



Maine Department of Marine Resources Site Report

Randy Pinkham (App 1)
East of Chair Pond Head, Pigeon Hill Bay
Steuben

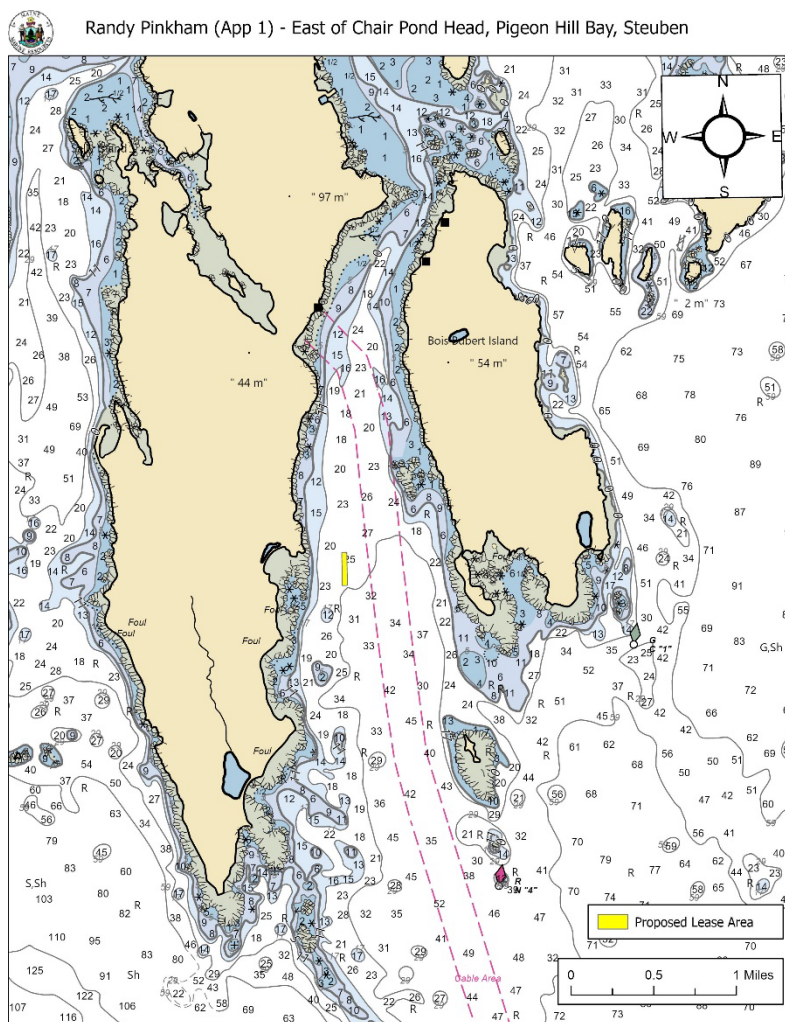


Figure 1. Vicinity map.¹

Location: East of Chair Pond Head, Pigeon Hill Bay, Steuben, Washington County, Maine

Purpose: Experimental lease for suspended culture of sugar kelp (*Saccharina latissima*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), horsetail/fingered kelp (*Laminaria digitata*), shotgun kelp (*Agarum clathratum*)², dulse (*Palmaria palmata*), Irish moss (*Chondrus crispus*), and sea lettuce (*Ulva lactuca*)

Site Review: Geoffrey Shook and Katie VonHohenleiten

Report Preparation: 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.

² Application lists the scientific name for shotgun kelp as *Agarum cribosum*. Accepted species name is *Agarum clathratum*.



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Application Overview

The applicant, Randy Pinkham, is requesting 3.99 acres east of Chair Pond Head in Pigeon Hill Bay, Steuben for the suspended culture of marine algae. The applicant intends to remove all gear and equipment except mooring blocks and required lease markers from June 16 through October 14.³ This proposal is referred to as “Application 1”. The applicant has an additional experimental application under review by the Maine Department of Marine Resources (MDMR) approximately 100 feet to the west of this proposal (Figure 4).

General Characteristics

On July 3, 2024, MDMR scientists assessed the proposed lease site. MDMR scientists arrived on site at approximately 8:53 AM. Petit Manan National Wildlife Refuge is to the west of the proposal and consists of a rocky coastline with occasional sandy beaches leading to mixed forest uplands. Bois Bubert Island is east of the proposal and consists of a rocky coastline leading to forested uplands. Petit Manan Light is approximately 3.8 miles south of the proposal.

Depth

MDMR scientists began collecting depths at the proposed site shortly before high tide at approximately 9:10 AM. Measured depths at corners of the proposed lease site ranged from 35.9 to 40.6 feet. Correcting for tidal variation derives water depths at the corners of the proposal at mean low water (MLW, 0.0 feet) to be from 25.1 to 29.8 feet (Table 1).

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

Date	Time	Height (ft)
2024/07/03	3:26 AM	-0.5 L
2024/07/03	9:24 AM	10.8 H
2024/07/03	3:38 PM	0.9 L
2024/07/03	9:38 PM	12.6 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.

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

³ Application pages 6, 26, 27

⁴ <https://www.usharbors.com/harbor/maine/milbridge-me/tides/?tide=2024-07#monthly-tide-chart>



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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, 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) – 3.99 Acres

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>	
NW	44.42392°	-67.88384°	then 164.6 feet at 90° True to
NE	44.42392°	-67.88321°	then 1,057.3 feet at 180° True to
SE	44.42102°	-67.88321°	then 164.6 feet at 270° True to
SW	44.42102°	-67.88384°	then 1,057.3 feet at 0° True to NW

Table 3. Approximate distances from proposed lease corners to surrounding features (Figures 2 and 3).

Feature	Distance
NW corner to closest shoreline at MLW	~1,050' to the west
SW corner to closest shoreline at MLW	~1,110' to the west
NE corner to closest shoreline east of proposal at MLW	~3,180' to the east
SE corner to closest shoreline east of proposal at MLW	~3,230' to the east



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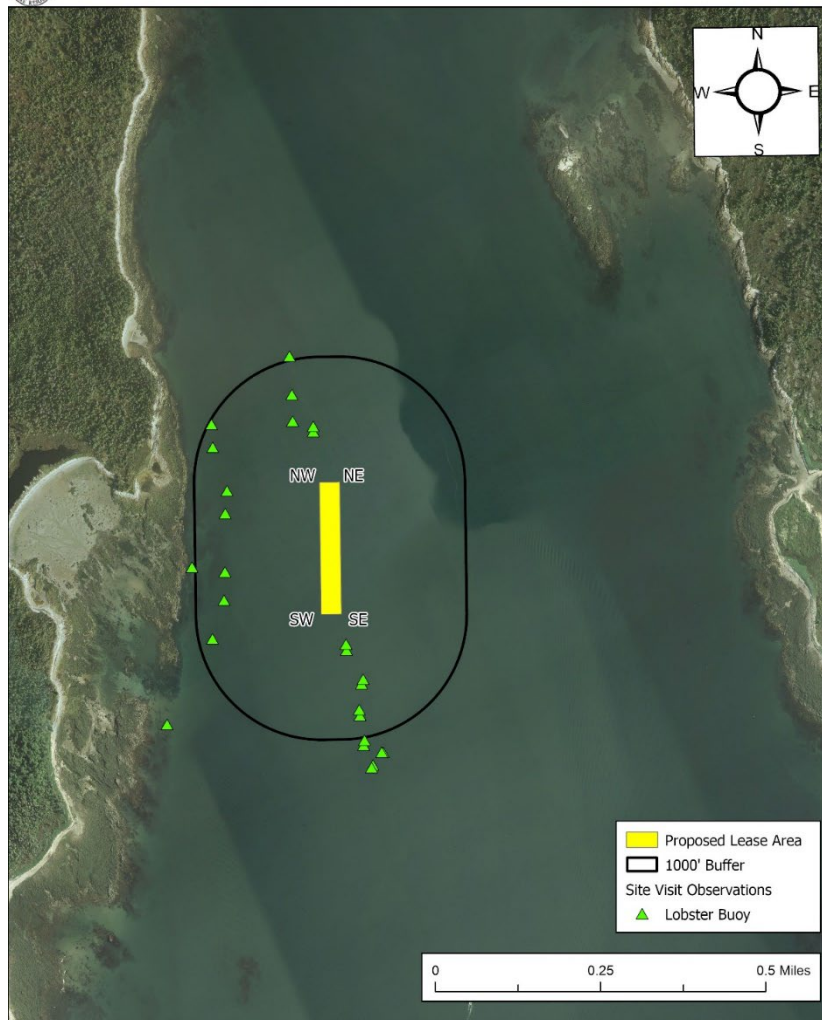


Figure 2. Proposed lease area with site visit observations.

Pursuant to statute and regulation, aquaculture leases are evaluated in consideration of applicable decision criteria. The site report documents MDMR's observations of the area and other information, in consideration of those criteria, as noted below:

(1) Riparian Ingress and Egress

MDMR did not observe any docks, houses, or moorings in the vicinity of the proposal. Nearby land, Bois Bubert Island to the east and Petit Manan Point, Steuben to the west, consists mostly of National Wildlife Refuge land owned by the United States Fish and Wildlife Service. No docks or other structures were observed at the time of the site visit.



(2) Navigation

The proposal is located approximately 1,050 feet to the east of Petit Manan Point at MLW. There is approximately 3,180 feet of navigable water between the proposal and Bois Bubert Island at MLW. There is no dedicated main navigational channel in the vicinity of the proposal and water depths in the area would not restrict most vessels from transiting in the area (Figure 3). MDMR observed most navigational traffic to be approximately 0.25 miles east of the proposal with occasional vessels traveling nearby or to the west of the proposal. Vessels transiting to the east of the proposal were as follows: six commercial fishing vessels transiting north and four transiting south, and two recreational vessels transiting north and two transiting south. One recreational vessel transited south through the proposal and one commercial fishing vessel transited southerly to the west of the proposal.

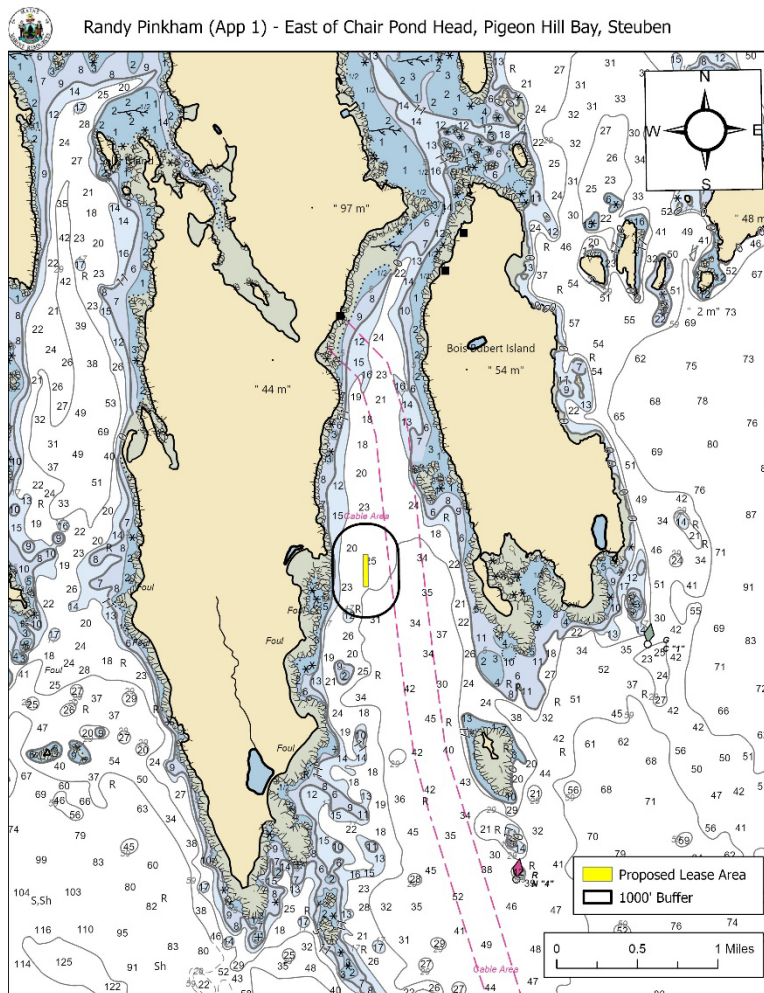


Figure 3. Navigational channels in the vicinity of the proposed lease area.



(3) Fishing and Other Uses

During the site visit, MDMR documented 17 lobster buoys within 1,000 feet of the proposal (Figure 2). Overall, MDMR classified the general area to have light lobstering activity, but the activity was centralized to the vicinity surrounding the proposal. MDMR observed several fishing vessels transiting through the area as mentioned in the navigation section of this report.

(4) Other Aquaculture Uses

There are no aquaculture leases or limited purpose aquaculture (LPA) sites within 1,000 feet of the proposal. There are three pending experimental applications within 1,000 feet of this proposal that are under review by MDMR. The applicant, Randy Pinkham, has a second pending experimental application 100 feet west of this proposal (Application 2). Victor Sokoloski has a pending experimental application 100 feet north of this proposal and a second pending experimental application 140 feet northwest of this proposal (Figure 4).

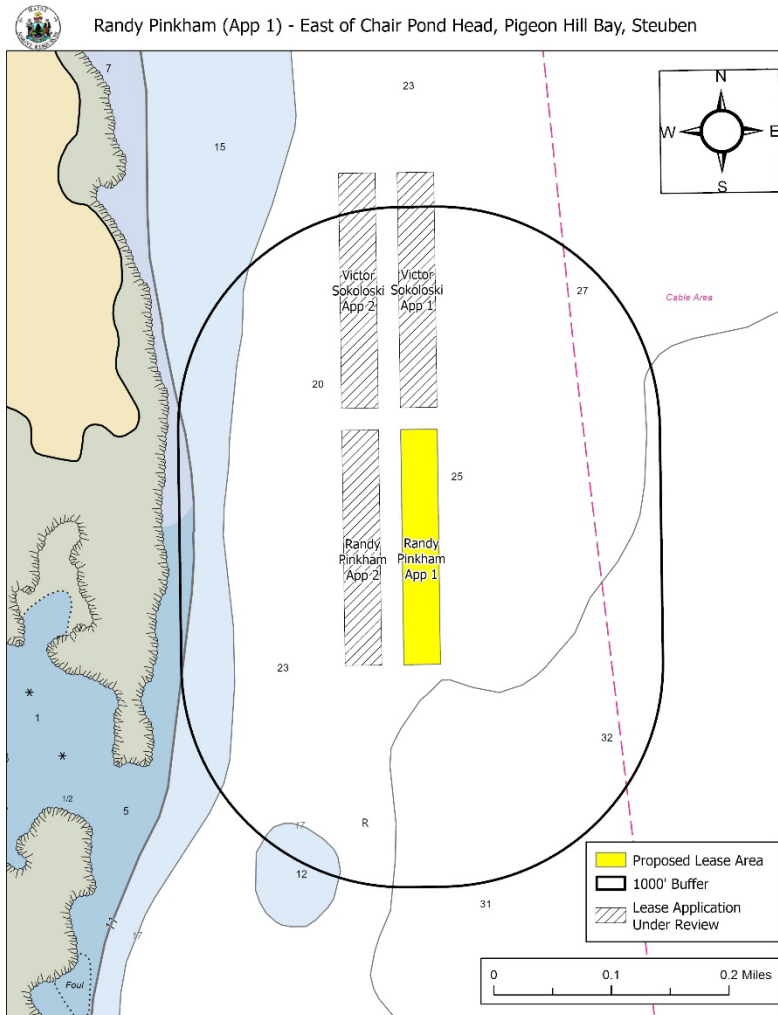


Figure 4. Pending experimental applications in the vicinity of the proposed lease area.



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(5) Existing System Support

Epibenthic Flora and Fauna

On July 3, 2024, 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 transect is described below in Table 4.

Table 4. Species observed on underwater camera footage.

Species Observed	Abundance
Hermit crab (<i>Pagurus</i> sp)	Occasional
Rockweed (<i>Ascophyllum nodosum</i>)	Occasional
Sand shrimp (<i>Crangon septemspinosa</i>)	Occasional
Crab (<i>Cancer</i> sp)	Occasional

Eelgrass (*Zostera marina*)

Historical records of eelgrass collected by MDMR in 2010 indicate the nearest mapped eelgrass is approximately 1,330 feet west of the proposal (Figure 5).⁵ Eelgrass blades were observed drifting on the surface of the water in the vicinity of the proposal. No eelgrass was observed on underwater camera footage attached to the seafloor within the proposal boundaries during MDMR's site assessment.

⁵ 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.

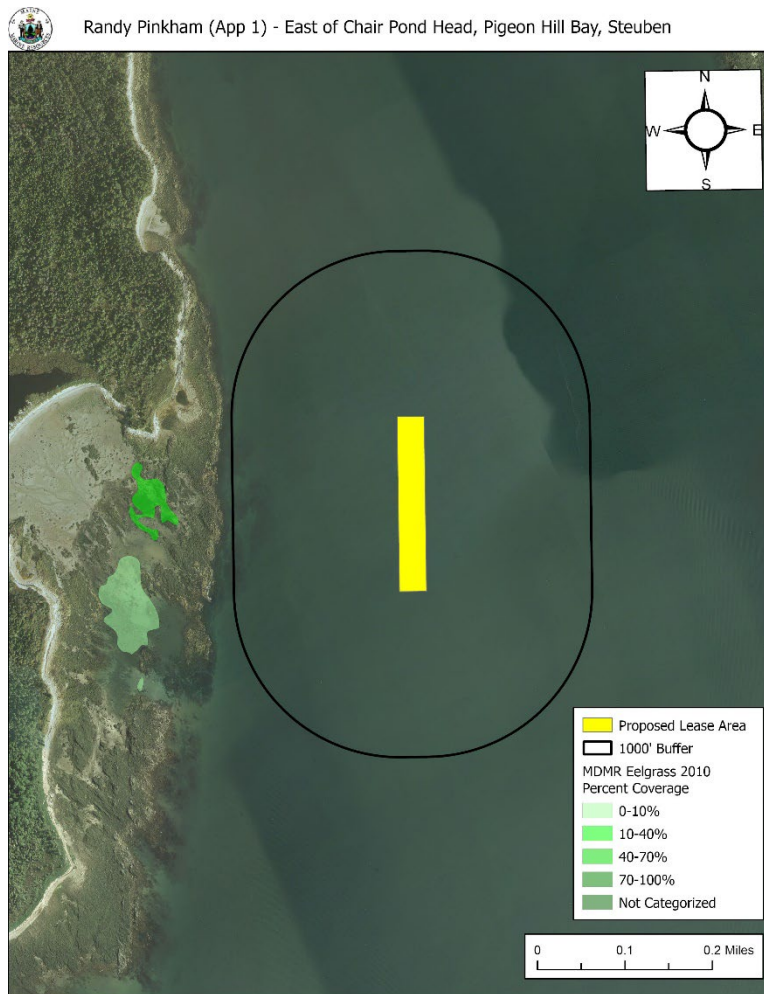


Figure 5. Mapped eelgrass (*Z. marina*) in the vicinity of the proposed lease area.

Wildlife

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 1,420 feet to the east of mapped Tidal Waterfowl and Wading Bird Habitat (TWWH). Data collected by the United States Fish and Wildlife Service in 2022 by aerial nest survey shows the closest mapped bald eagle nesting site to be approximately 0.60 miles southwest of the proposal (Figure 6).

During the site assessment, MDMR scientists observed menhaden (*Brevoortia tyrannus*), black guillemot (*Cepphus grylle*), common tern (*Sterna hirundo*), herring gull (*Larus argentatus*), seal (unknown sp), moon jellyfish (*Aurelia aurita*), and bald eagle (*Haliaeetus leucocephalus*) in the general vicinity of the proposal.



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On August 10, 2023, a Resource Biologist with MDIFW responded by email to a “Request for Agency Review and Comment” stating minimal impacts to wildlife are anticipated for this project.⁶

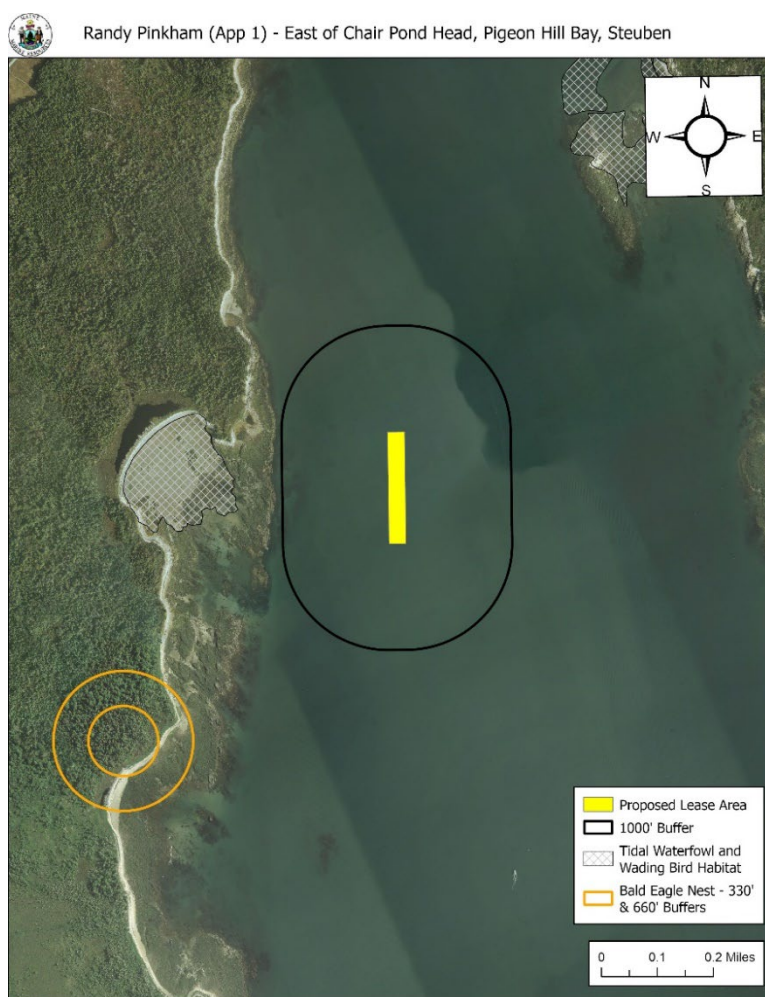


Figure 6. Mapped bald eagle nests and TWWH.⁷

(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.

During the site visit, MDMR observed people hiking along the shoreline of Petit Manan National Wildlife Refuge. This federally conserved land is approximately 1,040 feet west of the proposal.⁸

⁶ Email correspondence between MDIFW and MDMR

⁷ Data obtained from USFWS “Bald_Eagle_Nests_-_Maine_2023” and MDIFW maintained SDE Feature Class “GISVIEW.MEIFW.Twwh”

⁸ Conserved lands cannot be considered by MDMR when rendering an experimental lease decision



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(7) Water Quality

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