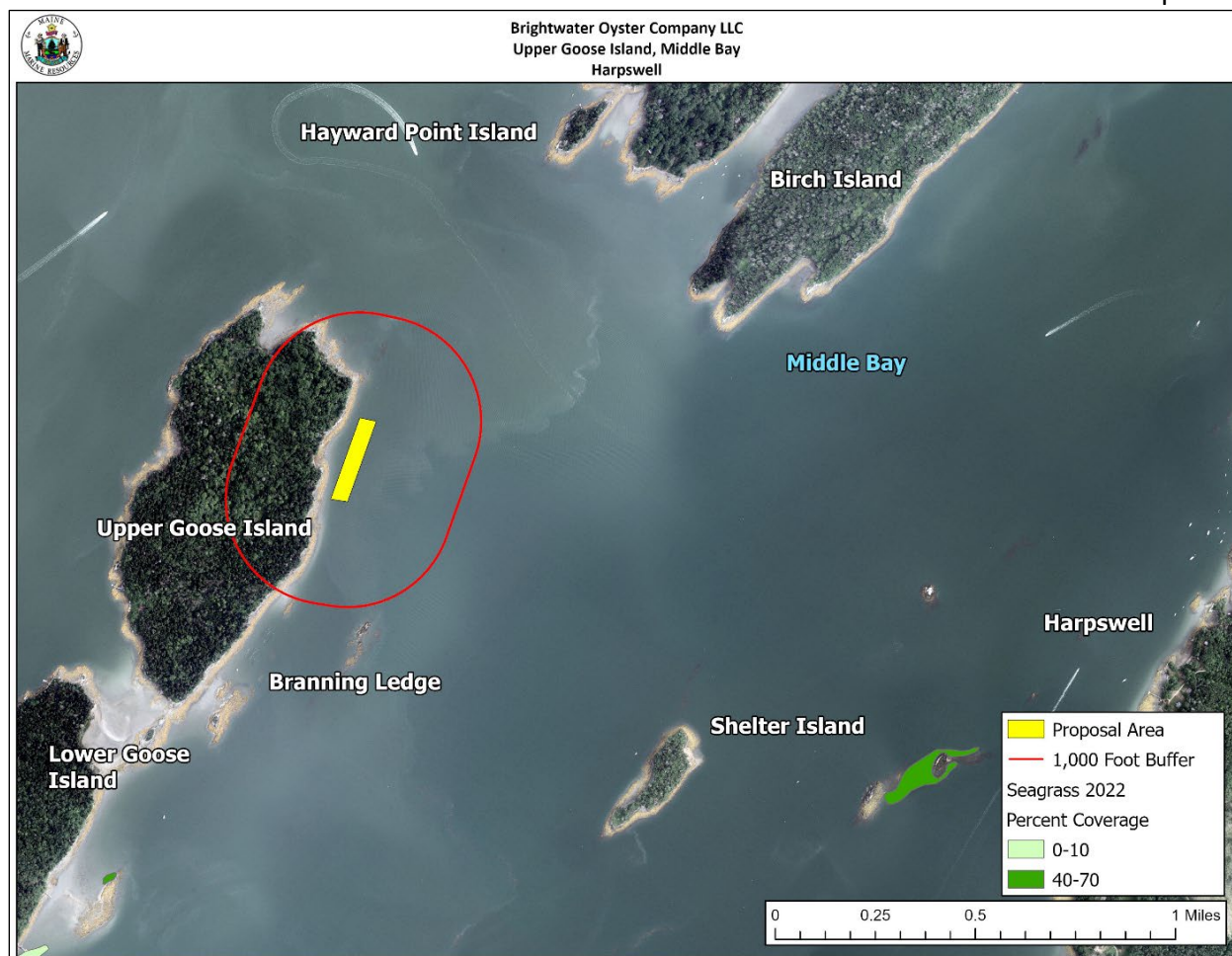


Figure 5. Mapped eelgrass (*Z. marina*) in the vicinity of the proposed lease area.

Wildlife

During the site visit, DMR scientists observed harbor seal (*Phoca vitulina*), common tern (*Sterna hirundo*), common eider (*Somateria mollissima*), American crow (*Corvus brachyrhynchos*), osprey (*Pandion haliaetus*), double crested cormorant (*Nannopterum auritum*), lesser blacked backed gull (*Larus fuscus*), and lion's mane jellyfish (*Cyanea capillata*) in the vicinity of the proposal. At the time of the site visit, approximately 12 seals, with at least two pups, were observed hauled out on Branning Ledge approximately 1,225 feet to the south of the proposal. Approximately five seals were observed swimming in the vicinity of the ledges.

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.



Department of Marine Resources
Site Report

Brightwater Oyster Company LLC
Upper Goose Island, Middle Bay
Harpswell

According to Geographic Information System (GIS) data maintained by IFW and available through the Maine Office of GIS (MEGIS), there are not any mapped habitat types within 1,000 feet of the lease proposal (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 the nearest bald eagle nest is mapped approximately 1.5 miles to the northwest of the proposal.

IFW was provided with the opportunity to comment on this proposal. On April 8, 2026, a Resource Biologist with IFW commented that the proposal is not located within any IFW jurisdictional resources and that minimal impacts to wildlife are anticipated.

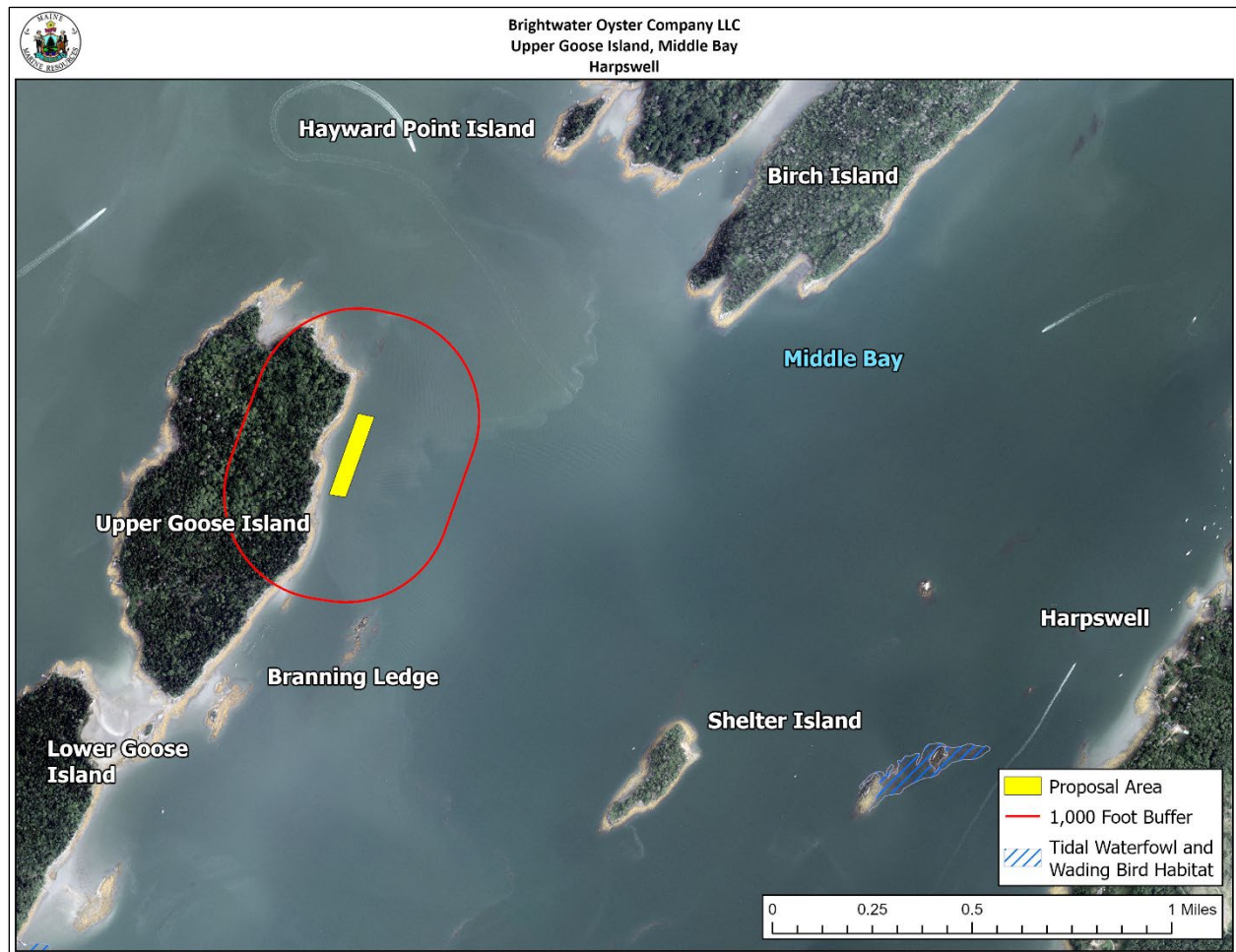


Figure 6. Mapped habitats in the vicinity of the proposed lease area.⁹

⁹ Data obtained from USFWS "Bald_Eagle_Nests_-_Maine_2023" and IFW "EHRTERN", "EHPLVTRN", "GISVIEW.MEIFW.Twwh", "ShorebirdAreas", and "SNI".



**Department of Marine Resources
Site Report**

Brightwater Oyster Company LLC
Upper Goose Island, Middle Bay
Harpwell

(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 Approved by the DMR Bureau of Public Health and Aquaculture.