

Figure 1. Vicinity map.¹

Location: West of Glidden Ledge, Damariscotta River, Edgecomb, Lincoln County, Maine

Purpose: Standard lease for suspended culture of American/eastern oyster (*Crassostrea virginica*).

Site Review: Geoffrey Shook and Katie VonHohenleiten
Report Preparation: Geoffrey Shook and Meryl Grady

¹ Unless otherwise noted, all figures in this report were created in ArcGIS Pro version 3.3 using digitized NOAA Nautical Charts or geo-referenced aerial photographs provided by The Maine Office of GIS.



Application Overview

The applicant, Glidden Point Oyster Company, is requesting a 0.15² acre standard lease west of Glidden Ledge in the Damariscotta River for the suspended culture of shellfish. The applicant intends for the site to be active year-round. The proposed lease includes wet storage rafts, work floats, and a work shed connected to the shore by means of a pier and gangway. The site is currently being operated utilizing Limited Purpose Aquaculture (LPA) licenses RMCP117 and RMCP217. The LPAs would be relinquished if the proposed lease is granted.³

General Characteristics

On May 20, 2025, Department of Marine Resources (DMR) scientists visited the proposed lease site. DMR scientists arrived on site at approximately 12:45 PM. The proposal is located in subtidal waters in the Damariscotta River approximately 603 feet west of Glidden Ledge at mean low water (MLW) (Figure 1). The area in the vicinity of the proposal was observed to consist of a rocky shoreline with mixed forests uplands as well as residential properties in the general vicinity.

Depth

On May 20, 2025, DMR scientists began collecting depths at the proposed site at approximately 12:46 PM. The tide was flooding with the next high tide predicted at 6:03 PM (Table 1). Water current was determined to be flowing in a north-northeasterly direction at the time of the site visit. Depths were determined to be between 6.1-24.3 feet. Correcting for tidal variations derives depths at mean low water (MLW, 0.0 feet) to be between 5.2-23.4 feet.

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

Date	Time	Height (ft)
2025/05/20	5:15 AM	9.4 H
2025/05/20	11:51 AM	0.5 L
2025/05/20	6:03 PM	8.8 H
2025/05/20	NA	NA

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 2). Sediment information was determined based on visual analysis of the video. The bottom of the proposed lease site is primarily composed of shell reef and shell rubble.

² Applicant originally requested 0.20 acres. DMR calculations indicate the area is 0.15 acres.

³ Application pages 8, 9, 17

⁴ <https://www.usharbors.com/harbor/maine/newcastle-me/tides/?tide=2025-05#monthly-tide-chart>



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Table 2. Bottom characteristics of the proposed site.

Substrate Origin	Substrate Class	Substrate Subclass	Substrate Group
Biogenic Substrate	Shell Substrate	Shell Reef	Clam, oyster, mussel
Biogenic Substrate	Shell Substrate	Shell Rubble	Clam, oyster, mussel

Position and Distances to Shore

The geodesic measuring tool in ArcGIS Pro 3.3 was used to verify the distances and bearings between proposed lease corners. Distances to shore were determined using the measuring tool in ArcGIS Pro 3.3, a nautical chart provided by the National Oceanic and Atmospheric Administration (NOAA), and the application coordinates (Table 3, Figure 2,3).

Application Coordinates (WGS84) – 0.15 Acres

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>					
NW	43.971081°	-69.575297°	then	96	feet at	078°	True to
NE	43.971136°	-69.574942°	then	65	feet at	161°	True to
SE	43.970969°	-69.574858°	then	110	feet at	258°	True to
SW	43.970908°	-69.575267°	then	64	feet at	353°	True to NW

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

Feature	Distance
NE corner to Edgecomb shoreline at MLW	~14' to the north
NW corner to Edgecomb shoreline at MLW	~22' to the northwest
SE corner to Glidden Ledge at MLW	~603' to the east
SW corner to Glidden Ledge at MLW	~708' to the east
SE corner to red navigation aid "16"	~603' to the east
SW corner to red navigation aid "16"	~684' to the west



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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:



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(1) Riparian Ingress and Egress

During the site visit, DMR observed five piers with associated houses within the vicinity of the proposal. At the time of the site visit, three piers had associated gangways and docks attached and in the water. Two of the piers observed did not have gangways or docks attached to them. Two of the observed piers were located approximately 493 feet and 781 feet northeast of the proposal. Three piers were located to the south of the proposal approximately 317, 843, and 949 feet away. Scientists also observed an unoccupied mooring located approximately 1,280 feet to the southeast (Figure 2).

A Harbormaster Questionnaire was sent to the Town of Edgecomb. DMR did not receive a response.

(2) Navigation

The proposal is located in subtidal waters approximately 14 feet south of the Edgecomb shoreline at MLW. The proposed lease site is contained within a small cove along the western shore of the Damariscotta River and is located outside of the deepwater channel that is used for transit up and down river (Figure 3).

During DMR's site visit, scientists observed one powerboat transiting in the channel within the vicinity of the proposal.

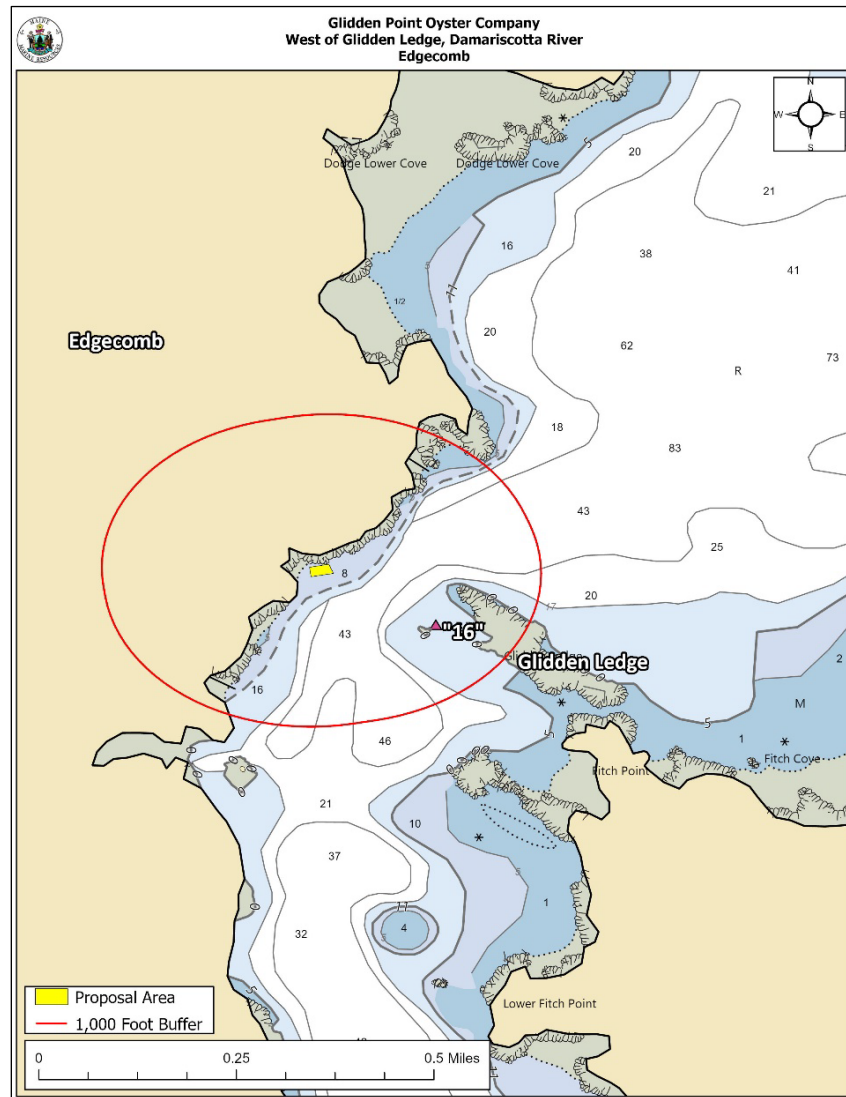


Figure 3. Navigational channels in the vicinity of the proposed lease area.

(3) Fishing and Other Uses

During DMR's site visit, scientists observed 10 lobster buoys in the vicinity of the proposal, with the closest located approximately 11 feet east of the proposal (Figure 2). No other fishing activity was observed in the vicinity of the proposal.

(4) Other Aquaculture Uses

There are no licensed aquaculture leases or leases under review by DMR within 1,000 feet of the proposed lease site. There are three active LPAs within 1,000 feet of the proposed lease site. Two of the LPAs (RMCP217 and RMCP117) are operated by the applicant and would be relinquished if the proposal is granted. EPET217 is located approximately 249 feet southwest of the proposal and is licensed to Eric Peters (Figure 4).

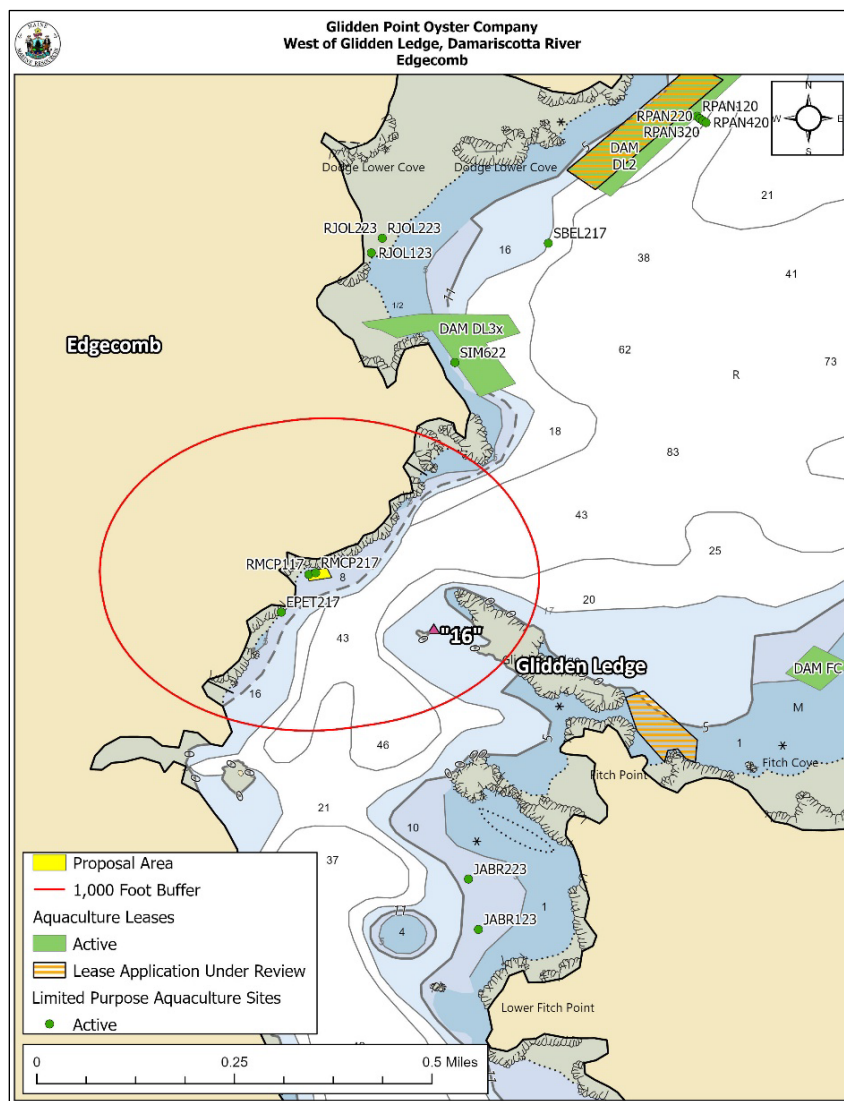


Figure 4. Aquaculture leases and LPA licenses in the vicinity of the proposed lease area.

(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 4.

Table 4. Species observed on underwater video footage.

Species Observed	Abundance
Eastern oyster (<i>Crassostrea virginica</i>)	Common
European oyster (<i>Ostrea edulis</i>)	Common
Blue mussel (<i>Mytilus edulis</i>)	Occasional



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Species Observed	Abundance
Quahog (<i>Mercenaria mercenaria</i>)	Occasional
Sugar kelp (<i>Saccharina latissima</i>)	Occasional
Rockweed (<i>Ascophyllum nodosum</i>)	Occasional
Atlantic pollock (<i>Pollachius virens</i>)	Rare
Sea raven (<i>Hemitripterus americanus</i>)	Rare

Eelgrass (*Zostera marina*)

Records of eelgrass collected by the Department of Environmental Protection (DEP) in 2023⁵ indicate there is no eelgrass mapped within 1,000 feet of the proposal. The nearest mapped eelgrass is approximately 3.9 miles south of the proposal (Figure 5).

During DMR's site visit, three blades of very sparse, dead or unhealthy eelgrass were observed attached to the seafloor on underwater video footage within the boundaries of the proposal (Image 1). Water depth in the general area is approximately 5.2-23.4 feet at MLW. The LPAs contained within the proposal (RMCP117 and RMCP217) have been operating at the site since 2017.



Image 1. Eelgrass (*Z. marina*) observed within the boundaries of the proposed lease area.

⁵ Data obtained from The Maine Office of GIS "GISVIEW.ME/DEP.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.



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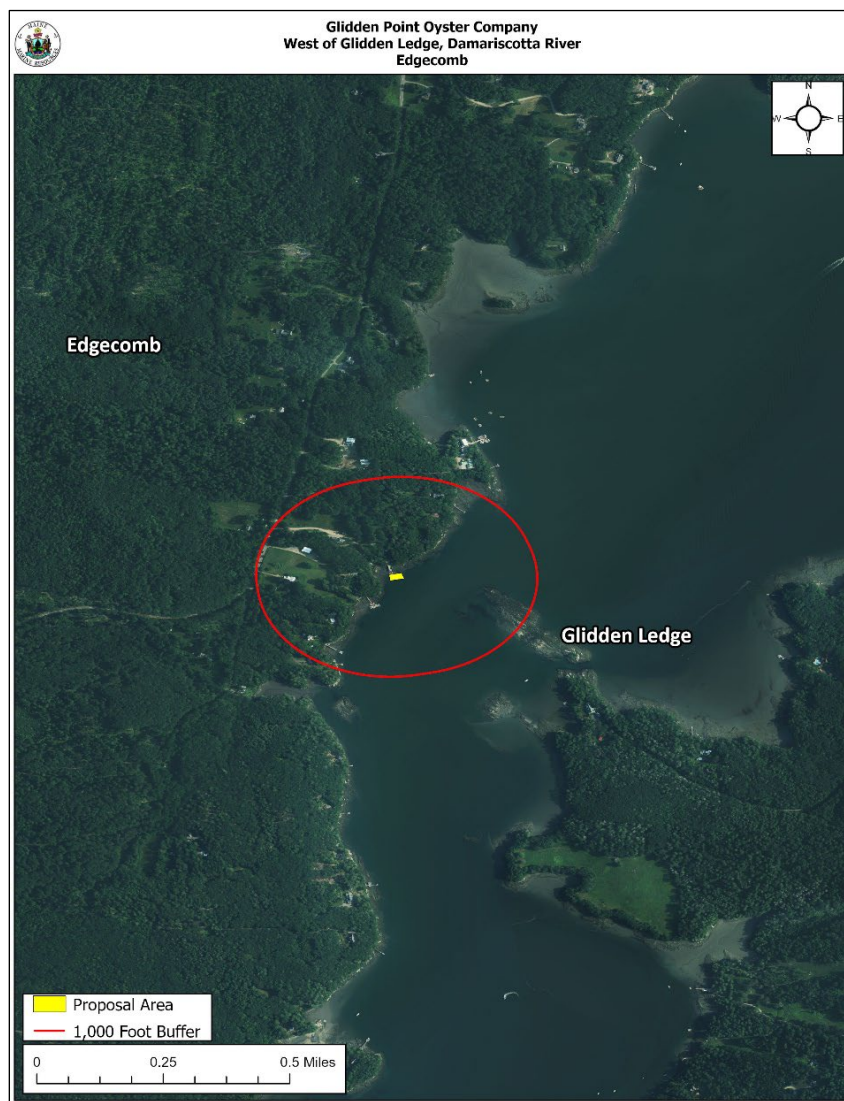


Figure 5. Mapped eelgrass (*Z. marina*) in the vicinity of the proposed lease area.

Wildlife

During the site visit, DMR scientists observed double crested cormorant (*Nannopterum auritum*), great cormorant (*Phalacrocorax carbo*), ring-billed gull (*Larus delawarensis*), harbor seal (*Phoca vitulina*), and an American crow (*Corvus brachyrhynchos*) in the general vicinity of the proposal.

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.



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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 near Tidal Waterfowl and Wading Bird Habitat (TWWH), which is a type of Significant Wildlife Habitat designated and regulated by IFW. ⁶ Based on data maintained by IFW, the nearest mapped TWWH is approximately 369 feet east-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 there is no mapped bald eagle nesting site in the vicinity of the proposal (Figure 6).

IFW was provided with the opportunity to comment on this proposal. On October 1, 2024, a Resource Biologist with IFW responded by email to a "Request for Agency Review and Comment" stating that minimal impacts to wildlife are anticipated for this project. ⁷

⁶ <https://www.maine.gov/ifw/programs-resources/environmental-review/significant.html>

⁷ Email correspondence between IFW and DMR



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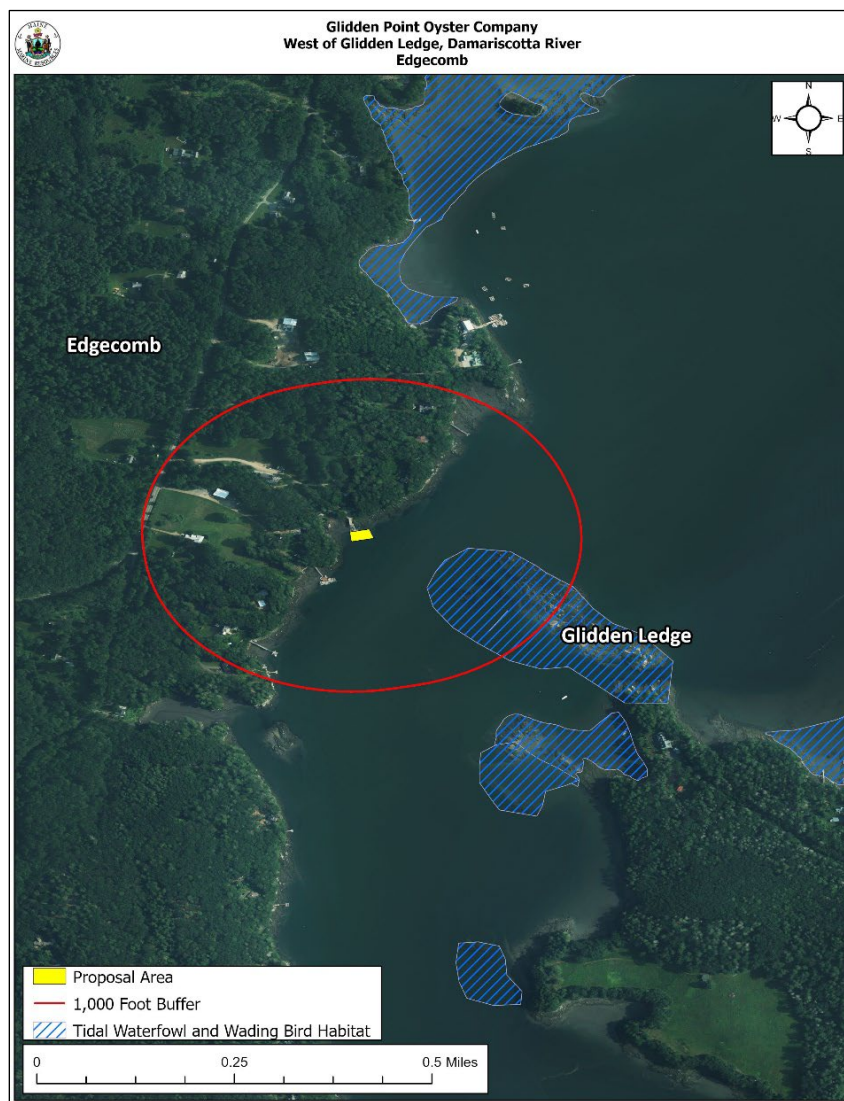


Figure 6. Mapped habitats in the vicinity of the proposed lease area.⁸

⁸ Data obtained from USFWS "Bald_Eagle_Nests_-_Maine_2023" and IFW "EHRTERN", "EHPLVTRN", "GISVIEW.MEIFW.Twwh", "ShorebirdAreas", and "SNI".



(6) Interference with Public Facilities

The proposed lease is not within 1,000 feet of any beach, park, docking facility, or conserved lands owned by federal, state, or municipal governments (Figure 7).



Figure 7. Public facilities near the proposed lease site.⁹

(7) Growing Area Classification

The proposed lease is currently located within an area classified as Approved by the DMR Bureau of Public Health and Aquaculture.

⁹ Data obtained from The Maine Office of GIS "GISVIEW.MECONSLANDS.Conserved_Lands"