

Figure 1. Vicinity map.<sup>1</sup>

**Location:** Southeast of Dodge Point, Damariscotta River, Newcastle, Lincoln County, Maine

**Purpose:** Standard lease for suspended culture of American Oysters (*Crassostrea virginica*), European Oysters (*Ostrea edulis*), Northern Quahog (*Mercenaria mercenaria*), and Bay Scallop (*Argopecten irradians*)

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Report Preparation: Meryl Grady

<sup>1</sup> 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, Dodge Cove Marine Farm, is requesting 12.42<sup>2</sup> acres southeast of Dodge Point in the Damariscotta River for the suspended culture of shellfish utilizing OysterGro cages and/or Hexcyl baskets.<sup>3</sup>

**General Characteristics**

On July 22, 2021, Maine Department of Marine Resources (MDMR) scientists assessed the proposed lease site beginning at approximately 9:23 AM. The surrounding shoreline is rocky with forested and residential uplands. Dodge Point Preserve is located approximately 140 feet to the north of the proposal at mean high water (MHW).

**Depth**

MDMR staff began collecting depths at the proposed site at approximately 9:23 AM on July 22, 2021. The tide was in the late flood stage. Depths at the proposed lease site were approximately 14.8 feet at corner A, 20.0 feet at corner B, 21.3 feet at corner C, and 19.3 feet at corner D. Correcting for tidal variation derives water depths at the next high tide to be a range from 15.4 to 21.9 feet. Water depths at mean low water (MLW, 0.0 feet) range from 6 to 12.5 feet (Table 1).

**Table 1.** Tidal heights in Newcastle, Maine (44.0333' N, -69.5367' W).<sup>4</sup>

Date	Time	Height (ft)
2021/07/22	04:21 AM	-0.70 L
2021/07/22	10:26 AM	9.40 H
2021/07/22	04:27 PM	0.3 L
2021/07/22	10:37 PM	11.4 H

**Bottom Characteristics**

MDMR staff observed the bottom characteristics of the proposed lease site via a drop camera transect on July 22, 2021 (Figure 2). 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 soft 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	Mud

<sup>2</sup> Applicant originally requested 12.26 acres. DMR calculations indicate the area is 12.42 acres.

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<sup>4</sup> <https://www.usharbors.com/harbor/maine/newcastle-me/tides/?tide=2021-07#monthly-tide-chart>



**Position and Distances to Shore**

The 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, digital orthophotography provided by the Maine Office of GIS, and the application coordinates (Table 3, Figure 2).

**Application Coordinates (WGS84) – 12.42 Acres**

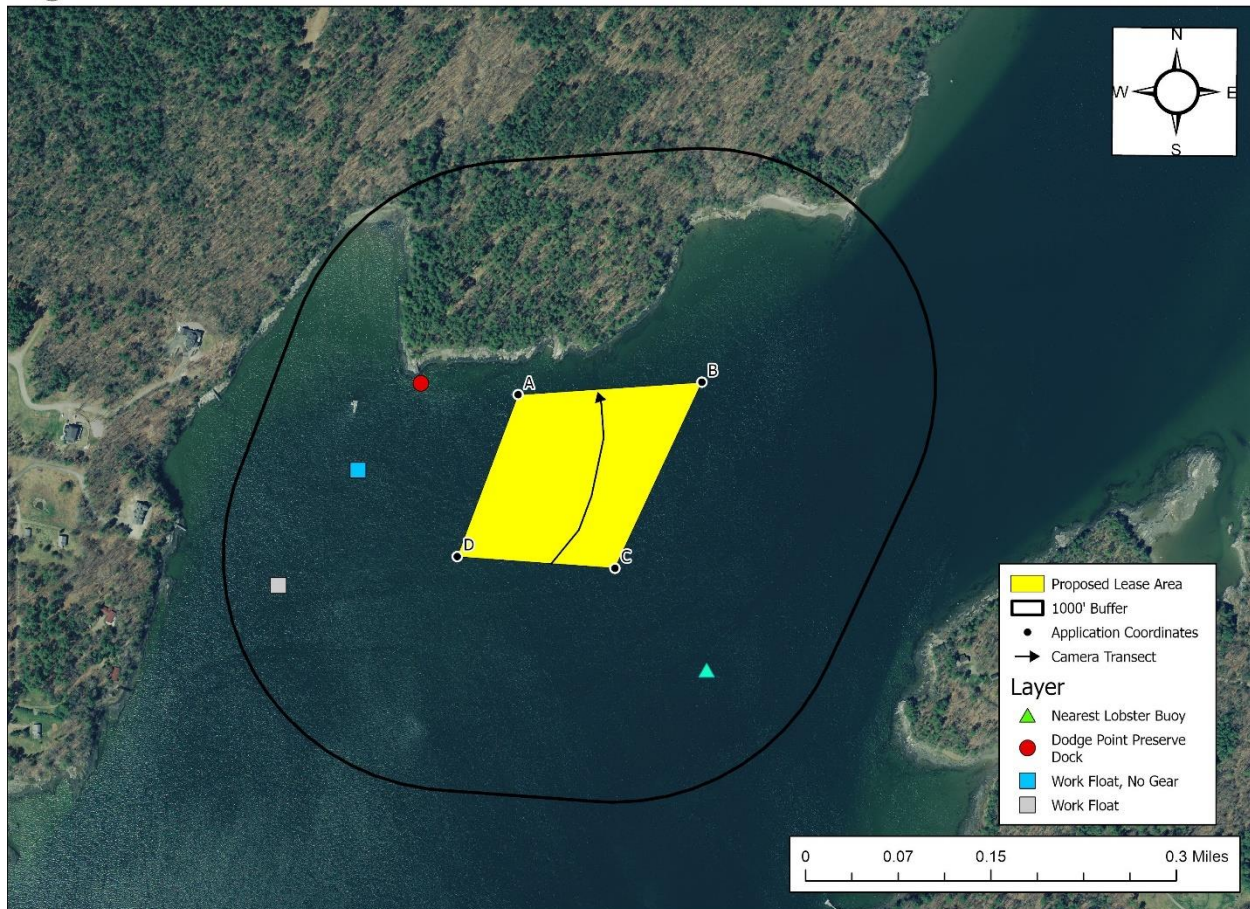
<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>
A	43° 59' 03.87" N	-69° 33' 45.30" W then 786.42 feet at 86° True to
B	43° 59' 04.45" N	-69° 33' 34.57" W then 876.75 feet at 205° True to
C	43° 58' 56.58" N	-69° 33' 39.58" W then 675.36 feet at 275° True to
D	43° 58' 57.02" N	-69° 33' 48.80" W then 739.06 feet at 20° True to A

**Table 3.** Approximate distances from the proposed lease to surrounding features (Figure 2).

Feature	Distance
Northern boundary line of proposal to Dodge Point Preserve at MHW	~140 feet to the north
Northern boundary line of proposal to Dodge Point Preserve at MLW	~80 feet to the north
Corner A to the Dodge Point Preserve Dock at MHW and MLW	~420 feet to the west
Corner C to nearest lobster buoy	~580 feet to the southeast
Corner D to work float	~770 feet to the southwest
Corner D to work float containing no gear	~560 feet to the northwest



Dodge Cove Marine Farm - Southeast of Dodge Point, Damariscotta River, Newcastle



**Figure 2.** Proposed lease area with corner labels, 1000' buffer, drop camera transect, and surrounding features.

***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 on July 22, 2021, MDMR observed a total of one dock and two floats within 1,000 feet of the proposal. The dock was located on Dodge Point Preserve approximately 420 feet to the west of the proposal at MHW. The two floats were presumed to be aquaculture work floats as one of them contained aquaculture gear (Figure 2).



## (2) Navigation

The proposal is located approximately 750 feet to the west of the center of the deepest channel of the main stem of the Damariscotta River. There is approximately 140 feet of navigable water at MHW between Dodge Point Preserve and the northern boundary of the proposal (Figure 3).



Dodge Cove Marine Farm - Southeast of Dodge Point, Damariscotta River, Newcastle

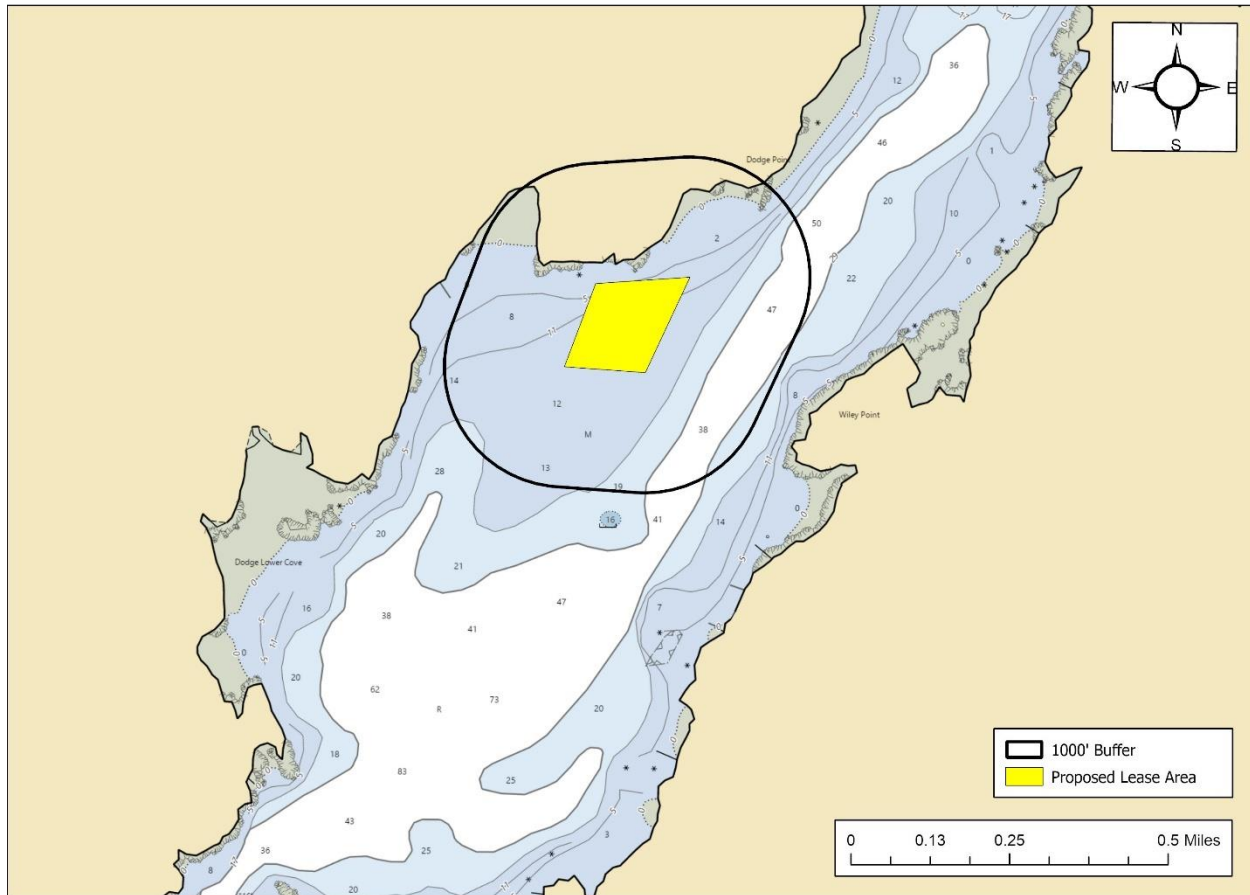


Figure 3. Proposed lease area, 1000' buffer, and navigation channels.

## (3) Fishing and Other Uses

During the site visit on July 22, 2021, MDMR scientists observed several lobster buoys in the vicinity of the proposal. The buoy nearest to the proposal was approximately 580 feet to the southeast of corner C (Table 3, Figure 2). There were no buoys within the proposal boundaries at the time of the site visit. MDMR scientists also observed people walking the shoreline of Dodge Point Preserve, as well as people using the dock associated with Dodge Point Preserve.

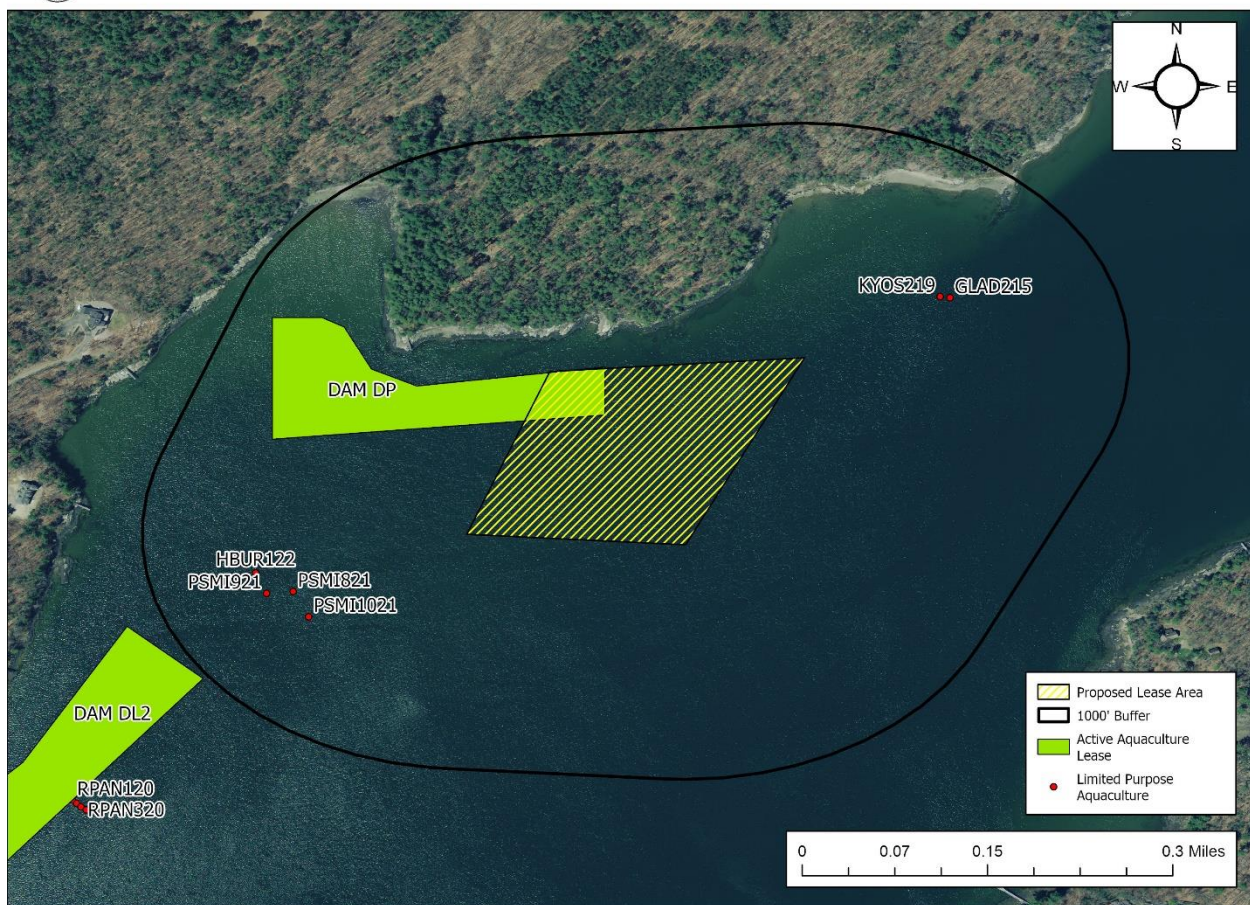


**(4) Other Aquaculture Uses**

There is one existing aquaculture lease, DAM DP, and six Limited Purpose Aquaculture licenses (KYOS219, GLAD215, HBUR122, PSMI821, PSMI921, PSMI1021) within 1,000 feet of the proposed lease site. The proposal boundaries overlap with lease site DAM DP in the northwestern corner of the proposal. DAM DP is held by Muscongus Bay Aquaculture (MBAQ) and is for the bottom culture of shellfish. MBAQ wrote a letter of support proposal stating MBAQ acquired Dodge Cove Marine Farm and operates all leases for Dodge Cove Marine Farm, therefore MBAQ is in support of the proposal in consideration (Figure 4).<sup>5</sup>



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**Figure 4.** Aquaculture leases and Limited Purpose Aquaculture (LPA) licenses in the general area of the proposal.

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**(5) Existing System Support**

**Epibenthic Flora and Fauna**

On July 22, 2021, MDMR scientists conducted a drop camera transect to assess the epibenthic ecology of the proposed lease. The observed bottom was soft mud. The relative abundance of flora and fauna observed in the vicinity of the proposal is described below in Table 4.

**Table 4.** Species observed in the vicinity of the proposal.

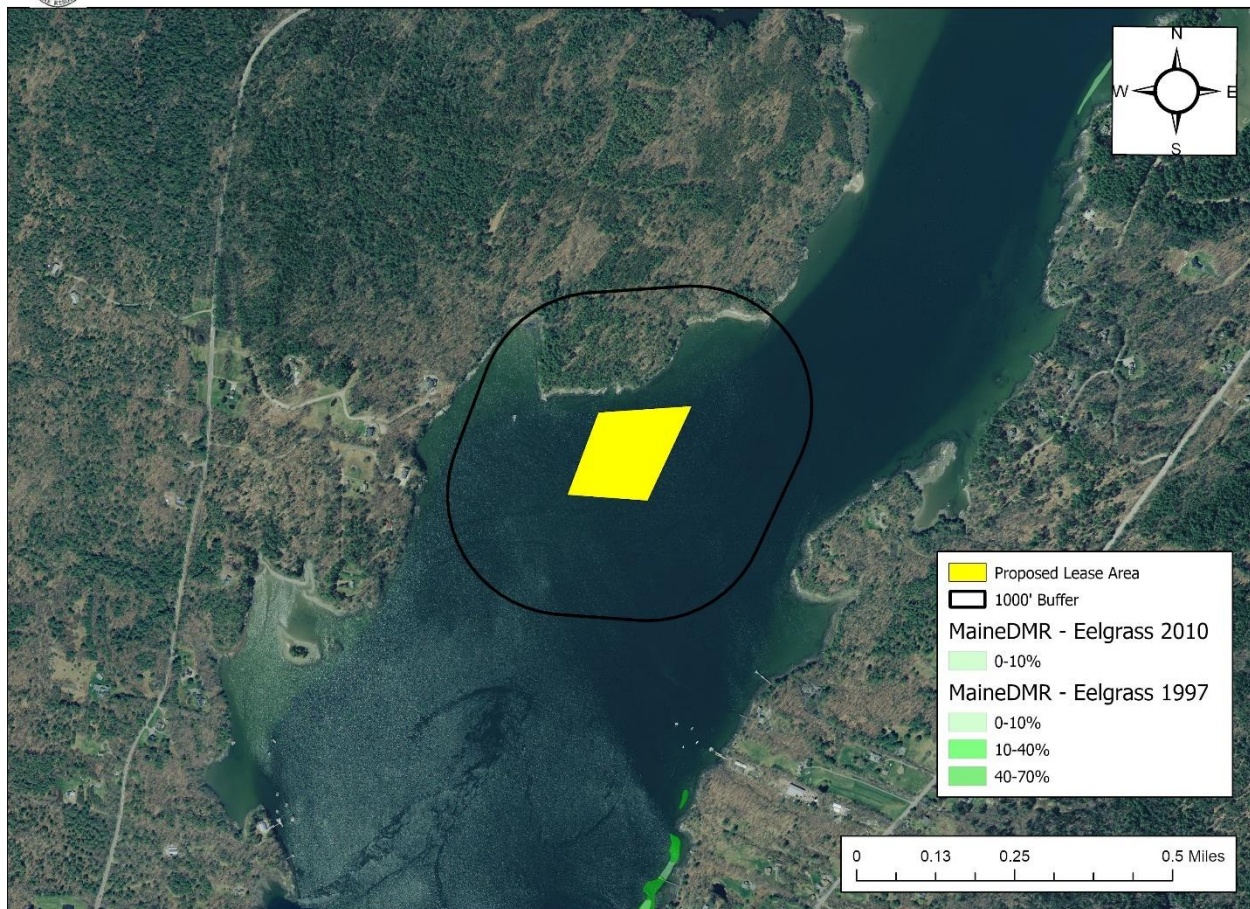
Species Observed	Abundance
Common Tern ( <i>Sterna hirundo</i> )	Common
Common Eider ( <i>Somateria mollissima</i> )	Common

**Eelgrass (*Zostera marina*)**

Historical records of eelgrass collected by MDMR in 1997 and 2010 indicate no eelgrass presence within the vicinity of the proposal. No eelgrass was observed within the proposal boundaries during MDMR’s site assessment on July 22, 2021.



Dodge Cove Marine Farm - Southeast of Dodge Point, Damariscotta River, Newcastle



**Figure 5.** Mapped eelgrass (*Z. marina*) near the proposed lease utilizing 1997 and 2010 data.



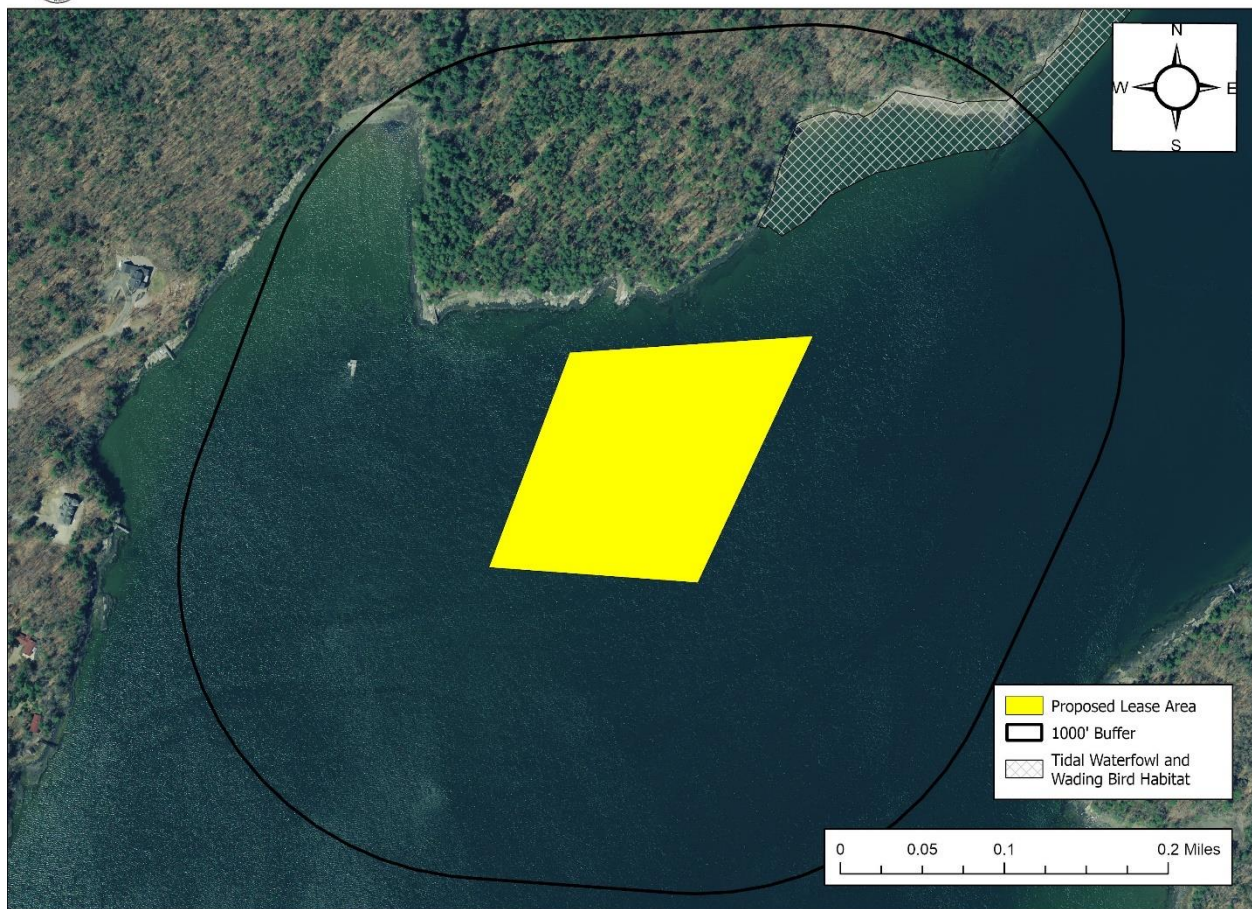
**Wildlife**

According to Geographic Information System (GIS) data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) and available through the Maine Office of GIS (MEGIS), the proposed lease is located approximately 330 feet southwest of tidal waterfowl and wading bird habitat (Figure 6). Data collected by the United States Fish and Wildlife Service in 2022 by aerial nest survey shows the closest Bald Eagle nesting sites to be over two miles away from the proposal (Figure 7).

On July 16, 2021, a Wildlife Biologist with MDIFW responded by email to a “Request for Agency Review and Comment”, stating minimal impacts to wildlife are anticipated for this project.<sup>6</sup>



Dodge Cove Marine Farm - Southeast of Dodge Point, Damariscotta River, Newcastle



**Figure 6.** Tidal Waterfowl and Wading Bird Habitat<sup>7</sup> in the vicinity of the proposed lease site.

<sup>6</sup> Email correspondence between MDIFW and MDMR

<sup>7</sup> Data obtained from MDIWF maintained SDE Feature Class “GISVIEW.MEIFW.Twwh”



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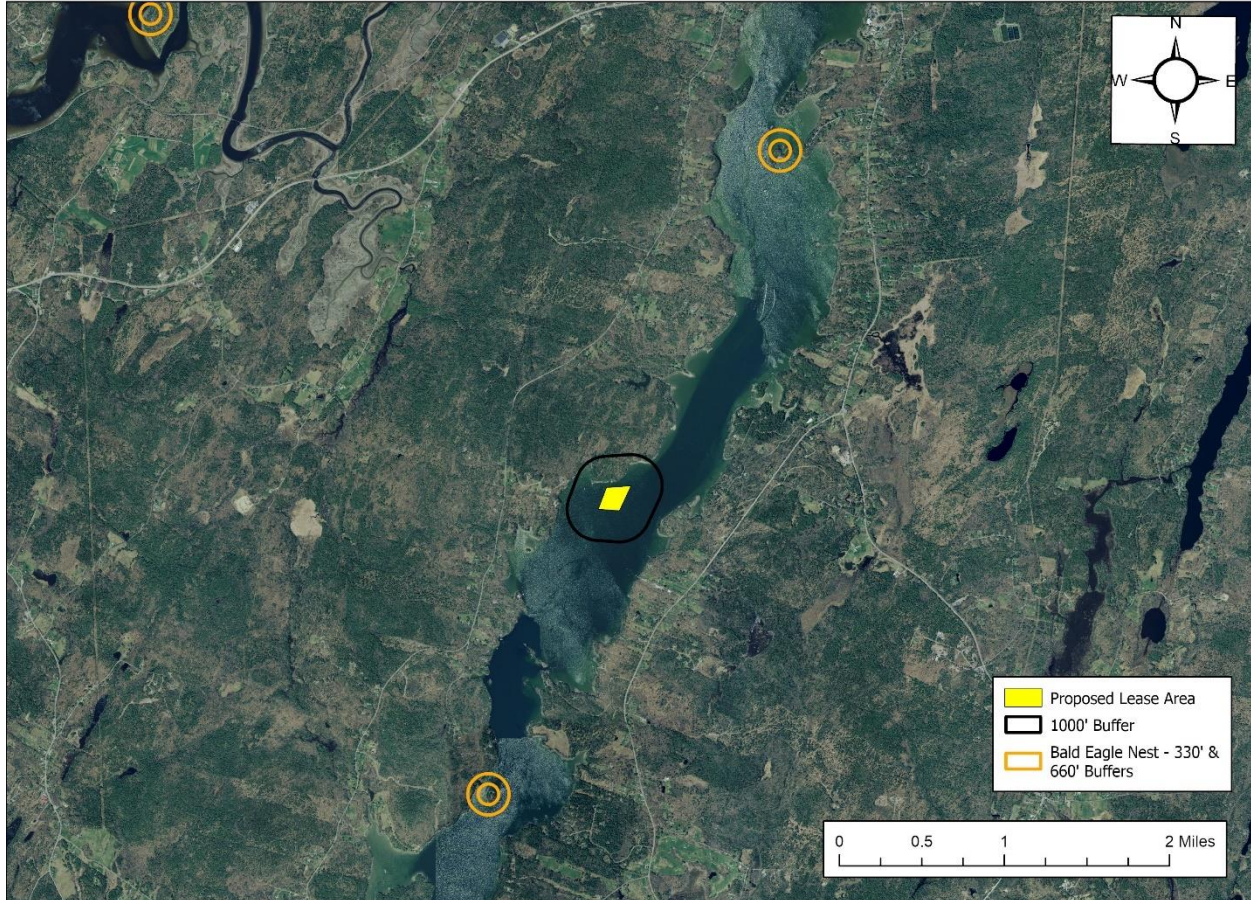


Figure 7. Mapped Bald Eagle nests with a 330' and 660' buffer.<sup>8</sup>

#### (6) Interference with Public Facilities

The proposed lease is located approximately 140 feet south of Dodge Point Preserve, which is owned by the State of Maine and operated by Maine Bureau of Parks and Lands (Figure 8).

<sup>8</sup> Data obtained from USFWS "Bald\_Eagle\_Nests\_-\_Maine\_2023"



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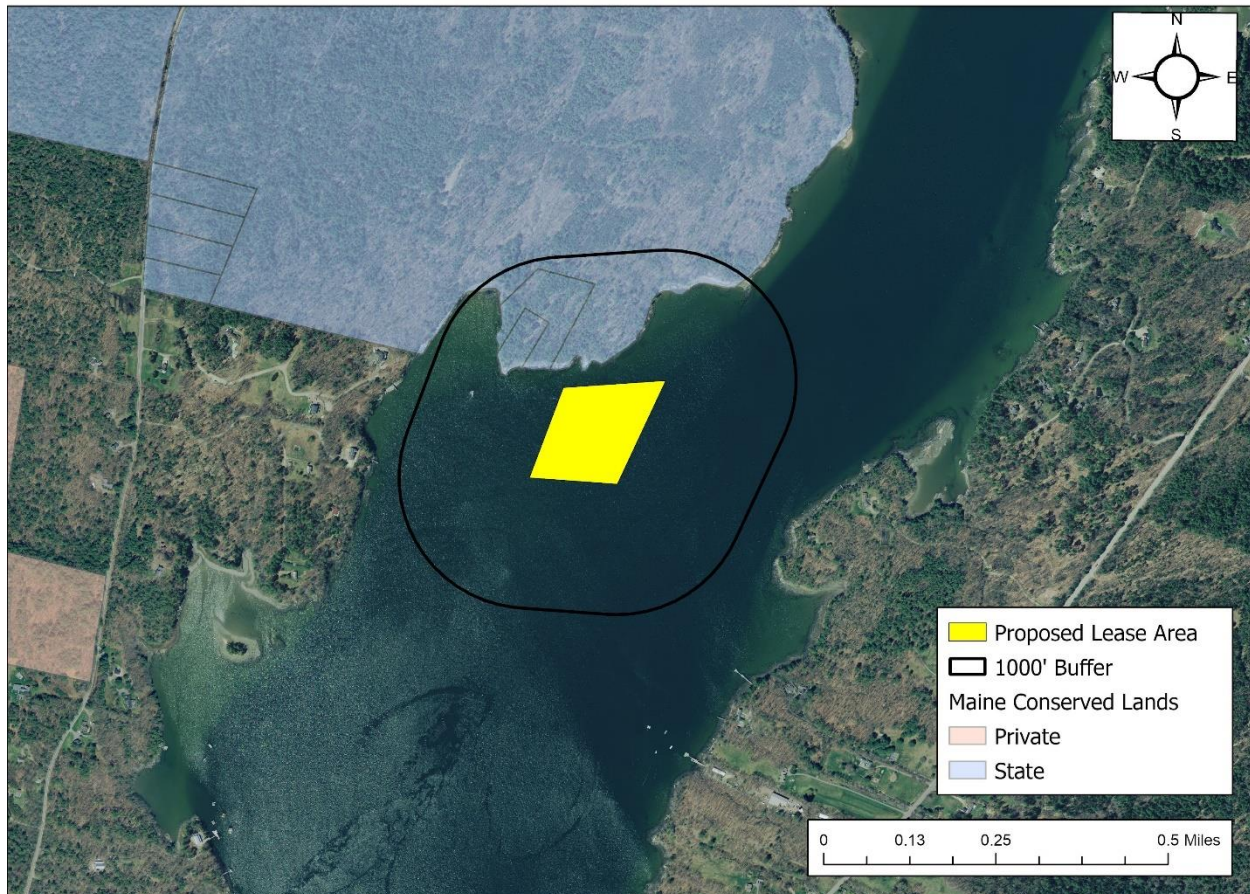


Figure 8. Public facilities near the proposed lease site.<sup>9</sup>

### (7) Water Quality

The proposed lease area is currently classified as “Open/Approved” for the harvest of shellfish by the MDMR Bureau of Public Health.

### (8) Lighting

The applicant does not intend to deploy any lighting on the proposed lease site. The applicant indicated that only under special circumstances, such as bad weather, would work extend beyond daylight hours.<sup>10</sup>

<sup>9</sup> Data obtained from The Maine Office of GIS “GISVIEW.MECONSLANDS.Conserved\_Lands”

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## Maine Department of Marine Resources Site Report

Dodge Cove Marine Farm  
Southeast of Dodge Point  
Damariscotta River

### **(9) Noise**

The applicant plans to use flat bottom Carolina skiffs powered by four-stroke engines for harvesting, seed deployment, and gear maintenance. Flipping, sinking, and floating of gear will be performed by Carolina skiffs, drag boats, and/or specialized barges all powered by four-stroke engines. Hydraulic equipment will utilize small horsepower engines housed in sound attenuating enclosures.<sup>11</sup>

### **(10) Visual Impact**

The applicant is proposing for all grow-out gear to be dark green, black, or blue. No on-site support structures are proposed.<sup>12</sup>

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