

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

**Location:** East of Combs Island, Weskeag River, South Thomaston, Knox County, Maine

**Purpose:** Lease expansion of standard lease WES BC for suspended culture of American/Eastern Oysters (*Crassostrea virginica*).

Site Review: Geoff Shook, Chloe Kilborn

Report Preparation: Katie von Hohenleiten, Geoffrey Shook, Meryl Grady, Amanda Ellis

<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 georeferenced aerial photographs provided by The Maine Office of GIS.



**Application Overview**

The applicant, Krista Tripp, is requesting a 0.22-acre expansion to Tract 1 of existing standard lease WES BC. WES BC is a 0.967-acre standard lease located in the Weskeag River and is comprised of five tracts (Figure 1). The proposed expansion is for the suspended culture of American/Eastern oysters (*Crassostrea virginica*), which is consistent with the purposes of the current lease.

**General Characteristics**

The proposed lease expansion is located on the Weskeag River approximately 476 feet east of the northern point of Combs Island. On October 12, 2023, Maine Department of Marine Resources (MDMR) scientists assessed the proposed lease site. MDMR scientists arrived on site at approximately 10:15 AM.

**Depth**

On October 12, 2023, MDMR scientists began collecting depths at the proposed site at approximately 10:15 AM. The tide was rising with next high tide predicted to occur at 10:18 AM (Table 1). Depths were collected at the proposed expansion corners and determined to be between 11.2 and 15.7 feet. Correcting for tidal variations derives water depths to be approximately 1.9 to 6.4 feet at mean low water (MLW, 0.0 feet) (Table 1).

**Table 1.** Predicted tidal heights in Tenants Harbor, Maine.<sup>2</sup>

| Date       | Time     | Height (ft) |
|------------|----------|-------------|
| 2023/10/12 | 4:07 AM  | 0.7 L       |
| 2023/10/12 | 10:18 AM | 9.3 H       |
| 2023/10/12 | 4:23 PM  | 0.9 L       |
| 2023/10/12 | 10:33 PM | 9.5 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 primarily composed of mud and shell rubble.

<sup>2</sup> <https://www.usharbors.com/harbor/maine/tenants-harbor-me/tides/?tide=2023-10#monthly-tide-chart>



**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             |
| Biogenic Substrate | Shell Substrate                  | Shell Rubble                  | Not Classified  |

**Position and Distances to Shore**

The measuring tool in ArcGIS Pro 2.9 was used to verify the distances and bearings between proposed lease expansion corners. Distances to shore were determined using the measuring tool in ArcGIS Pro 2.9 and digital orthophotography provided by the Maine Office of GIS. Coordinates for the proposed expansion (referred to as NE and NW corners for purposes of this report) were taken from the lease expansion application.<sup>3</sup> The SE and SW corner coordinates (which are corners of Tract 1 of WES BC) were taken from the executed lease decision for WES BC (Table 3, Figure 2).<sup>4</sup>

**Application Coordinates (WGS84) – 0.22 Acres**

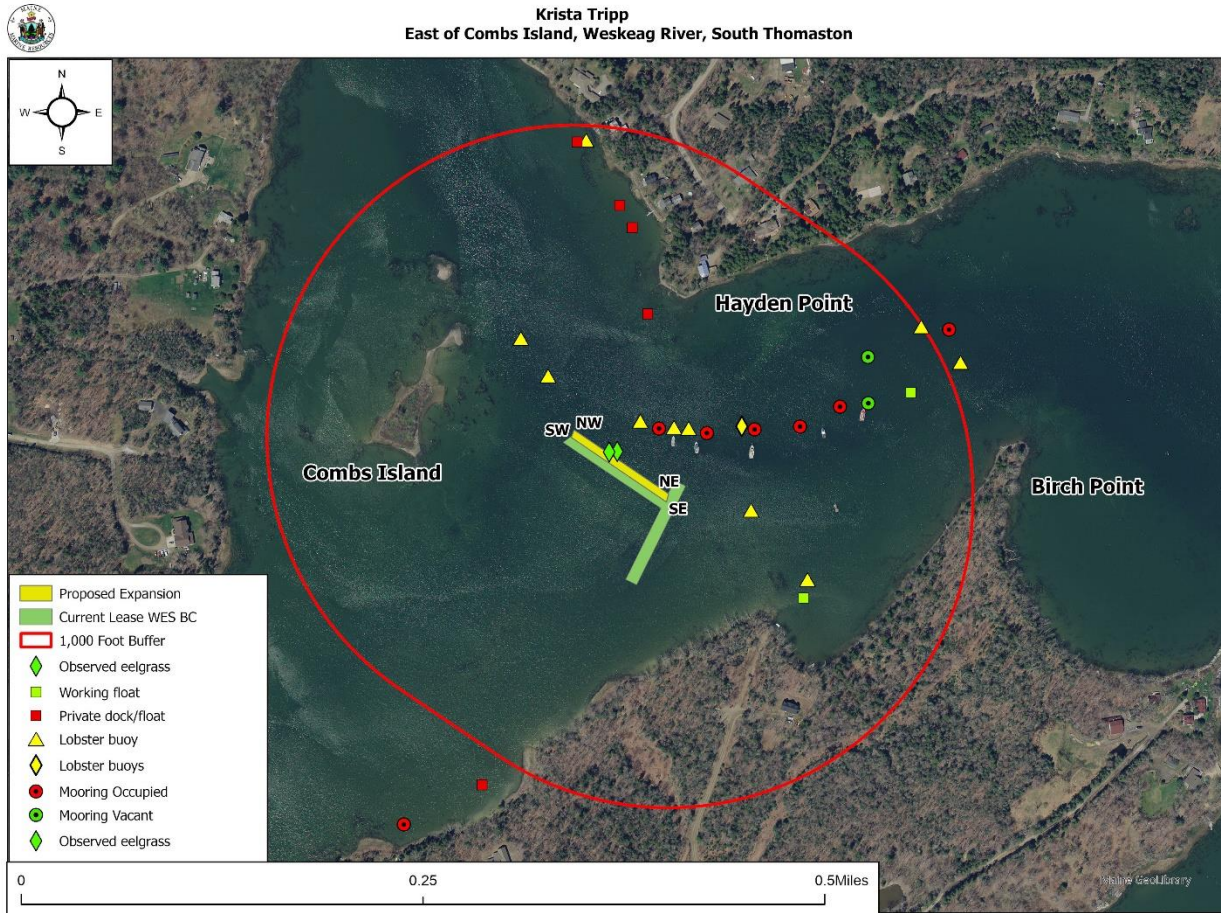
| <u>Corner</u> | <u>Latitude</u> | <u>Longitude</u> |                                    |
|---------------|-----------------|------------------|------------------------------------|
| NE            | 44.039184°      | -69.126499°      | then 27.9 feet at 194° True to     |
| SE            | 44.039110°      | -69.126525°      | then 377.7 feet at 304° True to    |
| SW            | 44.039690°      | -69.127715 °     | then 26.3 feet at 021° True to     |
| NW            | 44.039758°      | -69.127681 °     | then 374.7 feet at 124° True to NE |

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

| Feature   | Distance                   |
|---|----------------------------|
| SW corner to eastern shoreline of Combs Island at MHW | ~476 feet to the west      |
| NW corner to Hayden Point at MLW                      | ~215 feet to the east      |
| NE corner to nearest mooring buoy                     | ~216 feet to the northwest |
| SE corner to nearest shoreline at MHW                 | ~429 feet to the southeast |

<sup>3</sup> Application page 3A

<sup>4</sup> The expansion application listed current lease coordinates incorrectly for WES BC. The correct coordinates were taken from the lease agreement, which was executed on March 4, 2019 following the transfer of WES BC from Paul Desaulniers to Krista Tripp.



**Figure 2.** Proposed expansion area with site visit observations. For clarity purposes, only Tracts 1 and 4 of WES BC are displayed in this figure.

***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 October 12, 2023, MDMR observed approximately seven occupied and two unoccupied moorings in the vicinity of the proposed expansion. The two nearest moorings were each occupied with a commercial fishing vessel and were approximately 161 and 235 feet north of the proposed expansion.

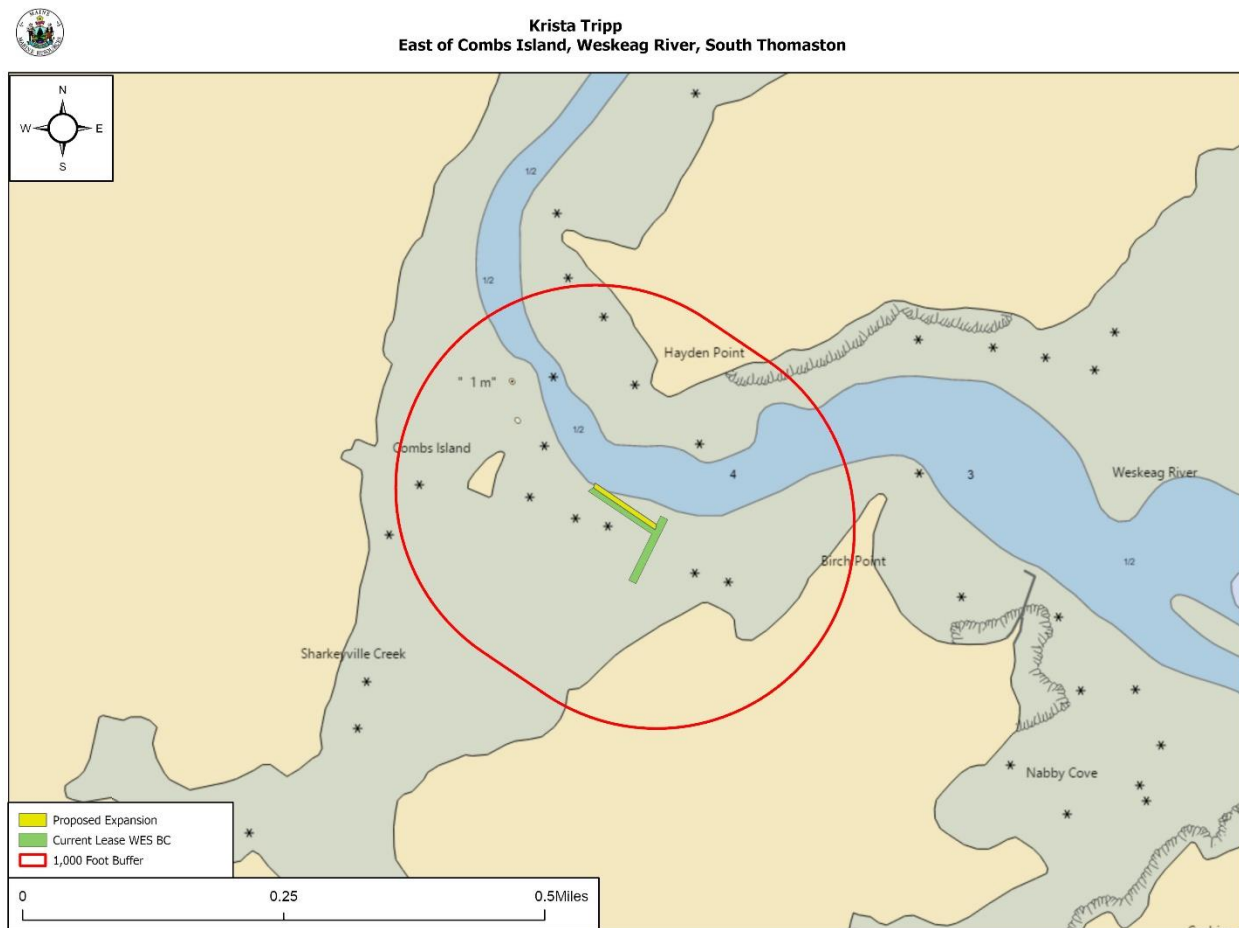
Additionally, MDMR observed a working float located 550 feet southwest from the proposed expansion and a working lobster floating dock 862 feet northeast from the proposed expansion. In addition to the two working floats, MDMR also observed four private recreational docks in the



northern vicinity of the proposed expansion with the closest being located 458.7 feet north of the proposed expansion.

**(2) Navigation**

According to NOAA navigational charts, the proposed expansion is located almost entirely within charted intertidal waters (Figure 3). MDMR measurements indicate depths within the proposed expansion are from 1.9 to 6.4 feet at MLW, therefore denoting the expansion proposal is located within subtidal waters. The NW corner of the proposed expansion is located 12.4 feet into the charted navigational channel. There is 216.2 feet of available channel to the northeast of the proposed expansion at MLW. Water depths within the channel adjacent to the proposed expansion are charted to be 0.5 feet at MLW.



**Figure 3.** Navigational channels in the vicinity of the proposed lease area. For clarity purposes, only Tracts 1 and 4 of WES BC are displayed in this figure.

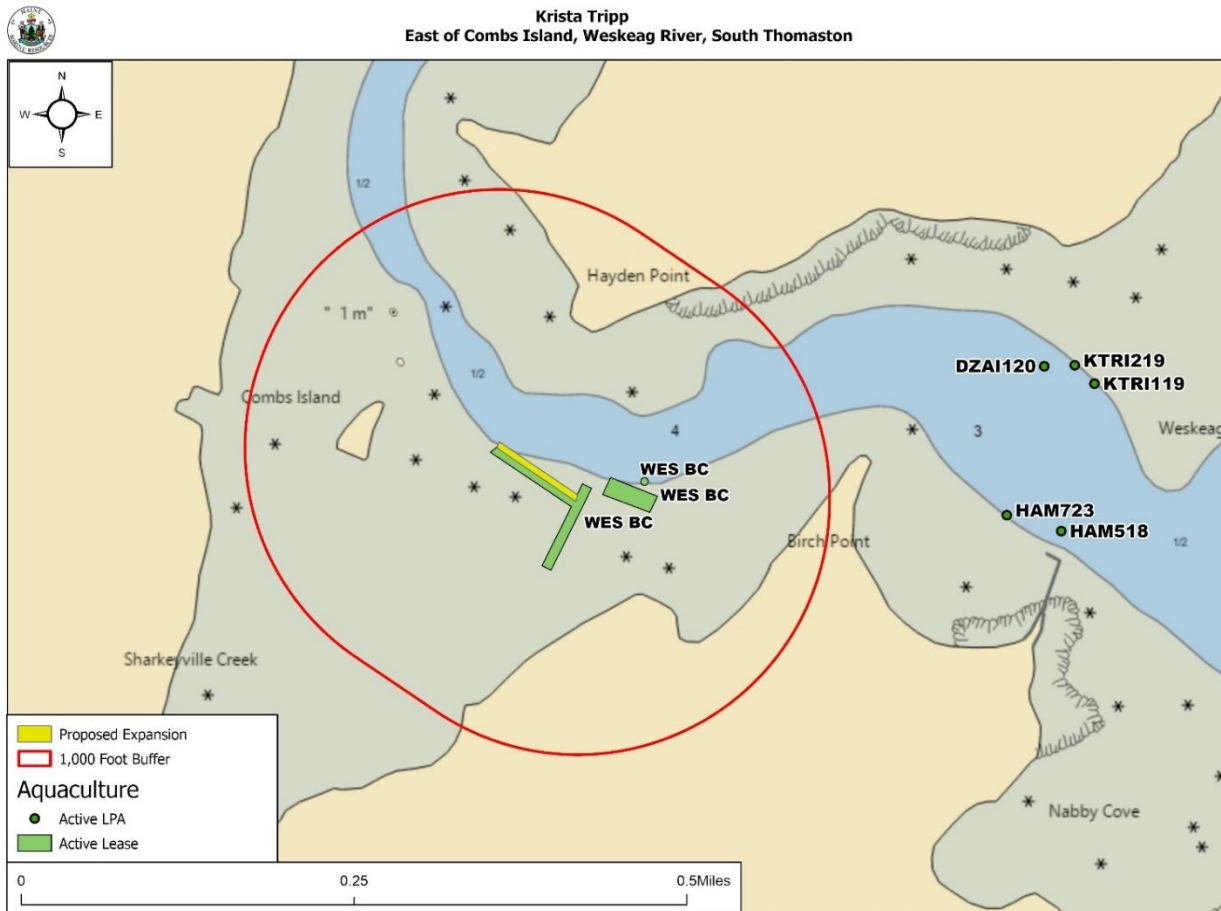


**(3) Fishing and Other Uses**

During MDMR’s site assessment, scientists observed approximately ten lobster buoys within 1,000 feet of the proposed expansion. In addition, a cluster of three lobster buoys was observed in the vicinity of the expansion proposal (Figure 2). Recreational fishing was not observed at the time of the site visit.

**(4) Other Aquaculture Uses**

The applicant currently operates WES BC which is comprised of four nearby tracts and an additional fifth tract 0.62 miles upriver. WES BC is the only aquaculture lease site within 1,000 feet of the proposed expansion. There are no limited purpose aquaculture (LPA) sites within 1,000 feet of the proposed expansion (Figure 4).



**Figure 4.** Aquaculture leases and LPA licenses in the vicinity of the proposed expansion.



**(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 on underwater footage is described below in Table 4.

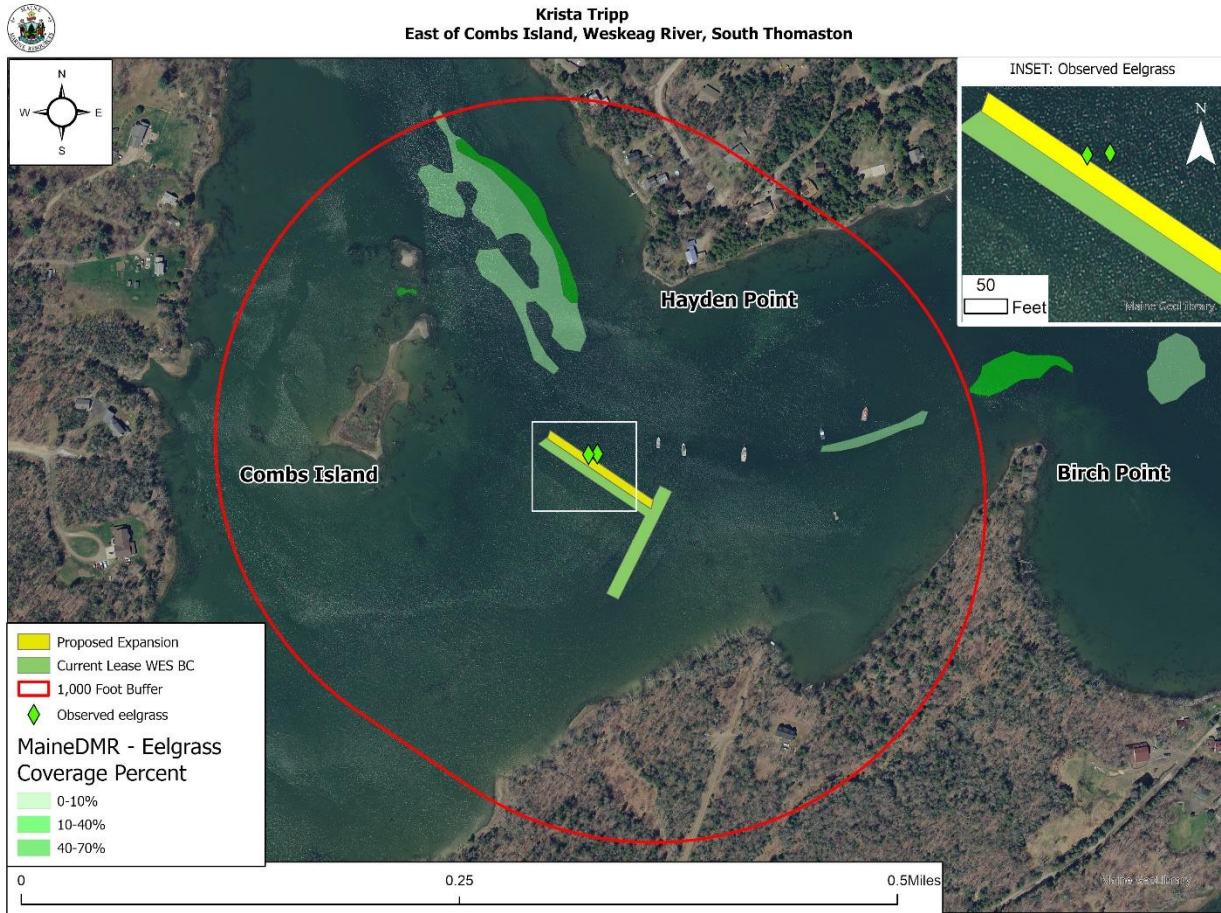
**Table 4.** Species observed using underwater camera footage.

| Species Observed  | Abundance  |
|---|------------|
| Hermit Crabs ( <i>Pagurus spp.</i> )                          | Common     |
| Rhodolith Substrate   | Common     |
| Green Sea Urchin ( <i>Strongylocentrotus droebachiensis</i> ) | Occasional |
| Pancake Batter Tunicate ( <i>Didemnum vexillum</i> )          | Common     |
| Eelgrass ( <i>Zostera marina</i> )                            | Common     |
| Green Crab ( <i>Carcinus maenas</i> )                         | Common     |
| Periwinkle snails ( <i>Littorina spp.</i> )                   | Common     |
| Tortoise shell limpet ( <i>Testudinalia testudinalis</i> )    | Occasional |
| Shrimp ( <i>Crangon septemspinosa</i> )                       | Occasional |
| Bladder wrack ( <i>Fucus vesiculosus</i> )                    | Occasional |
| Rockweed ( <i>Ascophyllum nodosum</i> )                       | Rare       |
| Dog whelk ( <i>Nucella lapillus</i> )                         | Common     |
| Slipper snail ( <i>Crepidula spp.</i> )                       | Rare       |

**Eelgrass (*Zostera marina*)**

Historical records of eelgrass collected by MDMR in 2010<sup>5</sup> indicate areas of established eelgrass within 1,000 feet of the proposed expansion. The nearest mapped eelgrass is approximately 168.6 feet to the north (Figure 5). During the site visit, sporadic, and rooted blades of eelgrass were observed consistently throughout the expansion area. MDMR also observed denser patches of established eelgrass near the boundary of the existing lease and the proposed expansion (Image 1).

<sup>5</sup> Data obtained from The Maine Office of GIS "GISVIEW.MEDMR.Eelgrass". This is the most current record of mapped eelgrass in the vicinity of the proposal.



**Figure 5.** Mapped eelgrass (*Z. marina*) in the vicinity of the proposed expansion. For clarity purposes, only Tracts 1 and 4 of WES BC are displayed in this figure.



**Image 1.** Eelgrass observed on underwater footage during the site visit.





## Maine Department of Marine Resources Site Report

Krista Tripp  
WES BC Expansion Proposal  
Weskeag River, South Thomaston

### Wildlife

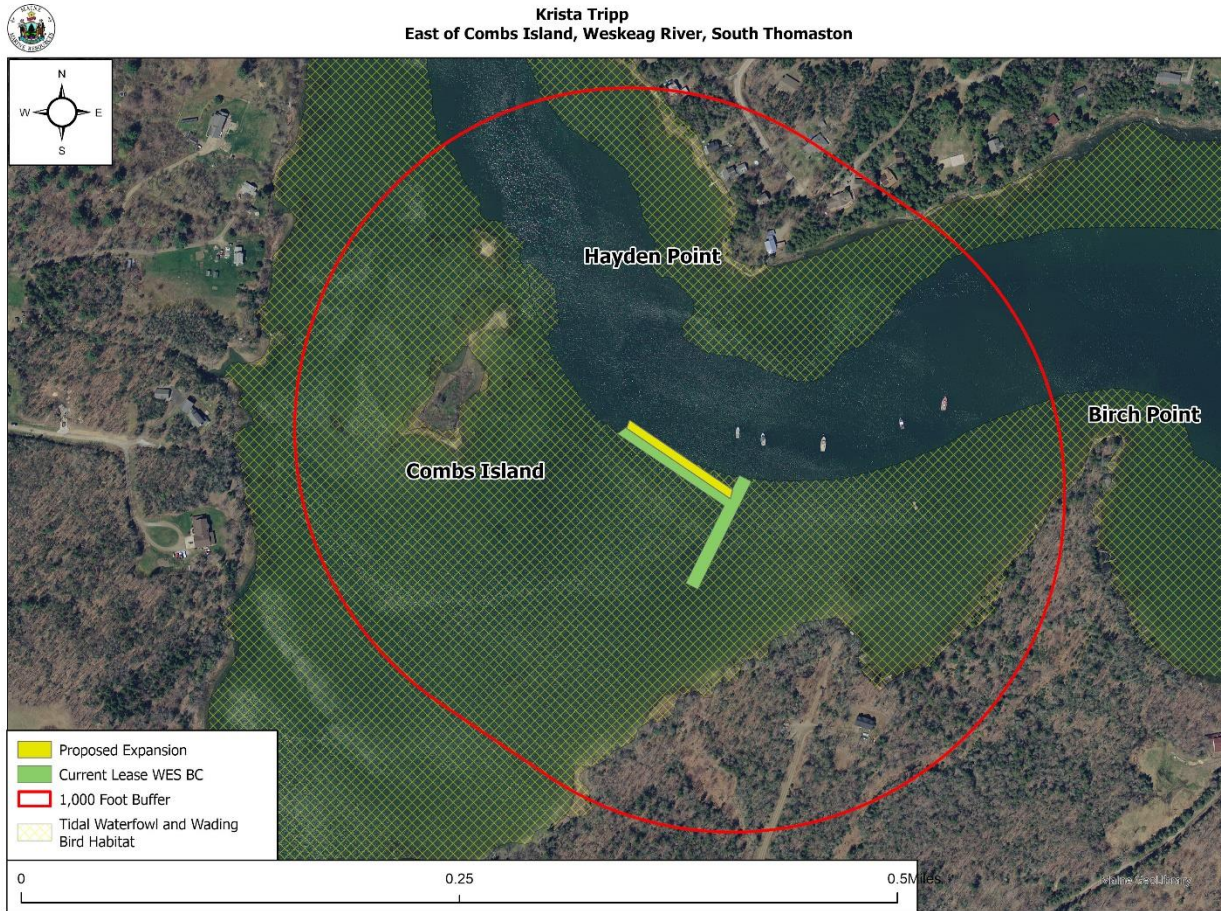
According to Geographic Information System (GIS) data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) and available through the Maine Office of GIS (MEGIS), the proposed lease is located partially within mapped tidal waterfowl and wading bird habitat. Data collected by the United States Fish and Wildlife Service in 2022 by aerial nest survey shows no mapped Bald Eagle (*Haliaeetus leucocephalus*) nesting site within the vicinity of the proposed expansion (Figure 6).

During MDMR's site assessment, scientists observed double-crested cormorants (*Nannopterum auritum*), an Osprey (*Pandion haliaetus*), a bald eagle (*Haliaeetus leucocephalus*), sandpipers (*Calidris sp.*) a common loon (*Gavia immer*), a great blue heron (*Ardea Herodias*), Bonaparte's gulls (*Chroicocephalus Philadelphia*), and herring gulls (*Larus argentatus*) in the general vicinity of the proposed expansion.

On October 12, 2022, a Wildlife Biologist with MDIFW responded by email to a "Request for Agency Review and Comment", stating that minimal impacts to wildlife are anticipated.<sup>6</sup>

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



**Figure 6.** Mapped bald eagle nests and tidal waterfowl and wading bird habitat.<sup>7</sup> For clarity purposes, only Tracts 1 and 4 of WES BC are displayed in this figure.

**(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.<sup>8</sup>

**(7) Water Quality**

The proposed lease is currently located within an area classified as Approved for the harvest of shellfish by the MDMR Bureau of Public Health. The proposed expansion is 257.9 feet from a restricted area and 558.7 feet from a prohibited area.

<sup>7</sup> Data obtained from USFWS “Bald\_Eagle\_Nests\_-\_Maine\_2023” and MDIFW maintained SDE Feature Class “GISVIEW.MEIFW.Twwh”

<sup>8</sup> Data obtained from The Maine Office of GIS “GISVIEW.MECONSLANDS.Conserved\_Lands”