Wetland Delineation Report

Sears Island Study Area

Searsport, Maine

PREPARED FOR



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Wetland Delineation Report

Introduction

On behalf of the Maine Department of Transportation (MaineDOT), Vanasse Hangen Brustlin, Inc. (VHB) conducted wetland and waterbody site reconnaissance, wetland delineation and surveys for potential vernal pools within a study area located on Sears Island in Searsport, Maine (Study Area or Site). The purpose of this report is to describe delineated wetland and water resources within the Study Area that may fall under the jurisdiction of the U.S. Army Corps of Engineers (USACE) and the Clean Water Act (CWA) and under the jurisdiction of the Maine Natural Resources Protection Act (NRPA).

VHB conducted wetland and waterbody field investigations during multiple site visits in March of 2022 and August and September of 2023. In addition to describing identified wetland resource areas, this report describes existing conditions within the Study Area and the methodologies employed for identification of wetlands and water resources at the Site. Please see Appendix 1 – USGS Site Location Map and Appendix 2 – Natural Resource Mapping for an overview of the Study Area and the wetlands and natural resources identified at the Site.

Existing Site Conditions

The Study Area is approximately 230 acres in size and located within Sears Island, an island within Searsport Harbor, connected via a constructed causeway to the mainland of Searsport, Maine. The Study Area consists of a portion of an existing MaineDOT owned parcel, currently zoned as Transportation/Marine Development (Town of Searsport Parcel: Map 8/Lots 1 and 1-A).

The Study Area consists largely of undeveloped and forested land. The approximate center of the Study Area is 44.443236° north latitude and 68.887058° west longitude. Topography generally slopes to the west across the Study Area, with the highest elevations present in the center of the island. Elevations across the Study Area range from sea level to approximately 200 FT above sea level at the highest point. The only named waterbody proximate to the Study Area is Searsport Harbor along the western shoreline. USGS topographic mapping shows two USGS-designated intermittent streams mapped within the northern extent of the Study Area. The hydrologic characteristics of the Site are largely driven by drainages which form gullies and low areas where wetlands or intermittent streams drain west/northwest downslope to the water's edge.

The Study Area includes Sears Island Road (also named Stetson Hills Lane) which is a paved and gravel surface road that provides access to the island from the mainland. The road enters the island from the north and then bends in a westerly direction until it ends at the west shoreline of the mid-island. The area at the west extent of the road includes cleared fields and evidence of previous development activities including remnant stormwater features. There is also a large constructed wetland restoration area present in this portion of the Site. The remainder and large majority of the Study Area is forested and shows evidence of previous human disturbance interspersed throughout its extent. Please see Appendix 3 – Site Photographs for representative photos of the Study Area.

Soils Within the Study Area

Soil survey mapping by the Natural Resources Conservation Service (NRCS) indicates that the Study Area contains seven (7) soil designations (See Appendix 4 – NRCS Soils Map). According to the published USDA-NRCS soil survey data, 54 percent of the soils consist of Peru fine sandy loam, 23 percent consist of Marlow fine sandy loam, 13 percent consist of Boothbay silt loam, 3 percent consist of Brayton fine sandy loam or Swanville silt loam, and then less than 1 percent consist of Masardis variant fine sandy loam (very rocky). Please see Appendix 4 – NRCS Soil Mapping for additional information.

FEMA Flood Zone Designations

According to the Flood Insurance Rate Map (FIRM) Number 23027C0459E, published by FEMA and made effective on July 5, 2015, portions of the Study Area fall within Zones VE, AE, and X. The boundary of these three zones generally follow the shoreline, with the VE zone outward of the shoreline and the AE zone inland of the shoreline. The large majority of the site is located in Zone X and is outside of the coastal flood zone. The FEMA FIRM is included in Appendix 5. The three zones are defined as follows:

VE Zone (Site Base Flood Elevation – EL. 15 FT NAVD88): A coastal hazard area subject to high velocity water including waves; this area is defined by the 1% annual chance (base) flood limits (also known as the 100-year flood) and wave effects 3 FT or greater. The hazard zone is mapped with base flood elevations (BFEs) that reflect the combined influence of still-water flood elevations, primary frontal dunes, and wave effects 3 Ft or greater.

AE Zone (Site Base Flood Elevations – EL. 13 FT NAVD88): A hazard zone area within the 100year flood limits defined with BFEs that reflect the combined influence of still-water flood elevations and wave effects less than 3 FT.

X Zone (Site Average Flood Elevation) – N/A): An area determined to be outside the 0.2% annual chance floodplain.

Methodology

Wetlands

Environmental Scientists from VHB conducted wetland delineations in March of 2022 and August and September of 2023. VHB delineated the boundary of wetlands in accordance with the *Army Corps of Engineers 1987 Wetland Delineation Manual* (1987 Manual) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual*: Northcentral and Northeast Region (Version 2.0) (Regional Supplement). All wetland delineations were conducted using Routine Determination Methods, which require that a wetland must contain a dominance of hydrophytic vegetation, hydric soils and evidence of hydrology to be considered a wetland. Wetland boundaries were demarcated with flagging and flag locations were recorded using a Trimble® GPS unit capable of sub-meter accuracy, post-processed and incorporated onto the Study Area Natural Resource mapping.

Field notes were taken to record the classification of wetlands in accordance with the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin Classification), for the purposes of U.S. Army Corps of Engineers Wetland Determination Data Forms, and to note general site characteristics and any unique site features observed during the delineation.

Waterbodies and Waterways

VHB also evaluated the site for the presence or absence of waterbodies and waterways. Streams were evaluated in accordance with NRPA criteria and definitions. A river, stream or brook is defined by NRPA in Title 38 M.R.S.A. § 480- A as a channel between defined banks. The channel is created by surface water and has two or more of the following five characteristics:

- The channel is depicted as a solid or broken line on the most recent addition of the U.S. Geological Survey 7.5-minute series topographic map, or 15-minute series topographic map if the 7.5 minute series is unavailable;
- The channel contains or is known to contain flowing water continuously for a period of at least 6 months of the year in most years;
- The channel bed is primarily composed of mineral material such as sand and gravel, parent material or bedrock that has been deposited or scoured by water;
- The channel contains aquatic animals such as fish, aquatic insects or mollusks in the water or, if no surface water is present, the stream bed;
- The channel contains aquatic vegetation and is essentially devoid of upland vegetation.

The Army Corps General Permit does not include a definition of river, stream or brook. However, the ordinary highwater mark (OHW) of watercourses was identified following USACE's Regulatory Guidance Letter No. 05-05 Ordinary High water Mark Identification (2005).

Vernal Pools

During the course of the wetland delineation field work, VHB scientists also evaluated the property for the presence of potential vernal pool features that may be regulated by Maine DEP and the USACE. Please see below for more information on vernal pool regulations in the State of Maine.

The Maine DEP defines "vernal pools, also referred to as seasonal forested pools, as natural temporary to semi-permanent bodies of water that occur in shallow depressions that typically fill with water during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet or outlet and have no viable populations of predatory fish. A vernal pool may provide the primary breeding habitat for wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus sp.*), as well as valuable habitat for other plants and wildlife, including several rare, threatened, and endangered species. A vernal pool intentionally created for the purposes of compensatory mitigation is included in this definition."

DEP further differentiates vernal pools as 'significant' (regulated under NRPA) and 'nonsignificant' (not regulated under NRPA). Significant vernal pool habitat consists of vernal pools depression and that portion of the critical terrestrial habitat within 250 feet of the spring or fall high water mark of the depression. Whether a vernal pool is a significant vernal pool is determined by the number and type of pool-breeding amphibian egg masses in a pool, the presence of fairy shrimp, or use by certain rare, threatened or endangered species that commonly requires a vernal pool to complete a critical portion of its life-history as specified in NRPA A Chapter 335 Significant Wildlife Habitat Rules Section 9(B). Table 1 identifies the Chapter 335 abundance criteria required for wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), fairy shrimp (*Eubranchipus sp.*) and certain state-listed species to define an area as a significant vernal pool.

Table 1: NRPA Chapter 335 Significant Wildlife Habitat Rules Abundance Criteria for Significant Vernal Pools					
Species	Abundance Criteria				
Fairy shrimp	Presence in any life stage.				
Blue spotted salamanders	Presence of 10 or more egg masses.				
Spotted salamanders	Presence of 20 or more egg masses.				
Wood frogs	Presence of 40 or more egg masses.				
Certain rare, threatened, or endangered species ¹	Presence				
¹ Per NRPA Chapter 335 Section 9(B), examples of vernal pool dependent state-listed endangered or threatened species include, but are not limited to, Blanding's turtle (<i>Emydoidea blandingii</i>), spotted turtle (<i>Clemmys guttata</i>), and ringed boghaunter dragonflies (<i>Williamsonia lintner</i>). The rare species that must be considered are limited to: wood turtle (<i>Glyptemys insculpta</i>), ribbon snake (<i>Thamnophis sauritus</i>), swamp darner dragonflies (<i>Epiaeschna heros</i>), and comet darner dragonflies (<i>Anax longipes</i>).					

The USACE Maine General Permit (GP) applies a different definition of 'vernal pool' and states "the State of Maine, Department of Environmental Protection has specific protections for VPs. For the purposes of these GPs, VPs are depressional wetland basins that typically go dry in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools range in both size and depth depending upon landscape position and parent material(s). In most years, VPs support one or more of the following obligate indicator species: wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus* sp.). However, they should preclude sustainable populations of predatory fish."

General Condition 20. Vernal Pools of the Department of the Army General Permits for the State of Maine states the following:

- A Preconstruction Notification (PCN) is required if a discharge of dredged or fill material is proposed within a vernal pool depression located within waters of the U.S.
- GC 20(a) above does not apply to projects that are within a municipality that meets the provisions of a Corps-approved vernal pool Special Area Management Plan (SAMP) and are otherwise eligible for SV, and the applicant meets the requirements to utilize the vernal pool SAMP.

At its discretion, the Corps may determine during permit review that a waterbody should or should not be regulated as a vernal pool based on available evidence. The USACE does not differentiate vernal pools as 'significant' or 'non-significant' based on the abundance of biological indicators. As stated in the USACE definition, the presence of any of the specified indicator species in any abundance qualifies a feature as a regulated vernal pool. An additional important distinction between the USACE and the Maine DEP definition of vernal pools is that under the Maine DEP rules, a vernal pool must be 'natural' in origin, where under the USACE rules a vernal pool may be natural or manmade.

Study Results

Using the methodologies and criteria described above, VHB conducted wetland resource area evaluations and delineations within the Study Area. The following subsections provide a description of identified wetland areas and types.

Freshwater Wetlands

VHB identified a network of vegetated freshwater wetlands within the Study Area. Delineated freshwater wetlands within the Study Area fall into three main categories: palustrine forested (PFO), palustrine scrub-shrub (PSS) and palustrine emergent (PEM) wetlands. Several wetlands were associated with or contained intermittent streams.

Palustrine Forested Wetlands

The palustrine forested wetlands consist of a mixture of broad-leaved deciduous species along needle-leaved evergreen species, 6 meters or taller. Woody species commonly observed include red maple (*Acer rubra*), balsam fir (*Abies balsamea*), speckled alder (*Alnus incana*) and yellow birch (*Betula alleghaniensis*). The forest floor and low-lying vegetation included skunk cabbage (*Symplocarpus foetidus*), cinnamon fern (*Osmunda cinnamomea*) and New York fern (*Parathelypteris noveboracensis*).

Palustrine Scrub-Shrub Wetlands

The palustrine scrub-shrub wetlands are dominated by broad-leaved deciduous species with some needle-leaved evergreen species also present, less than 6 meters tall. Woody species commonly observed include speckled alder, winter berry (*llex verticillata*), witch hazel (*Hamamelis virginiana*) along the fringes of wetland areas, as well as balsam fir and red maple saplings.

Palustrine Emergent Wetlands

Emergent wetlands are characterized by erect, herbaceous hydrophytes, excluding mosses and lichens (Cowardin et al. 1979). Portions of wetlands that VHB delineated within the Study Area may be categorized as emergent wetlands. Common species include cattail (*Typha sp.*), common reed (*Phragmites australis*) and reed canary grass (*Phalaris arundinacea*). The PEMs identified within the Study Area were all associated with the on-site constructed wetland restoration area in the central portion of the Study Area.

Wetlands Of Special Significance

Wetlands of Special Significance (WOSS) are defined in NRPA Chapter 310: Wetlands and Waterbodies Protection Section 4. According to Chapter 310, WOSS include all coastal wetlands and great ponds, and freshwater wetlands that exhibit one or more of the following characteristics:

"(1) Critically imperiled or imperiled community. The freshwater wetland contains a natural community that is critically imperiled (S1) or imperiled (S2) as defined by the Natural Areas Program.

(2) Significant wildlife habitat. The freshwater wetland contains significant wildlife habitat as defined by 38 M.R.S.A. § 480-B (10).

(3) Location near coastal wetland. The freshwater wetland area is located within 250 feet of a coastal wetland.

(4) Location near GPA great pond. The freshwater wetland area is located within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.

(5) Aquatic vegetation, emergent marsh vegetation or open water. The freshwater wetland contains under normal circumstances at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless the 20,000 or more square foot area is the result of an artificial ponds or impoundment.

(6) Wetlands subject to flooding. The freshwater wetland area is inundated with floodwater during a 100-year flood event based on flood insurance maps produced by the Federal Emergency Management Agency or other site-specific information.

(7) Peatlands. The freshwater wetland is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance.

(8) River, stream or brook. The freshwater wetland area is located within 25 feet of a river, stream or brook."

WOSS identified within the Study Area are shown in the Natural Resources Maps in Appendix 2. Wetlands that met the NRPA WOSS criteria included wetlands located within 250 feet of a coastal wetland (Criteria 3) and wetlands within 25 feet of a river, stream or brook (Criteria 8).

Freshwater Waterbodies

VHB identified five separate intermittent streams within the Study Area during the delineation effort that met the NRPA stream definition criteria as described above. These streams are shown on the Natural Resources Maps in Appendix 2.

Vernal Pools

VHB did not identify any potential vernal pools within the Study Area.

Coastal Wetlands

The western and northern portions of the Study Area border the shoreline of Sears Island and therefore include or are proximate to areas of marine/coastal wetlands. Under NRPA, coastal wetlands include the following:

"Coastal Wetlands" means all tidal and subtidal lands; all areas with vegetation present that is tolerant of salt water and occurs primarily in salt water or estuarine habitat; and any swamp, marsh, bog, beach, flat or other contiguous lowland that is subject to tidal action during the highest tide level for each year in which an activity is proposed in tide tables published by the National Ocean Service. Coastal wetlands may include portions of coastal sand dunes.

These coastal wetland areas were not field delineated as part of the wetland delineation effort but may be subject to NRPA and Section 10 of the Rivers and Harbors Act of 1899 which governs work impacting navigable waters. The coastal wetlands within or proximate to the Sears Island Study Area include marsh, beach, tidal flats and subtidal areas. Additionally, according to Maine Natural Areas Program (MNAP), the northwestern shore of the Study Area includes a section of mapped Dune Grassland, which is an MNAP Exemplary Natural Community (State Rank: S2), as well as mapped Sand Dune area according to the Maine Sand Dune Boundaries GIS layer. See the Natural Resources Maps in Appendix 2 for additional information.

Wetland Functions and Values

The functions and values of a wetland are determined based on a descriptive, best professional judgment approach, with reference to the methodology recommended by the U.S. Army Corps of Engineers New England District - *The Highway Methodology Workbook Supplement: Wetland Functions and Values - A Descriptive Approach*. Thirteen wetland functions and values are recognized under the USACE methodology:

- Groundwater Recharge/Discharge;
- Floodflow Alteration (Storage & Desynchronization);
- Fish and Shellfish Habitat;
- Sediment/Toxicant Pathogen Retention;
- Nutrient Removal/Retention/Transformation;
- Production Export (Nutrient);
- Sediment/Shoreline Stabilization;
- Wildlife Habitat;
- Recreation (Consumptive & Non-Consumptive);
- Educational/Scientific Value;
- Uniqueness/Heritage;
- Visual Quality/Aesthetics; and,
- Threatened or Endangered Species Habitat.

The USACE Highway Methodology provides a list of considerations and qualifiers that are used to assess the occurrence of each function or value, followed by a subjective determination of Principal Functions and Values.

The principal wetland functions and values associated with the wetlands identified in this Study Area are: Groundwater recharge and discharge; fish & shellfish habitat, nutrient removal/retention/transformation; production export (nutrient); sediment/shoreline stabilization; wildlife habitat; recreation; educational/scientific value; and visual quality/aesthetics.

Summary

The information contained in this report was collected to provide an overview of wetland, waterbody, and potential vernal pool resources falling under the jurisdiction of the USACE and the Maine DEP within the specific Sears Island Study Area surveyed by VHB. These features may

be regulated by the USACE under the Clean Water Act, and by the Maine DEP under the Natural Resources Protection Act.

References

Bureau of Land and Water Quality and Maine Department of Environmental Protection. 2009. *Natural Resource Protection Act.* 38 M.R.S.A. §§ 480-A to 480-BB.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe.1979. *Classification of Wetlands and Deepwater Habitat in the United States*. U.S. Fish and Wildlife Service. FWS/OBD-79/31 103pp.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Tiner, R.W. 1999. Wetland Indicators: A Guide to Wetland Identification, Delineation, Classification, and Mapping. CRC Press.

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USACE. 1999. U.S. Army Corps of Engineers – New England District. 1999. The Highway Methodology Workbook: Supplement: Wetland Functions and Values – A Descriptive Approach. NAEEP-360-1-30a.

Appendix 1 – USGS Site Locations Map

Figure 1: USGS Location Map

MaineDOT Sears Island Offshore Wind Port Study Area | Searsport, ME





Study Area

Appendix 2 – Natural Resources Maps

Sears Island Study Area | Searsport, ME









Sears Island Study Area | Searsport, ME



Study Area

MNAP - Mapped Sand Dunes

Delineated Wetland Edge -Potential Vernal Pool

Wetlands of Special Significance (WOSS) CC Stormwater Feature Wetland Restoration Area Wetlands Forming in Previously Disturbed

Areas



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Sears Island Study Area | Searsport, ME



 Culvert Constructed Ditch Study Area

NWI - Mapped Estuarine and Marine Wetland MNAP - Mapped Sand Dunes

Delineated Stream Centerline Delineated Wetland Edge Potential Vernal Pool

Freshwater Vegetated Wetland Wetlands of Special Significance (WOSS) CC Stormwater Feature Wetland Restoration Area Wetlands Forming in Previously Disturbed Areas

Wetland Resources Delineated by VHB in August/September 2023





100

0

300 Feet

200

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Sears Island Study Area | Searsport, ME



Constructed Ditch Study Area

NWI - Mapped Estuarine and Marine Wetland MNAP - Mapped Sand Dunes

Centerline Delineated Wetland Edge _ Potential Vernal Pool

Freshwater Vegetated Wetland Wetlands of Special Significance (WOSS) CC Stormwater Feature Wetland Restoration Area Wetlands Forming in Previously Disturbed

Areas





Sears Island Study Area | Searsport, ME



• Culvert Constructed Ditch Study Area

NWI - Mapped Estuarine and Marine Wetland MNAP - Mapped Sand Dunes

Delineated Stream Centerline Delineated Wetland Edge Potential Vernal Pool

Freshwater Vegetated Wetland Wetlands of Special Significance (WOSS) CC Stormwater Feature Wetland Restoration Area Wetlands Forming in Previously Disturbed Areas



Wetland Resources Delineated by VHB in August/September 2023



0

100

200

300 Feet

Sears Island Study Area | Searsport, ME



• Culvert Constructed Ditch Study Area

NWI - Mapped Estuarine and Marine Wetland MNAP - Mapped Sand Dunes

Delineated Stream Centerline Delineated Wetland Edge Potential Vernal Pool

Freshwater Vegetated Wetland Wetlands of Special Significance (WOSS) CC Stormwater Feature Wetland Restoration Area Wetlands Forming in Previously Disturbed

Areas

Wetland Resources Delineated by VHB in August/September 2023





100 0

300 Feet

200

Appendix 3 – Site Photographs





Sears Island Study Area

Wetland Delineation

Photographs: August & September, 2023

Sears Island Searsport, Maine 04974

Maine Department of Transportation 16 State House Station Augusta, ME 04333



Photo Date: 8-16-23

Description: Perennial stream

Perennial stream in northern portion of site where it enters the Study Area along its eastern boundary.



Photo No: 2

Photo Date: 8-23-23

Description: Intermittent stream

Representative photo of intermittent stream in northcentral portion of the study area where it flows west and exits the Study Area.





Photo Date: 8-16-23

Description: Wetland boundary

Representative photo of wetland boundary line within southern portion of Study Area.



Photo No: 4

Photo Date: 8-1-23

Description: Western beach

Representative photo of beach along western shore of Study Area looking south.





Photo Date: 8-31-23

Description: Forested wetland

Representative photo of forested wetland within south-central portion of Study Area.



Photo No: 6

Photo Date: 8-11-23

Description: Perennial stream

Representative photo of perennial stream which runs through the central portion of the Study Area.





Photo Date: 8-11-23

Description: Upland

Representative photo of upland in the north-central portion of Study Area.



Photo No: 8

Photo Date: 8-3-23

Description: Forested wetland

Representative photo of forested wetland in southern portion of Study Area.





Photo Date: 8-16-23

Description: Perennial stream

Representative photo of perennial stream in the northern portion of the Study Area.



Photo No: 10

Photo Date: 8-17-23

Description: Forested

Representative photo of forested wetland in northwest portion of Study Area.





Photo Date: 8-3-23

Description: Forested wetland

Representative photo of forested wetland in southeastern portion of the Study Area.



Photo No: 12

Photo Date: 8-17-23

Description: Forested wetland

Representative photo of forested/scrub-shrub wetland in northern portion of the Study Area where perennial stream drains to beach.



Appendix 4 – NRCS Soils Map



	MAP LEGEND			MAP INFORMATION		
Area of Inter	rest (AOI) Area of Interest (AOI)	00	Spoil Area	The soil surveys that comprise your AOI were mapped at 1:20,000.		
Soils	Soil Man Unit Dolygona	0 00	Stony Spot Very Stony Spot	Please rely on the bar scale on each map sheet for map measurements.		
~	Soil Map Unit Lines	\$	Wet Spot	Source of Map: Natural Resources Conservation Service Web Soil Survey URL:		
Special Po	Soil Map Unit Points Special Point Features		Special Line Features	Coordinate System: Web Mercator (EPSG:3857) Maps from the Web Soil Survey are based on the Web Mercator		
() ()	Blowout Borrow Pit	Water Fea	tures Streams and Canals	projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more		
X	Clay Spot Closed Depression	++++	Rails	accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as		
×	Gravel Pit Gravelly Spot	~	US Routes	of the version date(s) listed below. Soil Survey Area: Waldo County, Maine Survey Area Data: Version 22 Aug 30 2022		
O	Landfill	~	Major Roads Local Roads	Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.		
٨.	Marsh or swamp	Background Aerial Photography	nd Aerial Photography	Date(s) aerial images were photographed: Jul 11, 2021—Oct 29, 2021		
☆ ©	Mine or Quarry Miscellaneous Water			The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background		
0	Perennial Water Rock Outcrop			shifting of map unit boundaries may be evident.		
+	Saline Spot					
	Severely Eroded Spot					
\$ \$	Sinkhole Slide or Slip					
ø	Sodic Spot					

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ве	Beaches	2.1	1.0%
ВоВ	Boothbay silt loam, 3 to 8 percent slopes	27.8	13.0%
BvB	Brayton fine sandy loam, 0 to 8 percent slopes, very stony	7.3	3.4%
EIB	Eldridge fine sandy loam, 3 to 8 percent slopes	1.7	0.8%
МЬС	Marlow fine sandy loam, 8 to 15 percent slopes	3.3	1.5%
MeC	Marlow fine sandy loam, 8 to 15 percent slopes, very stony	46.6	21.7%
MrB	Masardis variant fine sandy loam, very rocky, 3 to 8 percent slopes	0.3	0.1%
PbB	Peru fine sandy loam, 0 to 8 percent slopes, very stony	63.0	29.3%
PbC	Peru fine sandy loam, 8 to 15 percent slopes, very stony	53.9	25.1%
Sw	Swanville silt loam, 0 to 3 percent slopes	5.9	2.7%
W	Water bodies	3.0	1.4%
Totals for Area of Interest		214.8	100.0%

Appendix 5 – FEMA FIRM

NOTES TO USERS

This trap is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local dramage sources of small size. The community mag repeakings should be consulted for possible updated or additional flood hazard information.

To close more deteries shown where the set of the effect Exercision is provided by the set of the s

Coastal Base Flood Elevations shown on the map appy only lindward of 0.0° Nom American Vertical Datum of 1986 (MVIO 88). Users of the FRM Mould be avaine that cloaded to be elevation are also provided in the Sommany of Salivate Developm is table in the Flood Insurance Study Report for the jandetion. Developm and show the source of Salivate Development and the source show the source and and/or hopfican management purposes when they are typice than the elevations shown on the Simma Parallelia and the source of the source and/or hopfican management purposes when they are typice than the elevations shown on the FINN

Boundaries of the **Boodways** were computed at cross sections and interpolated between cross sections. The Boodways were based on hystauce considerations with regard to requirements of the National Flood Issuances Program. Processary and other pertinent floodway data are provided in the Flood Insurance Study Report r this junisdiction

The AE Zone category has been divided by a Linit of Moderata Wave Action (LMWA). The LAMVA represents the approximate landward limit of the 1.5-foot traviang wave. The effects of wave hazards between the VE Zone and the LMWA (or between the stocetime and the LMWA for alreas airfore VE Zone are not identified) will be similar to be laws server that those in the VE Zone.

Contain areas not in Special Flood Hazard Areas may be protected by flood centro structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transvert Mercator (UTM) some 19 The **horizontal datum** was NAD 83, GRS 1980 spherold, Differences in datum, spherold, projection or UTM zones used in the production of FRMs for adjucent jurisdictors may result in slight positional differences in majeratures across juridiction boundaries. These differences do no iffect the accuracy of this FIRM.

Flood situations on this may are inferenced to the North Américan Versical Dation of 1988. These flood elevations must be compared to attricture and private distances references to the same vertical dataset. For information regarding conversion between the National Gooder Versical Datium of 1928 and the North American Versical Datum of 1988, set the Versional Gooder. Survey website at <u>http://www.nationae.ooy</u> or contact the National Gooder: Survey at the following address:

NGS Information Services NOAA, NNGS12 National Geodeic Survey SSMC3, #SSMC3, #SSMC3, #SSMC3, #SSMC3 1315 East-West Highway Steler Spring, Maryland 20910-3282 (301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the information Services Branch of the Nationa Geodetic Survey at (301) 713- 3242, or visit its website at <u>http://www.nas.noaa.gov</u>

Base map information shown on the Flood Insurance Rate Map (FIRM) was deriv from the Maine Office of GIS (MEGIS) produced at a scale of 12,000, from aerial photography dated 2005 or later.

The profile baselines depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the profile baseline. In some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Corporate limits shown on this map are based on the best data available at the tim of publication. Because changes due to annovations or de-annovations may han occurred ather this may use publicated, may came wholk contact appropriat community officials to verify current corporate limit locations.

Please refer to the separately printed Map Index for an overview map of the courty showing the largost of map panels: community map repository addresses, and a Listing of Communities table containing National Proof Issuance Program dates for each community as well as a listing of the panels on which each community the balance.

For information on available products associated with this FIRM visit the Map Service Center (MSC) wetakin at <u>http://mcc.fern.ago</u>, Available products may include previous/sisual Letters of Map Change, a Flood Insurance Salvy Report. and/or digital versions of this map Many of these products can be ordered or obtained Simctry from the MSC website.

If you have questions about this map, how to order products, or the National Pood insurance Program in general, please call the FEMA Map information eXchange (FMIX) at 1477-FEMAMAP (1-977-336-2627) or visit the FEMA website at flag.invert firms accologicalizations.

State of Maine Floodway Note: Under the Maine Revised Statules Annotated (M.R.S.A.) The 3.B. 439-4. 70 unline the floodway is not designated on the Flood housines (Relate Rev) the floodway is considered to be the Carteria of a nine or other water course and the adjacent line areas to a solater, of constant flow with of the floodbay. Unside the adjacent line areas to a solater, or constant flow with of the floodbay. Unside the adjacent line areas to a solater of constant flow with a engineer is provided demonstrating the actual floodbay based upon approved FEMA modeling methods.



Anternet Starte Dr. 1996 2 39 APRILAL CHARLE FLOOD Interest flood (Schere Rods), allo Known as the base flood, is the flo being equaled or exceeded in any given year. The Special Rod Hass to flooding but let 1₄ annual intere flood. Areas of Special Rod Hass Ab, Art, AD, AB, ADS, V and VE. The fame Rood Biovesion is the wate TS annual thread Rod. No Sale Flood Direitions determined fare Flood Elevations determined Flood depths of 1 to 3 feet (usually areas of porcing). Base Flood Elevatory Flood appths of 5 to 3 feet (valually cheet flow on sloping terrain); average oppths betermined. For anisis of alluvial fair flooting, veboties also determined Constal flood zone with velocity flacerif (were Action); no Base Flood Devic descenses. Constal Road zone with velocity Natard (were action); Base Road Developm determined. FLOODWAY AREAS IN ZONE AE wy in the channel of a stream plus any adjatent flootplain areas that must be lept free of ent to that the 1% annual chance flood can be canned without substantial increases in OTHER FLOOD AREAS Areas of 0.2% emission chance flood: letters of 1% emission chance flood with everage depths of less than 1 loop or with dramage areas less than 1 square mile, and areas protested by letters from 1% armuel chance flood OTHER AREAS Areas determined to be outside the 5.2% annual chance flood Areas in which flood fastants are undetermined, but possible. nived to be outside the 2.2% annual chance Roodstaw COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS OTHERWISE PROTECTED AREAS (OPAs) CBRS areas and OPAs are normally located within or adjacent to Special Flood 1% Annual Chance Reodplain Boundary 0 2% Annual Chance Fundolan Boundary Flootway toundary Zone D boundary CBRS and DPA boundary Bountiary dividing Special Road Hazard Area Zones and Isoundary dividing Special Road Hazard Areas of different Base Road Elevats food depths, or food velocities. Limit of Moderate Wave Action Limit of Moderate Wave Action coincident with Zone Rives Base Flood Elevation line and value; elevation in feet." Base Flood Elevation value where uniform within zone; elevation in fresh Referenced to the North American Vestical Deturn of 1968 (A) Cross section line Transect line .45° 52° 54°, 95° 52° 52° 52° Geographic coordinates relievenced to the North American Desuri of 1983 (NAD 83) Western Hernisphere 1000-meter Universal Transvenie Mercator prid values, zone 19 Bench mark (see explanation in Notes to Users section of this FIRM paner) four Hile MAP REPOSITORES Refer to Map Repositores list on Map Index EFFECTIVE DATE OF COUNTYWEE FLOCO INSURANCE RATE MAP AN 6, 2015 EFFECTIVE DATE(5) OF REVISION(5) TO THIS FANEL. For community map revision history prior to countywide mapping, refer to the Com Map History table located in the Fibod Insurance Study report for this privalization. To bettermine if flood insurance is available in this community, contact your insurance agent recall the National Elevel insurance Provem at 1,400,405,400. MAP SCALE 1" = 500' COLUMN STREET, TO METERS. 160 NFP PANEL 0459E FIRM FLOOD INSURANCE RATE MAP WALDO COUNTY, MAINE (ALL JURISDICTIONS) PANEL 459 OF 725 (SEE MAP INDEX FOR FIRM PANEL LAYOUT) CONTAINS. NIASULANNI (D)O COMMUNITY NUMBER PANEL SUFFEX MEANIFORT TOWN OF 220181 DATE I

LEGEND

e to User. The Map Number shown below to be used when placing map orders; the munity Number shown above should be on insurance applications for the subject MAP NUMBER

Federal Emergency Management Agency

23027C0459E

EFFECTIVE DATE JULY 6, 2015

Y

Only coastal structures that are certified to provide protection from the 1-percent annual chance flood are shown on this panel. However, all structures taken mo-consideration for the purpose of coastal flood harard analysis and mapping are present in the DFIRM database in S_Gen_Struct.

Appendix 6 - USACE Wetland Determination Data Forms
Project/Site: Sears Island	City/County: Seasport, Waldo Coun	t <u>y</u> Samplir	ng Date: <u>8/17/202</u>	23
Applicant/Owner: Maine Department of Transportation		State: ME S	Sampling Point: w	1-313 Up
Investigator(s): Jim Bolduc	Section, Township, Range: <u>N/A</u>			
Landform (hillside, terrace, etc.): Slope	Local relief (concave, convex, none):	convex	Slope (%):	17
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 44.44275958	Long: -68.88343	8617	Datum: WGS8	84
Soil Map Unit Name: PbB - Peru fine sandy loam, 0 to 8 percent slop	bes, very stony	WI classification:	Jpland	
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes <u>No X</u> (If	no, explain in Remar	rks.)	
Are Vegetation, Soil, or Hydrologysignificant	ntly disturbed? Are "Normal Circums	stances" present?	Yes X No	
Are Vegetation, Soil, or Hydrologynaturally	problematic? (If needed, explain a	ny answers in Rema	rks.)	

Hydrophytic Vegetation Presen Hydric Soil Present? Wetland Hydrology Present?	t? Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID:	Yes	No <u>X</u>
Remarks: (Explain alternative Based on the Antecedent Preci	procedures here or in pitation Tool, the site	a separate report. was experiencing) wetter than normal conditions.		
HYDROLOGY					
Wetland Hydrology Indicators Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Sparsely Vegetated Conca	s: <u>one is required; che</u> <u></u>	<u>ck all that apply)</u> Water-Stained Li Aquatic Fauna (f Marl Deposits (B Hydrogen Sulfide Oxidized Rhizos Presence of Rec Recent Iron Red Thin Muck Surfa Other (Explain ir	Seco Seaves (B9) 313) 15) Odor (C1) Obveres on Living Roots (C3) Living Roots (C3) Living Roots (C6) C6) C7) Remarks)	ndary Indicator Surface Soil Cr Drainage Patte Moss Trim Line Dry-Season Wa Crayfish Burrov Saturation Visik Stunted or Stre Geomorphic Po Shallow Aquitar Microtopograph FAC-Neutral Te	rs (minimum of two required) racks (B6) rns (B10) es (B16) ater Table (C2) ws (C8) ble on Aerial Imagery (C9) essed Plants (D1) bosition (D2) rd (D3) hic Relief (D4) est (D5)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strea	Yes No X Yes No X Yes No X m gauge, monitoring	Depth (inches): Depth (inches): Depth (inches): well, aerial photos	Wetland Hydrolog	gy Present?	Yes NoX
Remarks:					

Sampling Point: W1-313 Up

	Absolute	Dominant	Indicator	Deminence Test workshed
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	Species?	Status	Dominance Test worksneet:
1. Picea ruberis	70	Yes	FACU	Number of Dominant Species
2. <u>Abies balsamea</u>	10	No	FAC	That Are OBL, FACW, or FAC:(A)
3. <u>Acer rubrum</u>	10	No	FAC	Total Number of Dominant
4. Betula papyrifera	10	No	FACU	Species Across All Strata:4 (B)
5		·		Percent of Dominant Species
6				That Are OBL, FACW, or FAC: 25.0% (A/B)
7				Prevalence Index worksheet:
	100	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species 0 x 1 = 0
1. Picea rubens	20	Yes	FACU	FACW species 0 x 2 = 0
2		. <u> </u>		FAC species 25 x 3 = 75
3		. <u></u>	. <u> </u>	FACU species 100 x 4 = 400
4				UPL species 5 x 5 = 25
5.				Column Totals: 130 (A) 500 (B)
6.				Prevalence Index = B/A = 3.85
7.				Hydrophytic Vegetation Indicators:
	20	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')		•		2 - Dominance Test is >50%
1. Thelvpteris noveboracensis	5	Yes	FAC	3 - Prevalence Index is ≤3.0 ¹
2. Dennstaedtia punctilobula	5	Yes	UPL	4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks or on a separate sheet)
4.				Problematic Hydrophytic Vegetation ¹ (Explain)
5.		·		
6.		·		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7.		·		Definitions of Vegetation Strata:
8.		·		
9.				at breast height (DBH), regardless of height.
10.				
11		·	·	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3 28 ft (1 m) tall
12		·	·	
12.	10	-Total Cover		Herb – All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size: 30')	10			
(riot size. <u>30</u>)				Woody vines – All woody vines greater than 3.28 ft in
		·	·	
2				Hydrophytic
3		·		Vegetation
4			·	Present? Yes No \times
		= I otal Cover		
Remarks: (Include photo numbers here or on a separ	rate sheet.)			

SOIL

Depth	Matrix		Redo	x Feature	es	<u> </u>			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-2	10YR 3/2	100					Sandy	Fine Sandy Loam	
2-6	10YR 5/3	100					Sandy	Fine Sandy Loam	
6-15	10YR 5/6	95	7.5YR 5/6	5	С	Μ	Sandy	Sandy Loam	
¹ Turo: C-	Concentration D-Depl	otion PA	A-Roducod Matrix C	S-Covo	od or Co				
Hydric So	il Indicators:			S=Cover		aleu Sanu	Indicators for Pro	blematic Hydric Soils ³	
Histos	sol (A1)		Polyvalue Belov	v Surface	(S8) (I R	R R.	2 cm Muck (A	(10) (I RR K. I. MI RA 149B)	
Histic	Enipedon (A2)		MI RA 149B)	r oundoo	(00) (11	,	Coast Prairie	$\operatorname{Redox} (A16) (\mathbf{I} \mathbf{R} \mathbf{R} \mathbf{K} \mathbf{I} \mathbf{R})$	
Black	Histic (A3)		Thin Dark Surfa	(02) (02)		II PA 140	B) 5 cm Mucky F	Peat or Peat (S3) (IPP K I P)	
				Ce (39) (I		ILKA 149	Dehavelue Del		
	gen Suinde (A4)			ands (ST		(, L)			
Stratifi	ied Layers (A5)		Loamy Mucky N	lineral (F	1) (LRR I	(, L)	Thin Dark Surface (S9) (LRR K, L)		
Deplet	ted Below Dark Surface	e (A11)	Loamy Gleyed I	Matrix (F2	2)		Iron-Manganese Masses (F12) (LRR K, L, R)		
Thick	Dark Surface (A12)		Depleted Matrix	(F3)			Piedmont Floodplain Soils (F19) (MLRA 149B)		
Sandv	/ Mucky Mineral (S1)		Redox Dark Sur	face (F6))		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy	(Gleved Matrix (S4)		Depleted Dark 9	Surface (I	, E7)		Pod Paront Material (E21)		
Candy					()		Red Parent Material (F21)		
Sandy	Redox (S5)		Redox Depress	ons (F8)			Very Shallow Dark Surface (TF12)		
Strippe	ed Matrix (S6)		Marl (F10) (LRF	≀ K, L)			Other (Explain in Remarks)		
Dark S	Surface (S7)								
³ Indicators	of hydrophytic vegetati	ion and v	vetland hydrology mu	ist be pre	esent, unle	ess distur	bed or problematic.		
Type:	e Layer (il observed):								
Depth (ir	nches):						Hydric Soil Present	.? Yes <u>No X</u>	
Remarks:									
This data f	orm is revised from No	rthcentra	I and Northeast Regi	onal Sup	plement	/ersion 2.	0 to reflect the NRCS F	ield Indicators of Hydric Soils	
version 7.0) March 2013 Errata. (h	ttp://www	v.nrcs.usda.gov/Inter	net/FSE_		=NIS/nrc	s142p2_051293.docx)		

Project/Site: Sears Island	City/County: Seasport, Waldo Cou	inty Sampli	Sampling Date: 8/17/2023		
Applicant/Owner: Maine Department of Transportation		State: ME	Sampling Point:	W1-313 Wet	
Investigator(s): Jim Bolduc	Section, Township, Range: <u>N/A</u>				
Landform (hillside, terrace, etc.): Depression	Local relief (concave, convex, none):	concave	Slope (%):	13	
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 44.44275924	Long: -68.883	53409	Datum: WG	S84	
Soil Map Unit Name: PbB - Peru fine sandy loam, 0 to 8 percent slop	ces, very stony	NWI classification:	PFO		
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No X (lf no, explain in Rema	arks.)		
Are Vegetation, Soil, or Hydrologysignificant	ntly disturbed? Are "Normal Circur	nstances" present?	Yes <u>X</u> N	lo	
Are Vegetation, Soil, or Hydrologynaturally	problematic? (If needed, explain	any answers in Rema	arks.)		

Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	Is the Sam within a W If yes, optic	pled Area etland? nal Wetland Site ID:	Yes X Wetland 1	No		
Remarks: (Explain alternative procedures here or in a separate report.) Based on the Antecedent Precipitation Tool, the site was experiencing wetter than normal conditions.						
HYDROLOGY						
Wetland Hydrology Indicators:		Seco	ndary Indicato	rs (minimum of two required)		
Primary Indicators (minimum of one is required; check all that	at apply)		Surface Soil Ci	racks (B6)		
Surface Water (A1) X Water	-Stained Leaves (B9)		Drainage Patte	erns (B10)		
Aquat	ic Fauna (B13)	^		es (B16)		
X Saturation (A3) Mari L	Jeposits (B15)	Ľ	Dry-Season W	ater Table (C2)		
Water Marks (B1) Hydro	gen Suinde Odor (C1)		Crayfish Burrows (C8)			
Sediment Deposits (B2)OXidiz	ed Rhizospheres on Livin	g Rools (C3)	Saturation Visible on Aerial Imagery (C9)			
DIRE Deposits (B3)Prese	the of Reduced from (C4)					
Algal Mat of Clust (B4)						
Investigation Visible on April Imagen (P7)	(Evaluia in Demorte)			nia (D3)		
Inundation Visible on Aerial Imagery (B7) Other	(Explain in Remarks)	N		nic Reliei (D4)		
Sparsely vegetated Concave Suitace (Bo)		r	AC-Neutral T			
Field Observations:	th (in check)					
Surface water Present? Yes No X Dept	th (inches):					
Sofuration Dresent? Yes X No Dept	th (inches): 0	Watland Liverala	n Drecent?	Vac V Na		
(includes coniller: frince)	10 (ncnes)	wetiand Hydrolog	gy Present?			
(includes capillary fringe)	riel abotec, and issue in an	etione) if eveileble.				
Describe Recorded Data (stream gauge, monitoring weil, ae	nai photos, previous inspe	cuons), il available.				
Remarks:						
Nemarks.						

Sampling Point: W1-313 Wet

	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test worksheet:			
1. Acer rubrum	70	Yes	FAC	Number of Dominant Species			
2. Abies balsamea	20	Yes	FAC	That Are OBL, FACW, or FAC: (A)			
 <u>Picea rubens</u> <u>4.</u> 	10	No	FACU	Total Number of Dominant Species Across All Strata: 4 (B)			
5.				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)			
7				Prevalence Index worksheet:			
	100	=Total Cover		Total % Cover of Multiply by			
Sapling/Shrub Stratum (Plot size: 15')				$\frac{1}{\text{OBL species}} \qquad 0 \qquad \text{x1} = 0$			
1 Abies balsamea	30	Yes	FAC	FACW species $0 \times 2 = 0$			
2				$\frac{1}{1} = \frac{1}{1} = \frac{1}$			
2				$\frac{1}{100} = \frac{100}{100} = $			
3				$\frac{1}{10} x 4 = 40$			
4.				$\frac{1}{2} \text{ OPL species } 0 \text{ X 5} = 0$			
5				Column Totals: 225 (A) 685 (B)			
6				Prevalence Index = B/A = 3.04			
7				Hydrophytic Vegetation Indicators:			
	30	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation			
Herb Stratum (Plot size: 5')				X 2 - Dominance Test is >50%			
1. Thelypteris noveboracensis	95	Yes	FAC	3 - Prevalence Index is ≤3.0 ¹			
2.				4 - Morphological Adaptations ¹ (Provide supporting			
3.				data in Remarks or on a separate sheet)			
4				Problematic Hydrophytic Vegetation ¹ (Explain)			
5.				¹ Indicators of hydric soil and wetland hydrology must			
6.		·		be present, unless disturbed or problematic.			
7.				Definitions of Vegetation Strata:			
8.							
9.				at breast height (DBH), regardless of height.			
10.							
11				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3 28 ft (1 m) tall			
12							
12		Tatal Osuar		Herb – All herbaceous (non-woody) plants, regardless			
	95	= I otal Cover		of size, and woody plants less than 3.28 ft tall.			
Woody Vine Stratum (Plot size: 30')				Woody vines – All woody vines greater than 3.28 ft in			
1				height.			
2				Hydrophytic			
3				Vegetation			
4				Present? Yes X No			
		=Total Cover					
Remarks: (Include photo numbers here or on a separa	ate sheet.)	<u></u>		·			

S	0	I	L
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Profile De: Depth	scription: (Describe Matrix	e to the d	epth needed to docu Redox	ment the	e indicate es	or or cor	firm the absence of in	dicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-2	10YR 2/1	100					Muck		
2-12	10YR 5/1	100					Sandy	Sandy Loam	
12-18	10YR 6/1	70	7.5YR 6/6	30	С	М	Loamy/Clayey	Loamy Sand	
					. <u> </u>				
¹ Type: C=	Concentration, D=De	pletion, R	M=Reduced Matrix, C	S=Cover	ed or Coa	ated Sand	d Grains. ² Locatio	n: PL=Pore Lining, M=Matrix.	
Hydric Soi	il Indicators:			. <i>.</i>	(a a) (i b		Indicators for Pr	oblematic Hydric Soils ³ :	
Histos Histic	ol (A1) Eninedon (A2)		Polyvalue Below	Surface	(S8) (LR	R R,	2 cm Muck (A	10) (LRR K, L, MLRA 149B) Redox (A16) (LRR K L R)	
Black	Histic (A3)		Thin Dark Surfac	:e (S9) (I		ILRA 149	B) 5 cm Mucky I	Peat or Peat (S3) (LRR K, L, R)	
Hvdro	aen Sulfide (A4)		High Chroma Sa	ands $(S1)$	1) (LRR #	(. L)	Polvvalue Be	low Surface (S8) (LRR K. L)	
Stratifi	ied Lavers (A5)		Loamv Muckv M	ineral (F	1) (LRR	-, _, (. L)	Thin Dark Su	Inface (S9) (LRR K. L)	
X Deplet	ted Below Dark Surfa	ce (A11)	Loamy Gleved M	Aatrix (F2	·) (-, _,	Iron-Mangane	ese Masses (F12) (LRR K. L. R)	
Thick I	Dark Surface (A12)		Depleted Matrix	(F3)	-)		Piedmont Flo	odplain Soils (F19) (MI RA 149B)	
Sandy	Mucky Mineral (S1)		Bedox Dark Surf	(F6)			Mesic Spodic	(TA6) (MI RA 144A 145 149B)	
Candy	Gleved Matrix (S4)		Depleted Dark S		=7)		Red Parent M	(170) (MERA 1447, 143, 1436)	
Sandy			Depleted Dark 3	unace (i one (E9)	')		Von Shallow	r Dark Surface (TE12)	
Strippy	ad Matrix (S6)		Marl (E10) (I BB				Very Shallow Dark Sufface (TF12)		
Orth S	Surface (SZ)			к , с)				II III Kellarks)	
Dark S	Sunace (S7)								
³ Indicators	of hydrophytic vegeta	ation and	wetland hydrology mu	st be pre	sent, unle	ess distur	bed or problematic.		
Restrictive	e Layer (if observed):							
Depth (ir	nches):						Hydric Soil Presen	t? Yes <u>X</u> No	
Remarks:	orm is revised from N	lorthcontr	al and Northoast Pagi	anal Sun	nlomont \	lorgion 2	0 to reflect the NPCS	Field Indicators of Hydric Soils	
version 7 0	March 2013 Errata	(http://ww	w nrcs usda gov/Interr	nai Sup		=NTS/nrc	1010101010000000000000000000000000000	neid indicators of Hydric Solis	
		(····/····/		

Project/Site: Sears Island	City/County: Seasport, Waldo Coun	County: Seasport, Waldo County Sampling D		
Applicant/Owner: Maine Department of Transportation		State: ME S	Sampling Point: w	/1-389 Up
Investigator(s): Jim Bolduc	Section, Township, Range: <u>N/A</u>			
Landform (hillside, terrace, etc.): Slope	Local relief (concave, convex, none):	convex	Slope (%):	17
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 44.44133847	Zenergia Long: -68.88871	821	Datum: WGS	84
Soil Map Unit Name: BoB - Boothbay silt loam, 3 to 8 percent slopes	s1	WI classification: <u>I</u>	Jpland	
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes <u>No X</u> (If	no, explain in Remai	rks.)	
Are Vegetation, Soil, or Hydrologysignification	ntly disturbed? Are "Normal Circums	stances" present?	Yes <u>X</u> No)
Are Vegetation, Soil, or Hydrologynaturally	v problematic? (If needed, explain a	ny answers in Rema	rks.)	

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No X Yes No X Yes No X	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID:	Yes NoX
Remarks: (Explain alternative procedu Based on the Antecedent Precipitation	res here or in a separate report Tool, the site was experiencin	ort.) ng wetter than normal conditions.	
HYDROLOGY			
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf	required; check all that apply) Water-Stained Aquatic Fauna Marl Deposits Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Thin Muck Su ery (B7) Cother (Explain face (B8)	Second 1 2 2 3 4 13 4 5 15 16 16 17 16 17 18 19 10 10 10 10 10 10 10 10 10 10 10 10 10 11 11 11 11 11 11 11 11 11 11 12 12 12 13 14 14 15 15 16 16 17 17 17 17 17	ndary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge)	No X Depth (inche No X Depth (inche No X Depth (inche No X Depth (inche	es): es): es): Wetland Hydrolog tos, previous inspections), if available:	y Present? Yes <u>No X</u>
Remarks:			

Trop Stratum (Plat size: 30')	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>I Petula allochanionsis</u>	30 COver	Species:		Dominance rest worksheet.
	20	Voc		Number of Dominant Species
2. Populus tremuloides		Vee		That Are ODL, FACIV, OF FAC. 2 (A)
3. Betula papyrilera	15	Yes	FACU	Total Number of Dominant
	10	No		Species Across All Strata. <u>6</u> (B)
5. Fraxinus pennsylvanica 6.	10		FACW	Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)
7				Prevalence Index worksheet:
	80	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species 0 x 1 = 0
1. Picea rubens	30	Yes	FACU	FACW species 10 x 2 = 20
2. Acer pensylvanicum	30	Yes	FACU	FAC species 40 x 3 =120
3.				FACU species 110 x 4 = 440
4.				UPL species 80 x 5 = 400
5.				Column Totals: 240 (A) 980 (B)
6.				Prevalence Index = $B/A = 4.08$
7.				Hvdrophytic Vegetation Indicators:
	60	=Total Cover		1 - Rapid Test for Hvdrophytic Vegetation
Herb Stratum (Plot size: 5')		-1000		2 - Dominance Test is >50%
1 Dennstaedtia punctilopula	80	Yes	IIPI	3 - Prevalence Index is <3 01
2 Thelunteris novehoracensis	20	Yes	FAC	4 - Morphological Adaptations ¹ (Provide supporting
2		100	17.0	data in Remarks or on a separate sheet)
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
9				at breast height (DBH), regardless of height.
10				Sapling/shrub – Woody plants less than 3 in. DBH
11				and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All herbaceous (non-woody) plants, regardless
	100	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30')				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2				
3				Hydropnytic Vegetation
4				Present? Yes No X
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)			

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Profile D	escription: (Describe	e to the d	epth needed to docu	iment th	e indicat	or or con	firm the absence of indic	ators.)
Depth (in shas)	Matrix	0/	Redo	x Featur	es Turn a ¹	1 = = 2	Tautura	Demerles
(Inches)	Color (moist)	<u>%</u>	Color (moist)	%	Туре	LOC	Texture	Remarks
0-2	10YR 2/1	100					Sandy	Fine Sandy Loam
2-4	10YR 4/3	100					Sandy	Fine Sandy Loam
4-16	10YR 3/3	100					Sandy	Fine Sandy Loam
	-Concentration D-Da	nlation P	M-Roduced Metrix	-Covo	rod or Cor			PL-Doro Lining M-Motriy
Hydric Se	oil Indicators:	pielion, R	MEREQUCED Mainx, C	5=00ve		aleu Sanu	Indicators for Probl	ematic Hydric Soils ³ :
Histo	osol (A1)		Polyvalue Below	v Surface	e (S8) (LR	RR,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic	c Epipedon (A2)		MLRA 149B)				Coast Prairie Re	dox (A16) (LRR K, L, R)
Black	k Histic (A3)		Thin Dark Surfa	ce (S9) ((LRR R, N	ILRA 149	B) 5 cm Mucky Pea	t or Peat (S3) (LRR K, L, R)
Hydr	ogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR 🖌	(, L)	Polyvalue Below	Surface (S8) (LRR K, L)
Strat	ified Layers (A5)		Loamy Mucky M	1ineral (F	1) (LRR I	(, L)	Thin Dark Surfac	ce (S9) (LRR K, L)
Deple	eted Below Dark Surfa	ce (A11)	Loamy Gleyed N	Matrix (F	2)		Iron-Manganese	Masses (F12) (LRR K, L, R)
Thick	C Dark Surface (A12)		Depleted Matrix	(F3)			Piedmont Flood	olain Soils (F19) (MLRA 149B)
Sand	ly Mucky Mineral (S1)		Redox Dark Sur	face (F6	i)		Mesic Spodic (T	A6) (MLRA 144A, 145, 149B)
Sand	ly Gleyed Matrix (S4)		Depleted Dark S	Surface (F7)		Red Parent Mate	erial (F21)
Sand	ly Redox (S5)		Redox Depressi	ons (F8))		Very Shallow Da	rk Surface (TF12)
Strip	ped Matrix (S6)		Marl (F10) (LRR	κ, L)			Other (Explain in	Remarks)
Dark	Surface (S7)			. ,			、 .	,
2								
³ Indicator	s of hydrophytic vegeta	ation and	wetland hydrology mu	ist be pre	esent, unle	ess disturt	ped or problematic.	
Type:	ve Layer (il Observed)).						
Depth ((inches):						Hydric Soil Present?	Yes NoX
Remarks	:						l.	
This data	form is revised from N	lorthcentr	al and Northeast Regi	onal Sup	oplement V	Version 2.	0 to reflect the NRCS Field	Indicators of Hydric Soils
version 7	.0 March 2013 Errata.	(http://ww	w.nrcs.usda.gov/Inter	net/FSE_		ENTS/nrcs	s142p2_051293.docx)	

Project/Site: Sears Island	City/County: Seasport, Waldo Cour	nty Sampli	Sampling Date: 8/17/2023		
Applicant/Owner: Maine Department of Transportation		State: ME	Sampling Point:	W1-389 Wet	
Investigator(s): Jim Bolduc	Section, Township, Range:N/A				
Landform (hillside, terrace, etc.): Depression	Local relief (concave, convex, none):	concave	Slope (%):	17	
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 44.44126985	5 Long: <u>-68.8886</u>	7285	Datum: WG	S84	
Soil Map Unit Name: BoB - Boothbay silt loam, 3 to 8 percent slopes	8	NWI classification:	PFO		
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No X (If	no, explain in Rema	arks.)		
Are Vegetation, Soil, or Hydrologysignificant	ntly disturbed? Are "Normal Circum	stances" present?	Yes <u>X</u> N	lo	
Are Vegetation, Soil, or Hydrologynaturally	problematic? (If needed, explain a	iny answers in Rema	arks.)		

Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID: Wetland 1
Remarks: (Explain alternative procedures here or in a separate report.) Based on the Antecedent Precipitation Tool, the site was experiencing v	wetter than normal conditions.
HYDROLOGY	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) X Water-Stained Letter X High Water Table (A2) X Saturation (A3) Water Marks (B1) Hydrogen Sulfide Sediment Deposits (B2) Oxidized Rhizosp Drift Deposits (B3) Presence of Redu Algal Mat or Crust (B4) Recent Iron Redu Iron Deposits (B5) Thin Muck Surface Inundation Visible on Aerial Imagery (B7) Other (Explain in Sparsely Vegetated Concave Surface (B8) Field Observations:	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) paves (B9) Drainage Patterns (B10) 13) Moss Trim Lines (B16) Dry-Season Water Table (C2) Odor (C1) Odor (C1) Odor (C4) Jucted Iron (C4) Juction in Tilled Soils (C6) See (C7) Remarks) Microtopographic Relief (D4) X
Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): (includes capillary fringe) Yes X No Depth (inches):	2 0 Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:
Remarks:	

T		Absolute	Dominant	Indicator	Deminence Test werkehest		
<u>116</u>	<u>e Stratum</u> (Plot size: <u>30</u>)	% Cover	Species?	Status	Dominance Test worksneet:		
1.	Praxinus pennsylvanica		Yes		Number of Dominant Species	7	(•)
2.	Betula allegnaniensis	20	Yes	FAC	That Are OBL, FACW, or FAC:	/	(A)
3.	Picea rubens	20	Yes	FACU	Total Number of Dominant	_	
4.	Acer rubrum	10	No	FAC	Species Across All Strata:	8	_(B)
5. 6.	Abies balsamea	10	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC:	87.5%	(A/B)
7.					Prevalence Index worksheet:		_ ` `
		80	=Total Cover		Total % Cover of:	Multiply by:	
Sa	oling/Shrub Stratum (Plot size: 15')				OBL species 35 x	1 = 35	
1.	Alnus incana	40	Yes	FACW	FACW species 90 x	2 = 180	
2	Picea rubens	10	No	FACU	FAC species 65 x	3 = 195	
3	Hamamelis virginiana	10	No	FACU	FACIL species 40 x	4 = 160	
J. ⊿	Abies balsamea	5	No	FAC	LIPL species 0 x	5 – 0	
4. 5				140	Column Totale: 230 (/	N 570	(B)
э. с					Column Totals. 250 (A	-) <u>570</u>	(D)
ю. —					Prevalence index = B/A =	= <u> </u>	
7.					Hydrophytic Vegetation Indicat	tors:	
		65	=Total Cover		1 - Rapid Test for Hydrophyt	tic Vegetation	
<u>He</u>	rb Stratum (Plot size: 5')				X 2 - Dominance Test is >50%)	
1.	Parathelypteris noveboracensis	20	Yes	FAC	X 3 - Prevalence Index is ≤3.0		
2.	Carex crinita	20	Yes	OBL	4 - Morphological Adaptation	ns ¹ (Provide sup	oporting
3.	Symplocarpus foetidus	15	Yes	OBL	data in Remarks or on a s	eparate sneet)	
4.	Impatiens capensis	15	Yes	FACW	Problematic Hydrophytic Ve	getation ¹ (Expla	ain)
5.	Osmundastrum cinnamomeum	10	No	FACW	¹ Indicators of hydric soil and wetl	land hydrology	must
6.	Onoclea sensibilis	5	No	FACW	be present, unless disturbed or p	oroblematic.	
7.					Definitions of Vegetation Strata	a:	
8.					Tree – Woody plants 3 in. (7.6 cr	m) or more in d	iameter
9.					at breast height (DBH), regardles	ss of height.	
10.					Sapling/shrub – Woody plants	ess than 3 in. D)BH
11.					and greater than or equal to 3.28	8 ft (1 m) tall.	
12.					Herb - All berbaceous (non-woo	dv) plants rega	ardlass
		85	=Total Cover		of size, and woody plants less the	an 3.28 ft tall.	
Wo	body Vine Stratum (Plot size: 30')				Woody vines – All woody vines	greater than 3.2	28 ft in
1.					height.		
2.					Hydrophytic		
3.					Vegetation		
4.					Present? Yes X	No	
		_	=Total Cover				
Re	marks: (Include photo numbers here or on a sepa	rate sheet.)					

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Profile De: Depth	scription: (Describe Matrix	e to the de	epth needed to docu Redo	ument th	e indicat es	or or con	firm the absence of inc	dicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-2	2.5Y 2.5/1	100					Muck		
2-5	5Y 6/1	95	7.5YR 5/6	5	С	М	Sandy	Sandy Loam	
5-16	5Y 5/1	70	7.5YR 5/6	30	С	М	Sandy	Sandy Loam	
							· ·		
¹ Type: C=	Concentration, D=De	pletion, R	M=Reduced Matrix, C	S=Cover	red or Coa	ated Sanc	d Grains. ² Location	n: PL=Pore Lining, M=Matrix.	
Hydric Soi	il Indicators:			o (Indicators for Pro	blematic Hydric Soils ³ :	
Histos	ol (A1)		Polyvalue Below	v Surface	e (S8) (LR	RR,	2 cm Muck (A	10) (LRR K, L, MLRA 149B)	
Histic	Epipedon (A2)		MLRA 149B)	(0.0) (Redox (A16) (LRR K, L, R)	
Black	Histic (A3)		Thin Dark Surfa	ice (S9) (LRR R, N	ILRA 149	B) 5 cm Mucky P	'eat or Peat (S3) (LRR K, L, R)	
Hydro	gen Sulfide (A4)		High Chroma S	ands (S1	1) (LRR k	(, L)	Polyvalue Belo	ow Surface (S8) (LRR K, L)	
Stratifi	ed Layers (A5)		Loamy Mucky N	/lineral (F	1) (LRR I	(, L)	Thin Dark Sur	face (S9) (LRR K, L)	
X Deplet	ed Below Dark Surface	ce (A11)	Loamy Gleyed I	Matrix (F2	2)		Iron-Mangane	se Masses (F12) (LRR K, L, R)	
Thick I	Dark Surface (A12)		Depleted Matrix	: (F3)			Piedmont Floo	odplain Soils (F19) (MLRA 149B)	
Sandy	Mucky Mineral (S1)		Redox Dark Su	face (F6))		Mesic Spodic	(TA6) (MLRA 144A, 145, 149B)	
Sandy	Gleved Matrix (S4)		Depleted Dark S	Surface (I	F7)		Red Parent M	aterial (F21)	
X Sandy	Redox (S5)		Redox Depress	ions (F8)	,		Verv Shallow	Dark Surface (TF12)	
? Strippe	ed Matrix (S6)		Marl (F10) (I RE	8 K. I)			Other (Explain in Remarks)		
Dark S	Surface (S7)		(110) (210	, _/				in romano,	
³ Indicators	of hydrophytic vegeta	ation and	wetland hydrology mu	ust be pre	esent, unl	ess distur	bed or problematic.		
Type:	e Layer (if observed)):							
Depth (ir	nches):						Hydric Soil Present	? Yes X No	
Remarks:	,								
This data f	orm is revised from N	lorthcentra	al and Northeast Reg	ional Sup	plement '	Version 2.	.0 to reflect the NRCS Fi	ield Indicators of Hydric Soils	
version 7.0	March 2013 Errata.	(http://ww	w.nrcs.usda.gov/Inter	net/FSE	DOCUM	ENTS/nrc	s142p2 051293.docx)	,	
			0	_	-		· _ /		

Project/Site: Sears Island	City/County: Seasport, Waldo Cou	inty Sampli	Sampling Date: 8/17/2023		
Applicant/Owner: Maine Department of Transportation		State: ME	Sampling Point:	W2-5 Up	
Investigator(s): Jim Bolduc	Section, Township, Range: <u>N/A</u>				
Landform (hillside, terrace, etc.): Slope	Local relief (concave, convex, none):	convex	Slope (%):	13	
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 44.43935766	6 Long: -68.883	12919	Datum: WG	S84	
Soil Map Unit Name: PbB - Peru fine sandy loam, 0 to 8 percent slo	pes, very stony	NWI classification:	Upland		
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes No X (I	f no, explain in Rema	arks.)		
Are Vegetation, Soil, or Hydrologysignifica	ntly disturbed? Are "Normal Circur	nstances" present?	Yes X N	1 0	
Are Vegetation, Soil, or Hydrologynaturally	/ problematic? (If needed, explain	any answers in Rema	arks.)		

Hydrophytic Vegetation Present Hydric Soil Present? Wetland Hydrology Present?	? Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID	Yes	No <u>X</u>
Remarks: (Explain alternative p Based on the Antecedent Precip	rocedures here or in a vitation Tool, the site v	a separate report.) was experiencing w	retter than normal conditions.		
HYDROLOGY					
Wetland Hydrology Indicators: Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave	: one is required; checl	k all that apply) Water-Stained Lea Aquatic Fauna (B1 Marl Deposits (B1 Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface Other (Explain in F	Sec aves (B9)	ondary Indicato Surface Soil C Drainage Patte Moss Trim Lin Dry-Season W Crayfish Burro Saturation Visi Stunted or Strr Geomorphic P Shallow Aquita Microtopograp FAC-Neutral T	ers (minimum of two required) racks (B6) erns (B10) es (B16) /ater Table (C2) ws (C8) ible on Aerial Imagery (C9) essed Plants (D1) rosition (D2) ard (D3) hic Relief (D4) rest (D5)
Field Observations: Surface Water Present? Y Water Table Present? Y Saturation Present? Y (includes capillary fringe) Describe Recorded Data (stream)	Yes No X Yes No X Yes No X	Depth (inches): Depth (inches): Depth (inches): vell, aerial photos, p	Wetland Hydrold	ogy Present?	Yes NoX
Remarks:					

Sampling Point: W2-5 Up

	Absolute	Dominant	Indicator	Deminence Test worksheet
Tree Stratum (Plot size: 30°)	% Cover	Species?	Status	Dominance Test worksheet:
1. Picea rubens	40	Yes	FACU	Number of Dominant Species
2. Abies balsamea	30	Yes	FAC	That Are OBL, FACW, or FAC: 2 (A)
3. Fraxinus pennsylvanica	10	No	FACW	Total Number of Dominant
4. Acer rubrum	10	No	FAC	Species Across All Strata: 6 (B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)
7				Prevalence Index worksheet:
	90	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species 0 x 1 = 0
1. Picea rubens	20	Yes	FACU	FACW species 10 x 2 = 20
2				FAC species 70 x 3 = 210
3				FACU species 90 x 4 = 360
4				UPL species 30 x 5 = 150
5				Column Totals: 200 (A) 740 (B)
6.				Prevalence Index = B/A = 3.70
7.				Hydrophytic Vegetation Indicators:
	20	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				2 - Dominance Test is >50%
1 Pteridium aquilinum	30	Yes	FACU	$3 - Prevalence Index is \leq 3.0^{1}$
2 Dennstaedtia punctilobula	30	Yes		4 - Morphological Adaptations ¹ (Provide supporting
3 Thelunteris novehoracensis	20	Ves	FAC	data in Remarks or on a separate sheet)
A I vsimachia horealis	10	<u>No</u>	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
5			17.0	
				¹ Indicators of hydric soil and wetland hydrology must
0				De présent, uniess disturbéd of problemane.
<i>1</i>				Definitions of vegetation Strata:
8				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
9				at breast neight (DBH), regardless of neight.
10				Sapling/shrub – Woody plants less than 3 in. DBH
11				and greater than or equal to 3.28 π (1 m) tail.
12				Herb – All herbaceous (non-woody) plants, regardless
	90	=Total Cover		of size, and woody plants less than 3.28 tt tall.
Woody Vine Stratum (Plot size: 30')				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2				Hydrophytic
3				Vegetation
4.				Present? Yes No X
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)			

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Profile De	scription: (Describe	e to the d	epth needed to docu	ment th	e indicato	or or con	firm the absence of indica	tors.)		
Depth	Matrix		Redox	x Featur	es1	2	_			
(inches)	Color (moist)	%	Color (moist)	%	Туре	Loc	Texture	Remarks		
0-2	10YR 3/2	100					Sandy	Fine Sandy L	oam	
2-14	7.5YR 5/4	95	7.5YR 5/8	5	R	С	Sandy	Fine Sandy L	bam	
							<u> </u>			
¹ Type: C=	Concentration, D=De	pletion, R	M=Reduced Matrix, C	S=Cove	red or Coa	ated Sand	Grains. ² Location: P	L=Pore Lining, N	/I=Matrix.	
Hydric Soi	il Indicators:						Indicators for Proble	matic Hydric So	oils ³ :	
Histos	ol (A1)		Polyvalue Below	Surface	e (S8) (LR	R R,	2 cm Muck (A10)	(LRR K, L, MLR	A 149B)	
Histic	Epipedon (A2)		MLRA 149B)				Coast Prairie Red	ox (A16) (LRR Þ	K, L, R)	
Black	Histic (A3)		Thin Dark Surfac	ce (S9) (LRR R, M	LRA 149	B) 5 cm Mucky Peat	or Peat (S3) (LF	RR K, L, R)	
Hydrog	gen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR 🖌	Κ, L)	Polyvalue Below Surface (S8) (LRR K, L)			
Stratifi	ed Layers (A5)		Loamy Mucky M	ineral (F	1) (LRR 🖌	K, L)	Thin Dark Surface (S9) (LRR K, L)			
Deplet	ed Below Dark Surfa	ce (A11)	Loamy Gleyed N	latrix (F2	2)		Iron-Manganese N	lasses (F12) (L l	RR K, L, R)	
Thick I	Dark Surface (A12)		Depleted Matrix	(F3)			Piedmont Floodpla	ain Soils (F19) (I	MLRA 149B)	
Sandy	Mucky Mineral (S1)		Redox Dark Surf	face (F6)		Mesic Spodic (TA	6) (MLRA 144A ,	145, 149B)	
Sandy	Gleyed Matrix (S4)		Depleted Dark S	urface (F7)		Red Parent Mater	al (F21)		
Sandy	Redox (S5)		Redox Depression	ons (F8)			Very Shallow Dark Surface (TF12)			
Strippe	ed Matrix (S6)		Marl (F10) (LRR	K, L)			Other (Explain in Remarks)			
Dark S	Surface (S7)									
31	- Charles - had been set		and the state of the				and an exclusion of the			
-Indicators	of hydrophytic veget	ation and	wetland hydrology mu	st be pre	esent, unie	ess disturi	bed or problematic.			
Type: R	ock Refusal									
Depth (ir	nches):	14+					Hydric Soil Present?	Yes	No X	
Remarks:							-			
This data for	orm is revised from N	lorthcentr	al and Northeast Regio	onal Sup	plement \	/ersion 2.	0 to reflect the NRCS Field	Indicators of Hyd	dric Soils	
version 7.0	March 2013 Errata.	(http://ww	w.nrcs.usda.gov/Interr	net/FSE_		ENTS/nrcs	s142p2_051293.docx)			

Project/Site: Sears Island	City/County: Seasport, Waldo	County Sa	Sampling Date: 8/17/2023		
Applicant/Owner: Maine Department of Transportation		State: ME	Sampling Point:	W2-5 Wet	
Investigator(s): Jim Bolduc	Section, Township, Range: N/	A			
Landform (hillside, terrace, etc.): Depression	Local relief (concave, convex, nor	ne): concave	Slope (%):	16	
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 44.43933801	Long: -68.8	38305144	Datum: WG	S84	
Soil Map Unit Name: PbB - Peru fine sandy loam, 0 to 8 percent slop	pes, very stony	NWI classificatio	on: PFO		
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No X	(If no, explain in Re	emarks.)		
Are Vegetation, Soil, or Hydrologysignificant	ntly disturbed? Are "Normal Cir	cumstances" present	t? Yes <u>X</u> N	lo	
Are Vegetation, Soil, or Hydrologynaturally	problematic? (If needed, expl	ain any answers in R	emarks.)		

Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	Is the Sampled Area within a Wetland? Yes X No If yes, optional Wetland Site ID: Wetland 2
Remarks: (Explain alternative procedures here or in a separate report.) Based on the Antecedent Precipitation Tool, the site was experiencing v	vetter than normal conditions.
HYDROLOGY	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) X High Water Table (A2) Aquatic Fauna (B X Saturation (A3) Marl Deposits (B1 Water Marks (B1) Hydrogen Sulfide Sediment Deposits (B2) Oxidized Rhizosp Drift Deposits (B3) Presence of Redu Algal Mat or Crust (B4) Recent Iron Redu Iron Deposits (B5) Thin Muck Surface Inundation Visible on Aerial Imagery (B7) Other (Explain in Sparsely Vegetated Concave Surface (B8) Other (Explain in	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Paves (B9) 13) Moss Trim Lines (B10) 15) Odor (C1) heres on Living Roots (C3) Jude Iron (C4) Stunted or Stressed Plants (D1) Interface C7) Remarks) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes X No Depth (inches): (includes capillary fringe) Image: Constraint of the present of the pr	0 Wetland Hydrology Present? Yes X No previous inspections), if available:
Remarks:	

Sampling Point: W2-5 Wet

Trac Stratum (Plat aiza: 20)	Absolute	Dominant	Indicator	Dominance Test workshoot
<u>Tree Stratum</u> (Mot size. <u>50</u>)		Voc		Dominance rest worksneet.
	40	 	<u> </u>	Number of Dominant Species
2. Acer rubrum	15	Vec	FAC	
Decura diregnal incrisis	10	No		Total Number of Dominant
	10	. <u> </u>		
5. Fraxinus perinsylvanica	10	. <u> </u>	FACVV	Percent of Dominant Species
o		•		Indi Ale ODL, FACW, OFFAC. <u>03.370</u> (A/D)
7		Total Covor		Total % Cover of:
Sanling/Shruh Stratum (Dlat size: 15')	30			
1 Ahias halsamaa	20	Ves	FAC	$\frac{\text{ODL species}}{\text{EACW} \text{ species}} = \frac{10}{10} \times 2 = -20$
1. Abies baisaillea	10	Vec		$\frac{1}{10} x_2 = 20$
	10	100	FACU	$\begin{array}{c c} FAC \text{ species} & 170 & x3 = 310 \\ \hline \\ FAC \text{ lanceing} & 20 & x4 = 80 \\ \hline \end{array}$
3				$\begin{array}{c c} FACU \text{ species} & \underline{2U} & \underline{X4} = & \underline{0U} \\ \hline \\ UDL \text{ species} & \underline{0} & \underline{X5} = & \underline{0} \\ \hline \end{array}$
4				$\begin{array}{c c} \text{UPL species} & \underline{0} & x $
5				Column I otals: 200 (A) 610 (B)
6				Prevalence Index = B/A = 3.05
7				Hydrophytic Vegetation Indicators:
	30	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				X 2 - Dominance Test is >50%
1. Thelypteris noveboracensis	80	Yes	FAC	3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
3				uala III Kellians oi oii a separate sheeti
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
9				at breast height (DBH), regardless of height.
10				Sapling/shrub – Woody plants less than 3 in. DBH
11				and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All herbaceous (non-woody) plants, regardless
	80	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30')				Woodv vines – All woodv vines greater than 3.28 ft in
1				height.
2.				
3.				Hydrophytic
4.				Present? Yes X No
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	rate sheet.)	<u>.</u>		1

SOIL	
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Profile De	escription: (Describe	e to the de	epth needed to docu	ument the	e indicate	or or con	firm the absence	of indicato	ors.)	
Depth	Matrix		Redo	x Feature	es					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-10	10YR 2/1	100					Muck			
10-12	10YR 5/1	98	7.5YR 5/6	2	С	Μ	Loamy/Clayey		Loamy Sand	
12-18	2.5Y 6/2	90	7.5YR 5/6	10	R	Μ	Sandy		Sandy Loam	
¹ Type: C=	-Concentration, D=De	pletion, RI	M=Reduced Matrix, C	S=Cover	ed or Coa	ated Sanc	d Grains. ² Lo	cation: PL=	=Pore Lining, M=Matrix.	
Hydric So	oil Indicators:						Indicators for	or Problem	atic Hydric Soils ³ :	
Histo	sol (A1)		Polyvalue Belov	v Surface	e (S8) (LR	R R,	2 cm Mu	ick (A10) (L	.RR K, L, MLRA 149B)	
X Histic	Epipedon (A2)		MLRA 149B)				Coast Pr	rairie Redox	k (A16) (LRR K, L, R)	
X Black	Histic (A3)		Thin Dark Surfa	ce (S9) (LRR R, M	LRA 149	B) 5 cm Mu	icky Peat oi	r Peat (S3) (LRR K, L, R)	
Hydro	ogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR Þ	K, L)	Polyvalu	Polyvalue Below Surface (S8) (LRR K, L)		
Strati	fied Layers (A5)		Loamy Mucky M	lineral (F	1) (LRR F	K, L)	Thin Dark Surface (S9) (LRR K, L)			
X Deple	eted Below Dark Surface	ce (A11)	Loamy Gleyed M	Matrix (F2	2)		Iron-Manganese Masses (F12) (LRR K, L, R)			
Thick	Dark Surface (A12)		Depleted Matrix	(F3)			Piedmont Floodplain Soils (F19) (MLRA 149B)			
Sand	y Mucky Mineral (S1)		Redox Dark Sur	face (F6))		Mesic S	podic (TA6)	(MLRA 144A, 145, 149B)	
Sand	y Gleyed Matrix (S4)		Depleted Dark S	Surface (I	F7)		Red Parent Material (F21)			
Sand	y Redox (S5)		Redox Depressi	ions (F8)			Very Shallow Dark Surface (TF12)			
Stripp	oed Matrix (S6)		Marl (F10) (LRR	R K, L)			Other (Explain in Remarks)			
Dark	Surface (S7)									
³ Indicators	s of hydrophytic yeget	ation and v	wetland hydrology mu	ist be pre	esent. unle	ess distur	bed or problematic			
Restrictiv	ve Layer (if observed)):		.or 20 pro						
Туре:										
Depth (i	inches):						Hydric Soil Pro	esent?	Yes X No	
Remarks:										
This data	form is revised from N	lorthcentra	al and Northeast Regi	onal Sup	plement \	/ersion 2.	.0 to reflect the NR	CS Field In	dicators of Hydric Soils	
version 7.	0 March 2013 Errata.	(nttp://www	w.nrcs.usda.gov/inter	net/FSE_		INT S/nrc	s142p2_051293.dd	JCX)		

Project/Site: Sears Island	City/County: Seasport, Waldo Cour	tySampli	Sampling Date: <u>8/17/2023</u>		
Applicant/Owner: Maine Department of Transportation		State: ME	Sampling Point:	U-100	
Investigator(s): Sean Hale	Section, Township, Range: <u>N/A</u>				
Landform (hillside, terrace, etc.): Relatively flat	Local relief (concave, convex, none):	Convex	Slope (%):	<1%	
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 44.44489	Long: -68.8865	4	Datum: WG	S84	
Soil Map Unit Name: Marlow Fine Sandy Loam, 8 to 15% slopes		NWI classification:	PFO		
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes <u>No X</u> (If	no, explain in Rema	arks.)		
Are Vegetation, Soil, or Hydrologysignific	cantly disturbed? Are "Normal Circum	stances" present?	Yes X N	lo	
Are Vegetation, Soil, or Hydrologynatural	lly problematic? (If needed, explain a	ny answers in Rema	arks.)		

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No X No X No X	Is the Sam within a W If yes, optio	ipled Area /etland? onal Wetland Site ID:	Yes	No_X		
Remarks: (Explain alternative procedu Based on the Antecedent Precipitation	res here or in a Tool, the site w	separate repo as experiencir	rt.) ig wetter than no	rmal conditions.				
HYDROLOGY								
Wetland Hydrology Indicators:				Seco	ondary Indicate	ors (minimum of two required)		
Primary Indicators (minimum of one is	required; check	<u>all that apply)</u>			Surface Soil C	Cracks (B6)		
Surface Water (A1)		Water-Stained	l Leaves (B9)	1	Drainage Patte	erns (B10)		
High Water Table (A2)		Aquatic Fauna	a (B13)	13) Moss Trim Lines (B16)				
Saturation (A3)		Marl Deposits	(B15)	15) Dry-Season Water Table (C2)				
Water Marks (B1)		Hydrogen Sulf	ide Odor (C1)	Odor (C1) Crayfish Burrows (C8)				
Sediment Deposits (B2)		Oxidized Rhize	ospheres on Livir	pheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)		Presence of R	educed Iron (C4)	uced Iron (C4) Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)		Recent Iron Re	eduction in Tilled	uction in Tilled Soils (C6) Geomorphic Position (D2)				
Iron Deposits (B5)		Thin Muck Sur	rface (C7)	ce (C7) Shallow Aquitard (D3)				
Inundation Visible on Aerial Image	ery (B7)	Other (Explain	in Remarks)	Remarks) Microtopographic Relief (D4)				
Sparsely Vegetated Concave Sur	ace (B8)			I	FAC-Neutral T	Гest (D5)		
Field Observations:								
Surface Water Present? Yes	No	Depth (inche	s):					
Water Table Present? Yes	No	Depth (inche	s):					
Saturation Present? Yes	No	Depth (inche	s):	Wetland Hydrolog	gy Present?	Yes No_X_		
(includes capillary fringe)								
Describe Recorded Data (stream gaug	ie, monitoring w	ell, aerial photo	os, previous insp	ections), if available:				
Remarks:								
No indicators of hydrology.								

Sampling Point: U-100

	Absolute	Dominant	Indicator	
<u>Iree Stratum</u> (Plot size: <u>30'</u>)	% Cover	Species?	Status	Dominance Test worksheet:
1. Picea rubens	40	Yes	FACU	Number of Dominant Species
2. Acer rubrum	40	Yes	FAC	That Are OBL, FACW, or FAC:(A)
3				Total Number of Dominant
4				Species Across All Strata: 4 (B)
5.				Percent of Deminent Species
6.				That Are OBL, FACW, or FAC: 50.0% (A/B)
7				Prevalence Index worksheet:
	80	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				
1 Dices rubens	25	Voc	EACU	$\frac{1}{1} = \frac{1}{1} = \frac{1}$
		165	TACO	FAC we species X2
2		·		FAC species 55 $x_3 = 165$
3		·		FACU species $65 \times 4 = 260$
4		·		UPL species x 5 =
5				Column Totals: 120 (A) 425 (B)
6				Prevalence Index = B/A =3.54
7				Hydrophytic Vegetation Indicators:
	25	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')		•		2 - Dominance Test is >50%
1 Acer rubrum	15	Ves	FAC	$3 - $ Prevalence Index is $\leq 3.0^{1}$
			140	0 = 1 Tevalence mack is ±0.0
2		·		data in Remarks or on a separate sheet)
3.		·		
4		·		Problematic Hydrophytic Vegetation (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8				Tree – Woody plants 3 in (7.6 cm) or more in diameter
9.				at breast height (DBH), regardless of height.
10.				Continue Mandu plants loss than 2 in DDU
11				and greater than or equal to 3 28 ft (1 m) tall
12		·		
12				Herb – All herbaceous (non-woody) plants, regardless
	15	= I otal Cover		of size, and woody plants less than 3.28 it tail.
Woody Vine Stratum (Plot size:)				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2		·		Hydrophytic
3				Vegetation
4				Present? Yes No X
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)			•
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SOI	L
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Profile De	escription: (Describe	e to the d	epth needed to docu	iment th	e indicat	or or con	firm the absence of indica	itors.)		
Depth	Matrix		Redo	x Featur	es - 1	. 2	- .	_		
(inches)		<u>%</u>	Color (moist)		lype ⁻	Loc		Remar	ks	
0-2	10YR 2/2	100					Muck	Organi	CS	
2-8	10YR 4/4	100					Loamy/Clayey	Silt loa	m	
8-16+	10YR 7/2	100					Loamy/Clayey	Clay loa	am	
		nletion R	M=Reduced Matrix C	S=Cove	red or Co		Grains ² Location: F	Pl =Pore Lining	M=Matrix	
Hydric So	oil Indicators:			0-0006			Indicators for Proble	matic Hydric	Soils ³ :	•
Histo	sol (A1)		Polyvalue Below	v Surface	e (S8) (LR	RR,	2 cm Muck (A10)	(LRR K, L, MI	LRA 149B)	
Histic	c Epipedon (A2)		MLRA 149B)				Coast Prairie Rec	lox (A16) (LRR	R K, L, R)	
Black	(Histic (A3)		Thin Dark Surfa	ce (S9) (LRR R, N	ILRA 149	B) 5 cm Mucky Peat	or Peat (S3) (LRR K, L, I	R)
Hydro	ogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR	(, L)	Polyvalue Below	Surface (S8) (I	LRR K, L)	
Strati	ified Layers (A5)	00 (111)		Ineral (F	-1) (LRR I 2)	(, L)	Inin Dark Surface	e (59) (LRR K , Maaaaa (E12) (L)	D)
Thick	Dark Surface (A12)		Depleted Matrix	(F3)	2)		Piedmont Floodp	ain Soils (F12)	(LKK K, L,) (MI RA 14	19B)
Sand	v Mucky Mineral (S1)		Bedox Dark Sur	(F) face (F6)		Mesic Spodic (TA	6) (MLRA 144	A. 145. 149	9B)
Sand	y Gleyed Matrix (S4)		Depleted Dark S	Surface (, F7)		Red Parent Mate	rial (F21)	- , , ,	/
Sand	y Redox (S5)		Redox Depressi	ons (F8)			Very Shallow Dar	k Surface (TF1	12)	
Stripp	oed Matrix (S6)		Marl (F10) (LRR	R K, L)			Other (Explain in	Remarks)		
Dark	Surface (S7)									
31							had an nuchlanatia			
Restrictiv	s of hydrophytic vegeta		wetland hydrology mu	ist be pre	esent, uni	ess disturi	bed or problematic.			
Туре:		,.								
Depth (inches):						Hydric Soil Present?	Yes	No	x
Remarks:										
This data	form is revised from N	lorthcentr	al and Northeast Regi	onal Sup	plement	Version 2.	0 to reflect the NRCS Field	Indicators of H	lydric Soils	
version 7.	0 March 2013 Errata.	(http://ww	w.nrcs.usda.gov/Interi	net/FSE	_DOCUM	ENTS/nrc	s142p2_051293.docx)			

Project/Site: Sears Island	City/County: <u>Seasport</u> , Waldo Coun	tySampli	Sampling Date: <u>8/17/2023</u>		
Applicant/Owner: Maine Department of Transportation		State: ME	Sampling Point:	W-100	
Investigator(s): Sean Hale	Section, Township, Range: <u>N/A</u>				
Landform (hillside, terrace, etc.): Relatively flat	Local relief (concave, convex, none):	concave	Slope (%):	1%	
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 44.44488	Long: -68.8864	6	Datum: WG	S84	
Soil Map Unit Name: Marlow Fine Sandy Loam, 8 to 15 % slopes		NWI classification:	PFO		
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes No X (If	no, explain in Rema	arks.)		
Are Vegetation, Soil, or Hydrologysignification	antly disturbed? Are "Normal Circums	stances" present?	Yes X N	lo	
Are Vegetation, Soil, or Hydrologynatural	y problematic? (If needed, explain a	ny answers in Rema	arks.)		

Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	Is the Sampled Area Yes X No within a Wetland? Yes X No If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate rep Based on the Antecedent Precipitation Tool, the site was experienci	ort.) ng wetter than normal conditions.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)
Surface Water (A1)Water-Staine	d Leaves (B9) Drainage Patterns (B10)
X High Water Table (A2) Aquatic Faun	a (B13) Moss Trim Lines (B16)
X Saturation (A3) Marl Deposits	(B15) Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Su	fide Odor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhiz	cospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of F	Reduced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)Recent Iron F	Leduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Su	rface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explai	n in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inch	es):
Water Table Present? Yes No Depth (inch	es):
Saturation Present? Yes X No Depth (inch	es): Surface Wetland Hydrology Present? Yes X No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial pho	os, previous inspections), if available:
Remarks:	

Sampling Point: W-100

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test worksheet:
1. Acer rubrum	30	Yes	FAC	Number of Dominant Species
2. Picea rubens	25	Yes	FACU	That Are OBL, FACW, or FAC:3 (A)
3. Juniperus virginiana	25	Yes	FACU	Total Number of Dominant
4. Betula alleghaniensis	20	Yes	FAC	Species Across All Strata: 6 (B)
5				Percent of Dominant Species
6.				That Are OBL, FACW, or FAC: 50.0% (A/B)
7				Prevalence Index worksheet:
	100	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species x 1 = 50
1. Picea rubens	10	Yes	FACU	FACW species 15 x 2 = 30
2.				FAC species 75 x 3 = 225
3.				FACU species $60 \times 4 = 240$
4.				UPL species 0 x 5 = 0
5				Column Totals: 200 (A) 545 (B)
6				$\frac{1}{200} (r, r) = \frac{1}{273}$
7				
<i>I</i>		Tatal Osuar		A Danid Test for Understation Venetation
	10	= I otal Cover		
Herb Stratum (Plot size: 5')				2 - Dominance Test is >50%
1. Symplocarpus foetidus	50	Yes	OBL	X 3 - Prevalence Index is ≤3.0 ¹
2. Osmundastrum cinnamomeum	15	No	FACW	4 - Morphological Adaptations ¹ (Provide supporting
3. Parathelypteris noveboracensis	15	No	FAC	data in Remarks or on a separate sheet)
4. Acer rubrum	10	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7.				Definitions of Vegetation Strata:
8.				Tree Mondy plants 2 in (7.6 cm) or more in diameter
9.				at breast height (DBH), regardless of height.
10.				O erriterrite Weedersteilersteilersteilersteiler
11				and greater than or equal to 3.28 ft (1 m) tall
12				
12.	90	=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3 28 ft tall
Woody Vine Stratum (Plot size:				
				Woody vines – All woody vines greater than 3.28 ft in
I				
2				Hydrophytic
3.				Vegetation
4				Present? Yes X No
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)			

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redox	x Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-2	10YR 2/2	100					Muck	Muck	
2-7	10YR 2/2	100					Loamy/Clayey	Clay loam	
7-13	2.5YR 5/1	100					Loamy/Clayey	Clay	
13-18+	10YR 6/1	70	10YR 5/6	30	C	M	Loamy/Clayey	Clay	
¹ Type: C=	Concentration, D=De	pletion, R	M=Reduced Matrix, C	S=Cover	red or Coa	ated Sand	d Grains. ² Location:	PL=Pore Lining, M=Matrix.	
Hydric Sc	oil Indicators:						Indicators for Prob	lematic Hydric Soils ³ :	
Histos	sol (A1)		Polyvalue Below	Surface	e (S8) (LR	RR,	2 cm Muck (A10	0) (LRR K, L, MLRA 149B)	
HISUC	Epipedon (A2)		Thin Dark Surface	co (SQ) (Coast Prairie R	edox (A16) (LRR R, L, R) at at Poat (S3) (LPP (L, P)	
Hydro	nisiic (A3) ogen Sulfide (A4)		High Chroma Sa	nds (S1		()		Surface (S8) (IRR K I)	
Strati	fied Lavers (A5)		I oamy Mucky M	lineral (F	1) (LRR	(, L)	Thin Dark Surfa	(Ce (S9) (I RR K I)	
Deple	eted Below Dark Surfa	ce (A11)	Loamy Gleved M	/atrix (F2	2)	ς, Ε)	Iron-Manganese Masses (F12) (LRR K. L. R)		
Thick	Dark Surface (A12)		X Depleted Matrix	(F3)	-,		Piedmont Floodplain Soils (F19) (MLRA 149B)		
Sand	y Mucky Mineral (S1)		Redox Dark Sur	face (F6)		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sand	y Gleyed Matrix (S4)		Depleted Dark S	urface (l	, F7)		Red Parent Material (F21)		
Sand	y Redox (S5)		Redox Depression	ons (F8)	,		Very Shallow Dark Surface (TF12)		
Stripp	ed Matrix (S6)		Marl (F10) (LRR	K, L)			Other (Explain in Remarks)		
Dark Surface (S7)									
2									
³ Indicators	s of hydrophytic veget	ation and	wetland hydrology mu	st be pre	esent, unl	ess distur	bed or problematic.		
Restrictiv	e Layer (if observed):							
Denth (i									
	ncnes):						Hydric Soli Present?		
Remarks:	form is revised from N	lorthoontr	al and Northaast Bagi	anal Sun	nlomont	Voraion 2	0 to reflect the NPCS Field	ld Indiantara of Uudria Saila	
version 7.	0 March 2013 Errata.	(http://ww	w.nrcs.usda.gov/Interr	net/FSE	DOCUM	ENTS/nrc	s142p2 051293.docx)		
		(·····		

Project/Site: Sears Islans	City/County: <u>Seasport, Waldo Cour</u>	tySampli	Sampling Date: <u>8/17/2023</u>	
Applicant/Owner: Maine Department of Transportation		State: ME	Sampling Point:	U-200
Investigator(s): Sean Hale	Section, Township, Range: <u>N/A</u>			
Landform (hillside, terrace, etc.): Relatively flat	Local relief (concave, convex, none):	concave	Slope (%):	2%
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 44.44555	Long: <u>-68.8896</u>	3	Datum: WG	S84
Soil Map Unit Name: PbB - Peru fine sandy loam, 0 to 8 percent slo	opes, very stony	NWI classification:	PFO	
Are climatic / hydrologic conditions on the site typical for this time o	f year? Yes No X (If	no, explain in Rema	arks.)	
Are Vegetation, Soil, or Hydrologysignification	antly disturbed? Are "Normal Circum	stances" present?	Yes X N	lo
Are Vegetation, Soil, or Hydrologynatural	y problematic? (If needed, explain a	ny answers in Rema	arks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	Is the Sam	pled Area			
Hydric Soil Present?	Yes	No <u>X</u>	within a W	etland?	Yes	No <u>×</u>	
Wetland Hydrology Present?	Yes	No <u></u>	If yes, optic	onal Wetland Site II	D:		
Remarks: (Explain alternative pro Based on the Antecedent Precipit	cedures here or ir ation Tool, the site	a separate report. was experiencing) wetter than nor	rmal conditions.			
HYDROLOGY							
Wetland Hydrology Indicators:				Sec	condary Indica	tors (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)					Surface Soil	Cracks (B6)	
Surface Water (A1)	Surface Water (A1) Water-Stained Leaves (B9)				Drainage Patterns (B10)		
High Water Table (A2)	_	Aquatic Fauna (I	313)		Moss Trim Lines (B16)		
Saturation (A3)	_	Marl Deposits (B	15)	Dry-Season Water Table (C2)			
Water Marks (B1)	_	Hydrogen Sulfide	e Odor (C1)	Odor (C1) Crayfish Burrows (C8)			
Sediment Deposits (B2)	_	Oxidized Rhizos	pheres on Livin	ng Roots (C3)	3) Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Drift Deposits (B3) Presence of Reduced Iron (C4)				Stunted or St	tressed Plants (D1)	
Algal Mat or Crust (B4)	(B4) Recent Iron Reduction in Tilled Soils (C6)				Geomorphic	Position (D2)	
Iron Deposits (B5)	_	Thin Muck Surfa	ce (C7)		Shallow Aqui	itard (D3)	
Inundation Visible on Aerial Ir	Inundation Visible on Aerial Imagery (B7)Other (Explain in Remarks)Microtopo				Microtopogra	aphic Relief (D4)	
Sparsely Vegetated Concave	Surface (B8)				FAC-Neutral	Test (D5)	
Field Observations:							
Surface Water Present? Ye	s No	Depth (inches)					
Water Table Present? Ye	s No	Depth (inches)					
Saturation Present? Ye	s No	Depth (inches)		Wetland Hydrol	ogy Present?	Yes No_X_	
(includes capillary fringe)							

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrologic indicators

Sampling Point: U-200

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30</u> ')	% Cover	Species?	Status	Dominance Test worksheet:
1. Acer rubrum	30	Yes	FAC	Number of Dominant Species
2. Betula papyrifera	20	Yes	FACU	That Are OBL, FACW, or FAC:(A)
3. Fraxinus americana	20	Yes	FACU	Total Number of Dominant
4. Acer pensylvanicum	10	No	FACU	Species Across All Strata: 7 (B)
5. Abies balsamea	5	No	FAC	Percent of Dominant Species
6. Picea rubens	5	No	FACU	That Are OBL, FACW, or FAC: <u>14.3%</u> (A/B)
7				Prevalence Index worksheet:
	90	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species x 1 =
1. Acer pensylvanicum	50	Yes	FACU	FACW species 0 x 2 = 0
2. Picea rubens	20	Yes	FACU	FAC species55 x 3 =165
3. Abies balsamea	15	No	FAC	FACU species 145 x 4 = 580
4.				UPL species 75 x 5 = 375
5.				Column Totals: 275 (A) 1120 (B)
6.				Prevalence Index = B/A = 4.07
7.				Hydrophytic Vegetation Indicators:
	85	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				2 - Dominance Test is >50%
1 Dennstaedtia punctilobula	75	Ves	IIPI	3 - Prevalence Index is < 3.01
2 Pices rubens	20	Ves		0 - Newalence index is 20.0
2. Abias holosmas	5	No		data in Remarks or on a separate sheet)
3. Ables balsamea			FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
6.				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8.				Tree – Woody plants 3 in (7.6 cm) or more in diameter
9.				at breast height (DBH), regardless of height.
10.				Sanling/shruh – Woody plants less than 3 in DBH
11.				and greater than or equal to 3.28 ft (1 m) tall.
12.				
	100	=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size:)				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2				
3				Hydrophytic Vegetation
4				Present? Yes No X
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)			·

Profile D	escription: (Describe	to the de	pth needed to docu	ment th	e indicate	or or con	firm the absence of in	ndicators.)		
Depth	Matrix		Redo	x Featur	es					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-1	10YR 2/2	100					Muck	Organics		
1-16+	10YR 5/6	100					Loamy/Clayey	Silt loam		
¹ Type: C:	=Concentration, D=Dep	letion, RI	M=Reduced Matrix, C	S=Cove	red or Coa	ated Sand	Grains. ² Locatio	on: PL=Pore Lining, M=Matrix.		
Hydric So	oil Indicators:		Debaseles Deba	0			Indicators for Pr	oblematic Hydric Soils":		
Histo	SOI (A1)		Polyvalue Below	/ Surface	e (S8) (LR	кк,	2 cm Muck (A	A10) (LRR K, L, MLRA 149B)		
Fisue	(A2)		Thin Dark Surfa	co (S0) (DA 140	E) 5 cm Muckyd	Post or Post (S3) (LRR K, L, R)		
	$\operatorname{CHISUC}(A3)$		Ligh Chroma Sc	unde (S1		LKA 143 ()		Pear or rear (33) (LRR R, L, R)		
Strati	ified Lavers (A5)		I oamy Mucky M	lineral (F		(, L) ()	Foryvalue Be	rface (SQ) (IRR K I)		
Ouau	nieu Layers (AS)	0 (111)		Antrix (E	1) (LINK F 2)	、 Ε)		$\frac{1}{100} = \frac{1}{100} \left(\frac{1}{100} + 1$		
Depic	Cork Surface (A12)	e (ATT)	Loany Gleyeu N	//auix (1-2 //E2)	<u>~</u>)		IIOII-Mangan Diodmont Elo	ese masses (F12) (LRR R, L, R)		
Cond	Mucky Minoral (S1)		Depieted Matrix	(FS) faco (E6)	\ \		Fleamont Fic			
Sanu	ly Nucky Matrix (S1)		Redux Dark Sur) [7]		Iviesic Spould	(TAO) (MILKA 144A, 143, 143B)		
Sand			Depleted Dark S							
Sand	ly Redox (S5)		Redox Depressi				Very Shallow	Dark Surface (TFT2)		
Stripp	Ded Matrix (S6)		Mari (F10) (LRR	(r , L)			Other (Explai	in in Remarks)		
Dark	Surface (S7)									
³ Indicator	s of hydrophytic vegetat	tion and y	vetland hydrology mu	st he nre	sent unle	es distur	hed or problematic			
Restrictiv	ve Laver (if observed):		vetiana nyarology ma	st be pit	Sont, unit	.33 uistui				
Type:	, (,-									
_ Depth (inches):						Hydric Soil Presen	nt? Yes No_X		
Remarks:										
This data	form is revised from No	orthcentra	I and Northeast Regi	onal Sup	plement \	/ersion 2.	.0 to reflect the NRCS F	Field Indicators of Hydric Soils		
version 7.	.0 March 2013 Errata. (ł	nttp://www	v.nrcs.usda.gov/Interr	net/FSE_		ENTS/nrc	s142p2_051293.docx)			

Project/Site: Sears Island	City/County: <u>Seasport, Waldo Cour</u>	ntySampli	Sampling Date: 8/17/2023		
Applicant/Owner: Maine Department of Transportation		State: ME	Sampling Point:	W-200	
Investigator(s): Sean Hale	Section, Township, Range: <u>N/A</u>				
Landform (hillside, terrace, etc.): Relatively flat	Local relief (concave, convex, none):	concave	Slope (%):	0%	
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 44.44546	Long:68.8895	4	Datum: WG	S84	
Soil Map Unit Name: PbB - Peru fine sandy loam, 0 to 8 percent slo	opes, very stony	NWI classification:	PFO		
Are climatic / hydrologic conditions on the site typical for this time o	f year? Yes No X (If	no, explain in Rema	arks.)		
Are Vegetation, Soil, or Hydrologysignification	antly disturbed? Are "Normal Circum	stances" present?	Yes X N	lo	
Are Vegetation, Soil, or Hydrologynatural	y problematic? (If needed, explain a	iny answers in Rema	arks.)		

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes_X_ No		
Wetland Hydrology Present?	Yes X No	If yes, optional Wetland S	Site ID:		
Remarks: (Explain alternative procedures here or in a separate report.) Based on the Antecedent Precipitation Tool, the site was experiencing wetter than normal conditions.					
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is	required; check all that apply	()	Surface Soil Cracks (B6)		
Surface Water (A1)	Water-Staine	d Leaves (B9)	Drainage Patterns (B10)		
X High Water Table (A2)	Aquatic Faun	ia (B13)	Moss Trim Lines (B16)		
X Saturation (A3)	Marl Deposite	s (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Su	lfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	Oxidized Rhi	zospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence of	Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron F	Reduction in Tilled Soils (C6)	Geomorphic Position (D2)		

Algal Mat or Crust (B4)	_	Recent Iron Reduction in Tilled	d Soils (C6) Geomorphic Position (D2)		
Iron Deposits (B5)		Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aer	ial Imagery (B7)	Other (Explain in Remarks)	X Microtopographic Relief (D4)		
Sparsely Vegetated Cond	cave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:					
Surface Water Present?	Yes No	Depth (inches):			
Water Table Present?	Yes X No	Depth (inches): 2"			
Saturation Present?	Yes X No	Depth (inches): Surface	Wetland Hydrology Present? Yes X No		
(includes capillary fringe)					
Describe Recorded Data (stre	am gauge, monitoring	well, aerial photos, previous insp	ections), if available:		
Remarks:					

Sampling Point: W-200

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test worksheet:
1. Picea rubens	30	Yes	FACU	Number of Dominant Species
2. Abies balsamea	20	Yes	FAC	That Are OBL, FACW, or FAC:(A)
3. Betula alleghaniensis	20	Yes	FAC	Total Number of Dominant
4. Acer rubrum	5	No	FAC	Species Across All Strata: 6 (B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)
7				Prevalence Index worksheet:
	75	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species x 1 =20
1. Picea rubens	10	Yes	FACU	FACW species 0 x 2 = 0
2.				FAC species 105 x 3 = 315
3.				FACU species 40 x 4 = 160
4.				UPL species $0 \times 5 = 0$
5.				Column Totals: 165 (A) 495 (B)
6		·		$\frac{1}{2} = \frac{1}{2} = \frac{1}$
7				Hydrophytic Vegetation Indicators:
/	10	-Total Cover		1 Banid Toot for Hydrophytic Vegetation
Harb Stratum (Distaire) (15)				
<u>Herb Stratum</u> (Plot size. <u>15</u>)	10			$\frac{1}{2}$ - Dominance rest is >50%
1. Parathelypteris noveboracensis	40	Yes	FAC	X_3 - Prevalence Index is $\leq 3.0^{\circ}$
2. Symplocarpus foetidus	20	Yes	OBL	4 - Morphological Adaptations' (Provide supporting
3. <u>Trientalis borealis</u>	10	No	FAC	data in Keniarko or on a separate sheet)
4. Abies balsamea	10	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8				Tree – Woody plants 3 in (7.6 cm) or more in diameter
9				at breast height (DBH), regardless of height.
10.				Sanling/shrub – Woody plants less than 3 in DBH
11.				and greater than or equal to 3.28 ft (1 m) tall.
12.				
	80	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size:)				
///				woody vines – All woody vines greater than 3.28 ft in height.
2				
2		·		Hydrophytic
3				Vegetation
···		-Tatal Cavar		
		= I otal Cover		
Remarks: (include photo numbers here or on a separ	ate sneet.)			

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Profile De	escription: (Describe	e to the d	epth needed to docu	ment th	e indicato	or or con	firm the absence of indi	cators.)		
Depth	Matrix		Redo	x Featur	es					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-2	10YR 2/2	100					Sandy	Organics		
2-9	10YR 4/1	100					Loamy/Clayey	Silt Loam		
9-14+	10YR 4/2	95	10YR 5/6	5	C		Sandy	Sand		
¹ Type: C=	-Concentration, D=De	pletion, R	M=Reduced Matrix, C	S=Cove	red or Coa	ated Sand	Grains. ² Location:	PL=Pore Lining, M=Matrix.		
Hydric So	il Indicators:	· · · ·	· · · · · ·				Indicators for Prob	lematic Hydric Soils ³ :		
Histos	sol (A1)		Polyvalue Below	/ Surface	e (S8) (LR	R R,	2 cm Muck (A10	D) (LRR K, L, MLRA 149B)		
Histic	Epipedon (A2)		MLRA 149B)				Coast Prairie R	edox (A16) (LRR K, L, R)		
Black	Histic (A3)		Thin Dark Surface	ce (S9) (LRR R, M	ILRA 149	B) 5 cm Mucky Pe	at or Peat (S3) (LRR K, L, R)		
Hydro	gen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR K	K, L)	Polyvalue Below	v Surface (S8) (LRR K, L)		
Strati	fied Layers (A5)		Loamy Mucky M	lineral (F	1) (LRR Þ	(, L)	Thin Dark Surfa	ice (S9) (LRR K, L)		
Deple	ted Below Dark Surfa	ce (A11)	Loamy Gleyed N	/atrix (F2	2)		Iron-Manganese	Iron-Manganese Masses (F12) (LRR K, L, R)		
Thick	Dark Surface (A12)		Depleted Matrix	(F3)			Piedmont Floodplain Soils (F19) (MLRA 149B)			
Sand	y Mucky Mineral (S1)		Redox Dark Sur	face (F6)		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Sand	y Gleyed Matrix (S4)		Depleted Dark S	Surface (F7)		Red Parent Material (F21)			
X Sand	y Redox (S5)		Redox Depressi	ons (F8)			Very Shallow Dark Surface (TF12)			
Stripp	ed Matrix (S6)		Marl (F10) (LRR	R K, L)			Other (Explain in Remarks)			
Dark	Surface (S7)									
³ Indicators	s of hydrophytic veget	ation and	wetland hydrology mu	st be pre	esent. unle	ess distur	bed or problematic.			
Restrictiv	e Layer (if observed)):								
Type:										
Depth (i	nches):						Hydric Soil Present?	Yes X No		
Remarks:										
This data	form is revised from N	lorthcentra	al and Northeast Regi	onal Sup	plement \	/ersion 2.	0 to reflect the NRCS Fiel	ld Indicators of Hydric Soils		
version 7.0	u March 2013 Effata.	(nup.//ww	w.mcs.usua.gov/men	net/FSE_		ENTS/HIC	s142p2_051293.d0cx)			

Project/Site: Sears Island	City/County: Seasport, Waldo Cou	ntySampl	Sampling Date: <u>9/15/2023</u>					
Applicant/Owner: Maine Department of Transportation		State: ME	Sampling Point:	U-400				
Investigator(s): Sean Hale	Section, Township, Range: <u>N/A</u>							
Landform (hillside, terrace, etc.): Relatively flat	Local relief (concave, convex, none):	None	Slope (%):	1%				
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 44.453721 Long: -68.881659								
Soil Map Unit Name: EIB - Eldridge fine sandy loam, 3 to 8% slope	Soil Map Unit Name: EIB - Eldridge fine sandy loam, 3 to 8% slopes NWI classification: PFO							
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)								
Are Vegetation, Soil, or Hydrologysignification	antly disturbed? Are "Normal Circum	stances" present?	Yes X N	lo				
Are Vegetation, Soil, or Hydrologynaturally	y problematic? (If needed, explain a	any answers in Rema	arks.)					

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes Yes	NoX NoX	Is the Sampled Area within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:
Remarks: (Explain alternative proced Based on the Antecedent Precipitation	Jures here or in in Tool, the site	a separate report. was experiencing) wetter than normal conditions.
HYDROLOGY			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)

, , , , , , , , , , , , , , , , , , , ,									
Primary Indicators (minimum of	of one is r	equired; cł	neck all that apply)		Surface Soil Cra	acks (B6)			
Surface Water (A1)		_)	Drainage Patterns (B10)					
High Water Table (A2)			Aquatic Fauna (B13)	tic Fauna (B13) Moss Trim Lines (B16)					
Saturation (A3)			Dry-Season Wa	ater Table (C2))				
Water Marks (B1))	Crayfish Burrow	vs (C8)						
Sediment Deposits (B2)	Living Roots (C3)	Saturation Visib	ole on Aerial Im	agery (C9)					
Drift Deposits (B3)	-	(C4)	Stunted or Stree	ssed Plants (D)				
Algal Mat or Crust (B4)		-	Recent Iron Reduction in T	illed Soils (C6)	Geomorphic Po	sition (D2)			
Iron Deposits (B5)		-	Thin Muck Surface (C7)		Shallow Aquitar	rd (D3)			
Inundation Visible on Aeri	al Imager	y (B7)	Other (Explain in Remarks))	Microtopograph	ic Relief (D4)			
Sparsely Vegetated Conc	ave Surfa	ce (B8)		,	FAC-Neutral Te	est (D5)			
Field Observations:									
Surface Water Present?	Yes	No	Depth (inches):						
Water Table Present?	Yes	No	Depth (inches):	_					
Saturation Present?	Yes	No	Depth (inches):	drology Present?	Yes	No X			
(includes capillary fringe)				_					
Describe Recorded Data (strea	am gauge	, monitorir	ng well, aerial priotos, previous	inspections), if ava	liadie:				
Remarks:									
No indicators of hydrology.									

Sampling Point: U-400

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30'</u>)	% Cover	Species?	Status	Dominance Test worksheet:
1. Quercus rubra	35	Yes	FACU	Number of Dominant Species
2. Acer pensylvanicum	35	Yes	FACU	That Are OBL, FACW, or FAC:(A)
3. Prunus serotina	15	No	FACU	Total Number of Dominant
4.				Species Across All Strata: 4 (B)
5		<u></u>		Percent of Dominant Species
0				Prevelence Index worksheet:
1		-Total Cover		Tatel % Cover of Multiply by:
Sapling/Shrub Stratum (Dlat size: 15')	00			
1 Condus americana	15	Ves	FACU	EACW species 40 $x^2 = 80$
			1700	$FAC species 13 x^3 = 30$
2				$\frac{1}{10} = \frac{1}{10} $
3				$\frac{135}{135} \times 4 = \frac{332}{332}$
4				$\frac{0}{2} = \frac{0}{2} = \frac{0}$
5.				$\begin{array}{c} \text{Column Lotals:} 186 \qquad (A) \underline{651} (B) \\ \hline \end{array}$
6				Prevalence Index = B/A = 3.50
7				Hydrophytic Vegetation Indicators:
	45	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				2 - Dominance Test is >50%
1. Dryopteris carthusiana	40	Yes	FACW	3 - Prevalence Index is ≤3.0 ¹
2. Osmunda claytoniana	10	No	FAC	4 - Morphological Adaptations ¹ (Provide supporting
3. Quercus rubra	3	No	FACU	data in Remarks of on a separate sheet)
4. Trientalis borealis	3	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
7				Definitions of Vagetation Strates
7				Definitions of Vegetation Strata:
0.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
9				at breast height (DDH), regardless of height.
10				Sapling/shrub – Woody plants less than 3 in. DBH
11				and greater than or equal to 3.28 it (1 m) tail.
12				Herb – All herbaceous (non-woody) plants, regardless
	56	= I otal Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size:)				Woody vines – All woody vines greater than 3.28 ft in
1				neight.
2				Hydrophytic
3				Vegetation
4				Present? Yes <u>No X</u>
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)			

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Profile De	escription: (Describe	to the d	epth needed to docu	iment th	e indicat	or or conf	firm the absence of indicat	tors.)	
Depth	Matrix		Redo	x Featur	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-2	10YR 2/2	100					Sandy	Sandy loam	
2-6	10YR 3/6	100					Sandy	Sandy loam	
6-10	10YR 4/3	100					Sandy	Sandy loam	
10-14	10YR 3/6	100					Sandy	Sandy loam	
¹ Type: C=	Concentration, D=De	oletion, R	M=Reduced Matrix, C	S=Cove	red or Coa	ated Sand	Grains. ² Location: Pl	L=Pore Lining, M=Matrix.	
Hydric So	il Indicators:						Indicators for Probler	natic Hydric Soils [°] :	
Histos	sol (A1)		Polyvalue Below	v Surface	e (S8) (LR	RR,	2 cm Muck (A10) ((LRR K, L, MLRA 149B)	
Histic	Epipedon (A2)		MLRA 149B)				Coast Prairie Red	ox (A16) (LRR K, L, R)	
Black	Histic (A3)		Thin Dark Surfa	ce (S9) ((LRR R, N	ILRA 1498	B)5 cm Mucky Peat	or Peat (S3) (LRR K, L, R)	
Hydro	ogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR F	K, L)	Polyvalue Below Surface (S8) (LRR K, L)		
Strati	fied Layers (A5)		Loamy Mucky N	lineral (F	-1) (LRR I	K, L)	Thin Dark Surface (S9) (LRR K, L)		
Deple	ted Below Dark Surfac	ce (A11)	Loamy Gleyed N	Matrix (F	2)		Iron-Manganese Masses (F12) (LRR K, L, R)		
Thick	Dark Surface (A12)		Depleted Matrix	(F3)			Piedmont Floodplain Soils (F19) (MLRA 149B)		
Sand	y Mucky Mineral (S1)		Redox Dark Sur	face (F6	5)		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sand	y Gleyed Matrix (S4)		Depleted Dark S	Surface (F7)		Red Parent Material (F21)		
Sand	y Redox (S5)		Redox Depressi	ons (F8))		Very Shallow Dark Surface (TF12)		
Stripp	ed Matrix (S6)		Marl (F10) (LRR	R K, L)			Other (Explain in Remarks)		
Dark	Surface (S7)								
³ Indicators	s of hydrophytic vegeta	tion and	wetland hydrology mu	ist be pre	esent, unle	ess disturb	ped or problematic.		
Restrictiv	e Layer (if observed)	:							
Depth (i	nches):						Hydric Soil Present?	Yes No X	
Remarks ⁻	,								
This data	form is revised from N	orthcentra	al and Northeast Regi	onal Sup	oplement V	/ersion 2.0	0 to reflect the NRCS Field I	ndicators of Hydric Soils	
version 7.	0 March 2013 Errata. (http://ww	w.nrcs.usda.gov/Interi	net/FSE	_осимі	ENTS/nrcs	s142p2_051293.docx)	,	

Project/Site: Sears Island	City/County: Seasport, Waldo Cou	ntySampli	Sampling Date: <u>9/15/2023</u>					
Applicant/Owner: Maine Department of Transportation		State: ME	Sampling Point:	W-400				
Investigator(s): Sean Hale	Section, Township, Range: <u>N/A</u>							
Landform (hillside, terrace, etc.): Relatively flat	Local relief (concave, convex, none):	Concave	Slope (%):	<1%				
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 44.4537685	Long: <u>-68.881</u>	5187	Datum: WG	S84				
Soil Map Unit Name: EIB - Eldridge fine sandy loam, 3 to 8% slopes	Soil Map Unit Name: EIB - Eldridge fine sandy loam, 3 to 8% slopesNWI classification: PFO							
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)								
Are Vegetation, Soil, or Hydrologysignification	antly disturbed? Are "Normal Circun	nstances" present?	Yes X N	lo				
Are Vegetation, Soil, or Hydrologynaturally	y problematic? (If needed, explain	any answers in Rema	arks.)					

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydric Soil Present? Yes X No within a Wetland? Yes X No Wetland Hydrology Present? Yes X No If yes, optional Wetland Site ID: Remarks: (Explain alternative procedures here or in a separate report.) Based on the Antecedent Precipitation Tool, the site was experiencing wetter than normal conditions. If yes If yes <th></th>	
HYDROLOGY	
Wetland Hydrology Indicators: Secondary Indicators (minimum of two	required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)	<u>, </u>
Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10)	
High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16)	
X Saturation (A3) Marl Deposits (B15) Dry-Season Water Table (C2)	
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)	
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Image	ery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1)	
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) X Geomorphic Position (D2)	
Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) X Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface (B8) X FAC-Neutral Test (D5)	
Field Observations:	

Yes No Depth (inches):

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Yes X No Depth (inches): Surface

Water Table Present? Saturation Present?

Remarks:

(includes capillary fringe)

Yes X No

Wetland Hydrology Present?

Sampling Point: W-400

	Absolute	Dominant	Indicator							
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test worksheet:						
1. Betula alleghaniensis	60	Yes	FAC	Number of Dominant Species						
2. Acer rubrum	30	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)						
 <u>Quercus rubra</u> 4. 	10	No	FACU	Total Number of Dominant Species Across All Strata: 5 (B)						
5.										
6.				That Are OBL, FACW, or FAC: 80.0% (A/B)						
7				Prevalence Index worksheet:						
	100	=Total Cover		Total % Cover of: Multiply by:						
Sapling/Shrub Stratum (Plot size: 15')				OBL species x 1 =						
1. Ilex verticillata	25	Yes	FACW	FACW species 100 x 2 = 200						
2. Quercus rubra	12	Yes	FACU	FAC species 90 x 3 = 270						
3. Corylus americana	5	No	FACU	FACU species x 4 =108						
4.				UPL species 0 x 5 = 0						
5.				Column Totals: 217 (A) 578 (B)						
6.				Prevalence Index = B/A = 2.66						
7.				Hydrophytic Vegetation Indicators:						
	42	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation						
Herb Stratum (Plot size: 5')				X 2 - Dominance Test is >50%						
1 Dryonteris carthusiana	75	Ves	FACW/	X_{3} = Prevalence Index is <3.0 ¹						
			17.077	4 - Morphological Adaptations ¹ (Provide supporting						
2				data in Remarks or on a separate sheet)						
3				Problematic Hydrophytic Vegetation ¹ (Explain)						
T										
6				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.						
7				Definitions of Vegetation Strata:						
8				Tree – Woody plants 3 in (7.6 cm) or more in diameter						
9				at breast height (DBH), regardless of height.						
10				Sapling/shrub – Woody plants less than 3 in DBH						
11				and greater than or equal to 3.28 ft (1 m) tall.						
12.				Harb All borbassays (non weady) plants, regardless						
	75	=Total Cover		of size, and woody plants less than 3.28 ft tall.						
Woody Vine Stratum (Plot size:)				Mandau inco All words winco master them 2.20 ft in						
1.				height.						
2										
3				Hydrophytic						
4				Vegetation Present? Yes X No						
T		-Total Cover								
Pomarka: (Includo photo numbers hars as an a sara	rato chect \			1						
Remarks: (include photo numbers here or on a separate sneet.)										

SOI	L
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Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redox	x Feature	es					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-2	10YR 2/2	100					Sandy	Sandy loam		
2-8	10YR 4/2	100					Sandy	Sandy loam		
8-16+	10YR 5/2	90	10YR 5/8	10	C	M	Sandy	Sandy loam		
¹ Type [·] C=		oletion R	M=Reduced Matrix C	 S=Cover	ed or Coa	 ated Sand	Grains ² I ocation PI	=Pore Lining M=Matrix		
Hydric So	bil Indicators:			00101			Indicators for Probler	matic Hydric Soils ³ :		
Histos	sol (A1)		Polyvalue Below	Surface	(S8) (LR	RR,	2 cm Muck (A10) (LRR K, L, MLRA 149B)			
Histic	Epipedon (A2)		MLRA 149B)		. , .		Coast Prairie Redox (A16) (LRR K, L, R)			
Black	Histic (A3)		Thin Dark Surface	ce (S9) (I	LRR R, N	ILRA 149	B) 5 cm Mucky Peat of	or Peat (S3) (LRR K, L, R)		
Hydro	ogen Sulfide (A4)		High Chroma Sa	ands (S1 ⁻	1) (LRR Þ	K, L)	Polyvalue Below S	Surface (S8) (LRR K, L)		
Strati	fied Layers (A5)		Loamy Mucky M	ineral (F	1) (LRR #	(, L)	Thin Dark Surface (S9) (LRR K, L)			
Depleted Below Dark Surface (A11) Loamy Gleved Matrix (F2)							Iron-Manganese Masses (F12) (LRR K, L, R)			
Thick Dark Surface (A12) X Depleted Matrix (F3)						Piedmont Floodplain Soils (F19) (MLRA 149B)				
Sandy Mucky Mineral (S1) Redox Dark Surface (F6)						Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Sandy Gleved Matrix (S4) Depleted Dark Surface (F7)						Red Parent Material (F21)				
Sandy Bedox (S5) Bedox Depressions (F8)							Very Shallow Dark Surface (TE12)			
Stripp	ed Matrix (S6)		Marl (F10) (I BB				Othor (Explain in Remarke)			
Dark	Surface (S7)			IX , E)				(cinano)		
	()									
³ Indicators	s of hydrophytic vegeta	ation and	wetland hydrology mu	st be pre	sent, unle	ess disturt	ped or problematic.			
Type:	e Layer (II observed)	•								
Depth (inches):							Hydric Soil Present?	Yes X No		
Remarks:										
This data	form is revised from N	orthcentr	al and Northeast Region	onal Sup	plement \	/ersion 2.	0 to reflect the NRCS Field I	ndicators of Hydric Soils		
version 7.	0 March 2013 Errata. (http://ww	w.nrcs.usda.gov/Interr	net/FSE_		ENTS/nrcs	s142p2_051293.docx)			