



Maine Department of Marine Resources Site Report

Greenhead Lobster, LLC (App 2)
West of Bold Island, Jericho Bay
Stonington

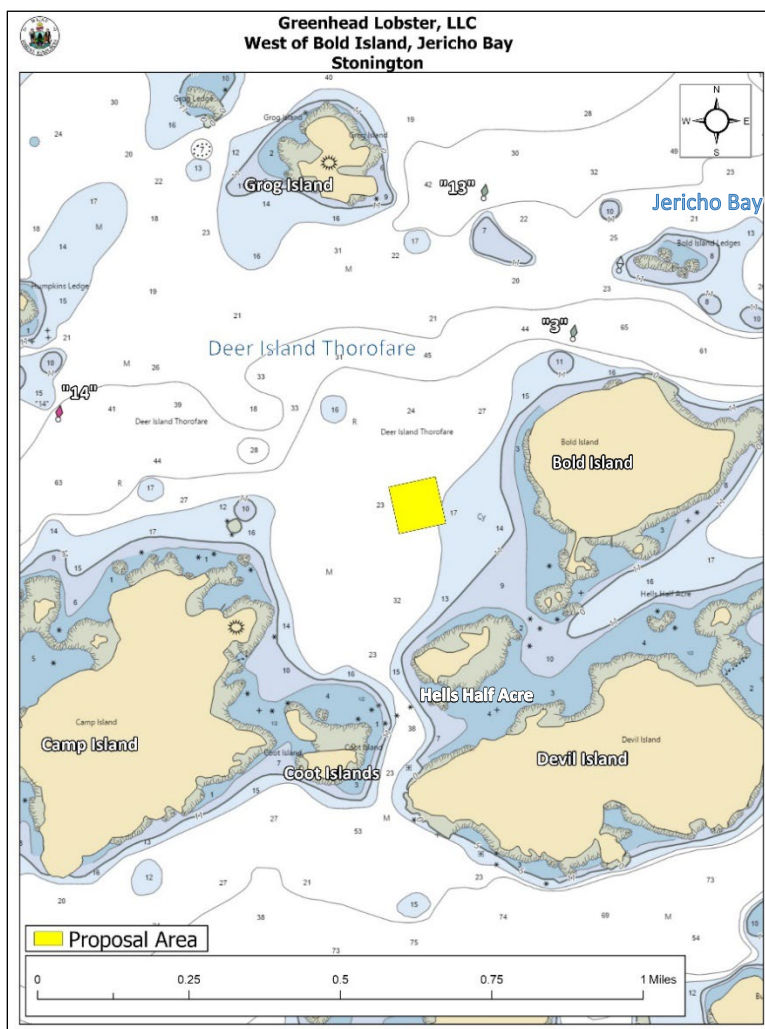


Figure 1. Vicinity map.¹

Location: West of Bold Island, Jericho Bay, Stonington, Hancock County, Maine

Purpose: Experimental lease for suspended culture of American/eastern oysters (*Crassostrea virginica*), blue mussels (*Mytilus edulis*), sugar kelp (*Saccharina latissima*), Atlantic sea scallops (*Placopecten magellanicus*).

Site Review: Geoffrey Shook and Katie Von Hohenleiten

Report Preparation: Geoffrey Shook, Meryl Grady, and Amanda Ellis

¹ 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.



Application Overview

The applicant, Greenhead Lobster, LLC, is requesting a 4.0-acre experimental lease west of Bold Island, in Jericho Bay, within the town of Stonington for the suspended culture of shellfish and marine algae. The applicant intends to have gear on site year-round and the site is intended to be active year-round with different shellfish and marine algae operations.² The applicant also intends to possess, transport, or sell whole/roe-on scallops.³ The applicant has an additional experimental application under review by the Maine Department of Marine Resources (MDMR) approximately 2.9 miles west of this proposal.

General Characteristics

On August 29, 2024, MDMR scientists assessed the proposed lease site. MDMR scientists arrived on site at approximately 11:27 AM. The proposal is located in subtidal waters in Jericho Bay approximately 766 feet west of Bold Island at mean low water (MLW) (Figure 1). The area in the vicinity of the proposal was observed to consist of several small islands with rock ledges, sporadic sandy beaches, and dense evergreen forest uplands.

Depth

On August 29, 2024, MDMR scientists began collecting depths at the proposed site at approximately 11:28 AM. The tide was ebbing with the next low tide predicted at 2:03 PM (Table 1). Depths were determined to be between 22.5-28.0 feet. Correcting for tidal variations derives depths at MLW (0.0 feet) to be between 18.1-23.6 feet.

Table 1. Predicted tidal heights in Stonington, Maine.⁴

Date	Time	Height (ft)
2024/08/29	1:47 AM	0.5 L
2024/08/29	8:03 AM	8.8 H
2024/08/29	2:03 PM	1.4 L
2024/08/29	8:19 PM	10.0 H

Bottom Characteristics

MDMR 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 2). Sediment information was determined based on visual analysis of the video. The bottom of the proposed lease site is composed of mud covered with a sheet algal bed.

² Application pages 15,16, 29

³ Application page 9

⁴ <https://www.usharbors.com/harbor/maine/stonington-me/tides/?tide=2024-08#monthly-tide-chart>



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Table 2. Bottom characteristics of the proposed site.

Substrate Origin	Substrate Class	Substrate Subclass	Substrate Group
Geologic Substrate	Unconsolidated Mineral Substrate	Fine Unconsolidated Substrate	Mud
Benthic/Attached Biota	Aquatic Vegetation Bed	Benthic Macroalgae	Sheet Algal Bed

Position and Distances to Shore

The geodesic measuring tool in ArcGIS Pro 2.9 was used to verify the distances and bearings between proposed lease corners. Distances to shore were determined using the measuring tool in ArcGIS Pro 2.9, a nautical chart provided by the National Oceanic and Atmospheric Administration (NOAA), and the application coordinates (Table 3, Figures 2 and 3).

Application Coordinates (WGS84) – 4.0 Acres

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>	
NW	44.154606°	-68.622657°	then 418 feet at 78° True to
NE	44.154850°	-68.621100°	then 416 feet at 168° True to
SE	44.153733°	-68.620760°	then 418 feet at 258° True to
SW	44.153489°	-68.622317°	then 416 feet at 348° True to NW

Table 3. Approximate distances from proposal to surrounding features (Figures 2 and 3).

Feature	Distance
NE corner to green navigation buoy “3”	~1,689’ to the northeast
NE corner to Bold Island at MLW	~768’ to the east
SE corner to Bold Island at MLW	~766’ to the east
SE corner to Hells Half Acre at MLW	~874’ to the south
SW corner to Hells Half Acre at MLW	~942’ to the south
SW corner to Camp Island at MLW	~1,266’ to the southwest
NW corner to Camp Island at MLW	~1,447’ to the southwest
NW corner to Grog Island at MLW	~2,468’ to the north

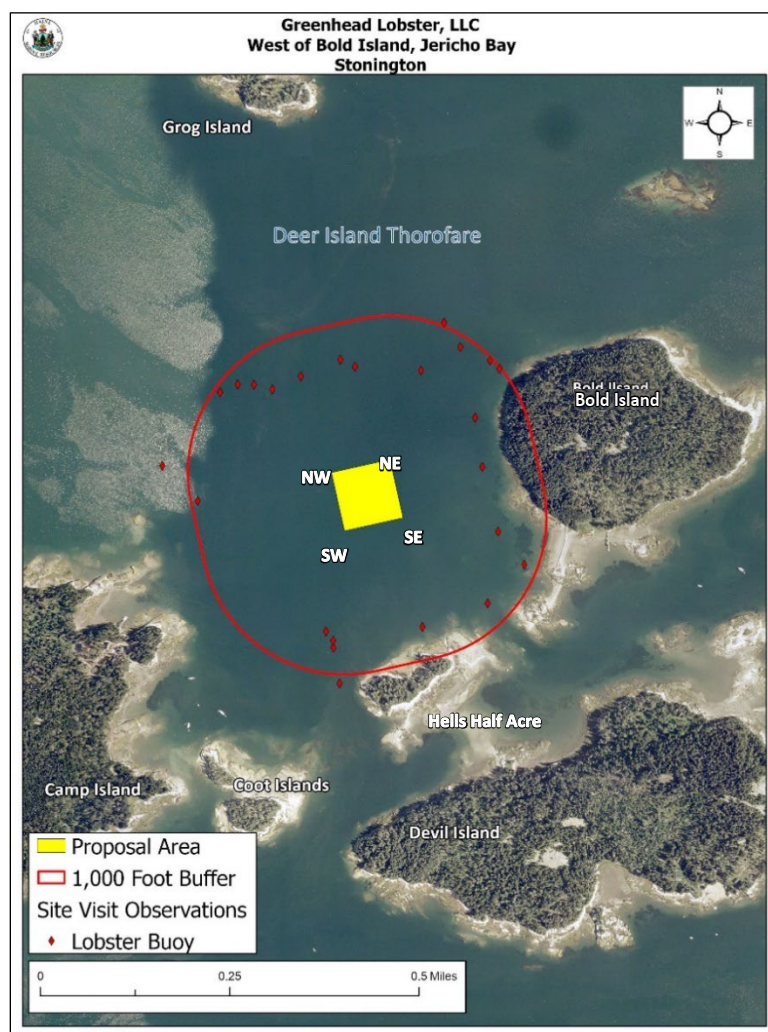


Figure 2. Proposed lease area with site visit observations.

Pursuant to statute and regulation, aquaculture leases are evaluated in consideration of applicable decision criteria. The site report documents MDMR'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, MDMR did not observe any docks, houses, or moorings within the vicinity of the proposal. Aerial imagery⁵ indicates the nearest residential property is located to the east on Bold Island. There is a pier and dock associated with the property located approximately 1,451 feet east of the proposal. A sandbar that is exposed at all tidal stages, as well as a tidally exposed sandbar, are both located between the proposal and the pier on the southwestern shore of Bold Island. Imagery also indicates there is a pier and dock on the northeastern shore of Camp Island located approximately 1,640 feet southwest of the proposal (Figure 2).

⁵ Maine Orthoimagery Coastal DownEast Coast 2008



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A Harbormaster Questionnaire was sent to the Town of Stonington. MDMR did not receive a response.

(2) Navigation

The Deer Island Thorofare is a marked navigational channel that provides access to and from Stonington and Deer Isle. The proposal is located outside of the marked channel in subtidal, navigable waters approximately 861 feet south of the Thorofare. At MLW, there is approximately 766 feet of water between the proposal and Bold Island to the east, and approximately 1,266 feet of navigable water between the proposal and Camp Island to the southwest (Figure 3).

During MDMR's site visit, scientists observed six sailing vessels and seven powerboats in the Deer Island Thorofare traveling to the west, as well as two sailing vessels and three powerboats in the Thorofare traveling to the east.

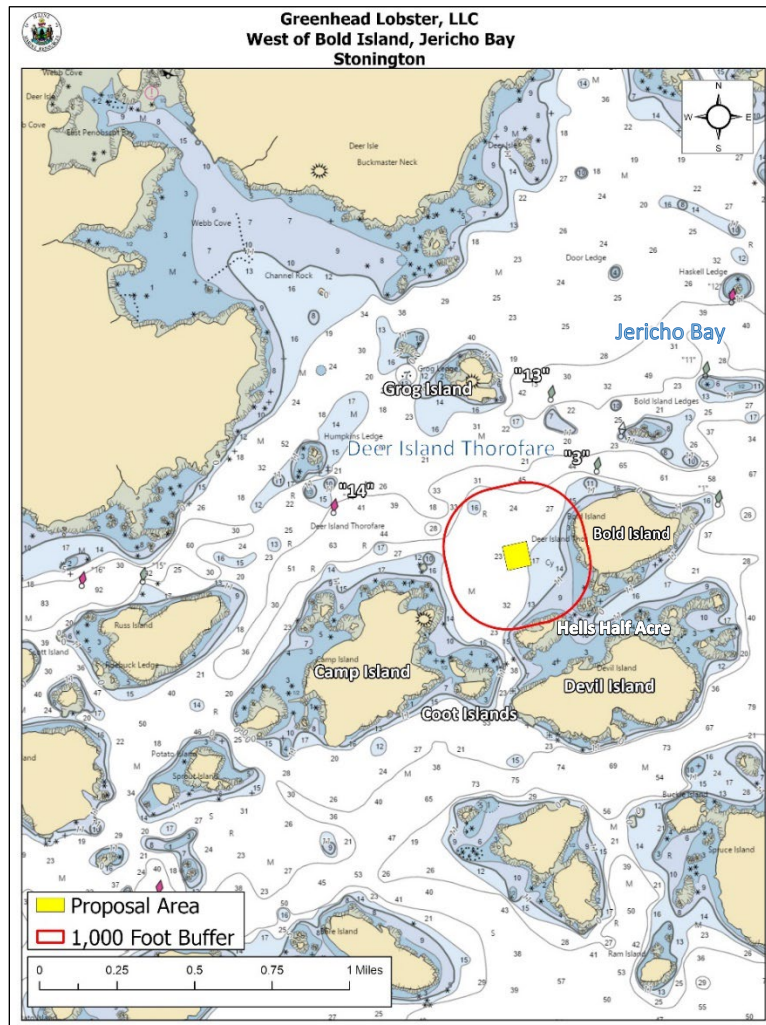


Figure 3. Navigational channels in the vicinity of the proposed lease area.



(3) Fishing and Other Uses

During MDMR's site visit, scientists observed 24 lobster buoys in the vicinity of the proposal. The closest was located approximately 617 feet east of the proposal (Figure 2). Additionally, MDMR scientists observed two commercial menhaden (*Brevoortia tyrannus*) fishing vessels working to the west of the proposal.

Hells Half Acre is an island located approximately 874 feet south of the proposal at MLW. The island is owned by the Maine Bureau of Parks and Lands and is open to the public for day use and overnight camping.⁶

(4) Other Aquaculture Uses

There are no licensed aquaculture leases or limited purpose aquaculture (LPA) sites within 1,000 feet of the proposed lease site.

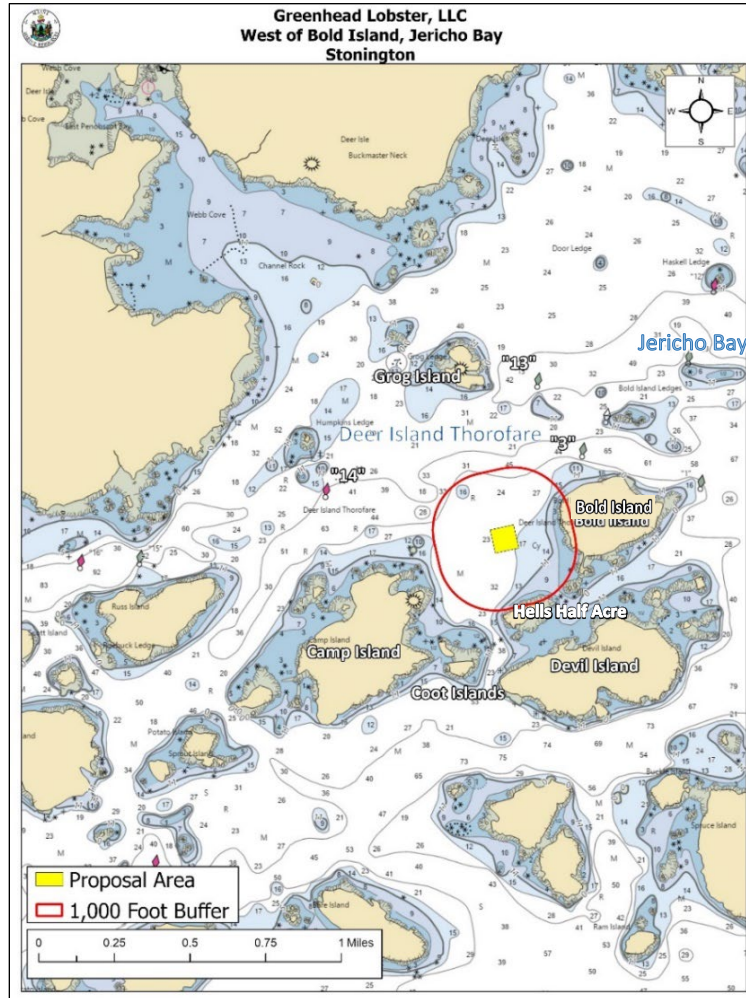


Figure 4. Aquaculture leases and LPA licenses in the vicinity of the proposed lease area.

⁶ <https://www.mainetrailfinder.com/trails/trail/maine-island-trail-deer-isle>



(5) Existing System Support

Epibenthic Flora and Fauna

MDMR 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 4.

Table 4. Species observed on underwater video footage.

Species Observed	Abundance
Mysid shrimp (<i>Mysis</i> spp.)	Occasional
Kelp (<i>Saccharina latissima</i>)	Occasional

Eelgrass (*Zostera marina*)

Historical records of eelgrass collected in 2010⁷ indicate mapped eelgrass presence within 1,000 feet of the proposal. The nearest mapped eelgrass is approximately 623 feet east of the proposal (Figure 5). During MDMR's site visit, no eelgrass was observed within the boundaries of the proposal. No eelgrass was observed on underwater video footage within the proposal boundaries.

⁷ Data obtained from The Maine Office of GIS "GISVIEW.MEDMR.Eelgrass". This is the most current record of mapped eelgrass within the vicinity of the proposal.

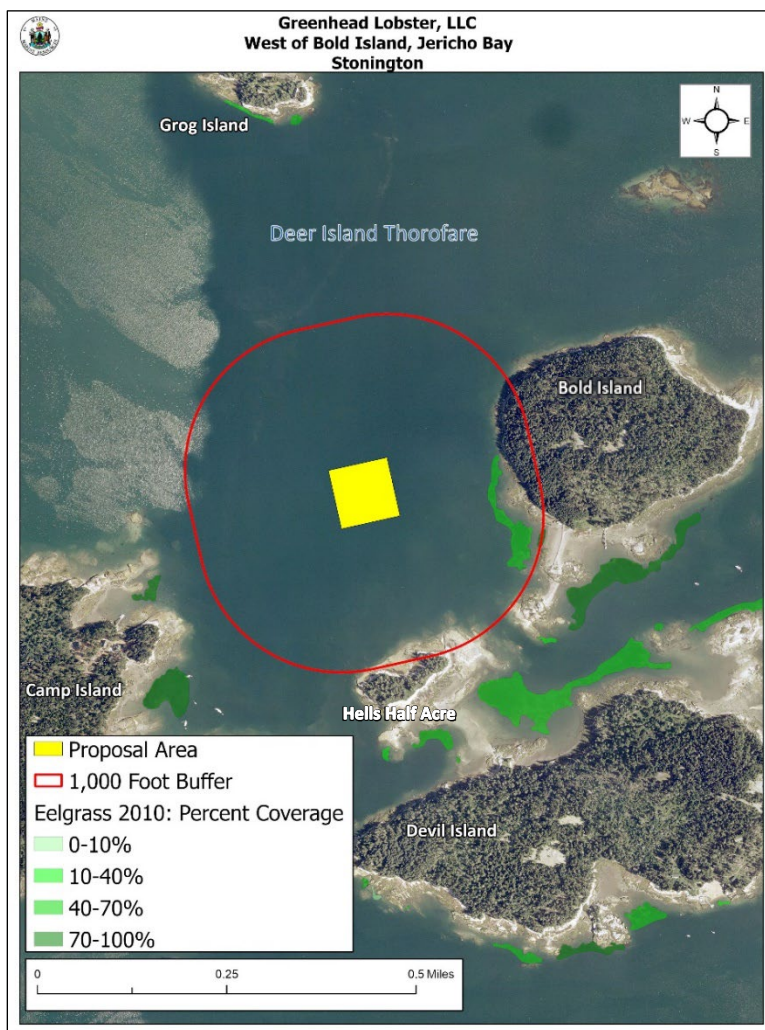


Figure 5. Mapped eelgrass (*Z. marina*) in the vicinity of the proposed lease area.

Wildlife

During MDMR's site visit, scientists observed black guillemot (*Cepphus grylle*), herring gulls (*Larus argentatus*), an osprey (*Pandion haliaetus*), a common loon (*Gavia immer*), and a bald eagle (*Haliaeetus leucocephalus*) in the general vicinity of the proposal.

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



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According to Geographic Information System (GIS) data maintained by MDIFW 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 near Shorebird Area and Tidal Waterfowl and Wading Bird Habitat (TWWH), which are types of Significant Wildlife Habitat designated and regulated by MDIFW.⁸ Based on data maintained by MDIFW, as measured from the SE corner of the proposal, it is approximately 801 feet to the 100-foot buffer surrounding the mapped Shorebird Area. The nearest mapped TWWH is located approximately 1,272 feet southeast of the 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 mapped bald eagle nesting site to be approximately 3,960 feet southwest of the proposal.

MDIFW was provided with the opportunity to comment on this proposal. On October 27, 2023, a Resource Biologist with MDIFW responded by email to a "Request for Agency Review and Comment" stating that minimal impacts to wildlife are anticipated for this project.⁹

⁸ <https://www.maine.gov/ifw/programs-resources/environmental-review/significant.html>

⁹ Email correspondence between MDIFW and MDMR

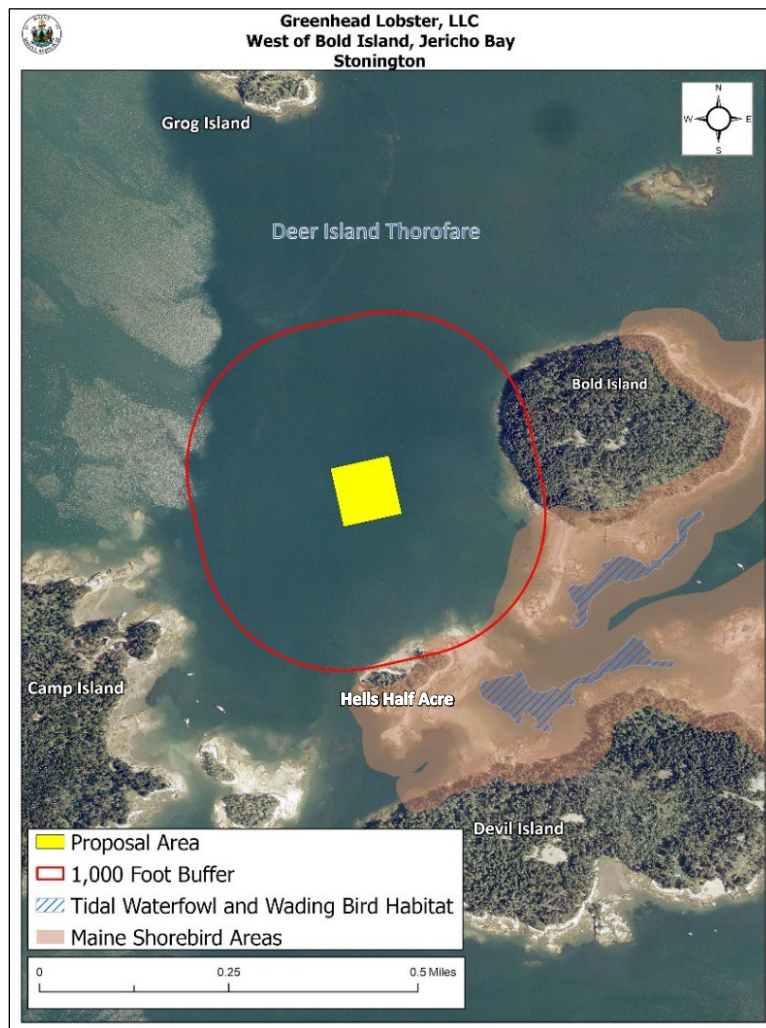


Figure 6. Mapped habitats in the vicinity of the proposed lease area.¹⁰

(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 MDMR Bureau of Public Health and Aquaculture.

¹⁰ Data obtained from USFWS “Bald_Eagle_Nests_-_Maine_2023” and MDIFW “EHRTERN”, “EHPLVTRN”, “GISVIEW.MEIFW.Twwh”, “ShorebirdAreas”, and “SNI”.