



Department of Marine Resources
Site Report

Pleasant Cove Oyster Farm
South of Pleasant Cove Ledges, Damariscotta River
Boothbay

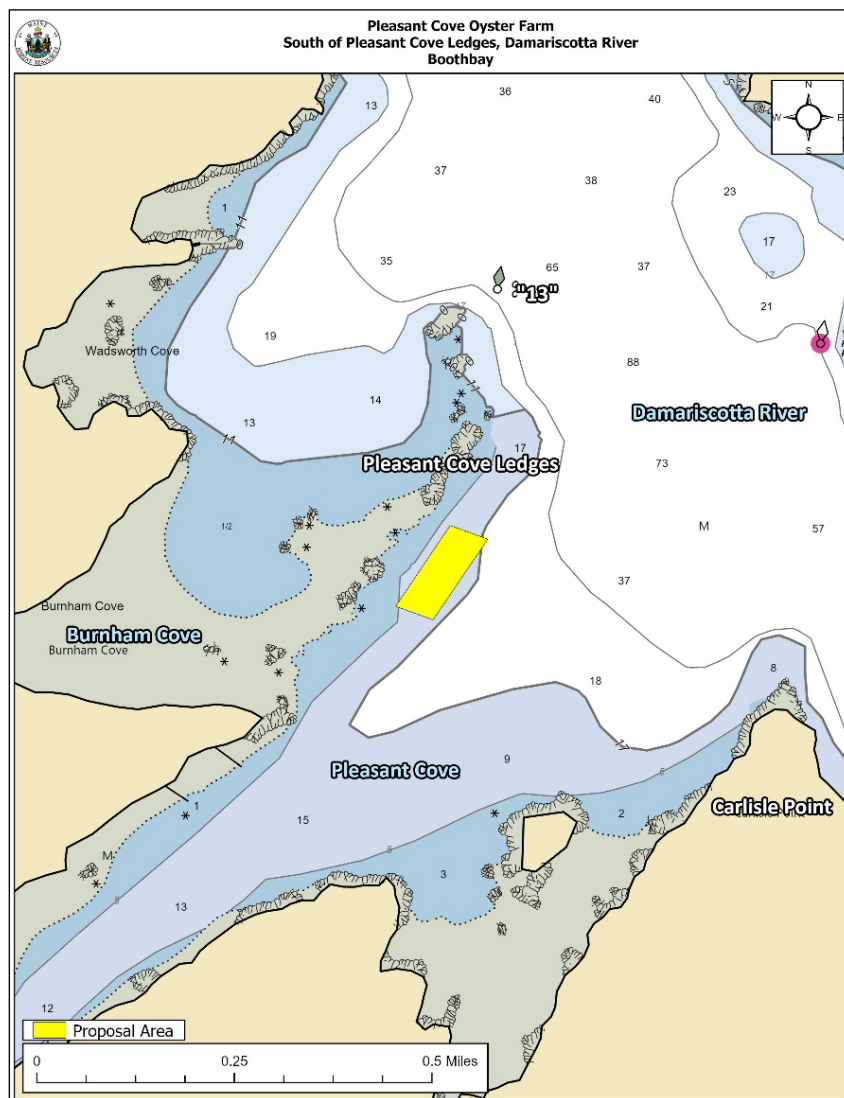


Figure 1. Vicinity map.¹

Location: South of Pleasant Cove Ledges, Damariscotta River, Boothbay, Lincoln County, Maine

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

Site Review: Geoffrey Shook and Katie Von Hohenleiten
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.



Department of Marine Resources Site Report

Pleasant Cove Oyster Farm
South of Pleasant Cove Ledges, Damariscotta River
Boothbay

Application Overview

The applicant, Pleasant Cove Oyster Farm, is requesting a 2.78-acre, 20-year, standard lease south of Pleasant Cove Ledges in the Damariscotta River for the suspended culture of shellfish. The applicant intends for the site to be active year-round. Aquaculture cages are intended to be left on the surface year-round unless ice is expected, in which case, some or all of the gear may be sunk to the bottom.²

General Characteristics

On June 26, 2025, Department of Marine Resources (DMR) scientists visited the proposed lease site. DMR scientists arrived on site at approximately 10:21 AM. The proposal is located in subtidal waters in the Damariscotta River approximately 122 feet east-southeast of Pleasant Cove Ledges at mean low water (MLW) (Figure 1). The area in the vicinity of the proposal was observed to consist of patches of sandy beaches leading to residential properties with maintained lawns and mixed forests uplands.

Depth

On June 26, 2025, DMR scientists began collecting depths at the proposed site at approximately 10:29 AM. The tide was flooding with the next high tide predicted at 12:32 PM (Table 1). Water current was flowing in a westerly direction at the time of the site visit. Depths were determined to be between 13.0-25.5 feet. Correcting for tidal variations derives depths at mean low water (MLW, 0.0 feet) to be between 6.3-18.8 feet.

Table 1. Predicted tidal heights in East Boothbay, Maine.³

| Date | Time | Height (ft) |
|------------|----------|-------------|
| 2025/06/26 | 6:19 AM | -1.1 L |
| 2025/06/26 | 12:32 PM | 9.3 H |
| 2025/06/26 | 6:24 PM | 0.3 L |
| 2025/06/26 | 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 sandy mud.

Table 2. Bottom characteristics of the proposed site.

| Substrate Origin | Substrate Class | Substrate Subclass | Substrate Group |
|--------------------|----------------------------------|-------------------------------|-----------------|
| Geologic Substrate | Unconsolidated Mineral Substrate | Fine Unconsolidated Substrate | Sandy mud |

² Application page 4, 8

³ <https://www.usharbors.com/harbor/maine/east-boothbay-me/tides/?tide=2025-06#monthly-tide-chart>



Department of Marine Resources
Site Report

Pleasant Cove Oyster Farm
South of Pleasant Cove Ledges, Damariscotta River
Boothbay

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) – 2.78 Acres

| <u>Corner</u> | <u>Latitude</u> | <u>Longitude</u> | |
|---------------|-----------------|------------------|---------------------------------|
| 1 | 43.927419° | -69.586358° | then 203 feet at 117° True to |
| 2 | 43.927169° | -69.585669° | then 599 feet at 206° True to |
| 3 | 43.925694° | -69.586667° | then 202 feet at 297° True to |
| 4 | 43.925942° | -69.587353° | then 599 feet at 026° True to 1 |

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

| Feature | Distance |
|---|-------------------------------|
| Corner 3 to Carlisle Point at MLW | ~1,637' to the east-southeast |
| Corner 2 to Carlisle Point at MLW | ~1,718' to the southeast |
| Corner 2 to McGuire Point at MLW | ~2,070' to the northeast |
| Corner 1 to McGuire Point at MLW | ~2,192' to the east |
| Corner 1 to Pleasant Cove ledges at MLW | ~122' to the west-northwest |
| Corner 4 to Pleasant Cove ledges at MLW | ~195' to the west-northwest |
| Corner 1 to Green navigation buoy "13" | ~1,593' to the north |

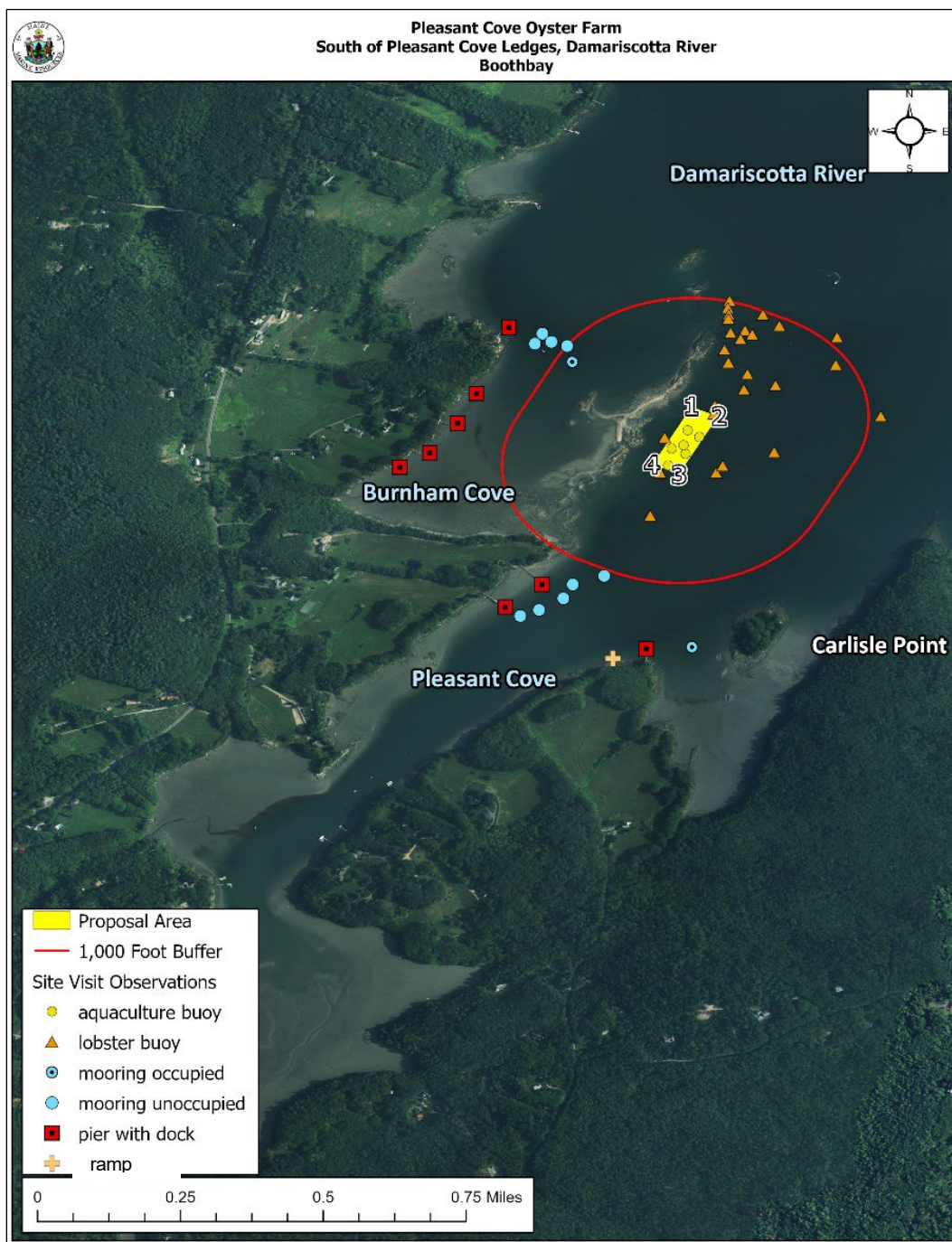


Figure 2. Proposed lease area with site visit observations.

Pursuant to statute and regulation, aquaculture leases are evaluated in consideration of applicable decision criteria. The Site Report documents 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 observed residential properties, moorings, and piers with docks in the vicinity of the proposal. Three piers with docks were observed in Pleasant Cove, as well as six moorings, and a ramp leading to the water. One observed pier with dock was approximately 1,325 feet south-southwest of the proposal and had a 25-foot powerboat tied to it. Another pier with dock was approximately 1,637 feet south-southwest of the proposal. The third observed pier with dock was approximately 1,624 feet south of the proposal and had an approximate 10-foot inflatable boat powered by an outboard engine tied to it. These types of small boats are often used as “tenders” to access larger boats that are stored on moorings. Of the six observed moorings in Pleasant Cove, five were unoccupied and one was occupied. Distances from the proposal to the unoccupied moorings were as follows: 1,059, 1,223, 1,367, 1,536 and 1,649 feet to the south-southwest. The occupied mooring was approximately 1,593 feet south of the proposal and had an 18-foot powerboat tied to it at the time of the site visit. Additionally, a ramp leading to the water was observed on the eastern shore of Pleasant Cove approximately 1,752 feet south of the proposal (Image 1). Aerial imagery⁴ indicates there are several additional piers, docks, and moorings further from the proposal within Pleasant Cove (Figure 2).

Burnham Cove is northwest of Pleasant Cove and the proposed lease area. Access to Burnham Cove and residential properties in Burnham Cove is affected by Pleasant Cove ledges located approximately 160 feet northwest of the proposed lease site. During the site visit, DMR scientists observed five piers with docks and five moorings in Burnham Cove within the vicinity of the proposal. Docks were located approximately 1,342, 1,351, 1,417, 1,486 and 1,681 feet to the west, and moorings were located approximately 894, 997, 1,105, 1,193 and 1,197 feet to the west. At the time of the site visit, DMR scientists observed one dock had paddleboards on it, two docks had kayaks stored on them, and two docks had both kayaks and an approximately 10-foot long, outboard engine powered, inflatable “tender” boat tied to it. One mooring was occupied with an approximate 15-foot powerboat and the other four moorings were unoccupied (Figure 2).

On May 9, 2024, DMR received a completed Harbormaster Questionnaire from the town of Boothbay. The Harbormaster indicated there are no permitted moorings within the boundaries of the proposal and that riparian access should not be negatively impacted.

⁴ Maine Orthoimagery Coastal Midcoast 2023



Department of Marine Resources
Site Report

Pleasant Cove Oyster Farm
South of Pleasant Cove Ledges, Damariscotta River
Boothbay



Image 1. Observed ramp leading to the water in the vicinity of the proposal.

(2) Navigation

The proposal is located in subtidal waters approximately 122 feet east-southeast of Pleasant Cove ledges at MLW. There is approximately 1,637 feet of navigable water between corner “3” of the proposal and Carlisle Point to the east providing access to Pleasant Cove. The primary navigational channel that provides access up and down the Damariscotta River is located approximately 1,057 feet to the northeast (Figure 3).

During DMR’s site visit, scientists observed one recreational paddleboarder paddling through the proposal area. Scientists also observed two commercial aquaculture powerboats, one mooring barge, and two recreational powerboats transiting in the main river channel to northeast of the proposal.

The Harbormaster indicated in the Harbormaster Questionnaire that the proposal is located outside of the channel and it should not negatively impact navigation.

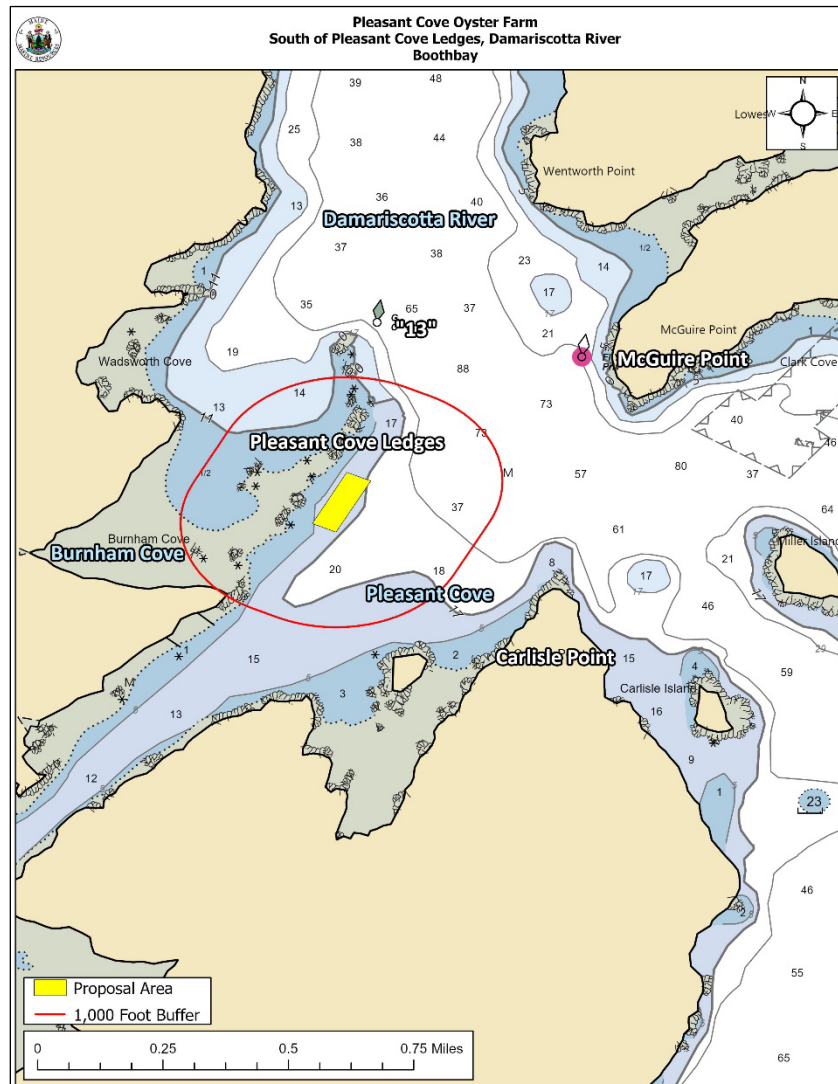


Figure 3. Navigational channels in the vicinity of the proposed lease area.

(3) Fishing and Other Uses

During DMR's site visit, scientists observed 27 lobster buoys in the general vicinity of the proposal, with the closest located approximately 13 feet north of the proposal (Figure 2). No other fishing activity was observed during the site visit.

The Harbormaster indicated in the Harbormaster Questionnaire that there is not much commercial or recreational fishing within the area of the proposed lease.

(4) Other Aquaculture Uses

There is one licensed aquaculture lease within 1,000 feet of the proposed lease site. DAM PC is located approximately 924 feet southeast of the proposal and is held by Pleasant Cove Oyster



Department of Marine Resources Site Report

Pleasant Cove Oyster Farm
South of Pleasant Cove Ledges, Damariscotta River
Boothbay

Farm, who is the applicant of this proposal. There are eight licensed Limited Purpose Aquaculture (LPA) sites within 1,000 feet of the proposed lease site. Four of the LPAs (HISR123, HISR223, HISR323, and HISR423) are licensed to Haley Israelson. They are located approximately 963, 979, 836, and 833 feet north of the proposal, respectively. There are four licensed LPAs located within the proposal boundaries (Figure 4). LKNA120, LKNA220, LKNA320, and LKNA420 are licensed to Larry Knapp and would be terminated if the proposal is granted.⁵

At the time of the site visit, DMR scientists observed six buoys related to aquaculture within the boundaries of the proposal (Figure 2). Scientists also observed an aquaculture boat and crew actively tending lease DAM PC on the southeastern shore of Pleasant Cove.

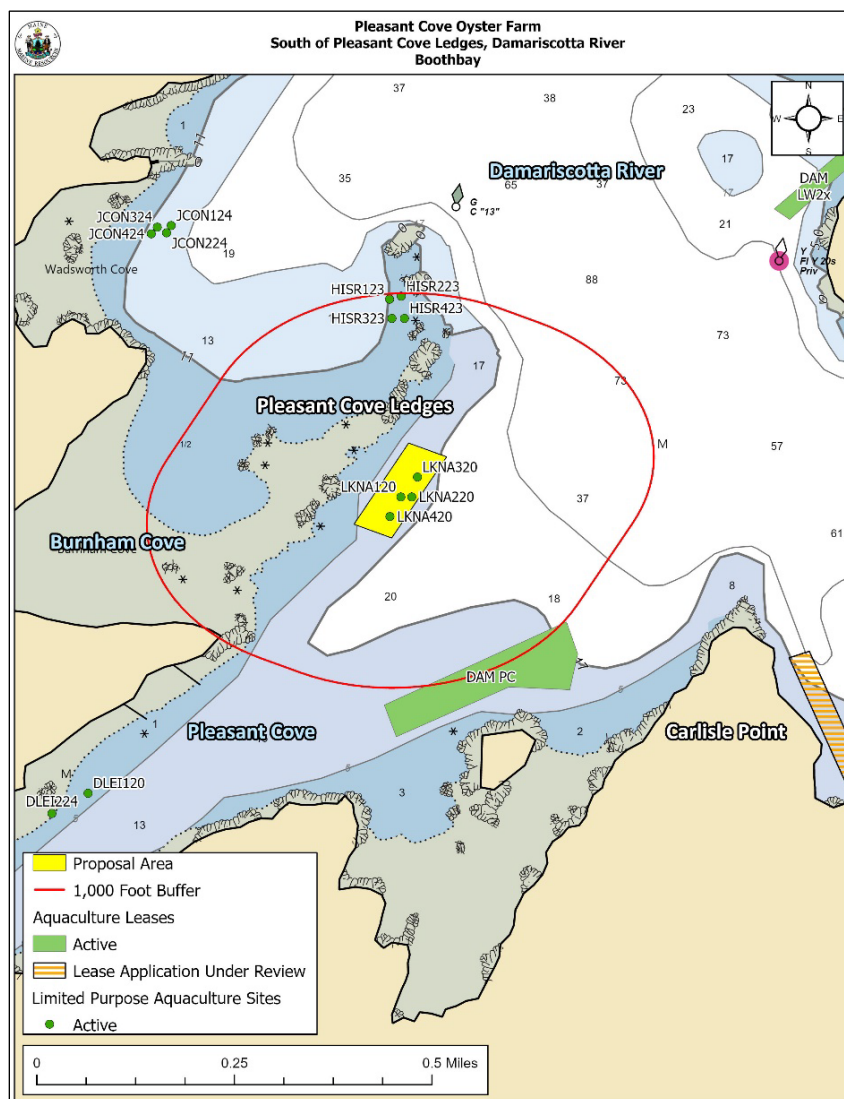


Figure 4. Aquaculture leases and LPA licenses in the vicinity of the proposed lease area.

⁵ Application page 30



(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 |
|--|------------|
| Crab (<i>Cancer</i> spp.) | Common |
| Hermit crab (<i>Pagurus</i> sp.) | Occasional |
| Sand shrimp (<i>Crangon septemspinosa</i>) | Occasional |
| Sugar kelp (<i>Saccharina latissima</i>) | Occasional |
| American lobster (<i>Homarus americanus</i>) | Rare |
| Green crab (<i>Carcinus maenas</i>) | Rare |

Eelgrass (*Zostera marina*)

Records of seagrass collected by the Department of Environmental Protection (DEP) in 2023⁶ indicate there is no eelgrass mapped within 1,000 feet of the proposal. The nearest mapped eelgrass is approximately 5,024 feet south of the proposal (Figure 5).

During DMR's site visit, scientists did not observe any eelgrass in the vicinity of the proposal.

⁶ 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.



Department of Marine Resources Site Report

Pleasant Cove Oyster Farm
South of Pleasant Cove Ledges, Damariscotta River
Boothbay

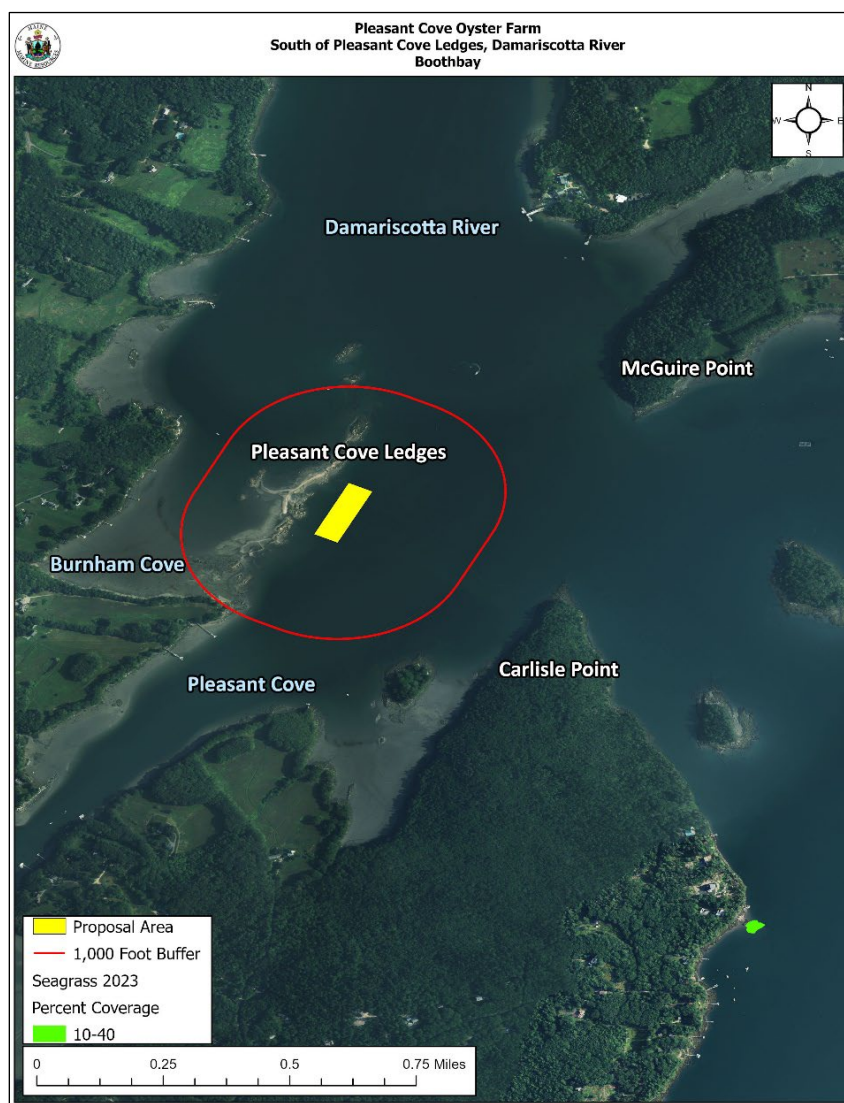


Figure 5. Mapped eelgrass (*Z. marina*) in the vicinity of the proposed lease area.

Wildlife

During the site visit, DMR scientists observed common tern (*Sterna hirundo*), laughing gull (*Leucophaeus atricilla*), herring gull (*Larus argentatus*), great cormorant (*Phalacrocorax carbo*), double-crested cormorant (*Nannopterum auritum*), bald eagle (*Haliaeetus leucocephalus*), common loon (*Gavia immer*), red-shouldered hawk (*Buteo lineatus*), great black-backed gull (*Larus marinus*), moon jellyfish (*Aurelia aurita*), lion's mane jellyfish (*Cyanea capillata*), and harbor seal (*Phoca vitulina*) 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



Department of Marine Resources
Site Report

Pleasant Cove Oyster Farm
South of Pleasant Cove Ledges, Damariscotta River
Boothbay

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 located almost entirely within mapped Tidal Waterfowl and Wading Bird Habitat (TWWH), which is a type of Significant Wildlife Habitat designated and regulated by IFW.⁷ Based on data maintained by IFW, approximately 2.08 acres of the requested 2.78 acres, approximately 75-percent, of the proposal is located within designated TWWH habitat (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 within the vicinity of the proposal (Figure 6).

IFW was provided with the opportunity to comment on this proposal. On May 15, 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.⁸

⁷ <https://www.maine.gov/ifw/programs-resources/environmental-review/significant.html>

⁸ Email correspondence between IFW and DMR



Department of Marine Resources
Site Report

Pleasant Cove Oyster Farm
South of Pleasant Cove Ledges, Damariscotta River
Boothbay

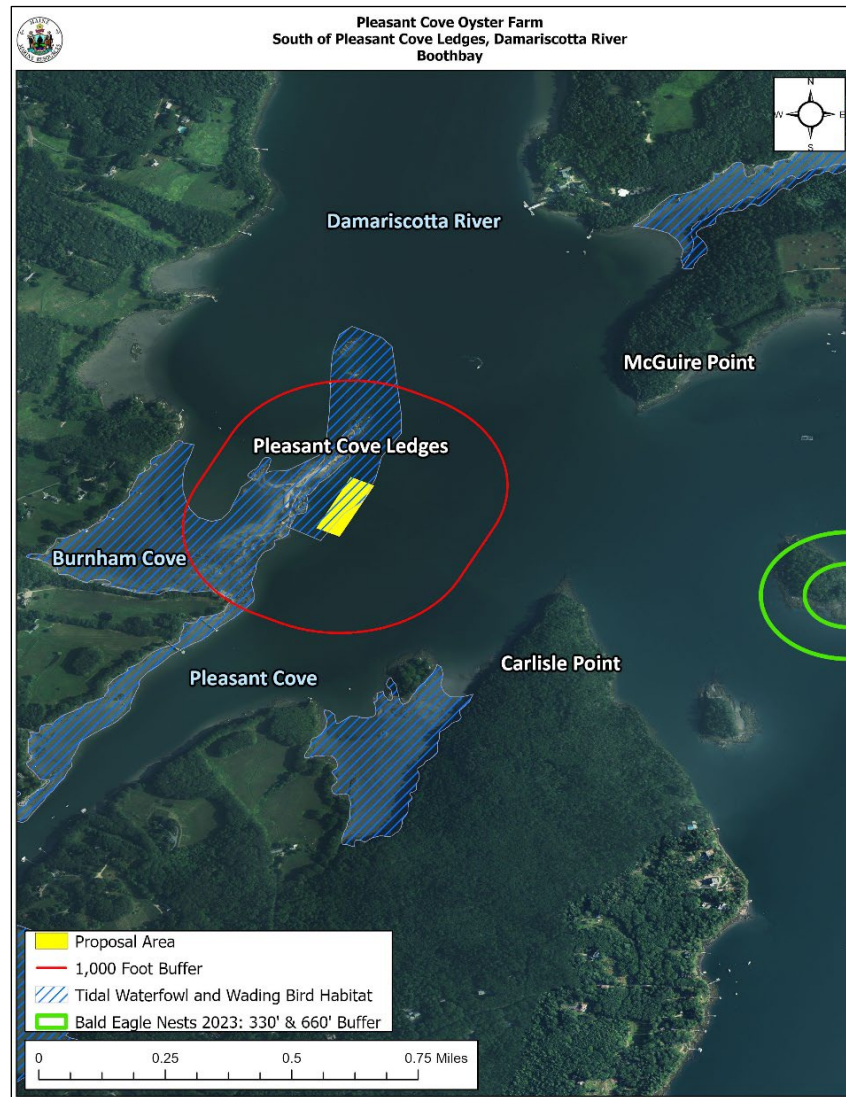


Figure 6. Mapped habitats in the vicinity of the proposed lease area.⁹

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



(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.¹⁰

(7) Water Quality

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

¹⁰ Data obtained from The Maine Office of GIS "GISVIEW.MECONSLANDS.Conserved_Lands"