Draft Environmental Assessment for

Site Development for USCG Station Eastport Housing Project

Contract Number: 70Z05018DAMFWHD02

Task Order: 70Z04719FPEPTEV00

Prepared For:

United States Coast Guard
Facilities Design and Construction Center
5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2413

Prepared By:

Amec Foster Wheeler HDR
JOINT VENTURE

August 13, 2019

UNITED STATES COAST GUARD (COAST GUARD) FINDING OF NO SIGNIFICANT IMPACT (FONSI) FOR USCG STATION EASTPORT HOUSING PROJECT IN PERRY, MAINE.

The Coast Guard proposes to construct either four duplex housing units (Design Alternative 1 - eight units total) or seven single-family housing units (Design Alternative 2) on a 75-acre site at 576 Shore Rd, Perry, Maine 04667 (County of Washington) for the purpose of providing family housing for Coast Guard personnel assigned to Station Eastport. Additionally, a 5,000 square foot maintenance building and a 2,000 square foot community building would be constructed, as well as all associated roads, sidewalks, storm water controls, street lights, utilities, and typical infrastructure, to support this community.

Summary of the Results of the Environmental Impact Evaluation: The Environmental Assessment (EA) prepared for this proposal presents the purpose and need for the action, the proposed action and alternatives, a description of the affected environment, and an analysis of direct, indirect, and cumulative environmental consequences. Based on the findings of the EA, the Coast Guard concluded that no significant impacts would occur from implementation of either Eastport Housing Development design alternative.

Mitigation Commitments (Including Monitoring), if any, that will be Implemented to Reduce Otherwise Significant Impacts*:* No significant impacts identified; therefore, no mitigation commitments required.

This FONSI is based on the attached contractor-prepared EA which has been independently evaluated by the Coast Guard and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project and provides sufficient evidence and analysis for determining that an environmental impact statement is not required. The Coast Guard takes full responsibility for the accuracy, scope, and content of the attached contractor-prepared EA.

I reviewed the EA which is the basis for this FONSI, and submitted my written comments to the Proponent.

_____	_____	Environmental Engineer	[*Insert warrant level.*]
Date	Richard D. Hylton, P.E. Environmental Reviewer	Title/Position	Provisional, Interim, I, II, or III

I reviewed the EA, which is the basis for this FONSI, and submitted my written comments to the Proponent.

_____	_____	Environmental Engineer	[*Insert warrant level.*]
Date	Richard D. Hylton, P.E. Senior Environmental Professional	Title/Position	Provisional, Interim, II, or III

In reaching my decision/recommendation on the Coast Guard's proposed action, I considered the information contained in this EA/FONSI and considered and acknowledge the written comments submitted to me from the Environmental Reviewer(s). Based on the information in the EA and this FONSI document, I agree that the proposed action as described above, and in the EA, will have no significant impact on the environment.

_____	_____	Commanding Officer – Facilities Design & Construction Center
Date	Captain J. F. Barresi Proponent	Title/Position

This page intentionally left blank.

TABLE OF CONTENTS

LIST OF FIGURES

Page

LIST OF TABLES

LIST OF APPENDICES

LIST OF ACRONYMS

%	percent
ACM	Asbestos-Containing Material
ANSI	American National Standards Institute
AOR	Area of Responsibility
AST(s)	Above-Ground Storage Tank(s)
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CHA	Critical Housing Area
COMDTINST	Commandant Instruction Manual
CWA	Clean Water Act
CZMA	Coastal Zone Management Act of 1972
dB	decibels
dB_A	A-weighted sound level measured in decibels
dB_C	C-weighted sound level measured in decibels
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
ESA	Endangered Species Act
˚F	Degrees Fahrenheit
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
ft	foot (feet)
ft^2	square-foot (-feet)
GSS	Groundwater Supply Study
HMA	Hazardous Materials Assessment
in	inch(es)
JV	Amec Foster Wheeler/HDR Joint Venture
LBP	Lead-Based Paint
MAAQS	Maine Ambient Air Quality Standards
MCP	Maine Coastal Program
MDIFW	Maine Department of Inland Fisheries & Wildlife
MEDEP	Maine Department of Environmental Protection
MEDOT	Maine Department of Transportation
MHPC	Maine Historic Preservation Commission
MUTS	Marion Users Transfer Station
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act

NIA	Nitrate Impact Assessment
NNE	Northern New England
NOAA	National Oceanic and Atmospheric Administration
NOS	National Ocean Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
OSHA	Occupational Safety and Health Administration
PPTG	Pleasant Point Tribal Government
SHPO	State Historic Preservation Office
SILs	Significant Impact Levels
SIP	State Implementation Plan
US	United States
USACE	United States Army Corps of Engineers
USC	United States Code
USCB	United States Census Bureau
USCG	United States Coast Guard
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST(s)	Underground Storage Tank(s)

1.0 PURPOSE AND NEED FOR ACTION

This Environmental Assessment (EA) has been prepared on behalf of the United States Coast Guard (USCG) as a means of evaluating the potential environmental consequences associated with the development of the Eastport Housing Project in Perry, Maine.

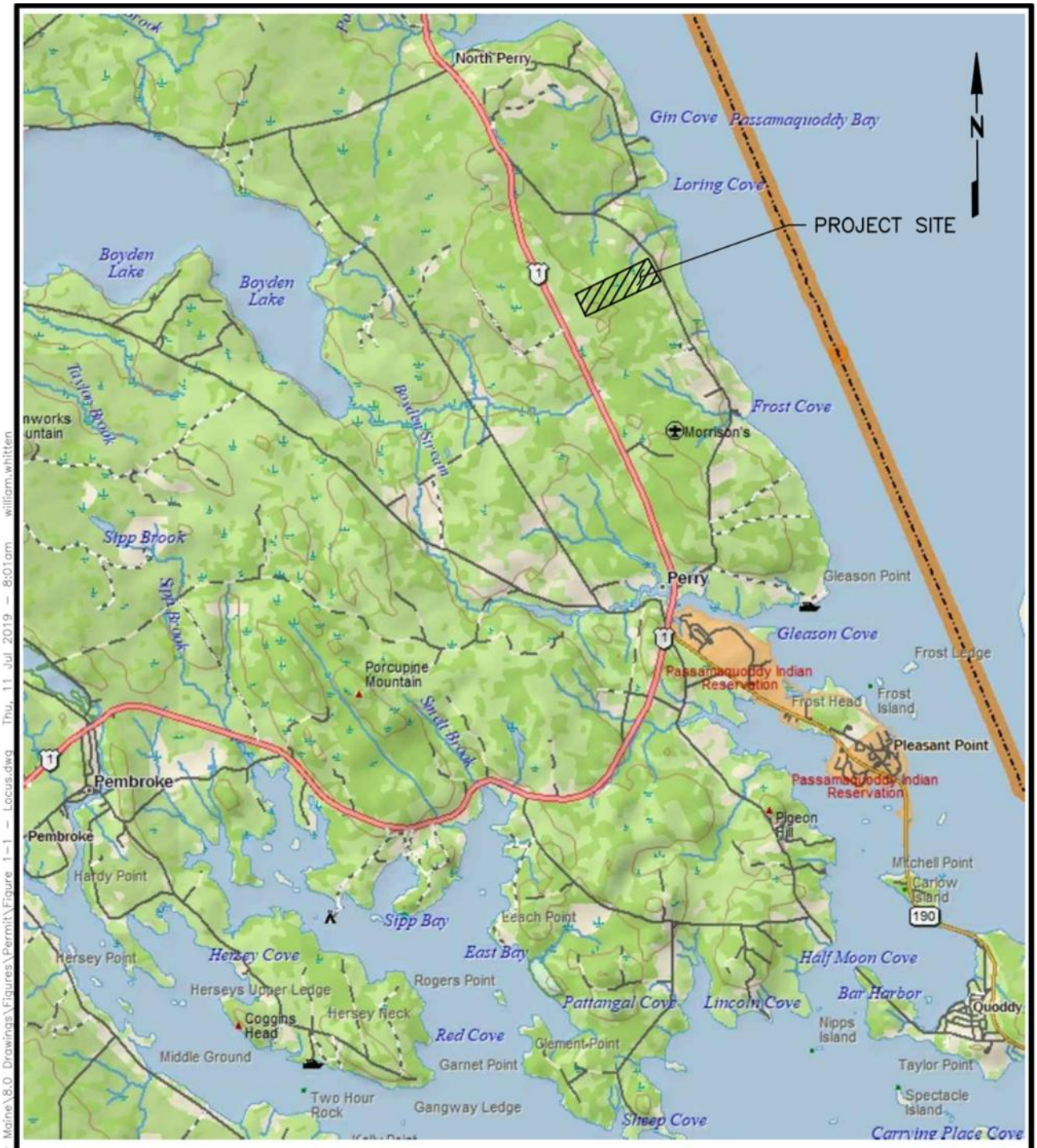
1.1 INTRODUCTION

This EA has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] §4321 et seq.); Council on Environmental Quality (CEQ) Regulations for Implementing NEPA dated 28 November 1978 (40 Code of Federal Regulations [CFR] §§1500-1508) and associated CEQ guidelines; Department of Homeland Security Management Directive 023-01; and the USCG Commandant Instruction Manual (COMDTINST) *Environmental Planning Policy* (COMDTINST 5090.1) and the associated *U.S. Coast Guard Environmental Planning Implementing Procedures* document (USCG, 2019). This section specifies the purpose of, and need for, the proposed construction of duplex or individual housing units on a parcel of land owned by the USCG in Perry, Maine, for service members reporting to the USCG station located in Eastport, Maine (USCG Station Eastport).

1.2 BACKGROUND

The USCG has recently identified a need to provide family housing for service members reporting to USCG Station Eastport. As such, the USCG recently acquired a 75-acre site at 576 Shore Road in Perry, Maine (County of Washington) (see **Figure 1-1**) in which the they are proposing the development of either: a) four duplex housing units (eight units total) (Design Alternative 1) consisting of three 3-bedroom units (six units total) and one 4-bedroom unit (two units total), or b) seven single-family units (Design Alternative 2) consisting of six 3-bedroom units and one 4-bedroom unit. Regardless of final design, a 5,000 square-foot (ft^2) maintenance building and a 2,000 ft^2 community building would also be built. In addition, all associated roads, sidewalks, stormwater controls, street lights, utilities, and typical infrastructure to support this community would be provided (Proposed Action). Currently, the property contains a single colonial-style home with various supporting structures (i.e., barn, work shop, wood shed, wood boiler unit, and shed/lean-to). Originally, the USCG plans included building 6 new duplex housing units or 12 single-family homes on the property. However, these design plans were eliminated due to environmental and cost (see **Section 2.4**).

Pursuant to NEPA, the USCG has prepared this EA to evaluate the potential effects on the environment from demolition of existing structures and implementation of the Eastport Housing Project. CEQ regulations and COMDTINST 5090.1 require that an EA identify and evaluate all reasonable alternatives, including a "No Action Alternative" in which the Proposed Action is not undertaken. The information and analysis contained in this EA will serve as the basis for a USCG


North Perry
Gin Cove
Passamaquoddy Bay
Loring Cove
PROJECT SITE
N
Boyden Lake
Boyden Lake
Taylor Brook
Boyden Stream
Frost Cove
Morrison's
Sipp Brook
Sipp Brook
Perry
Gleason Point
Gleason Cove
Frost Ledge
Porcupine Mountain
Passamaquoddy Indian Reservation
Frost Head
Frost Island
Pleasant Point
Pembroke
Pembroke
Passamaquoddy Indian Reservation
Pigeon Hill
Hardy Point
Mitchell Point
Carlow Island
190
Sipp Bay
Leach Point
Hersey Point
Henzey Cove
East Bay
Half Moon Cove
Herseys Upper Ledge
Rogers Point
Pattangal Cove
Lincoln Cove
Bar Harbor
Quoddy
Coggins Head
Hersey Neck
Red Cove
Nipps Island
Clement Point
Middle Ground
Garnet Point
Taylor Point
Two Hour Rock
Gangway Ledge
Spectacle Island
Sheep Cove
Carrying Place Cove
SOURCE:
DELORME TOPO NORTH AMERICA 10.
0 1/2 1 2
SCALE IN MILES
Prepared/Date: WJW 7/11/19
Checked/Date: CRH 7/11/19
USCG
576 Shore Road
Perry, Maine
Amec Foster Wheeler HDR
JOINT VENTURE
LOCATION MAP
Eastport Housing Site Development
Project 3350-00-007
Figure 1-1
S:\USCG – COAST GUARD\Perry Maine\8.0 Drawings\Figures\Permit\Figure 1-1 – Locus.dwg Thu, 11 Jul 2019 – 8:01am william.whitten

decision if the Proposed Action would result in a significant impact to the environment, which would require the preparation of an Environmental Impact Statement (EIS), or if no significant impacts would occur and therefore a Finding of No Significant Impact (FONSI) would be appropriate.

1.3 OVERVIEW

The following sections provide a summary of the USCG's overall mission and the role that Sector Northern New England (NNE) and, more specifically, USCG Station Eastport play in that mission. A summary of the Proposed Action property that was purchased is also provided.

1.3.1 USCG Mission

The USCG is this nation's first and oldest maritime agency. The USCG area of responsibility (AOR) includes more than 95,000 miles of United States (US) coastlines, waterways, and harbors; more than 3.36 million square miles of Exclusive Economic Zone (EEZ) and US territorial seas; and international waters or other maritime regions of importance to the US. The USCG is a multi-missioned military and maritime service within the Department of Homeland Security.

The USCG's 11 fundamental missions are ports, waterways, and coastal security; illegal drug interdiction; aids to navigation; search and rescue; living marine resources; marine safety; defense readiness; migrant interdiction; marine environmental protection; ice operations; and other law enforcement. Examples of these fundamental missions are:

- Protect all US ports, inland waterways, harbors, navigable waters, the Great Lakes, territorial seas, contiguous waters, customs waters, coastal seas, littoral areas, the US EEZ, oceanic regions of US national interest, sea lanes to the US, US maritime approaches, and high seas surrounding the nation;
- Protect the US Marine Transportation System, which is comprised of the intermodal connections, vessels, vehicles, and system users, as well as all Federal maritime navigation systems;
- Maintain maritime border security against illegal drugs, illegal aliens, firearms, and weapons of mass destruction;
- Ensure that US military assets can be rapidly supplied and deployed by keeping USCG units at a high state of readiness, and by keeping marine transportation open for the transit of assets and personnel from other branches of the armed forces;
- Coordinate efforts and intelligence with Federal, State, and local agencies;
- Respond to calls of distress, whether from commercial or recreational boats or downed aircraft;
- Support programs to ensure that boats are safe for public use and that boats contain appropriate safety equipment;

- Protect against illegal fishing and indiscriminate destruction of living marine resources; and
- Prevent and respond to oil and hazardous material spills – both accidental and intentional.

1.3.2 Sector Northern New England

The City of Eastport and the Town of Perry, Maine, are located within the USCG's District 1, Sector NNE. Sector NNE includes 19 sub-units and over 1,100 active, civilian, reserve, and auxiliary personnel executing operational missions across Maine, New Hampshire, Vermont, and northeastern New York. Their AOR spans over 5,000 miles of coastline and 11,000 square nautical miles of water (USCG, 2019).

A number of coastal and river cargo ports, cruise ship destinations, and the waters of Lake Champlain lie within Sector NNE's AOR. These ports host over 1,000 deep draft vessels arriving annually and account for the movement of significant bulk and container freight. In addition, many ferries and tour boats operate within Sector NNE's AOR, transporting millions of passengers and serving as vital links to island communities and bordering states (USCG, 2019).

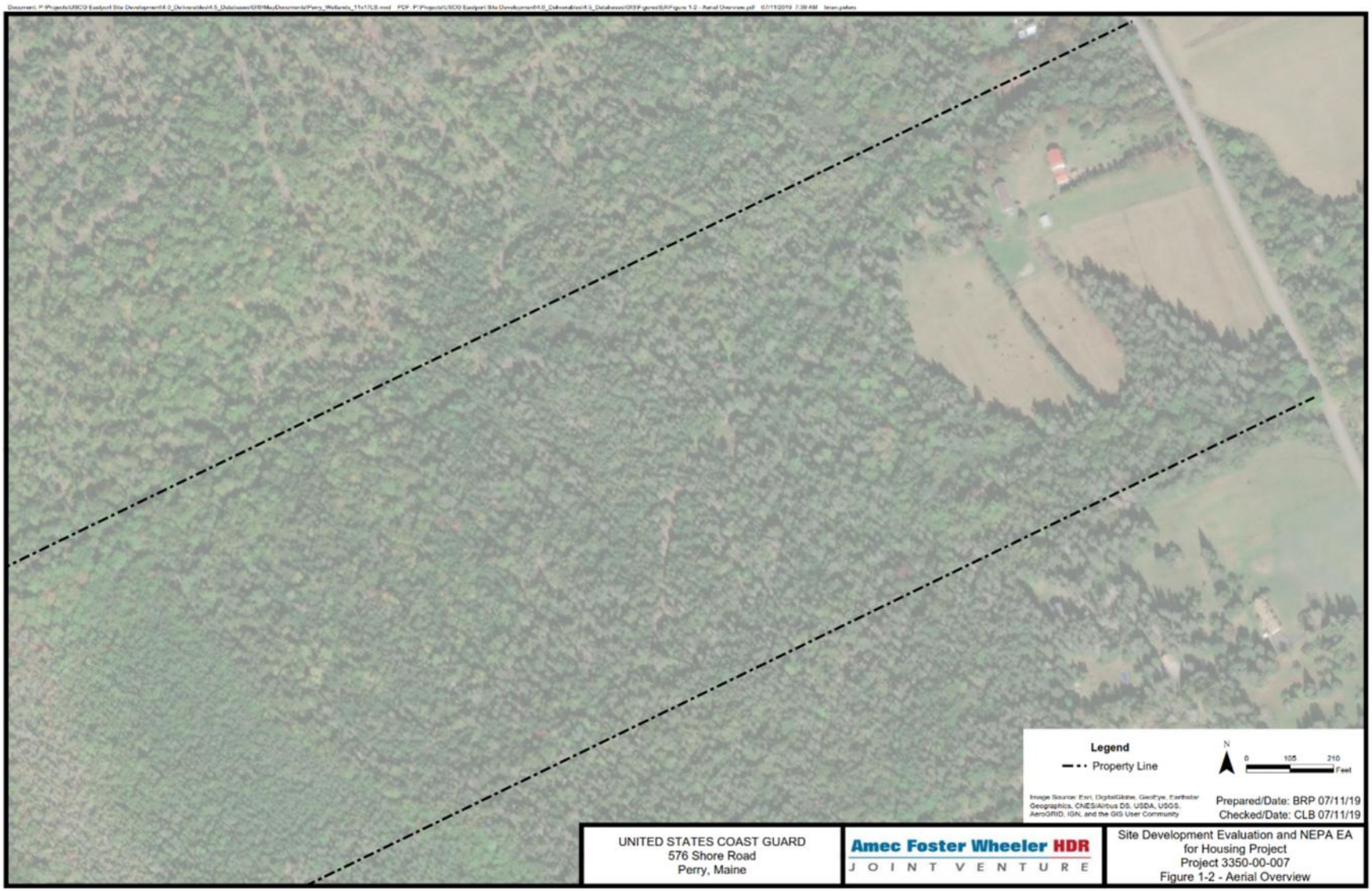
Other unique features of Sector NNE's AOR include joint protection and response missions along the Canadian border and the continued support and rapport shared with local Native American tribal communities (USCG, 2019).

1.3.3 USCG Station Eastport

USCG Station Eastport is one of two USCG stations within Washington County, Maine. It consists of a working crew of eight search and rescue personnel and two boats that serve a 100-mile stretch of coastline. The USCG station building was constructed in 2004 and includes the local emergency response center. It is located adjacent to the repaired and expanded Eastport Breakwater on the downtown waterfront. The Eastport Breakwater re-opened in 2017, serving the commercial fishing fleet, the USCG, and visitors (City of Eastport, 2018).

1.3.4 Proposed Action Property

The property in which the proposed Eastport Housing Project is sited is a heavily wooded 75-acre site in the Town of Perry, Maine (see **Figure 1-2**). This property is listed as Lot 4 on the Town Planning Map 13 and contains a gravel driveway that leads from Shore Road to a 2,280 ft^2, 2-story, colonial-style home built in 1968. A 2-story barn (~1,800 ft^2), a work shop (~500 ft^2), a wood shed (~500 ft^2), a wood boiler unit (~200 ft^2), and a shed/lean-to (~500 ft^2) are also on the property. Three unused pasture fields are located south of existing house. All of the structures and fields are located in the eastern third of the land parcel. The house and barn are supported by two private water supply wells. A 1,000-gallon concrete septic tank and associated leach field serve as the wastewater disposal system for the property (Mott, 2018).


Legend
Property Line
N
0
105
210
Feet
Image Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Prepared/Date: BRP 07/11/19
Checked/Date: CLB 07/11/19
UNITED STATES COAST GUARD
576 Shore Road
Perry, Maine
Amec Foster Wheeler HDR
JOINT VENTURE
Site Development Evaluation and NEPA EA
for Housing Project
Project 3350-00-007
Figure 1-2 - Aerial Overview

1.4 PURPOSE OF THE PROPOSED ACTION

The purpose of the Proposed Action is to provide adequate housing that meets USCG standards for USCG Station Eastport personnel and their families by constructing four duplex units, or seven single-family housing units, on the project site.

1.5 NEED FOR THE PROPOSED ACTION

The Proposed Action is needed because the supply of vacant housing in the Eastport area that meets USCG housing standards is inadequate to support the personnel that report to USCG Station Eastport. Building these houses along Shore Road in the Town of Perry would ensure that USCG personnel experience a high quality of life, with easy access to shopping, schools, and medical facilities, within close proximity (approximately 10 miles) to the Eastport station.

Currently, personnel are provided a housing allowance and must find housing on their own in the vicinity of Eastport. However, the Eastport area was designated a Critical Housing Area (CHA) by USCG standards in 2017 and has been classified as such over the past decade. CHA status is recognition that a geographic area has extremely limited community-based housing, generally defined as less than a 3 percent (%) vacancy rate. In addition, an August 2014 Housing Market Survey Analysis (HMSA) of the Eastport area indicated that private sector housing cannot fully accommodate the demand of USCG personnel. Therefore, personnel are forced to find housing in larger city centers such as Calais and East Machias, which are much further away from Eastport than Perry.

1.6 AGENCY AND PUBLIC INVOLVEMENT PROCESS

The Proposed Action would occur in the Town of Perry. In order to reach out to this small community and the surrounding area, a Notice of Scoping was published in the *Calais Advertiser*, providing a 10-day period during which input could be submitted on key issues that relevant stakeholders felt should be addressed during the environmental review process (see **Appendix A**).

A complete version of this draft EA will also be sent to the following entities to solicit public comment and feedback:

1. Town of Perry – Town Clerk
2. Town of Pembroke – Public Library
3. City of Eastport – Public Library

A legal notice will again be posted in one or more local newspapers to advise residents and concerned citizens in the area where copies of the draft EA are located and the process for providing comments during the formal Public Comment Period.

1.7 FEEDBACK

There were no public comments generated by the initial Notice of Scoping publication.

1.8 SUMMARY OF ENVIRONMENTAL STUDY REQUIREMENTS

This EA has been prepared in accordance with Department of Homeland Security Management Directive 023-01 and USCG COMDTINST 5090.1 and is in compliance with requirements of NEPA and CEQ Regulations at 40 CFR §§1500-1508 (43 Federal Register 55978 dated 29 November 1978). The primary legislation affecting these agencies' decision-making process is NEPA. This act and other facets of this EA process are described below.

1.8.1 National Environmental Policy Act

NEPA requires that Federal agencies consider potential environmental consequences of their proposed actions. The law's intent is to protect, restore, or enhance the environment through well-informed Federal decisions. The CEQ was established under NEPA for the purpose of implementing and overseeing Federal policies as they relate to this process. In 1978, the CEQ issued *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 CFR §§1500-1508). These regulations specify that an EA be prepared to:

- Briefly provide sufficient analysis and evidence for determining whether to prepare an EIS or a FONSI;
- Aid in an agency's compliance with NEPA when no EIS is necessary; and
- Facilitate preparation of an EIS if one is necessary.

Further, to comply with other relevant environmental requirements (e.g., Endangered Species Act [ESA], National Historic Preservation Act [NHPA], Clean Water Act [CWA], etc.) in addition to NEPA, and to assess potential environmental impacts, the decision-making process for the Proposed Action involves a thorough examination of all environmental issues pertinent to the Proposed Action.

1.8.2 Endangered Species Act

The ESA of 1973 (16 USC §§1531–1544, as amended) established measures for the protection of plant and animal species that are federally listed as threatened or endangered, and for the conservation of habitats that are critical to the continued existence of those species. Federal agencies must evaluate the effects of their proposed actions through a set of defined procedures, which can require formal consultation with the United States Fish and Wildlife Service (USFWS) and/or with National Oceanic and Atmospheric Administration (NOAA) Fisheries under Section 7 of the ESA.

1.8.3 Clean Air Act and Conformity Requirements

The Clean Air Act (CAA) (42 USC §§7401–7671, as amended) provided the authority for the United States Environmental Protection Agency (USEPA) to establish nationwide air quality standards to protect public health and welfare. Federal standards, known as the National Ambient Air Quality Standards (NAAQS), were developed for six criteria pollutants: ozone, nitrogen dioxide, carbon monoxide, sulfur dioxide, particulate matter, and lead. The CAA also requires that each state prepare a State Implementation Plan (SIP) for maintaining and improving air quality and eliminating violations of the NAAQS.

The USEPA and the Maine Department of Environmental Protection (MEDEP) regulations require proposed projects to demonstrate that predicted impacts would not cause, or significantly contribute to, a new violation of the NAAQS or the Maine Ambient Air Quality Standards (MAAQS); increase the frequency or severity of any existing violation; or delay timely attainment of any standard, emission reduction, or milestone contained in the SIP. Toward that end, the USEPA and MEDEP have established Significant Impact Levels (SILs), which are a small fraction of the NAAQS/MAAQS. Predicted impacts less than SILs are deemed insignificant, and therefore will not cause or contribute to an air quality standard violation.

1.8.4 Wetland and Water Resources Regulatory Requirements

The CWA of 1977 (33 USC §1251 et seq.) regulates pollutant discharges that could affect aquatic life forms or human health and safety. Section 404 of the CWA, and Executive Order 11990, *Protection of Wetlands*, regulate development activities in or near streams or wetlands. Section 404 also regulates development in streams and wetlands and requires a permit from the United States Army Corps of Engineers (USACE) for dredging and filling in wetlands. Executive Order 11988, *Floodplain Management*, requires Federal agencies to take action to reduce the risk of flood damage; minimize the impacts of floods on human safety, health, and welfare; and restore and preserve the natural and beneficial values served by floodplains. Federal agencies are directed to consider the proximity of their actions to or within floodplains.

1.8.5 Coastal Zone Management Act / Coastal Consistency Determination

The Coastal Zone Management Act of 1972 (CZMA) creates a Federal partnership with states to ensure the protection of coastal resources. In order to ensure Federal consistency, a state agency reviews any programs being implemented by the Federal government. Along with the state review, the National Ocean Service (NOS) interprets the CZMA, oversees applications of Federal consistency, provides management and legal assistance to coastal states and Federal agencies, and mediates CZMA-related disputes (NOS, 2019). In compliance with this Federal law, and in order to address coastal problems and provide a means for resolving them, the Maine Coastal Program (MCP) was formally created in 1978. Maine's coastal zone includes 5,408 miles of coastline, all municipalities with tidal waters in their jurisdiction; and State-owned submerged

lands and islands out to three nautical miles (MCP, 2015). Development within Maine's coastal zone is subject to a coastal zone consistency determination.

1.8.6 Cultural Resources Regulatory Requirements

The NHPA of 1966 (16 USC §470) established the National Register of Historic Places (NRHP) and the Advisory Council on Historic Preservation, which outline procedures for the management of cultural resources on Federal property. Cultural resources include archaeological remains, architectural structures, and traditional cultural properties such as ancestral settlements, historic trails, and places where significant historic events occurred. The NHPA requires Federal agencies to consider potential impacts to cultural resources that are: listed, nominated, or eligible for listing on the NRHP; designated a National Historic Landmark; or valued by modern Native Americans for maintaining their traditional culture. Section 106 of the NHPA requires Federal agencies to consult with the appropriate State Historic Preservation Office (SHPO) if their undertaking might affect such resources. *Protection of Historic and Cultural Properties* (36 CFR §800) provides an explicit set of procedures necessary for Federal agencies to meet their obligations under the NHPA, which includes creating an inventory of resources and consultation with the appropriate SHPO.

Executive Order 13007, *Indian Sacred Sites*, directs Federal land (any land or interests in land owned by the US, including leasehold interests held by the US, except Indian trust lands) managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites (any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe [an Indian or Alaska Native tribe, band, nation, Pueblo, village, or community that the Secretary of the Department of Interior acknowledges to exist as an Indian tribe pursuant to Public Law 103-454, 108 Statute 4791]). An "Indian" refers to a member of such an Indian tribe. A "sacred site" is defined as any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site.

The American Indian Religious Freedom Act (42 USC §1996) established Federal policy to protect and preserve the rights of Native Americans to believe, express, and exercise their traditional religions, including providing access to sacred sites. The Native American Graves Protection and Repatriation Act (25 USC §§3001–3013) requires consultation with Native American Tribes prior to excavation or removal of human remains and certain objects of cultural importance.

1.9 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

This EA considers the Proposed Action and evaluates potential environmental impacts to those resources that would likely be affected by implementation of the Proposed Action. In this case, this EA evaluates the following environmental resources:

- Socioeconomic Environment;
- Physical Environment;
- Biological Resources;
- Land Use; and
- Cultural Resources.

The Proposed Action evaluated in this EA is not anticipated to cause environmental impacts to the resources listed below. Per NEPA, environmental resource areas that are anticipated to experience either no or negligible environmental impact under implementation of the Proposed Action or its alternatives are not examined in detail. Environmental resources that will not be impacted by the Proposed Action and will not be examined further in this EA include:

Invasive Species

The Proposed Action area was not documented as containing invasive species or those plants targeted by such species (i.e., American chestnut [*Castanea dentata*] and American elm [*Ulmus americana*]). In addition, landscape plans would only include the planting of native, non-invasive species in the new development. Therefore, no impacts to the surrounding environment from the introduction of invasive species would result from implementation of the Eastport Housing Project.

Essential Fish Habitat

Essential Fish Habitat (EFH) is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." When considering an action in EFH, Federal agencies are required to consult with NOAA Fisheries about actions that could damage EFH. If a Proposed Action would not adversely affect EFH, then consultation with NOAA Fisheries is not required (NOAA Fisheries, 2019).

The Proposed Action would occur in an EFH-designated area for 15 species federally managed by the New England Fishery Management Council, each covered under one of the following documents: 1) Amendment 2 to the Northeast Skate Complex Fishery Management Plan (FMP), 2) Amendment 3 to the Atlantic Herring FMP, 3) Amendment 14 to the Atlantic Sea Scallop FMP, and 4) Amendment 14 to the Northeast Multispecies FMP. In addition, the area contains one species that is federally managed by the Mid-Atlantic Fishery Management Council and covered under Amendment 11 to the Atlantic Mackerel, Squid, and Butterfish FMP. However, these species all require intertidal and subtidal shallows of estuaries and embayments with salinities

between 0.5% and 2.5%. Freshwater streams, such as those located on the property, do not contain the required salinity. In addition, the project area is not designated as containing Habitat Areas of Particular Concern nor is it located in an EFH Area Protected from Fishing (NOAA Fisheries, 2017). Therefore, there would be no effect on EFH resources protected under the Magnuson-Stevens Fishery Conservation and Management Act, as amended (16 USC §1801 et seq.) from implementation of the Proposed Action.

Marine Mammals

The Proposed Action area is not sited within, or adjacent to, marine resources containing species protected under the Marine Mammal Protection Act of 1972. Therefore, no impacts to marine mammals would result from implementation of the Proposed Action.

Floodplains

The subject property is not within a designated Federal Emergency Management Agency flood zone. Therefore, no impacts to floodplain resources would result from the implementation of the Proposed Action.

Critical Habitat

The Proposed Action area is not within, or adjacent to, critical habitat designated for federally listed threatened or endangered species protected under the ESA. Therefore, no impacts to critical habitat resources would result from the implementation of the Proposed Action.

This page intentionally left blank.

2.0 PROPOSED ACTION AND ALTERNATIVES

The USCG is proposing to build a family housing development on a single parcel in Perry, Maine, for USCG service members reporting to USCG Station Eastport. As described in **Section 1.0**, *Purpose and Need*, the proposed construction of new housing in Perry would serve to ensure that USCG housing standards, as outlined in the *Coast Guard Housing Manual* (COMDTINST M11101.13G), can be met and that USCG personnel would experience a high quality of life, with easy access to community resources.

This site was chosen after the USCG had done their due diligence and vetted this property for issues such as subsurface wastewater treatment, groundwater supply, and hazardous materials. It also is located within a reasonable commuting distance for USCG Station Eastport, defined by the USCG as a round trip travel time of two hours or less during peak commute times.

Three alternatives for meeting the requirements to house personnel reporting to USCG Station Eastport and their families are being considered at this site:

- Design Alternative 1: Build four duplex housing units (eight units total);
- Design Alternative 2: Build seven single-family units; and
- No Action Alternative.

Although the USCG housing office currently works to help personnel locate adequate housing, the Eastport area rates are at or below 3% vacancy, suggesting that USCG members likely have experienced extreme hardships in securing rental housing in the CHA of Eastport. By implementing the Proposed Action, the USCG would be able to provide adequate living space for service members and their families and was determined to be the most viable solution to address the immediate and critical family housing issue. Therefore, the two Proposed Action design alternatives (Design Alternatives 1 and 2) would satisfy the purpose and need of the project.

Regardless of which design is ultimately selected, all Federal and State guidelines would be followed by the USCG. This project would be a design-build contract, with final design proposed to take place in first half of 2020. Construction would proceed in the summer of 2020, with completion by the end of 2021.

2.1 DESIGN ALTERNATIVE 1: BUILD FOUR DUPLEX HOUSING UNITS (EIGHT UNITS TOTAL)

In this scenario, the existing house and all associated structures currently located on the recently acquired project site would be razed. Four new duplex housing units would be built in the eastern third of the parcel for a total of eight combined family houses for use by personnel reporting to USCG Station Eastport and their families. The structures would consist of three

duplexes, each containing two 3-bedroom units (six units total), and one duplex containing two 4-bedroom units (two units total) for a total development area of 15.3 acres (see **Figure 2-1**).

In addition, a 5,000 ft^2 maintenance building and a 2,000 ft^2 community building would be constructed. All associated roads, sidewalks, stormwater controls, street lights, utilities, and typical residential infrastructure to support this community would also be provided. This design calls for the drilling of five groundwater supply wells and the installation of five septic tanks with associated leach fields. The duplexes would require a 1000-gallon septic tank for each unit in the duplex, followed by a single disposal field sized to accept waste water from both units. A duplex with two 3-bedroom units would require a 2,400 ft^2 stone and pipe disposal field, and a duplex with two 4-bedroom units would require a 3,000 ft^2 disposal field. The proposed maintenance building and community building would be serviced by a single disposal field and each building would require a minimum 1000-gallon septic tank. The maintenance building and community building disposal field would be 700 ft^2. The size of the fields may be reduced by utilizing proprietary devices in constructing the disposal field, as described in the Maine Subsurface Disposal Rules.

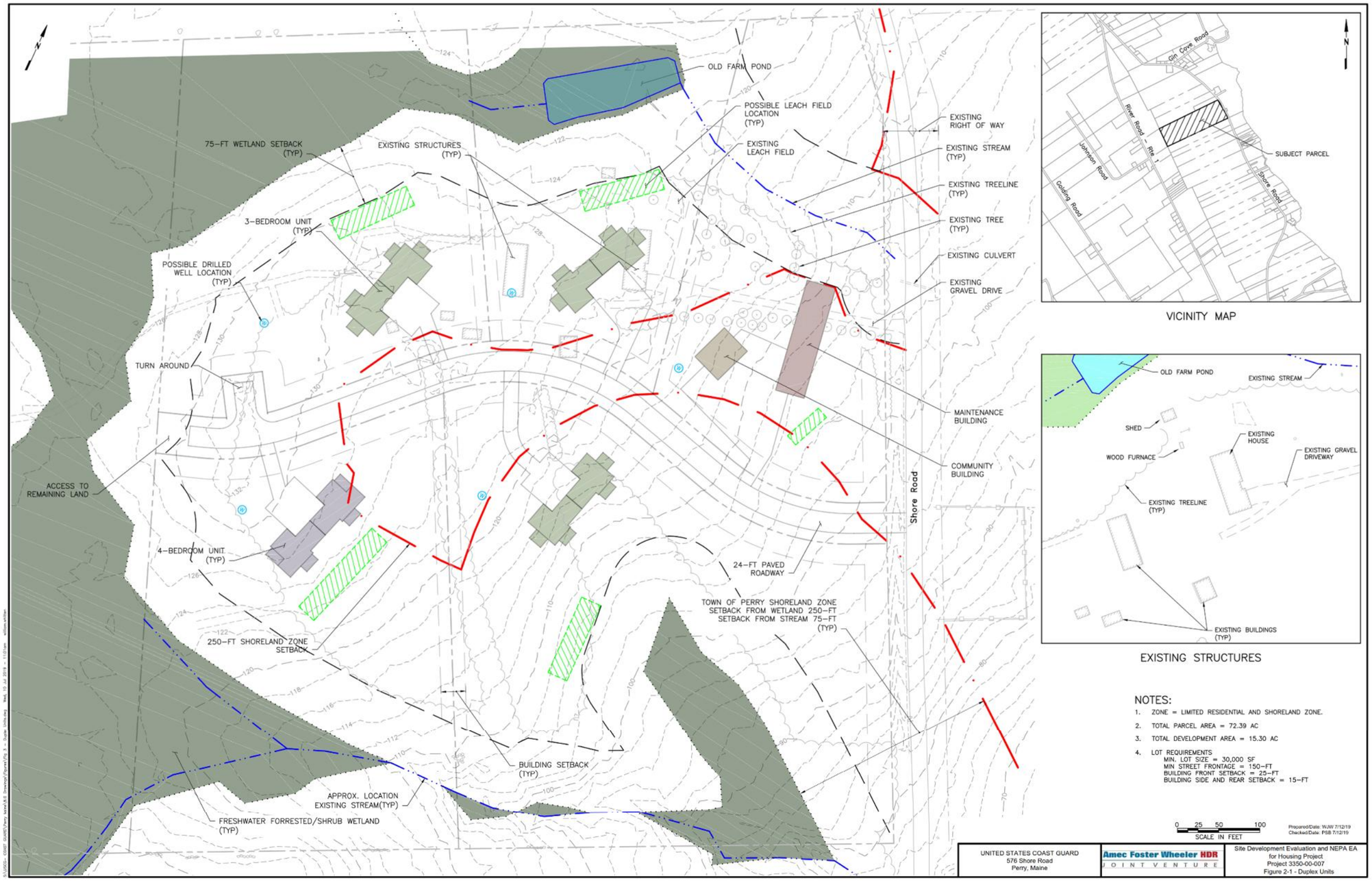
2.2 DESIGN ALTERNATIVE 2: BUILD SEVEN SINGLE-FAMILY UNITS

In this scenario, the existing house and all associated structures currently located on the recently acquired project site would be razed. Seven new single-family housing units would be built in the eastern third of the parcel for use by personnel reporting to USCG Station Eastport, along with a 5,000 ft^2 maintenance building and a 2,000 ft^2 community building. These units would consist six 3-bedroom units and one 4-bedroom unit for a total development area of 15.3 acres (see **Figure 2-2**).

In addition, all associated roads, sidewalks, stormwater controls, street lights, utilities, and typical residential infrastructure to support this community would be provided. This design calls for the drilling of eight groundwater supply wells and the installation of eight septic tanks with associated leach fields. Each system for the single-family residences would require a minimum 1000-gallon septic tank and a 1,200 ft^2 or 1,500 ft^2 disposal field for 3-bedroom and 4-bedroom units, respectively. The proposed maintenance building and community building would be serviced by a single disposal field and each building would require a minimum 1000-gallon septic tank. The maintenance building and community building disposal field would be 700 ft^2. The size of the fields may be reduced by utilizing proprietary devices in constructing the disposal field, as described in the Maine Subsurface Disposal Rules.

2.3 NO ACTION ALTERNATIVE

The CEQ regulations implementing NEPA require that a No Action Alternative be analyzed to provide a baseline for comparison with the Proposed Action. The No Action Alternative


OLD FARM POND
POSSIBLE LEACH FIELD LOCATION (TYP)
EXISTING LEACH FIELD
EXISTING RIGHT OF WAY
EXISTING STREAM (TYP)
EXISTING TREELINE (TYP)
EXISTING TREE (TYP)
EXISTING CULVERT
EXISTING GRAVEL DRIVE
75-FT WETLAND SETBACK (TYP)
EXISTING STRUCTURES (TYP)
3-BEDROOM UNIT (TYP)
POSSIBLE DRILLED WELL LOCATION (TYP)
TURN AROUND
MAINTENANCE BUILDING
COMMUNITY BUILDING
Shore Road
ACCESS TO REMAINING LAND
4-BEDROOM UNIT (TYP)
24-FT PAVED ROADWAY
TOWN OF PERRY SHORELAND ZONE SETBACK FROM WETLAND 250-FT SETBACK FROM STREAM 75-FT (TYP)
250-FT SHORELAND ZONE SETBACK
BUILDING SETBACK (TYP)
APPROX. LOCATION EXISTING STREAM(TYP)
FRESHWATER FORRESTED/SHRUB WETLAND (TYP)
Gin Cove Road
River Road - Rte. 1
Johnson Road
Gooding Road
Shore Road
SUBJECT PARCEL
VICINITY MAP
OLD FARM POND
EXISTING STREAM
SHED
EXISTING HOUSE
WOOD FURNACE
EXISTING GRAVEL DRIVEWAY
EXISTING TREELINE (TYP)
EXISTING BUILDINGS (TYP)
EXISTING STRUCTURES
NOTES:
1. ZONE = LIMITED RESIDENTIAL AND SHORELAND ZONE.
2. TOTAL PARCEL AREA = 72.39 AC
3. TOTAL DEVELOPMENT AREA = 15.30 AC
4. LOT REQUIREMENTS
MIN. LOT SIZE = 30,000 SF
MIN STREET FRONTAGE = 150-FT
BUILDING FRONT SETBACK = 25-FT
BUILDING SIDE AND REAR SETBACK = 15-FT
0 25 50 100
SCALE IN FEET
Prepared/Date: WJW 7/12/19
Checked/Date: PSB 7/12/19
UNITED STATES COAST GUARD
576 Shore Road
Perry, Maine
Amec Foster Wheeler HDR
JOINT VENTURE
Site Development Evaluation and NEPA EA for Housing Project
Project 3350-00-007
Figure 2-1 - Duplex Units


OLD FARM POND
POSSIBLE LEACH FIELD LOCATION (TYP)
75-FT WETLAND SETBACK (TYP)
EXISTING STRUCTURES (TYP)
EXISTING TREELINE (TYP)
EXISTING TREES (TYP)
EXISTING CULVERT (TYP)
EXISTING GRAVEL DRIVE
3-BEDROOM UNIT (TYP)
POSSIBLE DRILLED WELL LOCATION (TYP)
BUILDING SETBACK (TYP)
COMMUNITY BUILDING
MAINTENANCE BUILDING
RIGHT OF WAY TO REMAINING LAND
250-FT SHORELAND ZONE SETBACK
4-BEDROOM UNIT (TYP)
TOWN OF PERRY SHORELAND ZONE SETBACK FROM WETLAND 250-FT SETBACK FROM STREAM 75-FT (TYP)
POSSIBLE PROPERTY LINES (TYP)
APPROX. LOCATION EXISTING STREAM(TYP)
FRESHWATER FORRESTED/SHRUB WETLAND (TYP)
Shore Road
Gin Cove Road
River Road - Rte 1
Johnson Road
Goulding Road
Shore Road
SUBJECT PARCEL
VICINITY MAP
OLD FARM POND
EXISTING STREAM
SHED
EXISTING TREE (TYP)
WOOD FURNACE
EXISTING GRAVEL DRIVEWAY
EXISTING TREELINE (TYP)
EXISTING HOUSE
EXISTING BUILDING
EXISTING BUILDINGS (TYP)
EXISTING STRUCTURES
NOTES:
1. ZONE = LIMITED RESIDENTIAL AND SHORELAND ZONE.
2. TOTAL PARCEL AREA = 72.39 AC
3. TOTAL DEVELOPMENT AREA = 15.30 AC
4. LOT REQUIREMENTS
MIN. LOT SIZE = 30,000 SF
MIN STREET FRONTAGE = 150-FT
BUILDING FRONT SETBACK = 25-FT
BUILDING SIDE AND REAR SETBACK = 15-FT
0 25 50 100
SCALE IN FEET
Prepared/Date: WJW 7/12/19
Checked/Date: PSB 7/12/19
UNITED STATES COAST GUARD
576 Shore Road
Perry, Maine
Amec Foster Wheeler HDR
JOINT VENTURE
Site Development Evaluation and NEPA EA
for Housing Project
Project 3350-00-007
Figure 2-2 - Single Family Units

identifies and describes the potential environmental impacts of the status quo (i.e., if the Proposed Action were to not be implemented).

Under the No Action Alternative, the USCG would not raze the existing structures on the property or build new family housing units for the personnel assigned to USCG Station Eastport. However, due to the classification of the Eastport area as a CHA, USCG members would likely continue to experience extreme hardships in securing rental housing within a reasonable commuting distance from the station.

2.4 ALTERNATIVES IDENTIFIED BUT NOT CARRIED FORWARD FOR DETAILED ANALYSIS

Two alternatives to the Proposed Acton were identified and preliminarily evaluated. These alternatives were screened for the ability to fully satisfy the purpose and need of the Proposed Action, be viable and economically feasible, and not result in significant adverse impacts to the human or physical environment.

These alternatives and a succinct evaluation of their disposition with respect to implementation follows.

Building 6 new duplex housing units or 12 single-family homes in Perry. The original design was for the building of either 6 duplex houses or 12 single-family homes in the eastern portion of the lot to accommodate the eight current USCG personnel and their families as well as any additional USCG personnel that may be assigned to USCG Station Eastport in the future. These design plans were eliminated, however, as significant impacts to wetlands delineated on the property could not be avoided. In addition, this alternative would create greater costs for the USCG by building more housing units than are necessary.

Lease or Purchase Existing Housing in the Eastport Area
Based on the 2017 CHA revalidation and 2014 HMSA, it was determined that there is a very limited number of three- or four-bedroom homes/apartments available to rent within a reasonable distance of USCG Station Eastport. Furthermore, the limited rentals in the area are in poor condition and not suitable for occupancy by USCG families. The houses for sale consist of either large tourist summer homes or small local dwellings. They too do not meet the USCG standards of living outlined in the *Coast Guard Housing Manual* (COMDTINST M11101.13G).

This page intentionally left blank.

3.0 AFFECTED ENVIRONMENT

This section describes pertinent existing environmental conditions for resources potentially affected by the Proposed Action and identified alternatives. In compliance with CEQ regulations implementing NEPA, and USCG COMDTINST 5090.1, the description of the affected environment focuses on only those aspects of the Proposed Action potentially subject to impacts.

In the case of the Proposed Action, the description of the affected environment is limited primarily to the USCG property in Perry and adjacent surroundings. Resource descriptions focus on the resources present at the site that would have the potential to be affected by implementation of the Proposed Action or identified alternatives, listed under the following categories:

- Socioeconomic Environment;
- Physical Environment;
- Biological Resources;
- Land Use; and
- Cultural Resources.

Implementation of the Proposed Action evaluated in this EA is not anticipated to result in environmental impacts to the resources listed below (refer to **Section 1.9**, *Scope of the Environmental Assessment*). Per NEPA, environmental resource areas that are anticipated to experience either no or negligible impacts under implementation of the Proposed Action or its alternatives are not examined in detail. The environmental resources not examined further in this EA include:

- Invasive Species;
- EFH;
- Marine Mammals;
- Floodplains; and
- Critical Habitat.

3.1 SOCIOECONOMIC ENVIRONMENT

This section describes the existing socioeconomic and environmental justice conditions in the project area.

3.1.1 Local Economy

The Town of Perry is a small community with a population of 655 people that are primarily dependent on regional sources of employment (Washington County Council of Governments [WCCOG], 2009; United States Census Bureau [USCB], 2019a). Historically, the Town relied on fishing and forestry for its livelihood. Throughout the 1800s, lumber exports and ship building

were major sources of income and wealth while fishing, especially sardine packing, became a major industry by the late 1800s (WCCOG, 2009).

Throughout the years, residents have primarily depended upon jobs with local employers within the Town of Perry, or in the nearby service center of Eastport (WCCOG, 2009). Currently, the largest employer in the Town is the elementary school with 22 listed employees (WCCOG, 2009; Perry Elementary School, 2019); therefore, the top employment sector for residents is listed as 'education services, health care and social assistance' (28.9%). Other significant sectors include 'retail trade' (12.9%), 'manufacturing' (10.8%), and 'public administration' (10.4%) (USCB, 2019a). There are also many self-employed and home-based businesses, particularly in the farming, fishing, construction, and forestry industries (WCCOG, 2009).

Tourists and seasonal residents are staying longer than they have in the past. For much of the economic base, seasonal fluctuations in employment are significant for the commercial fishing, blueberry harvesting, and wreath brush production businesses. Recreational resources also have an impact on the local and regional economy. Tourist-related businesses that rely on recreational opportunities are significant sources of income to many towns in the region. In the Town of Perry, some retail business benefits from an influx of tourists to the region, particularly during the summer (WCCOG, 2009).

Within the last 20 years, the Town population has drastically decreased while the average age of the residential population has increased. The total population in 2000 was 847 residents with a median age of 37. Over 11% of the residents at that time were age 65 and over. In 2017, the population decreased 23% to a total of 655 residents. The median age increased to 48.3 with 23% at or above the age of 65 (USCB, 2019a). Therefore, the size of the workforce has significantly decreased since 2000. Despite the number of permanent and seasonal jobs, the unemployment rate in Perry has increased after the 2000 census and was reported as being higher than in Washington County, the Calais Labor Market Area, and the State of Maine. This is likely due to Town's location in a rural area, which limits employment opportunities and forces residents to commute to service centers where many of the newly created jobs are located (WCCOG, 2009).

The median household income for the Town of Perry of $44,417 per year is higher than that for Washington County ($40,328) but is not as high as that listed for the State of Maine ($53,024). The per capita income in Perry of $26,754 per year is also higher than in Washington County ($24,311), however, only slightly, indicating the presence of a high number of dependents per household (USCB, 2019a; WCCOG, 2009).

Economic activity in the Town of Perry is closely affiliated with the regional economy of Washington County, relying on service center communities like Eastport, Calais, Machias, and, to some extent, Bangor for the majority of goods and services used by residents. As a result, fluctuations in the region's economy have direct effects on the economy of Perry. Washington

County has been, and continues to be, defined as an economically depressed area because of its distance from other sections of the State and its reliance on a seasonal economy (e.g., blueberries, wreaths and Christmas trees, fishing and clamming, wood harvesting). Top employment sectors for the County are similar to those for the Town of Perry. Although manufacturing jobs have historically provided a base for Washington County residents, the entire manufacturing sector has declined steadily over the past three decades throughout the nation, the region, and the Town (WCCOG, 2009).

3.1.2 Housing

In 2017, The Town of Perry recorded a total of 550 housing units for an estimated population of 655 residents. Based on census data, one-unit detached structures accounted for approximately 87% of the total housing units, with mobile homes making up the remaining nearly 13% (USCB, 2019a). Between 1990 and 2000, the housing stock increased by nearly 26%, compared to an approximate 15% increase for Washington County and an 11% increase for the State. Over the same timeframe, the population in Perry increased by about 11.74% (WCCOG, 2009). Between 2000 and 2010, the housing stock in Perry increased approximately 4% and has remained stagnant ever since (USCB, 2019a).

Seasonal residences are an important segment of the housing stock in Perry. However, only 127 seasonally occupied homes were recorded in 2010. This represented approximately 23% of the total housing units available at that time and an overall decrease of 1.9% in this type of housing from the 2000 census data (USCB, 2019a).

A policy required by the Maine Growth Management Act is for every municipality "…to seek to achieve at least 10% of all housing built or placed during the next decade be affordable." Affordable housing is often defined as housing costs not surpassing more than 30% of household income (WCCOG, 2009). In 2017, it was estimated that 35% of families making less than $20,000 were spending less than 30% of their income on housing costs, suggesting that housing is affordable for some low-income Perry households, which has historically constituted approximately 60% of the households in Perry (USCB, 2019a; WCCOG, 2009). In Perry, 121 permits were issued for residential housing construction between 2000 and 2005, of which 29% (35 units) qualified as affordable housing and were built in the form of mobile/modular homes (WCCOG, 2009).

The majority of households (84.7%) in the Eastport market area are occupied or are for seasonal use. The housing stock includes a large portion of older homes, with almost 59.7% of the stock built on or before 1939. In general, the owner-occupied housing stock is generally older than the renter-occupied housing stock (USCB, 2019a). The Eastport area is a CHA and the 2014 HMSA indicated that private sector housing in Perry cannot fully accommodate the demand of personnel assigned to USCG Station Eastport.

3.1.3 Transportation

Because Perry is a community with limited employment and services, residents often travel to other communities for shopping and work and are dependent on well-maintained transportation systems. Residents of Perry, as well as the surrounding region, are reliant on US Route 1 as their primary means of travel by automobile. US Route 1 is an arterial road that traverses Perry primarily in a north-south travel corridor, connecting it to the larger service center communities of Calais and Machias. Route 190 connects US Route 1 from the center of Perry to the port and City of Eastport (WCCOG, 2009). According to the 2017 Census data, the workforce in Perry overwhelmingly chooses to commute alone via private vehicle (85.9%). The second-largest segment of the workforce commutes by carpool (10.4%) while some walk to work (0.8%) or work from home (2.9%) (USCB, 2019a).

Roads in Perry can be divided into two classifications by function: arterial and local. Arterial roads (e.g., State highways) serve long distance, high speed, through-traffic between communities. Local roads are all roads not in the arterial classification that provide access to adjacent land areas and usually carry low volumes of traffic. There are 11.43 miles of arterial and 32.4 miles of local roads within Perry. Shore Road is classified as a local road that is 4.21 miles in length within the municipal boundary and, as of 2009, was considered to be in fair condition. In 2004, sections of US Route 1 reportedly carried on average of 2,210 to 2,710 vehicles per day, while Shore Road was reported to support an average of 500 vehicles per day (WCCOG, 2009).

Public transportation options in Perry are currently limited. West's Transportation provides the only public transportation option for residents. Their Coastal Connection bus service offers daily service from Calais along US Route 1 through Pembroke and Perry, and Machias to Bangor, round trip (WCCOG, 2009; Maine Department of Transportation [MEDOT], 2019; West's Transportation, 2019). There are no commuter rail services currently available in Washington County, as passenger service stopped over 60 years ago, and freight service stopped in the mid-1980s. There is one private airstrip in Perry (i.e., Morrison's Airstrip), located 0.6 miles south of the project site along Shore Road, that is open for public use. Primary regional airports include: Machias Municipal Airport, Deblois Flight Strip, Eastport Municipal Airport, Princeton Regional Airport, Lubec Municipal Airport, Bar Harbor Airport, and Bangor International Airport, located 114 miles west of the project site. Finally, there are no public or private ferry services in Perry and none are planned (WCCOG, 2009).

3.1.4 Community Service and Medical Facilities

Perry Elementary School serves as the social center for the community, hosting many events throughout the year. Events include craft fairs, holiday concerts, and fundraising dinners. On Saturdays during the summer, there is a Craft and Farmers Market at the municipal building, and a large Harvest Fair is held every year on the first Saturday on October (WCCOG, 2009).

Several service organizations operate in the Town of Perry including (WCCOG, 2009):

- Boy Scouts;
- Cal Ripken League (Perry Cubs);
- Youth Sports offered through the school (basketball, track);
- After school programs 2 days/week;
- Perry Grange Hall; and
- Churches

The most convenient medical facilities available for residents in Perry are in Calais and Eastport. These facilities serve a wide range of medical needs.

Calais Regional Hospital serves a population of approximately 14,000. This facility employs close to 250 people and is licensed as a Critical Access Hospital. As such, the hospital has a 24-hour physician-staffed emergency department. A multi-specialty courtesy staff of 30 physicians, who see a limited number of patients, and a variety of medical specialists complement the 15 members of the hospital's active medical staff (WCCOG, 2009).

Eastport Healthcare, Inc. provides an extensive range of health care services to residents of Eastport and the surrounding communities. These services include primary medical and dental care, psychiatric care, mental health counseling, substance abuse counseling, podiatry, physical therapy, nephrology and infectious disease care. This facility is as vital to the city's economic and social health as it is to the physical health of its citizens. Without it, some residents would have to move away in order to receive the care they need (WCCOG, 2009).

3.1.5 Fire, Rescue, and Police Services

The fire house in Perry is on US Route 1 within the Perry Municipal Building, which houses other municipal public works and offices such as the highway department, the Selectmen, and the school bus garage. The Perry Fire Department consists of 28 part-time volunteers. With the overall decreasing population in the region, particularly of young working families, it is increasingly difficult to attract public safety volunteers (WCCOG, 2009). The Perry Municipal Building is 3.6 miles from the Proposed Action property.

Perry public safety services are provided by the Washington County Sheriff's Office and the Maine State Police. The Washington County Sheriff's Office provides emergency dispatching services via the Washington County Dispatch, with non-emergency services routed through Orono, Maine. Emergency ambulance service is provided 24 hours per day by the Eastport Division of Downeast Emergency Medical Services, the regional ambulance service provided by Washington County Emergency Medical Service Authority (WCEMSA) (WCCOG, 2009).

WCEMSA is a regional emergency ambulance service covering 18 communities in three counties, running between 1,750 and 2,000 calls per year. The service provides emergency and transfer

services from three full-time stations. In addition, they team up with two volunteer operations and first response units based in Alexander and Charlotte (WCCOG, 2009).

USCG Station Eastport operates as a marine search and rescue station. The station was rebuilt in 2004 and now houses the local emergency response center. The USCG Auxiliary Flotilla operates from the Eastport station, promoting safe boating through classes on boat handling and navigation. They also conduct search and rescue missions, provide manpower to support the USCG, and are part of the local response team (WCCOG, 2009).

3.1.6 Recreational Facilities

Perry offers many recreational opportunities. Open spaces include athletic fields, farms, forestlands, wetlands, bayshores, and river corridors. Although not all of the open space is accessible to the public, some of the Town's most important recreational resources rely on waterfront access, such as lake and bay front lands. As such, Perry is a haven for resident and visiting outdoor enthusiasts and will likely remain as such into the future (WCCOG, 2009).

Perry also has a few municipal recreational facilities. Most are located at Perry Elementary School, including basketball courts, softball fields, playgrounds and multi-purpose gymnasium and auditorium facilities. The community uses the school building for a variety of functions, including public hearings and meetings, private parties and receptions, coffee houses, and musical performances. The school charges private users a nominal fee to offset utility costs. The Town of Perry has a Recreation Committee of volunteers who organize various celebrations, including the Harvest Fair and parades, and help promote recreational activities. The Perry Grange Hall also organizes various public dinners and parties for residents and visitors alike (WCCOG, 2009).

3.1.7 Schools

Perry operates their own School Department at the elementary level. Perry Elementary School, located on US Route 1, was built in 1988 and features classrooms for grades K-4 (kindergarten for 4-year-old children) through 8. The facility includes a gym/cafeteria with a stage for auditorium use, a library/classroom, two to three computers (laptops for grades 7 and 8) in all classrooms, and offices (WCCOG, 2009). This school is 1.9 miles from the Proposed Action property.

At the secondary level, Perry is part of School Union 104. As such, students attend the Union 104 public Shead High School in Eastport. Shead High School was built in in 1981. It has a complete range of classrooms, gymnasium, computer lab, cable television broadcasting facilities, and a licensed radio station. Parents also have the choice of sending their children to Calais High School or the Washington Academy, but must make tuition payments for these schools that are outside of their jurisdiction (WCCOG, 2009).

Calais High School in Calais, Maine, was remodeled in 2004 and includes the Calais Regional Vocational Center. It is a public school with a complete range of classrooms, gymnasium, computer lab, home economics room, and cable television broadcasting facilities. The Washington Academy in East Machias, Maine, is a private school that hosts regional and international students who attend daily or as boarders living on campus. It includes many classrooms, computer labs, a performing arts stage, cafeteria, library, gymnasium complex, music classrooms, and an Industrial Technology Building that contains the Marine Trades Program, Industrial Arts, and Computer Networking and Repair classes (WCCOG, 2009).

Enrollment in regional high schools has shifted in the past eight years with Calais High School falling slightly, Shead High School declining, and Washington Academy steadily growing. Declines in overall school enrollment in eastern Washington County are reflective of the declines in the number of younger residents in the region (WCCOG, 2009). The Town of Perry experienced nearly a 55% decrease in children ages 5 to 19 and a 59% decrease in children under the age of 5 between 2000 and 2017 (USCB, 2019a).

The percentage of Perry residents with a bachelor's degree or higher level of attainment is greater than the surrounding communities and lies between the County and State averages. However, Perry's high school graduate or higher level of attainment is comparable to nearby communities and lower than the County and the State (WCCOG, 2009).

Regional vocational, technical and higher educational facilities include (WCCOG, 2009):

- The Washington County Community College in Calais;
- University of Maine at Machias; and
- Husson University (operating the following):
    - The Boat School-Husson in Eastport; and
    - Unobskey College in Calais.

3.1.8 Utilities

Perry has a Public Works Department and manages their roads through an elected Road Commissioner (also the Selectmen) and hired employees. However, winter plowing and salt maintenance is contracted from the neighboring Town of Pembroke (WCCOG, 2009).

Perry's solid waste is collected at the Marion Users Transfer Station (MUTS) and then transported to New Brunswick, Canada for disposal. The State maintains an objective for each municipality to recycle at least 50% of its household waste. According to the State Planning Office, MUTS users only achieved a 12.09% recycling rate in 2008 (WCCOG, 2009).

Perry has no public water services. Residents obtain their water from either natural springs or groundwater supply wells (WCCOG, 2009). The principal sources of groundwater in Maine are glacial-outwash deposits and bedrock formations. Groundwater is typically collected for public

supply purposes through the use of wells placed in rock, sand, or gravel deposits, or directly from natural springs (Prescott, 1963). The site contains two existing private groundwater supply wells, one supplies the single-family home and the other supplies the barn (Mott, 2018). These two wells, along with three newly-drilled wells, were used to perform a groundwater supply study (GSS) and a nitrate impact assessment (NIA). Groundwater collected from each of these wells was also tested for contaminants. The five wells range in depth from 75 feet (ft) to 420 ft below ground.

Based on observed soil conditions and groundwater elevation measurements at the two existing wells and three newly-drilled wells, groundwater flow beneath the site is expected to occur largely through the fractures in the bedrock. The soil evaluation and geotechnical borings at the site indicated that groundwater is present only seasonally in the thin soils above the bedrock surface. The water table was encountered at approximately 16 inches (in) below ground during the recent wetland delineation event at the site (see **Appendix B**).

Groundwater flow beneath the central and eastern portions of the site is to the east. However, in the northwestern portion of the site groundwater is interpreted to flow northerly to the adjacent wetlands near the northern boundary of the site. Based on soil types and slopes, it is estimated that approximately 12 in of precipitation per year is required to recharge the groundwater system.

The Town also has no public sewer services. Therefore, septic systems are used to dispose of sanitary waste (WCCOG, 2009). Currently, the site contains a 1,000-gallon concrete septic tank and associated leach field that services the property (Mott, 2018). A subsurface wastewater disposal evaluation was conducted in 2019 to evaluate the presence of limiting geologic features, such as a seasonally-high water table, restrictive layers, and/or bedrock that may impose limits on the construction design.

The stormwater system in Perry consists primarily of roadside ditches and catch basins. Sub-surface stormwater drainage pipes are located along US Route 1 (WCCOG, 2009).

Public utilities for the Town are provided by the following companies (WCCOG, 2009):

- Electrical Service – Emera Maine or Eastern Maine Electric Cooperative;
- Telephone Service - Verizon, US Cellular, or AT&T; and
- Internet - Various providers.

3.1.9 Environmental Justice

An environmental justice analysis must be conducted when environmental impacts may occur as a result of a Federal agency action to determine whether any disproportionately high and adverse human health or environmental effects occur within low-income populations, minority populations, and/or tribal populations (EJIWG, 2019).

Based on information gathered through the USEPA Environmental Justice Screening and Mapping Tool, minorities within 1 mile of the proposed project location accounted for 7% of the population between 2012 and 2016. This ranked greater than the State average of 6% but much less than the national average of 38%. Of the 7% minority population, 2% identified as Native American, 1% identified as Asian American, and 3% identified as a mix of two or more races. The remaining 1% was not classified into a specific category (USEPA, 2019a).

Low-income families within 1 mile of the proposed project location accounted for 28% of the population between 2012 and 2016. This ranked less than the State average of 33% and the national average of 34% (USEPA, 2019a).

The Passamaquoddy Pleasant Point Reservation is one of two reservations of the federally recognized Passamaquoddy Tribe in Washington County. This reservation is located on a peninsula between the shores of Passamaquoddy Bay and Cobscook Bay, along Route 190, approximately 3 miles southeast of the project site, between Eastport and Perry. Because of its location, the peninsula has served as a traditional seasonal fishing (shellfish and other fish) village to the Passamaquoddy (Pleasant Point Tribal Government [PPTG], 2019). According to the USCB, an estimated 40.1% of the families on the Reservation were recently (2017) living at or below the poverty level. That is nearly double the amount for the surrounding Town of Perry (22.7%), more than double the amount for the US (17.3%), and more than three times the rate for the State of Maine (13.1%) for that same year. Poverty in the Passamaquoddy community at Pleasant Point reached a nearly 20-year high in 2016 when it reached 41.6% (USCB, 2019b).

3.2 PHYSICAL ENVIRONMENT

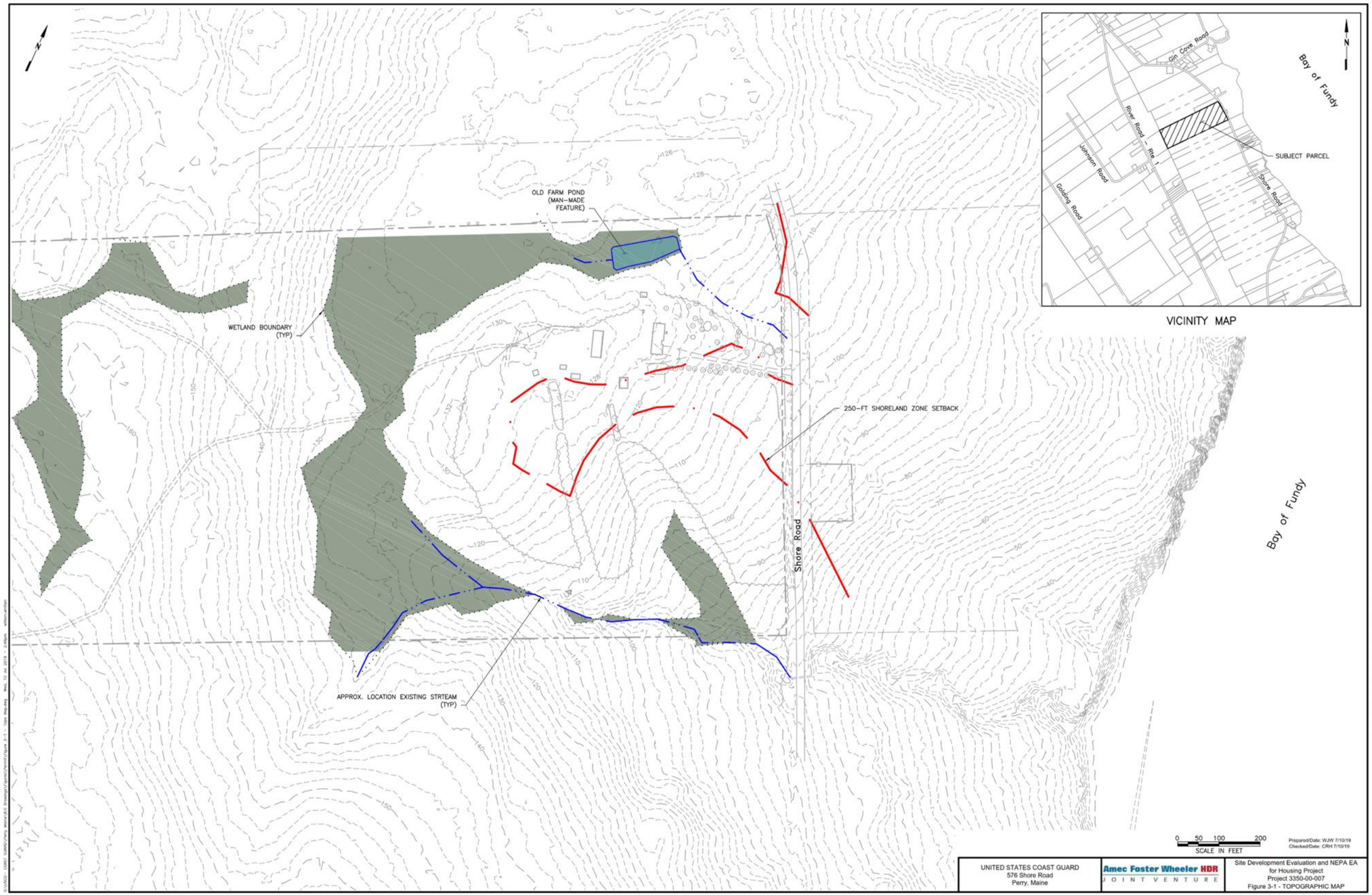
This section describes the existing physical features in the project area.

3.3.1 Topography

Site topography is gently sloping from an elevation of approximately 130 ft (NAVD 88) at the west end of the proposed development area to an elevation of 90 ft or less along Shore Road (see **Figure 3-1**). Stormwater drainage on the site flows to the east into the forested wetlands and three streams on the property that discharge through two culverts beneath Shore Road. All three streams ultimately drain into Passamaquoddy Bay.

3.3.2 Geology and Soils

The site is located in the Seaboard Lowland section of the New England Physiographic Province. The Seaboard Lowland section is defined by the sloping margin of uplands, including areas that were inundated by the ocean or large proglacial lakes during the last glacial retreat. The project area is also located within the East Coast biophysical region, which is characterized by low ridges surrounded by poorly drained, relatively flat terrain with elevations between approximately 98 ft and 1,000 ft (Gray & Pape, 2019).


OLD FARM POND
(MAN-MADE
FEATURE)
WETLAND BOUNDARY
(TYP)
250-FT SHORELAND ZONE SETBACK
APPROX. LOCATION EXISTING STRTEAM
(TYP)
Shore Road
Bay of Fundy
Bay of Fundy
Qin Cove Road
River Road - Rte 1
Johnson Road
Golding Road
Shore Road
SUBJECT PARCEL
VICINITY MAP
0 50 100 200
SCALE IN FEET
Prepared/Date: WJW 7/10/19
Checked/Date: CRH 7/10/19
UNITED STATES COAST GUARD
576 Shore Road
Perry, Maine
Amec Foster Wheeler HDR
JOINT VENTURE
Site Development Evaluation and NEPA EA
for Housing Project
Project 3350-00-007
Figure 3-1 - TOPOGRAPHIC MAP

While glaciers are responsible for much of the modern physiography in the area, the underlying bedrock geology also plays a significant role (Gray & Pape, 2019). The Project area is underlain by the basalt bedrock member of the Upper Devonian-age Perry Formation. This bedrock is defined as igneous, unmetamorphosed, basaltic volcanic rock. It is surrounded, except to the east, by the sandstone member of the Devonian-aged Perry Formation (United States Geological Survey [USGS], 2019).

The recent wetlands delineation conducted by the Amec Foster Wheeler/HDR Joint Venture (JV) team described the upland soils as being composed of predominantly brown sandy loam or gravelly sandy loam (see **Appendix B**). The site includes three soil types: Creasey gravelly silt loam soils with 3 to 8% slopes (CtB) in the eastern third of the property, very stony Lamoine-Rawsonville-Scantic complex soils with 0 to 8% slopes (LKB) over the majority of the central and western portion of the site, and very stony Naskeag-Rawsonville-Hogback complex soils with 0 to 8% slopes (NBB) lining the far western boundary (see **Figure 3-2**). The soils that underlie the project footprint are the Creasey gravelly silt loam soils (CtB), which are described as shallow, somewhat excessively drained, loamy, supraglacial meltout till soils derived from sandstone and formed on the footslopes of hills and ridges. They are not classified as hydric but meet the definition of "farmland of statewide importance" under the Farmland Protection Policy Act (FPPA) (United States Department of Agriculture [USDA], 2019). Despite this, this land is not currently being farmed and there are no historical records of it being farmed since the late 1800s (Gray & Pape, 2019).

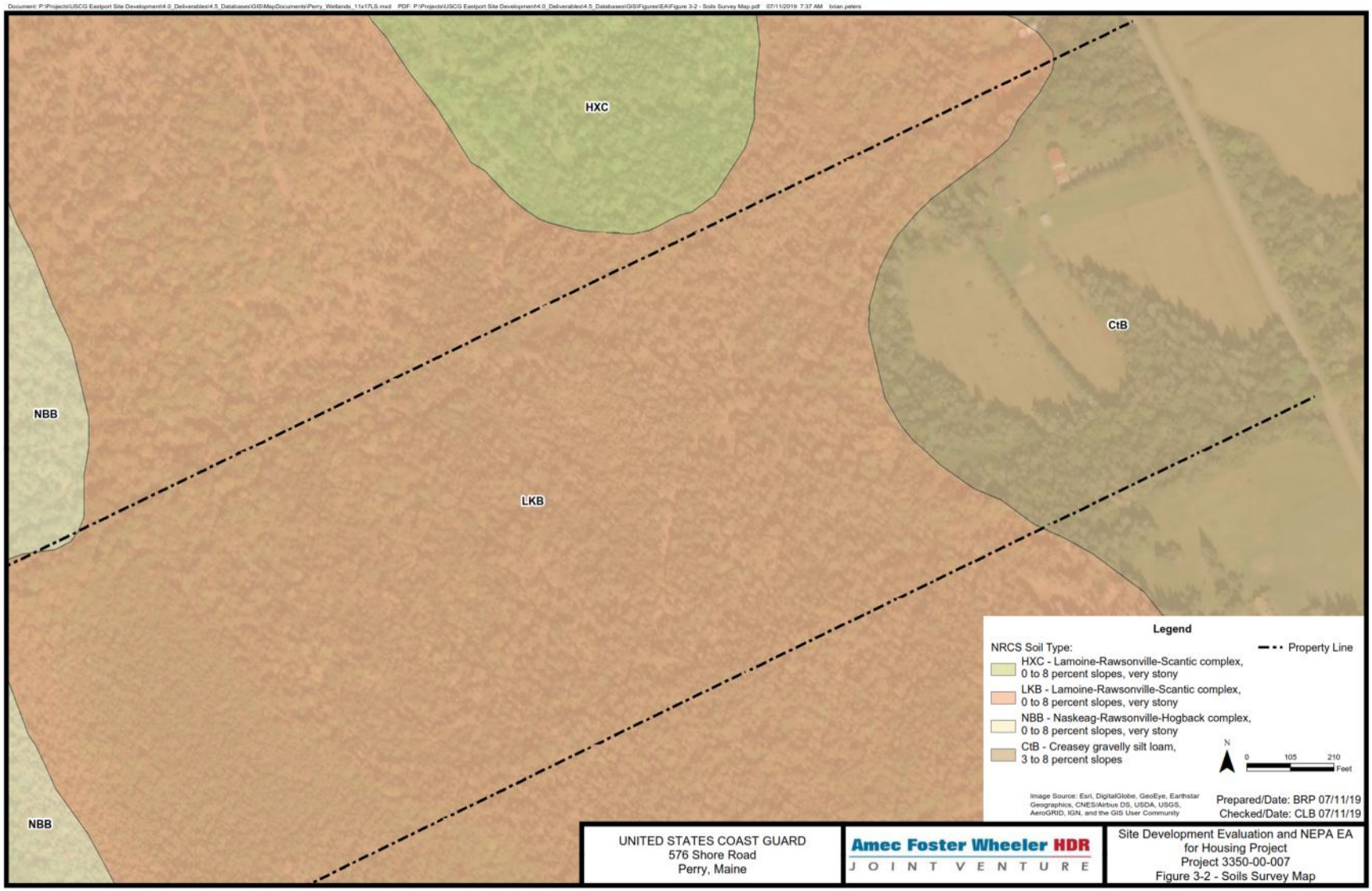
A geotechnical evaluation was conducted by the JV team at the site. Overburden soils included approximately 0.3 to 1.0 ft of topsoil overlying 1.7 ft to 2.6 ft of glacial till. That investigation recorded the following subsurface conditions and engineering characteristics of the soils at the site.

Topsoil

The topsoil encountered within the project footprint generally range from brown fine to coarse sand with little to some silt, trace to some gravel, and trace clay, to brown silt with little to some sand, little clay, and trace to few gravel, based on visual descriptions. The topsoil also contained occasional organics and frequent rootlets. Laboratory testing results confirmed the topsoil consists of brown fine to coarse sand with some gravel and little silt and the relative density was described as loose to medium dense. The moisture of the soil was described as moist.

Glacial Till

Glacial till was encountered at each boring location beneath the topsoil. The glacial till was reported to generally consist of the following, based on visual descriptions and laboratory testing results:


HXC
CtB
NBB
LKB
NBB
Legend
NRCS Soil Type:
HXC - Lamoine-Rawsonville-Scantic complex, 0 to 8 percent slopes, very stony
LKB - Lamoine-Rawsonville-Scantic complex, 0 to 8 percent slopes, very stony
NBB - Naskeag-Rawsonville-Hogback complex, 0 to 8 percent slopes, very stony
CtB - Creasey gravelly silt loam, 3 to 8 percent slopes
Property Line
N
0 105 210
Feet
Image Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Prepared/Date: BRP 07/11/19
Checked/Date: CLB 07/11/19
UNITED STATES COAST GUARD
576 Shore Road
Perry, Maine
Amec Foster Wheeler HDR
JOINT VENTURE
Site Development Evaluation and NEPA EA
for Housing Project
Project 3350-00-007
Figure 3-2 - Soils Survey Map

- brown non-plastic silt with trace to some sand and gravel;
- reddish-brown fine to coarse sand with little to some gravel, and few to some silt; and/or
- reddish-brown gravel with some sand, and few silt.

The glacial till encountered is generally consistent with published mapping by the Maine Geological Survey (i.e., heterogeneous mixture of sand, silt, clay, and stones). The relative density of the glacial till was classified as medium dense to very dense and its moisture was described as moist.

Bedrock

The top of weathered bedrock was interpreted at depths ranging from approximately 3 to 4 ft below ground surface (2.0 to 3.3 ft below the glacial till). The weathered bedrock was found to vary in thickness from approximately 0.4 to 1.5 ft and was generally consistent with published mapping by the Maine Geological Survey as the Perry Formation, consisting of a cobble and pebble conglomerate with sandstone and siltstone. Sand and silt were typically encountered within the bedrock fractures. The bedrock was generally fine to coarse grained and moderately weathered.

3.3.3 Climate Change and Air Quality

The regional climate is classified as temperate-continental, with a significant temperature range among the seasons and moderate rainfall measured around 42.9 in. The average summer temperature is recorded as 68 degrees Fahrenheit (°F), and the average winter temperature is -19.4°F (NOAA, 2000a - referenced in Gray & Pape, 2019). Terrain and plant cover affect local climatic conditions creating microclimates, particularly in areas of considerable topographic variation. Winds prevail from the south and west. However, in the winter the winds frequently blow from the north (NOAA, 2000a and NOAA, 2000b - referenced in Gray & Pape, 2019).

Maine's climate has warmed about 3°F since 1900. As such, spring is arriving earlier, bringing with it more frequent heavy rainstorms and more precipitation. The average annual precipitation in the Northeast increased 10% from 1895 to 2011, and precipitation from extremely heavy storms has increased 70% since 1958. Alternatively, summers are hotter and drier leading to an increased risk of drought during summer and fall (USEPA, 2016).

As a result of climate changes, the sea level is rising. A rising sea level erodes wetlands and beaches and increases damage from coastal storms. Coastal cities and towns, such as Perry, are becoming more vulnerable to storms as sea levels rise, shorelines erode, and storm surges become higher. In the coming decades, the changing climate is likely to further increase the chances of flooding that damages property and infrastructure; harm ecosystems; and disrupt fishing, agriculture, and winter recreation in Maine. It may also lead to some increased risks to human health through the increase of some insect-borne diseases and environmental conditions related to respiratory conditions, such as smog and pollen (USEPA, 2016).

The USEPA has set NAAQS for six commonly found air pollutants as part of the Federal CAA requirements (see **Section 1.8.3,** *Clean Air Act and Conformity Requirements*). These pollutants (also known as criteria pollutants) are known to harm human health and the environment and also cause property damage. The USEPA regulates pollutants by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels (SILs). Maine is in the Northeast Ozone Transport Region, an area that covers the 11 northeastern states from Maryland to Maine, as well as Washington, DC, and portions of Northern Virginia. Washington County, along with the rest of Maine, is in attainment of all air quality standards.

3.3.4 Noise

Noise can be characterized by the following four factors: frequency, intensity, duration, and distance. Each of these factors is described below:

- Frequency – Sound travels in waves, and the frequency of a sound is the number of wave cycles per second, measured in hertz. High frequency sounds have many cycles per second; low frequency sounds have fewer;
- Intensity – Noise intensity is the power (average energy per unit time) transmitted through a unit area in a specific direction. Sound intensity (i.e., loudness) is measured in decibels (dB). The dB is a relative unit of measure describing the logarithm of the ratio of a sound's intensity to a reference intensity. Because of the logarithmic scale, dB are not directly additive (e.g., two 70 dB sounds results in 73 dB cumulative sound, but not a doubling, or 140 dB sound). For broadband sounds, a change of 3 dB is the minimum change perceptible to the human ear;
- Duration – The duration of a sound affects its potential impact. Generally, long-term sounds are considered more harmful than short bursts of sound. "Masking" occurs when the pressure of a sound masks a sound of interest by being equal to or greater in sound; and
- Distance – Sound radiates in all directions from the source, in a spherical pattern. As the sound radiates, the pressure wave increases in size and the power of the wave dissipates.

The Occupational Safety and Health Administration (OSHA) regulations state that workers must not be exposed to noise levels above 85 dB_A as a 8-hour noise exposure level (A-weighted sound levels (dB_A) are dB scale readings adjusted for the varying sensitivity of the human ear to different frequencies of sound) or to 140 dB_C as a peak sound level (C-weighted sound levels (dB_C) are dB scale readings used for specifying peak or impact noise levels).

The two most common types of noise are point source and line source. Construction generates point source noise, that is, noise associated with a source that remains in one place for extended periods of time. Typical construction equipment and associated point source noise include the following:

- Backhoe (80 dB_A);
- Concrete Mixer (85 dB_A);
- Material handling trucks (88 dB_A); and
- Bulldozer (85 dB_A).

Noise associated with the construction equipment listed above is based on the typical noise level at a distance of 50 ft from the source (United States Department of Transportation [USDOT], 2019). However, hand held construction equipment, such as hammer drills, can be even more dangerous to a person's hearing, reaching peak noise levels up to 120 dB_A (American National Standards Institute [ANSI], 2019).

The project area includes typical ambient noise from a residential property located on a rural county road (i.e., vehicular traffic). The nearest noise receptor is a private residence located over 200 ft to the northwest of the proposed project footprint.

3.3.5 Hazardous Materials/Hazardous Wastes

A hazardous material is defined as any item or agent (biological, chemical, radiological, and/or physical), which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors. These items are regulated in the US primarily by laws and regulations administered by the USEPA, OSHA, USDOT, and the US Nuclear Regulatory Commission (Institute of Hazardous Materials Management [IHMM], 2019). Hazardous waste is a waste generated from many sources, ranging from industrial manufacturing process wastes to batteries, with properties that make it dangerous or capable of having a harmful effect on human health or the environment and require disposal at approved hazardous waste treatment and disposal facilities (USEPA, 2019b).

Issues associated with hazardous materials and wastes typically center around underground storage tanks (USTs); above-ground storage tanks (ASTs); and the storage, transport, and use of pesticides; bulk fuel; and petroleum, oil, and lubricants. When such resources are improperly used, they can threaten the health and well-being of wildlife species, botanical habitats, soil systems, water resources, and people.

The subject property currently contains one oil AST used for heating the home but no known USTs (Mott, 2018). A radon elimination system has been installed on the home (Mott, 2018). However, Washington County is classified as having a predicted average indoor radon screening level between 2 and 4 picocuries per liter (City-Data.com, 2019). These levels are below the USEPA recommended action level of 4 picocuries per liter.

A Hazardous Materials Assessment (HMA) was conducted to identify the presence of hazardous materials on or within each of the existing structures associated with the residence, as well as eight identified debris piles on the property. The HMA was completed to identify asbestos-containing material (ACM), lead-based paint (LBP), and other potential hazardous

materials/wastes and universal wastes that would require special handling and disposal or would be regulated prior to/during renovations or demolition of the structures.

ACM was detected in the first and second floor bathroom sheet flooring in the existing house. Hazardous materials/wastes and universal wastes were identified at the site, including fluorescent light bulbs and associated light ballasts, mercury-containing thermostats, an emergency light battery, motor oil, propane tanks, and the above-mentioned AST. LBP was identified on the double wood doors and the frame of the workshop, as well as on the ground adjacent to this door system, and on miscellaneous pieces of wood chips in one of the debris piles (unknown origin).

Groundwater samples were collected from within the five deep groundwater wells at the project site and analyzed for the presence of hazardous waste. Arsenic, iron, manganese, and fecal coliform were the only parameters that were elevated above applicable drinking water standards or guidelines for groundwater. However, the concentrations were within the typical range the three metals, as they are naturally occurring and common within Maine bedrock groundwater. The high fecal coliform result was from one of the existing groundwater supply wells and was likely associated with the high turbidity related to its inactivity.

Soil was also collected within the construction footprint and analyzed for potential hazardous waste compounds. Arsenic was detected in the soil in concentrations that exceeded Maine standards for residential sites. These concentrations were consistent and most likely attributable to naturally occurring arsenic. However, benzo(a)pyrene was detected at four and half times the residential standards in one of the debris piles.

3.3 BIOLOGICAL RESOURCES

This section describes the existing biological resources in the project area. Biological resources include native or naturalized plants and wildlife and the habitats in which they occur.

3.4.1 Terrestrial Environment

The property currently contains a residential home and associated structures (e.g., barn, shed, etc.) in the eastern third of the parcel. The eastern section is also characterized by three unused pastures that lie south of the house. The parcel is bounded to the west, north, and south by a mixture of forested upland and wetland areas that also occupy the western 2/3 of the property (see **Figure 1-2**).

3.3.1.1 Flora

The upland community covering the majority of the project site is characterized as a mixed coniferous forest. Based on the wetland delineation performed on May 15, 2019, the upland forested areas at the site contained canopy layers that included balsam fir (*Abies balsamea*),

paper birch (*Betula papyrifera*), red spruce (*Picea rubens*), and northern white cedar (*Thuja occidentalis*). The sapling undergrowth included balsam fir and red spruce. The herb stratum included unidentified Sphagnum moss (*Sphagnum* sp.), grass (Poaceae family), sedge (*Carex* sp.), and bracken fern (*Pteridium* sp.) species. Flowers were also present in the herb undergrowth, including bunchberry (*Cornus canadensis*), starflower (*Trientalis borealis*), and lily-of-the-valley (*Convallaria majalis*) (see **Appendix B**). However, the portion of the property that is proposed to be developed has historically been cleared and currently contains various building structures and three unused pasture fields divided by tree lines.

3.3.1.2 Fauna

Animals encountered at the site during the various field surveys were not recorded. However, wildlife such as moose (*Alces alces*), white-tailed deer (*Odocoileus virginianus*), black bear (*Ursus americanus*), raccoon (*Procyon lotor*), red fox (*Vulpes vulpes*), turkey (*Meleagris gallopavo*), opossum (*Didelphis virginianus*), various herpetofauna, and songbirds are likely to inhabit the woodlands and fields throughout Washington County. Nearby lakes and streams may be occupied by beavers (*Castor canadensis*), river otters (*Lontra canadensis*), mink (*Neovison vison*), muskrat (*Ondatra zibethicus*) and various waterfowl and fish, among many others. Overall, inland Maine is home to 292 species of birds, 58 species of wild mammals, 39 species and subspecies of reptiles and amphibians, and over 16,000 species of terrestrial and freshwater invertebrates (Maine Department of Inland Fisheries & Wildlife [MDIFW], 2019).

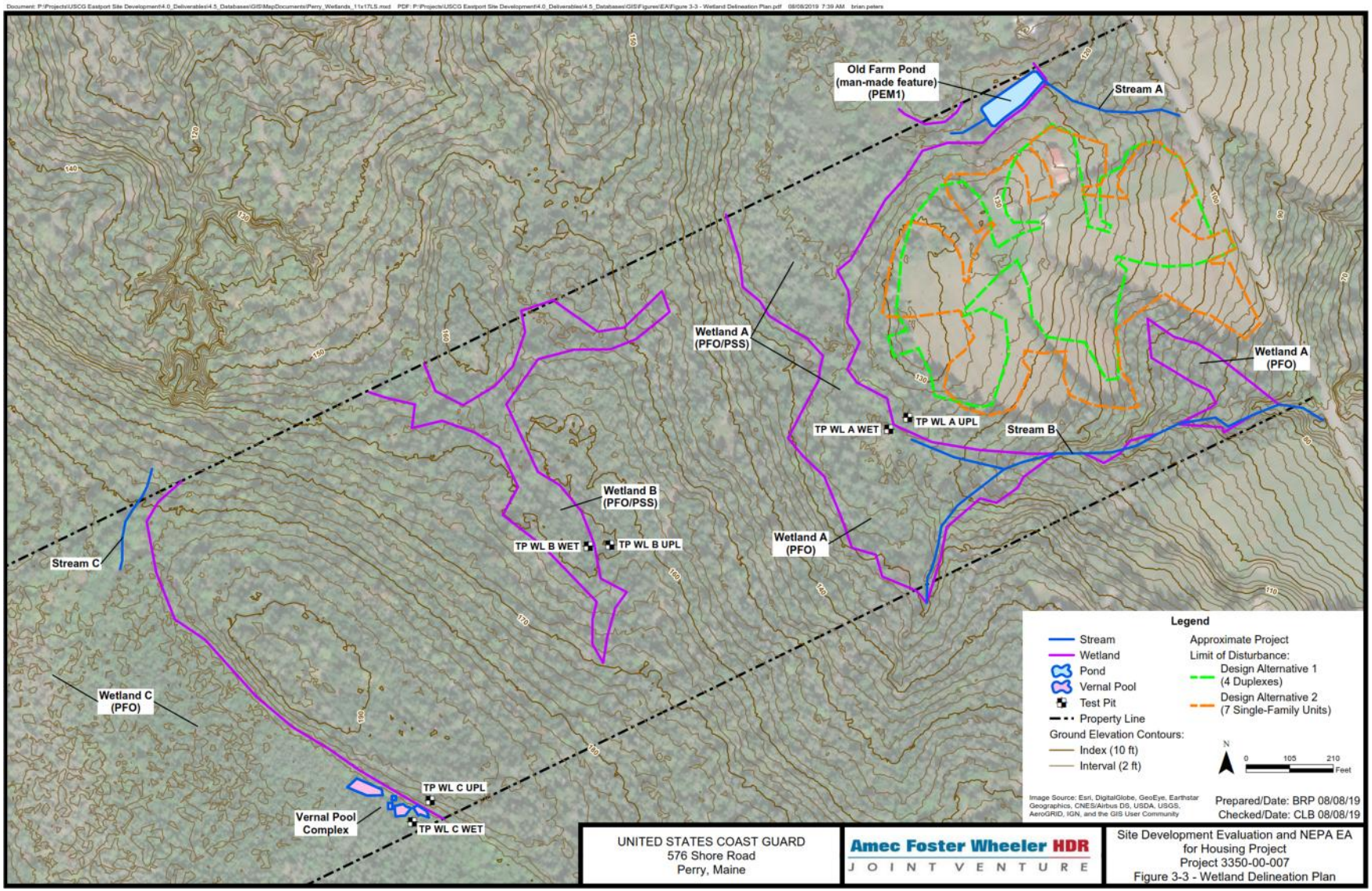
3.4.2 Water Resources and Aquatic Environment

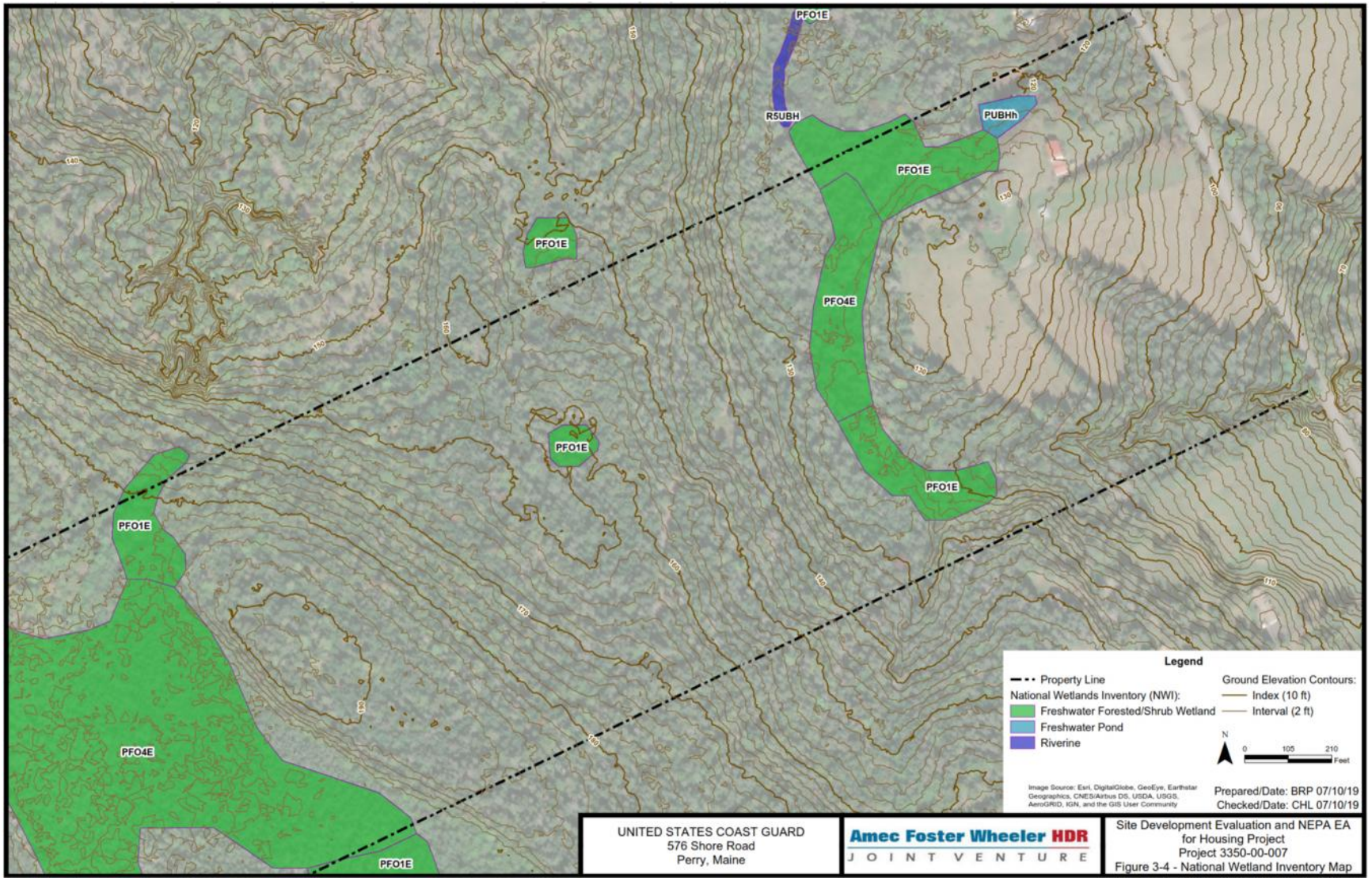
The property was evaluated on May 15, 2019, for the presence of freshwater features (see **Appendix B**). The results confirmed the presence of three large forested wetlands, a man-made pond, a vernal pool complex, and three perennial streams (see **Figure 3-3**).

3.3.2.1 Surface Water

The site falls within the confines of the Maine Coastal watershed boundary. Within the Project area, recent wetlands mapping by the JV team indicates the presence of three streams (Stream A, Stream B, and Stream C), one man-made pond, and one vernal pool complex (see **Figure 3-3**). The three streams are all first or second order in size and all drain to the east into Passamaquoddy Bay. Passamaquoddy Bay ultimately drains into the Bay of Fundy (Gray & Pape, 2019).

Stream A spans both sides of an old man-made farm pond located in the northeast corner of the property within Wetland A (see **Figure 3-3**). The USFWS National Wetlands Inventory (NWI) mapper does not classify Stream A but it does recognize the pond as a palustrine, unconsolidated bottom, permanently flooded, diked/impounded body of water (PUBHh) (see **Figure 3-4**).


Old Farm Pond
(man-made feature)
(PEM1)
Stream A
Wetland A
(PFO/PSS)
Wetland A
(PFO)
TP WL A WET
TP WL A UPL
Stream B
Wetland B
(PFO/PSS)
TP WL B WET
TP WL B UPL
Wetland A
(PFO)
Stream C
Wetland C
(PFO)
TP WL C UPL
Vernal Pool
Complex
TP WL C WET
Legend
Stream
Wetland
Pond
Vernal Pool
Test Pit
Property Line
Ground Elevation Contours:
Index (10 ft)
Interval (2 ft)
Approximate Project
Limit of Disturbance:
Design Alternative 1
(4 Duplexes)
Design Alternative 2
(7 Single-Family Units)
N
0
105
210
Feet
Image Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Prepared/Date: BRP 08/08/19
Checked/Date: CLB 08/08/19
UNITED STATES COAST GUARD
576 Shore Road
Perry, Maine
Amec Foster Wheeler HDR
JOINT VENTURE
Site Development Evaluation and NEPA EA
for Housing Project
Project 3350-00-007
Figure 3-3 - Wetland Delineation Plan


PFO1E
R5UBH
PUBHh
PFO1E
PFO1E
PFO4E
PFO1E
PFO1E
PFO1E
PFO4E
PFO1E
Legend
Property Line
National Wetlands Inventory (NWI):
Freshwater Forested/Shrub Wetland
Freshwater Pond
Riverine
Ground Elevation Contours:
Index (10 ft)
Interval (2 ft)
N
0 105 210
Feet
Image Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Prepared/Date: BRP 07/10/19
Checked/Date: CHL 07/10/19
UNITED STATES COAST GUARD
576 Shore Road
Perry, Maine
Amec Foster Wheeler HDR
JOINT VENTURE
Site Development Evaluation and NEPA EA
for Housing Project
Project 3350-00-007
Figure 3-4 - National Wetland Inventory Map

Stream B was delineated in the southeastern portion of the property within Wetland A and Stream C was delineated as bisecting the northern property boundary within Wetland C near the western border. The NWI mapper also does not recognize Stream B or Stream C. Therefore, there are no official classification designations for the three streams located on site. However, a stream segment leading from Wetland A north of the property boundary is classified as a riverine, unknown perennial, unconsolidated bottom, permanently flooded water feature (R5UBH) and is likely similar to those found on site.

The vernal pool complex was identified within the western portion of the property, within Wetland C, near the southern border. They are not believed to be natural features, but created by man for either historic peat harvesting or as dug wells for water/ice supply. They were recorded as having maximum depths of 12 to 36 in (1 to 3 ft) and containing spotted salamander (*Ambystoma maculatum*) egg masses. These pools are also not recognized by the NWI. As such, there are not officially classified.

Appendix B presents photos of the surface water features described above.

3.3.2.2 Wetlands

The recent wetlands delineation conducted by the JV team indicated the presence of three freshwater wetlands at the site (Wetland A, Wetland B, and Wetland C). Wetland A bisects the property just west of where the housing units are proposed. It also extends along the northern and southern boundaries to the east in association with Streams A and B. Wetland B bisects the property at the approximate center of the property, extending slightly east along the northern boundary, and Wetland C covers the western third of the 75-acre parcel (see **Figure 3-3**).

The NWI recognizes portions of Wetland A and classifies it as a mixture of palustrine, forested, broad-leaved deciduous, seasonally flooded/saturated wetlands (PFO1E) and palustrine, forested, needle-leaved evergreen, seasonally flooded/saturated wetlands (PFO4E) (see **Figure 3-4**). This wetland community was dominated by red maple (*Acer rubrum*) in the canopy layer, but also contained balsam fir and paper birch. The sapling undergrowth was dominated by speckled alder (*Alnus incana*). Two species of ferns, cinnamon fern (*Osmundastrum cinnamomeum*) and sensitive fern (*Onoclea sensibilis*), dominated the herb stratum, which also included an unidentified grass and sedge species as well as raspberry (*Rubus occidentalis*) and gooseberry (*Ribes uva-crispa*). Soils were described as having a thick layer of muck (19 in) atop thin layers of dark brown silt loam (2 in) and olive/gleyed gravelly silt loam with reddish brown redox features (4 in) (see **Appendix B**).

The NWI recognizes a small pocket of Wetland B and classifies it as a palustrine, forested, broad-leaved deciduous, seasonally flooded/saturated wetland (PFO1E) (see **Figure 3-4**). This wetland community was dominated by black spruce in the canopy layer, but also contained balsam fir and red maple. The sapling undergrowth was dominated by speckled alder but included winterberry (*Ilex verticillata*) as well. Sphagnum moss dominated the herb stratum,

which also included an unidentified grass and sedge species as well as sensitive fern. Soils were described as having a thick layer of muck (12 in) atop thin layers of brown gravelly loam mixed with coarse sand (4 in) and olive brown gravelly sand (2 in) (see **Appendix B**).

The NWI classifies Wetland C as primarily a palustrine, forested, needle-leaved evergreen, seasonally flooded/saturated wetland (PFO4E) with small pockets of palustrine, forested, broad-leaved deciduous, seasonally flooded/saturated wetlands (PFO1E) (see **Figure 3-4**). This wetland community was dominated by northern white cedar in the canopy layer. To a lesser degree, the canopy also contained balsam fir, black spruce, red maple, and yellow birch (*Betula alleghaniensis*). The undergrowth was dominated by balsam fir and northern white cedar saplings as well as winterberry shrubs. Sensitive fern dominated the herb stratum, which also included an unidentified sedge species, cinnamon fern, starflower, and Sphagnum moss. The wetland was described as a bog with black/brown muck soil that extended the entire 48-in limit of observation (see **Appendix B**).

Appendix B presents photographs of the wetland features observed at the site.

3.4.3 Threatened and Endangered Species

The Federal ESA, as amended, protects species that are endangered, threatened, or proposed for listing. The USFWS Information Planning and Conservation System indicated the possible presence of only one species, the federally threatened northern long-eared bat (*Myotis septentrionalis*), as potentially present at the site (see **Appendix C**).

The northern long-eared bat is medium-sized with a body length of 3 to 3.7 in and a wingspan of 9 to 10 in. As its name suggests, this bat is distinguished by its long ears, particularly compared to other *Myotis* species. They spend winter hibernating in various sized caves or mines with constant temperatures, high humidity, and no air currents. During the summer, they roost singly or in colonies underneath bark, in cavities, or in crevices of live trees and snags (dead trees). Males and non-reproductive females may also roost in cooler places, like caves and mines. They may also be found roosting in structures, such as barns and sheds, on rare occasion. Northern long-eared bats emerge at dusk to feed, primarily by flying through the understory of forested areas and catching moths, flies, leafhoppers, caddisflies, and beetles while in flight or by gleaning insects from vegetation. This species has been particularly affected by the disease white-nose syndrome, which is caused by a fungus. As a result, the bats have exhibited a dramatic population decline. White-nose syndrome is the primary reason for the Federal listing of this species (USFWS, 2015).

The Maine Natural Areas Program responded to a request for an Environmental Site Review of the subject project on June 6, 2019, for the presence of rare or unique botanical features documented in the vicinity of the project site. Based on their current records, there are no rare botanical features documented specifically within the footprint of the project area. However,

they did provide supplemental information regarding the dawn-land sedge (*Carex waponahkikensis*), a rare and exemplary botanical feature documented to occur within four miles of the project site. It was suggested that a field survey be conducted to confirm this plant is not located within the construction area of disturbance as the project site contains field/roadside (non-forested, wetland or upland) habitat that this species prefers (see **Appendix C**).

3.4 LAND USE

The proposed project location is within the Town of Perry's Limited Residential District, which is currently zoned for low-density residential development. Washington County is included in the Maine Coastal Zone. As such, the USCG will submit a Coastal Zone consistency determination to the MCP, within the Maine Department of Marine Resources, as required, prior to the proposed construction of the Eastport Housing Project. This review process will be coordinated with other required Federal and State permitting processes.

As part of this compliance, the Coastal Zone consistency rules require local governments to develop and administer the following minimum setback distances in shoreland areas:

- Resource protection zones—development is strictly limited within 250 ft of the shoreline or the upland edge of a wetland;
- Limited residential, limited commercial, and stream protection zones—no building allowed within 75 ft of the shoreline except adjacent to a "great pond" where the setback for development is a minimum of 100 ft;
- General development zones—no building allowed within 25 ft of the shoreline, except for water-dependent uses; and
- Maritime use zones—only water-dependent use allowed; no minimum set-back.

As per the Shoreland Zoning Ordinance for the Municipality of Perry, Maine (Town of Perry, 2010), the Limited Residential District allows for the construction of duplex and single-family residential units, and any accessory building structures, with a permit issued by the Code Enforcement Officer. In addition, the construction of roads and private sewage disposal systems are allowed with a permit issued by the Planning Board (Town of Perry, 2010).

3.5 CULTURAL RESOURCES

Cultural resources represent and document activities, accomplishments, and traditions of previous civilizations and link current and former inhabitants of an area. Depending on their conditions and historic use, these resources may provide insight to living conditions in previous civilizations and may retain cultural and religious significance to modern groups.

Archaeological resources comprise areas where prehistoric (Pre-Contact) or historic (Post-Contact) activity measurably altered the environment or deposits of physical remains (e.g., arrowheads, bottles) discovered therein. Architectural resources include standing buildings,

districts, bridges, dams, and other structures of historic or aesthetic significance. Traditional cultural resources can include archaeological resources, structures, neighborhoods, prominent topographic features, habitats, plants, animals, and minerals that Native Americans or other groups consider essential for the persistence of traditional culture.

The principal Federal law addressing cultural resources is the NHPA of 1966, as amended (16 USC §470), and its implementing regulations (36 CFR §800). The regulations, commonly referred to as the Section 106 process, describe the procedures for identifying and evaluating historic properties; assessing the effects of Federal actions on historic properties; and consulting to avoid, reduce, or minimize adverse effects. As part of the Section 106 process, the JV team contracted the heritage management firm Gray & Pape to conduct a Preliminary Cultural Resources Study for the property (see **Appendix D**). A reconnaissance survey was conducted by them in June 2019. The property was observed and photographed to provide an initial characterization of the landscape and potential cultural resource sensitivity, as well as the architectural characterization of the extant structures on the property. Results of their findings are provided below.

3.6.1 Prehistoric Resources

Previous archaeological investigations in the region and in the State of Maine indicate that Pre-Contact Native American occupation sites are predominately sited proximal to water resources, such as seacoasts, streams, lakes, and wetlands. As such, Pre-Contact Native American presence around Perry was strong leading up to the Contact period, especially near Passamaquoddy Bay (Gray & Pape, 2019).

Although no background evidence was found to indicate a known Native American presence in the project area, the presence of freshwater wetlands and streams on the property could have attracted native peoples to the area to extract the resources they may have possessed. As such, Gray & Pape designated both high and low Pre-Contact sensitivity areas throughout the property (Gray & Pape, 2019).

High Pre-Contact sensitivity areas were designated as areas:

- within 50 m (164 ft) of potential water sources, including active and seasonal stream and wetlands;
- with well-drained soils;
- with slopes of less than 8%; or
- within 50 m (164 ft) of a previously identified Pre-Contact archaeological resource, if applicable.

Low Pre-Contact sensitivity areas were designated as areas:

- greater than 50 m (164 ft) from a water source;

- with poorly drained soils;
- with slopes of greater than 8%; and
- with evidence of significant historical or modern disturbance areas.

Despite the surface water features at the site, the project area is predominantly sited in an upland landscape. Typically, local uplands along permanent water sources only yield evidence of short-term occupation by Pre-Contact period indigenous peoples. Therefore, the Proposed Action property is unlikely to contain the larger Pre-Contact occupation sites as can be found closer to the shoreline of Passamaquoddy Bay (Gray & Pape, 2019).

3.6.2 Archaeological Resources

Based on the combined environmental data (i.e., soil data) and background literature review, the project area is considered moderately to well suited for the identification or preservation of archaeological resources. However, no previously recorded archaeological or cultural resources were identified within the proposed Project area and no evidence of such was identified during the survey (Gray & Pape, 2019).

3.6.3 Historic Resources

Documentary evidence shows at least two separate Post-Contact historical building occupations within the project area by at least the mid-nineteenth century. These two buildings were separately owned, suggesting the current property was likely combined from two separate parcels at some point. These occupations were likely related to small family agricultural lifeways and occurred after overland transportation and local road networks to the project site were established. The current structures located in the project area do not appear to relate directly to either of the historical occupations but may occupy the general location of at least one. One of occupations at the site was noted to be a Town Farm. Town farms, or poor houses, were institutions typically run by the town in which people of the community, who were either too poor to care for themselves or had a disability that made it hard for them to provide care for themselves, could be housed (Gray & Pape, 2019).

A historical trash dump containing early to mid-twentieth century artifacts was found inside the tree line that separates two of the pastures. Items found included domestic (i.e., bottles, ceramic and metallic vessels, shoe leather) and specialized activity (i.e., oil and gas cans) artifacts. Although the location of the dump indicates the artifacts are associated with occupation taking place in the same general location as the current house, the age of the items indicate that they are associated with an occupation that occurred at that location which pre-dates the construction of the current house structure (circa 1968) but post-dates any occupation that may have been associated with the Town Farm (circa 1881) (Gray & Pape, 2019).

Because the extant buildings located on the property are not associated with any significant events or persons and have no historic integrity, the current structures are not eligible for

inclusion in the NRHP. Consequently, Gray & Pape recommends no further work associated with these structures (Gray & Pape, 2019).

Post-Contact occupation of the region mainly follows major waterways. Therefore, the fact that the project area is approximately 1,000 ft west of Passamaquoddy Bay could have possibly made it a more attractive location for historical period occupation. As such, High Post-Contact sensitivity areas were designated as areas:

- within 200 m (656 ft) of a road or railroad or navigable stream;
- with slopes of less than 8%; or
- within 50 m (164 ft) of a previously identified Post-Contact archaeological resource, structure, or historical scatter, if applicable.

Low Post-Contact sensitivity areas were designated as areas:

- greater than 200 m (656 ft) from a water source or transportation route;
- with poorly drained soils;
- with slopes of greater than 8%; and
- evidence of significant modern disturbance.

3.6.4 Native American/Tribal Resources

Gray & Pape identified four federally recognized Native American tribal entities that may have potential cultural interest in the property proposed for development by the USCG and are Federally recognized in the State of Maine. They include the following:

- Aroostook Band of Micmac
- Houlton Band of Maliseet Indians
- Passamaquoddy Tribe
- Penobscot Nation

This page intentionally left blank.

4.0 Environmental Consequences

Environmental impacts that would result from implementation of the Proposed Action and its alternatives are evaluated in this section. Analyses are presented by resource area, as presented in **Section 3.0**, *Affected Environment*. Analysis of potential impacts to resources typically includes:

1) identification and description of resources that could potentially be affected;
2) examination of the Proposed Action and alternatives and the potential effects the actions may have on the resource;
3) assessment of the significance of potential impacts; and
4) development of mitigation measures, special procedures, or adaptive management measures in the event that potentially significant impacts are identified.

For this analysis, potential impacts are defined as:

- Negligible – if the action would result in no noticeable effects, beneficial or adverse, relative to existing conditions;
- Minor – if the action would result in a limited adverse effect relative to existing conditions; and
- Substantial – if the action would result in a noticeable or measurable adverse impact to existing environmental conditions.

Impacts were evaluated in terms of context (local or regional), type (adverse or beneficial), duration (short- or long-term), and intensity. Analysis of the effects of each Proposed Action design alternative (i.e., Alternative 1 and Alternative 2) on a separate basis was not required, as each scenario would result in the same overall environmental consequences.

4.1 SOCIOECONOMIC ENVIRONMENT

This section describes the environmental consequences to existing socioeconomic and environmental justice conditions in the project area by the construction of the Eastport Housing Project in Perry, Maine, and subsequent occupation of the development by USCG service personnel and their families.

4.1.1 Local Economy

The local economy currently is driven by jobs related to education, health care, social services, manufacturing, forestry, fisheries, public administration, and retail (USCB 2019a; WCCOG, 2009). Although the implementation of the Proposed Action would have no effect on employment in these sectors, it would have a temporary effect on self-employed or home-based businesses centered around the construction trade during its development through employment of local service contractors specializing in such things as general construction, well-drilling, and

landscaping. The addition of residential homes would create an increase in the local Perry population, contributing long-term, beneficial impacts on local tax revenue. Short- and long-term economic benefits may also occur through spending at nearby restaurants, hardware supply stores, etc. by on-site construction personnel and USCG residents living in the new development. Overall, the Proposed Action would result in beneficial effects on the local economy.

The No Action Alternative would not have any impacts on the local economy, beneficial or adverse, as the housing project would not be built.

4.1.2 Housing

Based on the 2017 housing stock data, the construction of four duplex units would result in an increase of approximately 1.5% in the housing inventory for Perry while construction of seven single-family units would result in an increase of approximately 1.3%. However, these houses would be designated as Federal housing units and would not contribute to the overall public housing inventory.

If this project is implemented, USCG service personnel would move out of the homes they currently occupy, effectively opening up rental properties to the general public that are not currently available in the Eastport area. In this way, the Proposed Action would have a short-term, beneficial effect on the regional housing inventory in an area currently classified as a CHA.

The No Action Alternative would not have any impacts, beneficial or adverse, on the current regional housing market as USCG personnel would not be relocated to the Town of Perry.

4.1.3 Transportation

The Proposed Action does not involve the building, removal, or repair of any major public transportation infrastructure. In addition, the project's scale is moderately small, with minimal personnel required to complete the tasks. Construction personnel and vehicles would be required to travel along arterial and local roads leading to the project area, such as US Route 1 and Shore Road, respectively. The use of these roads by construction personnel would only be temporary (maximum of 18 months). Long-term use of these and other local roads by USCG personnel that would be living on the property also would be minimal as a maximum of eight families would be sited there. Therefore, the resulting increase in traffic on local roads, capable of handling an average of 500 cars per day at a minimum, would be negligible.

The No Action Alternative would not have any direct impacts on transportation, as no workforce would be required to travel to and from the project area and no USCG personnel would be living at the site.

4.1.4 Community Service and Medical Facilities

The construction of the Eastport Housing Project would have no effect on the amount or location of community service centers located in Perry. However, the influx of USCG personnel and their family members into the Town of Perry may increase future attendance at Perry community functions or increase membership within local and service organizations. Because the regional medical facilities available for residents in Perry are predominantly located in the cities of Calais or Eastport, the transplanting of USCG personnel to Perry from nearby areas would likely have no effect on the ability of these medical facilities to attend to them or their families.

The No Action Alternative would not have any direct effects on community service and medical facilities as the USCG personnel and their families would not move into the Town of Perry.

4.1.5 Fire, Rescue, and Police Services

The construction of four duplex units or seven single-family units could result in long-term adverse impacts on the local Perry Fire Department with the addition of new structures to be covered under their jurisdiction. However, these impacts would be minor as the Proposed Action would increase the number of houses in Perry by 1.3% or 1.5%. In contrast, the movement of USCG personnel and their family members into the Town of Perry may have long-term, beneficial effects. The current status of the volunteer-based department is in jeopardy due to the overall decreasing population in the region, particularly of young working families (WCCOG, 2009). Therefore, by implementing the Proposed Action, it is possible that either a USCG personnel member that would be living in the housing units built in Perry, or one or more of their family members, would opt to join the Perry Fire Department.

Because the Washington County Sheriff's Office and the Maine State Police provide public safety services, and the WCEMSA provides the emergency ambulance services (WCCOG, 2009) in the Town of Perry, it is unlikely that the Proposed Action would have any effect on these County-wide resources, as personnel would not be moving in from another county.

The No Action Alternative would not have any direct effects on fire, rescue, and police services as the USCG personnel and their families would not move to the Town of Perry.

4.1.6 Recreation

The construction of the Eastport Housing Project would have no effect on the amount or location of recreational facilities or lands set aside for recreational purposes in the Town of Perry. However, the influx of USCG personnel and their family members may negligibly increase the use of such local lands and facilities in the future. The Proposed Action would likely have no effect on County-wide resources, as personnel would not be moving in from another county.

The No Action Alternative would not have any direct effects on local or regional recreational facilities as the USCG personnel and their families would not move into the Town of Perry.

4.1.7 Schools

The Town of Perry has only one school. Perry Elementary School is on US Route 1, approximately 1.9 miles from the Proposed Action property (WCCOG, 2009). Although the construction of the housing units would have no direct effect on the school or school district, the resulting influx of USCG personnel and their family members would likely cause a long-term increase in the school-age population of children in Perry, which would result in increased attendance at the elementary school.

At the secondary level, students attend schools in Eastport or East Machias. Higher education facilities are also located in larger towns outside of Perry. Therefore, it is unlikely that the Proposed Action would have any effect on County-wide educational resources, as personnel would not be moving in from another county.

The No Action Alternative would not have any direct effects on local or regional educational facilities as the USCG personnel and their families would not move into the Town of Perry.

4.1.8 Utilities

Residents of Perry obtain their water solely from natural springs or private groundwater wells. Because the property would be converted from a single home to a housing development, the two existing private groundwater wells would be replaced with five wells for Design Alternative 1 or eight wells for Design Alternative 2. This increase would place a greater demand on the local groundwater supply. In order to determine if the site contained a groundwater supply sufficient to accommodate the anticipated project loads, a GSS was conducted on three newly-drilled wells and the two existing wells. The results indicated that it is likely that individual bedrock wells, drilled to an appropriate depth, would yield an adequate water supply for either duplex or single-family homes built on the site. To eliminate high concentrations of metals typically found in Maine bedrock groundwater, these groundwater supply wells would be outfitted with treatment systems (see **Section 4.2.5**).

Septic systems are the only means of disposing sanitary waste in the Town of Perry. Because the property would be converted from a single home to a housing development, the existing septic system and associated leach field would be replaced with five new septic systems for Design Alternative 1 or eight new septic systems for Design Alternative 2. This increase in subsurface wastewater disposal at the property would elevate the amount of nitrate nitrogen in the soils over current levels. As such, a NIA was performed to determine if project nitrate nitrogen loads would be expected to exceed the drinking water standard of 10 milligrams per liter in groundwater at the water supply wells. Results concluded that both development scenarios are

expected to be feasible without causing exceedances of nitrate at drilled bedrock wells or at abutting properties.

If the Proposed Action is implemented, the amount of impervious surface at the site would increase over current levels, leading to increased stormwater drainage. Stormwater designs for the project would be in compliance with local, State, and Federal laws governing such features, and would likely tie into existing roadside ditches, catch basins, and/or the sub-surface stormwater drainage pipes located along US Route 1. Approval from the Town of Perry Code Enforcement Officer would be obtained prior to construction.

In general, the Proposed Action would likely have minor, long-term, adverse effects on groundwater supplies, septic system loads, and existing local stormwater infrastructure.

An increase in the number of people living on the property would result in an increase in the solid waste generated from this parcel, which is sent through MUTS before being transported to New Brunswick, Canada (WCCOG, 2009). However, MUTS is a regional facility, located in East Machias. Electric, telephone, and internet service providers are also regional in scope. As such, the Proposed Action would likely have no effect on solid waste or residential utility services because the USCG personnel would not be moving in from another county.

The No Action Alternative would not have any direct effects on local or regional utility services as the housing project would not be built.

4.1.9 Environmental Justice

The Proposed Action is not expected to have disproportionately high and adverse human health or environmental effects within low-income, minority, and/or tribal populations. The poverty rate in the Town of Perry was 22.7% in 2017, nearly double the rate for the State of Maine (13.1%) (USCB, 2019b). The minority rate within one mile of the proposed site accounted for 7% of the total population between 2012 and 2016. This ranked higher than the State average of 6% (USEPA, 2019a). However, as this EA has demonstrated, the adverse human health and environmental effects from implementation of the project would be insignificant and the addition of residential homes would create beneficial impacts on local tax revenue as well as retail increases.

The Passamaquoddy Pleasant Point Reservation lies between the Proposed Action property and USCG Station Eastport along Route 190. Although this tribal area is even more economically depressed than Perry, recording a recent poverty rate of 40.1%, the project would have no adverse effects on their seasonal fishing way of life.

The No Action Alternative would have no direct effects on environmental justice issues as the housing project would not be built.

4.2 PHYSICAL ENVIRONMENT

This section describes the environmental consequences to the existing physical environment in the project area resulting from construction of the Eastport Housing Project in Perry, Maine.

4.2.1 Topography

The Proposed Action involves the demolition of current building structures and the construction of either four duplexes (Design Alternative 1) or seven single-family homes (Design Alternative 2). Therefore, there would be unavoidable impacts to the local topography from the two proposed Alternatives, as minimal excavation and grading of the landscape would be required (total of 15.3 acres). Regional topography would not be impacted. Although these localized impacts would be long-term, they are considered negligible for this site and are not considered to be adverse as historical excavation and grading has previously occurred for construction of existing structures.

The No Action Alternative would result in no excavation or grading at the site. Therefore, there would be no effects on local or regional topography.

4.2.2 Geology and Soils

Although there would be temporary movement of soils during construction, the existing soils were originally disturbed when the current buildings were constructed. None of the project activities involve changing soil composition. Therefore, the Proposed Action would have negligible, short-term, adverse impacts to the local geology and soils and no effects on regional geology and soils.

The No Action Alternative would not result in impacts to the local or regional geology and soils as no excavation or grading at the site would occur.

4.2.3 Climate Change and Air Quality

The Proposed Action is not expected to have a significant environmental impact to air quality or on other conditions that influence climate change. Some temporary local impacts are expected as the project would involve the use of emission-producing vehicles and machinery during construction. However, those emissions are predicted to be below SILs for all pollutants and averaging times for which a NAAQS or MAAQS have been established. In addition, all on-road and non-road vehicles and machinery would be up-to-date in their registration and inspections, and thus compliant with current USEPA emission standards. Therefore, the Proposed Action would result in negligible, short-term, adverse local air quality and climate change effects.

The new housing units would be energy efficient, likely providing a net decrease in energy consumption compared to the housing units currently occupied by the USCG staff. Therefore, global long-term climate change and air quality conditions would not be negatively affected.

The No Action Alternative would not result in the use of any construction equipment. Therefore, there would be no impacts to air quality or on conditions that impact climate change.

4.2.4 Noise

Although the noise generated from the equipment used during construction is expected to be close to 8-hour threshold levels set for humans, it would be typical of any small construction project in the area. In addition, the construction phase is expected to require only 18 months to complete. Therefore, the noise effects would be temporary in nature and would only affect humans and wildlife in the immediate vicinity.

Wildlife that are present within the project area during construction are expected to temporarily relocate due to the physical disruption. In addition, there are no humans living on the property and the project crew would be required to wear any necessary hearing protection in accordance with OSHA standards. The closest residence is over 200 ft to the northwest of the site. Therefore, project-related noise would be minor and would not jeopardize the health or welfare of the public or the wildlife in the area.

The No Action Alternative would not result in noise-related impacts, as no project activities would be performed and the use of mechanized equipment within the project area would not be necessary.

4.2.5 Hazardous Materials/Hazardous Waste

The project may temporarily generate small quantities of hazardous wastes as a result of operation of and spills from large mechanical equipment during construction. Small amounts of household hazardous waste also would be generated after completion of the project by USCG service members and their families, including such items as spent aerosol cans, waste cleaning solvents, batteries, and/or waste paint. However, any hazardous waste generated on site during construction, or those documented during the HMA that would be encountered during the demolition and removal of the existing structures or waste piles (e.g., heating oil AST, ACM, LBP, benzo(a)pyrene), would be transported off site by an outside contractor and properly recycled or disposed of in accordance with State and Federal standards.

Although arsenic, iron, and manganese were elevated in groundwater samples collected from the site, the concentrations reported were within the typical range for these metals as they are naturally occurring and common within Maine bedrock groundwater. However, housing units would be outfitted with treatment systems to mitigate potential effects from the elevation of these metals. The high fecal coliform result was from one of the existing groundwater supply

wells and was likely associated with the high turbidity related to its inactivity. This well would be property abandoned in accordance with the Maine Well Drillers Rules as part of the site development.

Arsenic was also detected in soils throughout the site above residential standards. However, the detected concentrations were consistent and most likely attributable to naturally occurring arsenic.

Radon levels are anticipated to be below USEPA action levels. However, radon mitigation systems will be installed on the new housing units, as necessary.

Based on the above conditions, short-term, adverse impacts related to hazardous materials and hazardous waste are expected to be associated with the construction and occupation of the Eastport Housing Project. However, Best Management Practices (BMPs) (see **Section 7.0,** *Special Procedures*) would be used to help protect the human environment and wildlife in the area and effects are likely to be negligible.

The No Action Alternative would not result in the generation of hazardous materials/hazardous waste as no demolition or construction would be performed and the use of mechanized equipment within the project area would not be necessary. However, long-term adverse effects may result if the existing structures and debris piles are not removed as leeching of contaminants into soils and groundwater could occur with the onset of dilapidation and weathering.

4.3 BIOLOGICAL RESOURCES

This section describes the environmental consequences to the existing terrestrial and aquatic biological resources in the project area that would result from construction of the Eastport Housing Project in Perry, Maine.

4.3.1 Terrestrial Environment

Environmental consequences to the existing terrestrial environment (i.e., flora and fauna) at the site resulting from construction of the Eastport Housing Project in Perry, Maine, are discussed below.

4.3.1.1 Flora

The Proposed Action would have unavoidable, permanent, impacts to some plant species. The placement of four duplex units or seven single-family houses, along with associated community and maintenance buildings and road features, would require felling of a maximum of 2.0 acres of upland trees, as well as the removal of upland herbaceous species in the unused pastures, all located in the eastern third of the property. These unavoidable impacts would be long-term in

some areas that will be covered by new impervious surfaces. However, the impacts would be minor to the 75-acre site that has historically been felled, as new vegetation would sprout and existing vegetation would grow into cleared areas post-construction. Additionally, new landscape plants and trees would be planted along sidewalks and in common areas.

The No Action Alternative would not result in impacts to local flora as no project activities would be performed and the removal/disturbance of existing vegetation would not occur.

4.3.1.2 Fauna

The Proposed Action would not have significant long-term environmental impacts to inland wildlife species that may be present in or near the project area. Although there may be some avoidance of the construction area by local wildlife as a result of increased noise and human activity on the property, these impacts would be minor and temporary in nature. A negligible loss of terrestrial habitat would also be incurred with the felling of the trees.

The No Action Alternative would not result in any direct impacts to wildlife in the area as no activities would be performed at the site.

4.3.2 Water Resources and Aquatic Environment

This section describes the environmental consequences to the existing water features and aquatic habitats (i.e., surface water and wetlands) located in the project area resulting from construction of the Eastport Housing Project in Perry, Maine.

4.3.2.1 Surface Water

All construction would be implemented in accordance with Maine's Erosion and Sediment Control Best Management Practices Manual for construction sites. Therefore, the use of silt fences or other sediment and erosion control devices to complete the various stages of work necessary for this project would effectively reduce the amount of soils that could potentially wash into surface water features located on site (i.e., three streams, one man-made pond, wetlands, and one vernal pool complex). In addition, the site soils are primarily sandy loam or gravelly sandy loam in texture, so the limited suspension of soils that may occur despite the placement of these barrier structures should result in only a temporary, negligible, adverse effect on the turbidity of the water.

The No Action Alternative would not result in any direct impacts to surface water features in the area as no soil excavation activities would be performed at the site.

4.3.2.2 Wetlands

The project has been designed to work around the extensive wetlands present at the site. The size of the parcel has made it possible to site the houses with no direct disturbances to

wetlands. However, Wetland A, located adjacent to the footprint of the development, would be instrumental in naturally removing the increased nitrogen load from the secondary wastewater effluent draining from the leach fields associated with the new septic systems at the site. Because the NIA assumed a 40% nitrogen removal factor, the effect on Wetland A is considered to be minor as the USEPA reported that nitrogen removal from secondary wastewater effluent in natural wetlands can range from 40% to 90%.

The No Action Alternative would not result in adverse impacts to the wetlands as no construction of new septic systems would be conducted at the site.

4.3.3 Threatened and Endangered Species

The northern long-eared bat is the only federally listed animal species reported as having the potential to be on or near the project site. Although there may be some avoidance of the construction area by this species as a result of increased noise and human activity, these impacts are not considered significant and would be temporary in nature. The USFWS was consulted and provided a verification letter (see **Appendix C**) that concluded that the Proposed Action may affect the northern long-eared bat; however, any take that may occur as a result of the Proposed Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Therefore, they issued a Programmatic Biological Opinion that satisfies and concludes the responsibilities of the USCG with regards to the project under ESA Section 7(a)(2).

In addition, a survey may be conducted in the unused pasture fields to confirm that the dawn-land sedge, identified by the Maine Natural Areas Program as being located within four miles of the site, is not present within the construction area of disturbance and that this rare and exemplary species would not be affected.

The No Action Alternative would not result in any impacts to threatened and endangered species as no development of the site would occur.

4.4 LAND USE

The proposed project location is currently zoned for low-density residential development. Therefore, no land use changes would result from the development of this project. However, the location is within the boundaries of the Maine Coastal Zone, which requires a minimum shoreland setback distance of 250 ft from delineated wetlands. While the proposed project would not directly impact the wetlands that have been identified onsite, portions of the project would unavoidably infringe upon the 250-ft setback buffer associated with Wetland A. To comply with MCP regulations, the USCG would apply for a permit for construction within the 250-ft buffer through the Town of Perry. In addition, the USCG would work with Maine's coastal zone management program and submit a Federal consistency package to Maine's Coastal Zone office. The USCG anticipates that the MCP will concur with a "no significant adverse effects"

determination once it reviews the actual design documents and is satisfied that all appropriate State and local permits are in place.

The No Action Alternative would not result in any impacts to land use or designated shoreland zone buffers as no development of the site would occur.

4.5 CULTURAL RESOURCES

This section describes the environmental consequences to the existing cultural resources in the project area resulting from construction of the Eastport Housing Project in Perry, Maine.

4.5.1 Prehistoric Resources

The USCG has determined that the Proposed Action would have no adverse impacts on prehistoric resources that are eligible for listing in the NRHP as none were discovered during the preliminary investigation (see **Appendix D**). The USCG initiated contact with the Maine Historic Preservation Commission (MHPC) in order to determine if further investigation into prehistoric cultural resources would be required. Preliminary indications from the MHPC indicate that no further investigation is warranted (see **Appendix D**). However, if discovery of previously unrecorded prehistoric resources occurs during the construction phase, work would be halted immediately until further consultation with the MHPC can occur so as not to cause more than negligible impacts. Once the MHPC makes their recommendations, the USCG can determine the appropriate management actions that shall be completed before construction may resume.

The No Action Alternative would not have any impacts to prehistoric resources as no work would be performed in the project area.

4.5.2 Archaeological Resources

The USCG has determined that the Proposed Action would have no adverse impacts on archeological resources that are eligible for listing in the NRHP as none were discovered during the preliminary investigation (see **Appendix D**). The USCG initiated contact with the MHPC in order to determine if further investigation into archaeological resources would be required. Preliminary indications from the MHPC indicate that no further investigation is warranted (see **Appendix D**). However, if discovery of previously unrecorded archaeological resources occurs during the construction phase, work would be halted immediately until further consultation with the MHPC can occur so as not to cause more than negligible impacts. Once the MHPC makes their recommendations, the USCG can determine the appropriate management actions that shall be completed before construction may resume.

The No Action Alternative would not have any impacts to archeological resources as no work would be performed in the project area.

4.5.3 Historic Resources

The USCG has determined that the Proposed Action would have no adverse impacts on historic properties or resources that are eligible for listing in the NRHP as none were discovered during the preliminary investigation (see **Appendix D**). The USCG initiated contact with the MHPC in order to determine if further investigation into historic cultural resources would be required. Preliminary indications from the MHPC indicate that no further investigation is warranted (see **Appendix D**). However, if discovery of previously unrecorded historic resources occurs during the construction phase, work would be halted immediately until further consultation with the MHPC can occur so as not to cause more than negligible impacts. Once the MHPC makes their recommendations, the USCG can determine the appropriate management actions that shall be completed before construction may resume.

The No Action Alternative would not have any impacts to historic properties or resources as no work would be performed in the project area.

4.5.4 Native American/Tribal Resources

Because no prehistoric resources that are eligible for listing in the NRHP were discovered during the preliminary investigation (see **Appendix D**), the Proposed Action is not likely to affect cultural resources that tribal entities may have particular interest in. However, the USCG has initiated contact with the four federally recognized Native American tribal entities in Maine in order to consult with them regarding their cultural interest in the site, if any (see consultation letters in **Appendix D**). A response from the Houlton Band of Maliseet Indians indicated that they do not have an immediate concern with the project or project site (see **Appendix D**).

In addition, if an inadvertent discovery of previously unrecorded tribal resources or human remains occurs during the construction phase, work would be halted immediately until further consultation with the appropriate tribe and the MHPC is complete so as not to cause more than negligible impacts. Once the tribe and MHPC make their recommendations, the USCG can determine the appropriate management actions that shall be completed before construction may resume.

The No Action Alternative would not have any impacts to tribal properties or resources as no work would be performed in the project area.

This page intentionally left blank.

5.0 CUMULATIVE IMPACTS

A cumulative impact analysis must consider the potential impact on the environment that may result from the incremental impact of the project when added to other past, present, and reasonably foreseeable future actions (40 CFR 1508.7). The methodology for performing such analyses is set forth in "*Considering Cumulative Effects under the NEPA*" (CEQ, 1997), and includes the following:

1. Identification of the geographic area in which effects of the project may be felt;

2. Assessment of the impacts that are expected in that area from the project;

3. Identification of other actions (past, present, and reasonably foreseeable) that have had, or are expected to have, impacts in the same geographic area;

4. Assessment of the impacts or expected impacts from these other actions; and

5. Assessment of the overall impact that can be expected if the individual impacts are allowed to accumulate

The geographic area for the assessment of cumulative impacts from the Proposed Action was largely identified as the James Brook-Frontal Passamaquoddy Bay sub-watershed. The sub-watershed includes the Towns of Perry and Robbinston. Both of these municipalities are located within Washington County.

Significant changes were made to the terrestrial environment by the construction of the residential dwelling and associated structures currently occupying the Proposed Action property and their use of the land surface as pastures. The Proposed Action would not induce further development, land use change, or other external pressure to the project area.

A review of the *Town of Perry, Maine Comprehensive Plan* (WCCOG, 2009) did not reveal any planned activities for the municipality that would significantly increase the potential environmental impacts imposed from construction and operation of the Eastport Housing Project. The Town of Perry laid down future plans in 2009 to add shoulders, turn-outs, and passing lanes to increase mobility along the US Route 1 corridor (Main Street), while also regulating access to minimize conflicts and ensure the safety of freight and commuters. The plans also included a recommendation for two bridge replacements, one a steel culvert over Upper Sipps Brook and the other a traditional bridge over Pottle Brook, both on US Route 1. The *Town of Robbinston Comprehensive Plan* was not available for review.

A review of *A Regional Plan for the Washington County Unorganized Territories* (East, 2017) did not reveal any planned activities for the County that would significantly increase the potential environmental impacts from construction and operation of the Eastport Housing Project. The

Regional Plan presents a number of possible capital investment projects aimed at the improvement of utility, transportation, and recreational infrastructure.

Although the Proposed Action involves the construction of a housing development and may incur some minor adverse environmental impacts on and immediately surrounding the site, the cumulative adverse environmental impacts from construction and operation of the Eastport Housing Project would be negligible when considered with other past, present, and reasonably foreseeable future projects in the area.

This page intentionally left blank.

6.0 SUMMARY OF FINDINGS

A summary of environmental impacts anticipated to result from the implementation of the Proposed Action is provided in this section.

6.1 SOCIOECONOMIC ENVIRONMENT

Implementation of the Proposed Action would have negligible, adverse, long-term effects on the socioeconomic environment with regard to transportation, community service facilities, recreational facilities, schools, and low-income, minority, and tribal populations by the addition of new residents to the Town of Perry that may need or want to use such resources.

Minor, long-term, adverse impacts to the local volunteer fire department would result from the conversion of the property from a single home to one that contains four new duplex units, or seven new single-family housing units, within their jurisdiction. In addition, minor, long-term, adverse effects on groundwater supplies, septic system loads, and existing local stormwater infrastructure would be incurred.

Some socioeconomic parameters would benefit from implementation of the Proposed Action. For example, the local job market may experience a short-term boost through the hiring of local construction service contractors. Short- and long-term economic benefits may also occur through spending at nearby restaurants and retail stores by on-site construction personnel and USCG residents living in the new development. The transfer of USCG service personnel out of their current housing units into the new development would also incur short-term, beneficial impacts on the availability of housing to the general public within the CHA surrounding Eastport.

6.2 PHYSICAL RESOURCES

The Proposed Action would have short-term, adverse effects on physical resources such as geology and soils, climate change and air quality from the use of construction equipment. However, with implementation of Federal guidance and related BMPs, impacts to these resources from construction of the Eastport Housing Development would be negligible.

Unavoidable, long-term impacts to the local topography would also occur as excavation and grading of the landscape would be required (total of 15.3 acres). However, localized impacts to topography are considered to be negligible for this site as historical excavation and grading has previously occurred for construction of the existing structures.

Small amounts of hazardous material/hazardous waste have been recorded at the site and are expected to be generated during construction and while USCG personnel and their families live in the development. Any hazardous material/hazardous waste generated during and after

project implementation would be transported off site and discarded in accordance with State and Federal standards. BMPs also would be used to minimize hazardous waste generation. Therefore, negligible, short-term, adverse impacts are expected.

Wildlife that are present within the project area during construction are expected to temporarily relocate due to the physical disruption from construction noise. However, the noise would be typical of any small construction project and the construction phase is expected to require only 18 months to complete. Therefore, the adverse effect on wildlife in the area would be minor and temporary in nature.

6.3 BIOLOGICAL RESOURCES

Construction activities planned for the site would result in the permanent removal of some upland tree and plant species. However, the adverse impacts would be minor for the 75-acre site that has historically been felled, as new vegetation would sprout and existing vegetation would grow into cleared areas post-construction. The activities may also cause the potential temporary displacement of threatened and endangered species and other more common local wildlife that choose to avoid the area during the construction phase. These effects would be minor as the noise and activity would be typical of any small construction project.

Aquatic surface water bodies in the eastern portion of the site would potentially experience short-term, adverse impacts through the degradation of water quality during construction. However, with implementation of local construction laws and related BMPs, impacts to these resources from construction of the Eastport Housing Development would be negligible. Although the project has been designed to work around the extensive wetlands present at the site, the increased nitrogen load from the secondary wastewater effluent created from use of the new septic systems at the site would have minor, long-term, adverse impacts on Wetland A, as it will be instrumental in naturally removing nitrogen draining from the leach fields.

6.4 LAND USE

Minor, adverse effects to the Maine Coastal Zone would be incurred, as the housing designs infringe upon the shoreland setback distance of 250 ft from the delineated Wetland A. However, the USCG would apply for a permit for construction within the 250-ft buffer through the Town of Perry. In addition, the USCG would work with Maine's coastal zone management program and submit a Federal consistency package to Maine's Coastal Zone office. The USCG anticipates that Maine will concur with a "no significant adverse effects" determination once it reviews the actual design documents and is satisfied that all appropriate State and local permits are in place.

6.5 CULTURAL RESOURCES

There were no cultural resources discovered on the property during the preliminary investigation that would be eligible for listing in the NRHP (see **Appendix D**). However, if previously unrecorded cultural resources are discovered during subsequent field investigations or during the construction phase, work would not begin, or would be halted immediately, until regional tribal councils and/or the MHPC can be consulted. In consultation with tribes and/or the MHPC, the USCG would determine the appropriate management actions that shall be completed before construction may begin/resume. As such, effects on previously undiscovered prehistoric, archaeological, historic, or tribal cultural resources would be temporary and negligible.

Table 6-1 presents the anticipated effects of implementation of the various alternatives.

Table 6-1. Summary of Potential Impacts to Affected Environmental Resources

Environmental Resource (with Subcategory as Identified)		**Proposed Impacts (Classification and Duration)**		
		Alternative 1 (Four Duplex Units)	**Alternative 2 (Seven Single-Family Units)**	**No Action Alternative**
Socioeconomic Environment	Local Economy	Negligible; Long-term	Negligible; Long-term	No effect
	Housing	Negligible; Short-term	Negligible; Short-term	No effect
	Transportation	Negligible; Long-term	Negligible; Long-term	No effect
	Community Service/Medical Facilities	Negligible; Long-term	Negligible; Long-term	No effect
	Fire, Rescue, and Police Services	Minor; Long-term	Minor; Long-term	No effect
	Recreational Facilities	Negligible; Long-term	Negligible; Long-term	No effect

Table 6-1. Summary of Potential Impacts to Affected Environmental Resources				
Environmental Resource (with Subcategory as Identified)		**Proposed Impacts (Classification and Duration)**		
		Alternative 1 (Four Duplex Units)	**Alternative 2 (Seven Single-Family Units)**	**No Action Alternative**
	Schools	Negligible; Long-term	Negligible; Long-term	No effect
	Utilities	Minor; Long-term	Minor; Long-term	No effect
	Environmental Justice	Negligible; Long-term	Negligible; Long-term	No effect
Physical Resources	Topography	Negligible; Long-term	Negligible; Long-term	No effect
	Geology and Soils	Negligible; Short-term	Negligible; Short-term	No effect
	Climate Change and Air Quality	Negligible; Short-term	Negligible; Short-term	No effect
	Noise	Minor; Short-term	Minor; Short-term	No effect
	Hazardous Material/Hazardous Waste	Negligible; Long-term	Negligible; Long-term	No effect
Biological Resources	Flora	Minor; Long-term	Minor; Long-term	No effect
	Fauna	Minor; Short-term	Minor; Short-term	No effect
	Surface Water	Negligible; Short-term	Negligible; Short-term	No effect

Table 6-1. Summary of Potential Impacts to Affected Environmental Resources				
Environmental Resource (with Subcategory as Identified)		**Proposed Impacts (Classification and Duration)**		
		Alternative 1 (Four Duplex Units)	**Alternative 2 (Seven Single-Family Units)**	**No Action Alternative**
	Wetlands	Minor; Long-term	Minor; Long-term	No effect
	Threatened or Endangered Species	Minor; Short-term	Minor; Short-term	No effect
Land Use		Minor; Long-term	Minor; Long-term	No effect
Cultural Resources	Pre-Contact Resources	Negligible; Short-term	Negligible; Short-term	No effect
	Post-Contact Resources	Negligible; Short-term	Negligible; Short-term	No effect
	Archeological Resources	Negligible; Short-term	Negligible; Short-term	No effect
	Native American/Tribal Resources	Negligible; Short-term	Negligible; Short-term	No effect

Key:

Negligible – if the action would result in no noticeable effects, beneficial or adverse, relative to existing conditions.

Minor – if the action would result in a limited adverse effect relative to existing conditions.

In conclusion, the USCG found that no significant impacts would occur from implementation of either Eastport Housing Development design alternative. Therefore, further evaluation of the effects of the Proposed Action in the form of an EIS is not warranted.

This page intentionally left blank.

7.0 SPECIAL PROCEDURES

Impact evaluations conducted during preparation of this EA have determined that no significant or otherwise substantial environmental impacts would result from implementation of the Proposed Action at the project site located in Perry, Maine. This determination is based on a thorough review and analysis of existing resource information and coordination with knowledgeable, responsible personnel from the USCG and relevant local, State, and Federal agencies (e.g., USFWS, NOAA Fisheries, USACE, and the MEDEP).

The Proposed Action would be designed to minimize potential environmental impacts by incorporating and implementing the following conservation measures and BMPs:

- Any equipment proposed for use would be kept in good repair without leaks of fluids. If such leaks or drips occur, they would be cleaned up immediately. Equipment maintenance and/or repair would be confined to one location. Runoff from this area would be controlled to prevent contamination of freshwater wetlands or streams. Fueling of land-based vehicles and equipment would take place at least 50 ft away from the water (and away from drains), preferably over an impervious surface or at an off-site fueling facility;
- To the maximum extent possible, any project-related debris would not be allowed to enter the freshwater wetlands or streams; any project-related debris that inadvertently enters these resources would be removed;
- A stormwater management plan would be developed and followed to prevent the transfer of disturbed soil from entering the freshwater wetlands and streams during the project;
- All construction contractors would be required to comply with OSHA regulations regarding safety measures and precautions as they relate to construction activities (29 CFR 1926);
- Contractors would be required to comply with policies and procedures addressing hazardous materials management, hazardous waste management, including accidental spills, and worker safety and training requirements;
- A Safety and Health Management System would be in place. This would consist of a technical plan, safety and health plan, and an environmental technical plan;
- An invasive species control plan should be implemented to minimize the potential for spread of non-native species. All landscape plantings should consist of native, non-invasive species; and
- Any solid waste, including construction, demolition, and land clearing debris generated from this project, would be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible, in accordance with Title 38, Chapter 13: *Waste Management* of the Maine Revised Statutes.

This page intentionally left blank.

8.0 REFERENCES

American National Standards Institute (ANSI). 2019. How Loud Is Construction Site Noise? Retrieved from: https://blog.ansi.org/2018/10/how-loud-is-construction-site-noise/#gref

City-Data.com. 2019. Washington County, Maine (ME). Retrieved from: http://www.city-data.com/county/Washington_County-ME.html

City of Eastport. 2018. Eastport – An Island Community, Living, Working and Growing Together. The 2018 Comprehensive Plan & Age Friendly Community Action Plan. Prepared by the Joint Eastport Comprehensive Plan Update and Age Friendly Community Action Plan Committee. Retrieved from: https://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=7967&context=towndocs

Council on Environmental Quality (CEQ). 1997. Considering Cumulative Effects Under the National Environmental Policy Act. Council on Environmental Quality. Executive Office of the President. January 1997.

East, J. 2017. A Regional Plan for the Washington County Unorganized Territories. Presented to the Washington County Commissioners Pursuant to a Community Guided Planning and Zoning process for submission to the Maine Land Use Planning Commission. July 2017.

Gray & Pape. 2019. Preliminary Cultural Resources Study United States Coast Guard Station Eastport Housing Project, Perry, Washington County, Maine.

Institute of Hazardous Materials Management (IHMM). 2019. What Are Hazardous Materials? Retrieved from: https://www.ihmm.org/about-ihmm/what-are-hazardous-materials

Maine Coastal Program (MCP). 2015. Strategic Outlook 2016 – 2020. Assessment and Strategy under Section 309 of the Coastal Zone Management Act. Final. Dated October 2015. Retrieved from: https://www.maine.gov/dmr/mcp/downloads/strategic_outlook_2016_2020.pdf

Maine Department of Inland Fisheries & Wildlife (MDIFW). 2019. Species Information. Retrieved from: https://www.maine.gov/ifw/fish-wildlife/wildlife/species-information/index.html

Maine Department of Transportation (MEDOT). 2019. Public Transit Options. Retrieved from: https://www.maine.gov/mdot/transit/options/#region2

Mott, J. G. 2018. JM Appraisal Services. Appraisal of Real Property Located at: 576 Shore Rd Book 2198 Page 285 Perry, ME 04667.

National Oceanic and Atmospheric Administration (NOAA). 2000a. Divisional Normals and Standard Deviations of Temperature, Precipitation, and Heating and Cooling Degree Days 1971–2000 (and previous normals periods): Section 1: Temperature. Climatography of the United States NO. 85. National Climatic Data Center, Asheville, North Carolina.

_____. 2000b. Divisional Normals and Standard Deviations of Temperature, Precipitation, and Heating and Cooling Degree Days 1971–2000 (and previous normals periods): Section 2: Precipitation. Climatography of the United States NO. 85. National Climatic Data Center, Asheville, North Carolina.

NOAA Fisheries. 2019. Consultations for Essential Fish Habitat. Retrieved from: https://www.fisheries.noaa.gov/national/habitat-conservation/consultations-essential-fish-habitat

_____. 2017. Essential Fish Habitat Mapper. Retrieved from: https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper

National Ocean Service (NOS). 2019. What is Federal Consistency? Retrieved from: https://oceanservice.noaa.gov/facts/fedconsis.html

Perry Elementary School. 2019. Meet Our Staff. Retrieved from: https://www.perryelementary.org/staff

Pleasant Point Tribal Government (PPTG). 2019. Passamaquoddy at Sipayik. Retrieved from: http://www.wabanaki.com/

Prescott, G.C. Jr. 1963. Reconnaissance of Ground-Water in Maine. Contributions to the Hydrology of the United States. Geological Survey Water-Supply Paper 1996-T. United States Government Printing Office, Washington D.C.

Town of Perry. 2010. Shoreland Zoning Ordinance for the Municipality of Perry, Maine. Adopted 24 August 2010.

United States Census Bureau (USCB). 2019a. Community Facts. Perry Town, Washington County, Maine. Retrieved from: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk

_____. 2019b. Small Area Income and Poverty Estimates (SAIPE). Retrieved from: https://www.census.gov/data-tools/demo/saipe/#/?map_geoSelector=sa_eusd&s_county=23029&s_measures=sa_sd&s_state=23&s_district=2309650&s_year=2017

United States Coast Guard (USCG). 2019. United States Coast Guard Atlantic Area. Sector Northern New England. Retrieved from: https://www.atlanticarea.uscg.mil/Our-Organization/District-1/District-Units/Sector-Northern-New-England/

United States Department of Agriculture (USDA). 2019. Natural Resources Conservation Service Web Soil Survey Mapper. Retrieved from: https://websoilsurvey.sc.egov.usda.gov

United States Department of Transportation (USDOT). 2019. Federal Highway Administration. Construction Noise Handbook. Section 9.0 - Construction Equipment Noise Levels and Ranges Retrieved from: https://www.fhwa.dot.gov/Environment/noise/construction_noise/handbook/handbook09.cfm

United States Environmental Protection Agency (USEPA). 2019a. EJSCREEN. EPA's Environmental Justice Screening and Mapping Tool (Version 2018). Retrieved from: https://ejscreen.epa.gov/mapper/

_____. 2019b. Learn the Basics of Hazardous Waste. Retrieved from: https://www.epa.gov/hw/learn-basics-hazardous-waste

_____. 2016. What Climate Change Means for Maine. EPA 430-F-16-021. August 2016.

United States Fish and Wildlife Service (USFWS). 2015. Northern Long-Eared Bat (*Myotis septentrionalis*). Fact Sheet. Retrieved from: https://www.fws.gov/Midwest/endangered/mammals/nleb/pdf/NLEBFactSheet01April2015.pdf

United States Geological Survey (USGS). 2019. Geologic Maps of US States. Interactive Map. Retrieved from: https://mrdata.usgs.gov/geology/state/map-us.html

Washington County Council of Governments (WCCOG). 2009. Town of Perry, Maine Comprehensive Plan. November 2009.

West's Transportation. 2019. Schedule of Service. Retrieved from: http://www.westbusservice.com/#SCHEDULE%20OF%20SERVICE

This page intentionally left blank.

9.0 LIST OF PREPARERS

This report was prepared for, and under the direction of, USCG Lieutenant Rick Hylton by the JV team. Members of the professional staff are listed below:

Project Manager

Pete Baker, M.A. – Amec Foster Wheeler

NEPA Task Lead

Charles R. Harman, P.W.S. - Amec Foster Wheeler

Technical Analysts

Charles H. Lyman, CWS/LSE – Amec Foster Wheeler

Raymond Pasquariello, PhD/RPA – Amec Foster Wheeler

Patrick W. O'Bannon, PhD – Gray & Pape

Nathan C. Sholl, M.A./RPA – Gray & Pape

Michael Tuttle, PhD/RPA – Gray & Pape

Dennis B. Kingman, Jr., CHMM - CES, Inc.

Deborah A. Kasik, B.S. – CES, Inc.

John B. Rand, CG - Shannon Well Drilling

Nicholas Langlais, PE – New England Boring Contractors

Production

Christy Benes, B.S. – Amec Foster Wheeler

William Whitten – Amec Foster Wheeler

Chris Holdridge, B.S., M.S. – HDR, Inc.

Document Review

Aaron Goldschmidt – Amec Foster Wheeler

Doug McFarling - Amec Foster Wheeler

This page intentionally left blank.

APPENDIX A

Public Notice of Scoping

Send us your wildlife photos!

Email to editor@thecalaisadvertiser.com

Legals/Notices

Notice

Washington County Community College is seeking Request for Quotation in the following areas:

• Flooring

Deadline for all submissions is 6/07/2019 at 9 a.m.

Please contact Richard Ramsey at
454-1067 or visit
https://www.wccc.me.edu/about-wccc/news-info/rfp/
For more information

CA000006309

Notice

Washington County Community College is seeking Request for Quotation in the following areas:

• Student Counseling Services

Deadline for all submissions is 7/28/2019 at 9 a.m.

Please contact Melvin D. Adams III, Ed.D.
at 454-1032 or visit
https://www.wccc.me.edu/about-wccc/news-info/rfp/
For more information

CA000006333

STATE OF MAINE
YORK, ss.

DISTRICT COURT
SPRINGVALE
Docket Number RE-19-31

HABITAT FOR HUMANITY
YORK COUNTY

Plaintiff

v.

ERIN D. FORTUNE and
NICOLAI J. FORTUNE

Defendants

ORDER FOR SERVICE
BY ALTERNATIVE MEANS
(M.R. Civ. P. 4(g))

This Court has reviewed the Motion of the Plaintiff for Service by Alternative Means. This type of action is for declaratory judgment to quiet title on the foreclosure of a municipal tax lien. The attorney for the Plaintiff is Alan E. Shepard, Shepard & Read, 93 Main St., Kennebunk, Maine. Property of the Defendant may be affected which includes a real estate interest in property located at 5 Allen Street in Sanford, Maine.

The Moving Party has demonstrated that the addressed of the party is unknown and cannot be ascertained by reasonable diligence and requested method of service is reasonably calculated to provide actual notice of the pendency of the action to the party to be served and is the most practical manner to effecting notice of the suit.

It is **ORDERED** that Service can be made upon the other party by publishing a copy of this order one a week for three consecutive weeks in The Calais Advertiser, a newspaper of general circulation in Calais, Maine.

It is **FURTHER ORDERED** that the **party being served** appear and serve an answer to the complaint to the **serving party's** attorney at the address listed above within forty-one (41) days after the first publication in the newspaper. **Failure to serve an answer will cause judgment by default to be entered, granting relief sought in the motion or complaint.**

Dated: May 30, 2019

Daniel Mitchell
District Court Judge

Entered on the docket on: 5/30/19
Copies provided to the parties in hand ☐ mailed by clerk ☑
Clerk initials: MDH

CA000006316

NOTICE OF SCOPING

The U.S. Coast Guard (USCG) is requesting public input on the scope of environmental issues and alternatives to be addressed in the:

Environmental Assessment
Eastport Housing Project
U.S. Coast Guard Station (STA) Eastport
Perry, Maine

The USCG has identified a requirement to provide family housing for USCG personnel assigned to USCG STA Eastport. For this purpose, a 75-acre site with an existing single-family house was recently acquired at 576 Shore Rd, Perry, Maine 04667 (County of Washington). The USCG would like to develop this property with one of the following scenarios:

- Demolish the existing house and associated infrastructure and construct up to six (6) duplex housing units (12 units total) consisting of four (4) 3-bedroom units (8 units total) and two (2) 4-bedroom units (4 units total). Additionally, provide a 5,000 square foot maintenance building and a 2,000 square foot community building. Provide all associated roads, sidewalks, storm water controls, street lights, utilities, and typical infrastructure to support this community.

- Demolish the existing house and associated existing infrastructure and construct up to twelve (12) single family units consisting of eight (8) 3-bedroom units and four (4) 4-bedroom units. Provide a 5,000 square foot maintenance building and a 2,000 square foot community building. Provide all associated roads, sidewalks, storm water controls, street lights, utilities, and typical infrastructure to support this community.

Environmental Review and Analysis

The Environmental Assessment (EA) will describe the environmental resources potentially affected by the project, and will assess the direct, cumulative impacts on those resources from construction of the housing project. Mitigation measures to minimize or eliminate any impacts will be identified. The EA will evaluate potential impacts that may result from the project related to such elements as:

- Socioeconomic Development
- Physical Environment
- Natural Environment
- Cultural Resources

Alternatives

In the NEPA process, the USCG is required to consider a reasonable range of alternatives to the proposed project. The EA considers alternatives that could accomplish the USCG's purpose and need and reduce environmental effects. Reasonable alternatives are those that are feasible to implement based on environmental, technical, and economic factors.

A reasonable alternative to the project is to take no action and therefore a No Action Alternative will be assessed in the EA. The need for project redesign or a project alternative will be determined during the environmental review.

Scoping

Public comments on the NEPA process, proposed action and alternatives, and environmental issues will be accepted until June 23, 2019. Comments will only be accepted in writing. Please send comments to Christy Benes, Wood E&IS, 285 Davidson Avenue, Somerset, NJ 08873.

CA000006348

DECH Births

To Jessica Robinson and Jesse Bagley of Stueben, Maine, a boy Ryder Anthony Bagley born on May 28, 2019 weighing 5 lbs., 13 oz., 20.5 inches long.

To Leighann Preston of Roque Bluffs, Maine, a boy Asher Preston born on May 26, 2019 weighing 7 lbs., 12 oz., 21 inches long.

To Thomasina Soucy of Yarmouth, Nova Scotia and William Lola of Princeton, Maine, a girl Remi Alice-Marie Lola born on June 2, 2019 weighing 7 lbs. 12 ounces 21 inches long.

APPENDIX B

Wetland Delineation Records

WETLAND A - WET.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: USCG - PERRY City/County: WASHINGTON Sampling Date: 5/15/19

Applicant/Owner: USCG State: ME Sampling Point: TP-WLA-Wet

Investigator(s): Charles Lyman Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5%

Subregion (LRR or MLRA): Lat: Long: Datum:

Soil Map Unit Name: Croasey gravelly Silt Loam NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: WETLAND A

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1) (STREAM/POND)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- X 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 X	No ___	Depth (inches): 6-12"
Water Table Present?	Yes X	No ___	Depth (inches): Surface
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): Surface

Wetland Hydrology Present? Yes X No

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

Remarks:

WETLAND A - WET

VEGETATION – Use scientific names of plants.

Sampling Point: TP-WLA-WET

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Red Maple	5%	Yes	
2. Balsam fir	40%		
3. White Birch	1%		
4.			
5.			
6.			
7.			
	46%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Alder	100%	Yes	
2.			
3.			
4.			
5.			
6.			
7.			
	100%	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Cinnfern	50%	Yes	
2. Sen. fern	50%	Yes	
3. Sedge	10%		
4. grass	10%		
5. Raspberry	5%		
6. Goose berry	5%		
7.			
8.			
9.			
10.			
11.			
12.			
	80%	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ✓ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

WETLAND A - Wet.

SOIL

Sampling Point: TP-WLA-Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-19	BLACK						MUCK	
0-2	DRK BROWN						Silt Loam	FIRM
2-6	Olive/glayed		Reddish brown	10	C	M	gravelly Silt Loam	FIRM

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- X Histic Epipedon (A2)
- X Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Dense Till.

Depth (inches): 25" B.G.S.

Hydric Soil Present? Yes X No ___

Remarks:

Wetland A - Wp1

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: USCG - Perry City/County: WASHINGTON Sampling Date: 5/15/19

Applicant/Owner: USCG State: ME Sampling Point: TP-WLA-wp1

Investigator(s): Charles Lyman Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Flat → Concave Slope (%): 0-5%

Subregion (LRR or MLRA): 144B Lat: Long: Datum:

Soil Map Unit Name: Creasey gravelly Silt loam NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? ND (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	If yes, optional Wetland Site ID:	
Wetland Hydrology Present?	Yes ____	No X		

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ 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 Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary 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 ____ No X Depth (inches):

Water Table Present? Yes ____ No X Depth (inches):

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches):

Wetland Hydrology Present? Yes X No

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

Remarks:

WETLAND A - UPL

VEGETATION – Use scientific names of plants.

Sampling Point: TP-WLA-UPL

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. RED SPRUCE	50%	Y	
2. Balsam fir	50%	Y	
3.			
4.			
5.			
6.			
7.			
	100% = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. Balsam fir (SAP)	10%	Y	
2.			
3.			
4.			
5.			
6.			
7.			
	10% = Total Cover		
Herb Stratum (Plot size: 5')			
1. Sphagnum.	80%	Y	
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80% = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

WETLAND A - UPL

SOIL

Sampling Point: TP-WLA-UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2								
0-2	BROWN						fine SANDY loam	
2-6	Lt. Reddish Brown						↓	
6-16	Reddish Brown		drive (12")	10%	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ~~Rock~~ BED ROCK

Depth (inches): 16"

Hydric Soil Present? Yes ____ No X

Remarks:

Wetland B - Wetland

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

5/15/19

Project/Site: USCG - Perry City/County: Washington Sampling Date: ~~TP-WLB-wet~~

Applicant/Owner: USCG State: ME Sampling Point: TP-WLB-wet

Investigator(s): Charles Lyman Section, Township, Range:

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): Concave/Flat Slope (%): 0-3%

Subregion (LRR or MLRA): Lat: Long: Datum:

Soil Map Unit Name: Lamoine-Rawsonville-Scantic NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: WETLAND B

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- X 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)
- X Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches): 6"-12"
Water Table Present?	Yes X	No ___	Depth (inches): Surface
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): Surface

Wetland Hydrology Present? Yes X No

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

NONE

Remarks:

Wetland B - Wet

VEGETATION – Use scientific names of plants.

Sampling Point: TP-WLB-Wet

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Balsam Fir	20%		
2. Blk Spruce	60%	Yes	
3. Red Maple	5%		
4.			
5.			
6.			
7.			
	85% = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. Winterberry	25%		
2. Alder	75%	Yes	
3.			
4.			
5.			
6.			
7.			
	100% = Total Cover		

Herb Stratum (Plot size: 5')			
1. Sen. Fern	25%		
2. Grass	10%		
3. Sedge	10%		
4. Sphagnum	80%	yes	
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	125 = Total Cover		

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

WETLAND B.

SOIL

Sampling Point: TP-WLB-Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	Blk	100					MUCK	Histic Epipedon
0-4	Brown	100					gravelly loamy coarse SAND	
4-6	Olive Brn.	100					gravelly SAND	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- X Histic Epipedon (A2)
- X Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- X Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- X Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Dense Till

Depth (inches): 18" BGS

Hydric Soil Present? Yes X No ___

Remarks:

Wetland -B upland

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: USCG - Perry City/County: Washington Sampling Date: 5/15/19

Applicant/Owner: USCG State: ME Sampling Point: TP-WLB-UPL

Investigator(s): Charles Lyman Section, Township, Range:

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): Concave Slope (%): 0-3%

Subregion (LRR or MLRA): Lat: Long: Datum:

Soil Map Unit Name: LAMOINE-Rowsenville-Scantic NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ 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 Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary 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 ____	No X	Depth (inches):
Water Table Present?	Yes ____	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

WETLAND B - UPL

VEGETATION – Use scientific names of plants.

Sampling Point: TP-WLB-UPL

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. White Birch	10%		
2. Red Spruce	40%	Yes	
3. Balsam fir	40%	Yes	
4.			
5.			
6.			
7.			
	90%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Red Spruce (Sap)	10%		
2. Balsam fir (Sap)	10%		
3.			
4.			
5.			
6.			
7.			
	20%	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Sphagnum	80%		
2. grass	10%		
3. Sedge	5%		
4. Lichen	<1%		
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95%	= Total Cover	

Woody Vine Stratum (Plot size: ✓)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ✓ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No ✗

Remarks: (Include photo numbers here or on a separate sheet.)

WETLAND B - UPL

SOIL

Sampling Point: TP-WLB-UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							OM	
0-6"	BROWN						gravelly SANDY loam.	
6-12"	LT. BROWN						a SANDY loam	
Refusal @ 12"								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: BEDROCK

Depth (inches): 12"

Hydric Soil Present? Yes _____ No X

Remarks:

Wetland C - WET

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: USCG - Perry City/County: WASHINGTON Sampling Date: 5/15/19

Applicant/Owner: USCG State: ME Sampling Point: TP-WLC-wet

Investigator(s): Charles Lynch Section, Township, Range:

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): NONE Slope (%): 0%

Subregion (LRR or MLRA): 144 B Lat: Long: Datum:

Soil Map Unit Name: Lamoine-Rawsonville-Scantic Complex NWI classification: PSS/PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation —, Soil —, or Hydrology — significantly disturbed? NO Are "Normal Circumstances" present? Yes X No

Are Vegetation —, Soil —, or Hydrology — naturally problematic? NO (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No	**Is the Sampled Area within a Wetland?**	**Yes** X **No**
Hydric Soil Present?	Yes X No		
Wetland Hydrology Present?	Yes X No	If yes, optional Wetland Site ID:	WETLAND C

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ Marl Deposits (B15)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- X Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- X 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)
- X Microtopographic Relief (D4)
- __ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X No	Depth (inches):	12-18"
Water Table Present?	Yes X No	Depth (inches):	surface
Saturation Present? (includes capillary fringe)	Yes X No	Depth (inches):	surface

Wetland Hydrology Present? Yes X No

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

NONE

Remarks:

Wetland C - WET

VEGETATION – Use scientific names of plants.

Sampling Point: TP-WL C-Wet

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. N. White Cedar	60%	Yes	
2. Balsam fir	10%		
3. Blk Spruce	15%		
4. Red Maple	5%		
5. Yellow Birch	1%		
6.			
7.			
	91%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Balsam fir (Sap)	10%	Yes	
2. Winterberry	10%	Yes	
3. N. White Cedar (Sap)	10%	Yes	
4.			
5.			
6.			
7.			
	30%	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Cinn. fern	10%		
2. Sen. fern	20%	Yes	
3. Star flower	10%		
4. Sedge	5%		
5. Sphagnum	40%		
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	85%	= Total Cover	

Woody Vine Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

Wetlands C - Wet

SOIL

Sampling Point: TP-Wet C-Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-48"	BLK-BRN	100					MUCK	* "BOG" >48" organic mtl- Fibric - Sapric
								* QUAKING Substrate
48" - Limit of observations								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NONE

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

Wetland C = BOG; Histisol; Quaking substrate

Note! Soils observed in Wetland C are typical to Tequs Series.

WETLAND C - UPL.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

5/15/19

Project/Site: USCG - Perry City/County: WASHINGTON Sampling Date: TP-WLC-upl

Applicant/Owner: USCG State: ME Sampling Point: TP-WLC-upl

Investigator(s): Charles Lyman Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope - Local relief (concave, convex, none): CONVEX Slope (%): 5-8%

Subregion (LRR or MLRA): 144B Lat: Long: Datum:

Soil Map Unit Name: LYMAN C. RAWSONVILLE - SCANTIC NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ 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 Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary 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 ____	No X	Depth (inches):
Water Table Present?	Yes X	No ____	Depth (inches): 16"
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 16"

Wetland Hydrology Present? Yes ____ No X

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

NONE

Remarks:

WETLAND C - UPL

VEGETATION – Use scientific names of plants.

Sampling Point: TP-WLC-UPL

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Balsam fir	40%	Yes	
2. White Birch	15%		
3. N. White Cedar	5%		
4. Red Spruce	5%		
5.			
6.			
7.			
	65%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Balsam fir (sap)	10%	Yes	
2. Red Spruce (sap)	10%	Yes	
3.			
4.			
5.			
6.			
7.			
	20%	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Bunchberry	25%	Yes	
2. Bunchberry	10%		
3. Starflower	10%		
4. Lily of the Valley	10%		
5. Sphagnum	60%	—	NI
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55%	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Wetland C-upL

SOIL

Sampling Point: TP-WLC-upL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

	Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
O	1-2	—							
A	0-1	Dk Brown						Sandy Loam	
E	1-3	Lt Grey						↓	
Bw1	3-6"	Reddish Brown						↓	
Bw2	6-16"	Olive Brown		Reddish Brown	20	C	M	Gravelly Sandy Loam	
	17- Limit of Refusal - BR Likely								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: BR

Depth (inches): 17

Hydric Soil Present? Yes ____ No X

Remarks:

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are required for pool registration.**
- **Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.**

Observer's Pool ID: PVP-WL C. **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: Charles Lynn

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ● Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ● same as observer ○ other _____

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ○ Yes

c. Project Name: USCG - Perry

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ● No If no, was landowner permission obtained for survey? ● Yes ○ No

b. Landowner's contact information (required)

Name: USCG Phone: _____

Street Address: _____ City: _____ State: _____ Zip: _____

c. ☐ Large Projects: check if separate project landowner data file submitted

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: Perry

Brief site directions to the pool (using mapped landmarks):

-See Attached figure w/ VP location shown - Located using sub-meter accurate Global Positioning system.

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked. (SEE Attached.

ii. **GPS location of vernal pool (use Datum NAD83 / WGS84)**

Longitude/Easting: _____ Latitude/Northing: _____

Coordinate system: _____

Check one:

- ● GIS shapefile
  - send to Jason.Czapiga@maine.gov; observer has reviewed shape accuracy (Best)
- → ● The pool perimeter is delineated by multiple GPS points. (Excellent)
  - Include map or spreadsheet with coordinates.
- ○ The above GPS point is at the center of the pool. (Good)
- ○ The center of the pool is approximately _____ m ○ ft ○ in the compass direction of _____ degrees from the above GPS point. (Acceptable)

Maine State Vernal Pool Assessment Form

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): _____

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

○ Isolated depression ● Pool associated with larger wetland complex
○ Floodplain depression ○ Other: _____

■ Check all wetland types that best apply to this pool:

☐ Forested swamp ☐ Wet meadow ☐ Slow stream ■ Dug pond or borrow pit (PEAT Harvest)
☐ Shrub swamp ☐ Lake or pond cove ☐ Floodplain
■ Peatland (fen or bog) ☐ Abandoned beaver flowage ☐ Mostly unvegetated pool ☐ Roadside ditch
☐ Emergent marsh ☐ Active beaver flowage ☐ ATV or skidder rut ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ○ Natural ○ Natural-Modified ● Unnatural ○ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

Historic PEAT EXCAVATIONS, NOT NATURAL FEATURES, Could also Have been excavated for ICE ponds or water supply.

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

● Permanent ○ Semi-permanent (drying partially in all years and completely in drought years) ○ Ephemeral (drying out completely in most years) ○ Unknown

Explain:

W/IN BOG / LARGE Wetland Complex.

■ Maximum depth at survey: ○ 0-12" (0-1 ft.) ● 12-36" (1-3 ft.) ○ 36-60" (3-5 ft.) ○ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: _____ ○ m ○ ft Length: _____ ○ m ○ ft (SEE Attached)

■ Predominate substrate in order of increasing hydroperiod:

○ Mineral soil (bare, leaf-litter bottom, or upland mosses present) ○ Organic matter (peat/muck) shallow or restricted to deepest portion
○ Mineral soil (sphagnum moss present) ● Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
☐ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
☐ Sphagnum moss (anchored or suspended)
☐ Wet site ferns (e.g. royal fern, marsh fern)
☐ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
☐ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
☐ No vegetation in pool

■ Faunal indicators (check all that apply):

☐ Fish ☐ Bullfrog or Green Frog tadpoles ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

● No inlet or outlet ○ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
○ Intermittent inlet or outlet ○ Other or Unknown (explain): _____

Maine State Vernal Pool Assessment Form

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 5/15/19 & 6/5/19

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ● No
- Was the entire pool surveyed for egg masses? ● Yes ○ No; what % of entire pool surveyed? ____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog															
Spotted Salamander	44	51		3	3		M	A							
Blue-spotted Salamander															
Fairy Shrimp[3]															

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

Note: Total egg masses counted in several PVP's w/in close proximity. (It is likely the PVP features were formed in former PEAT EXCAVATIONS)

c. Rarity criteria – NONE OBSERVED

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

■ SVP ■ Potential SVP (Complex) CHL ☐ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Send completed form and supporting documentation to: Maine Dept. of Inland Fisheries and Wildlife
Attn: Vernal Pools
650 State Street, Bangor, ME 04401

NOTE: Digital submission (to Jason.Czapiga@maine.gov) of vernal pool field forms and photographs is only acceptable for projects with 3 or fewer assessed pools; larger projects must be mailed as hard copies.

For MDIFW use only Reviewed by MDIFW Date: ____ Initials: ____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Old Farm Pond
(man-made feature)
(PEM1)

Stream A

Wetland A
(PFO/PSS)

Wetland A
(PFO)

TP WL A UPL

TP WL A WET

Stream B

Wetland B
(PFO/PSS)

TP WL B WET

TP WL B UPL

Wetland A
(PFO)

Stream C

Wetland C
(PFO)

TP WL C UPL

Vernal Pool
Complex

TP WL C WET

Legend

Stream
Wetland
Pond
Vernal Pool
Test Pit
Property Line
Ground Elevation Contours:
Index (10 ft)
Interval (2 ft)

N

0 105 210
Feet

Prepared/Date: BRP 05/31/19 | Checked/Date: CHL 05/31/19

Image Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 1
Wetland Delineation Plan

U.S. Coast Guard
Eastport Housing Site Development
Perry, Maine

Document: P:\Projects\USCG Eastport Site Development\4.0_Deliverables\4.5_Databases\GIS\MapDocuments\Perry_Wetlands_11x17LS.mxd PDF: P:\Projects\USCG Eastport Site Development\4.0_Deliverables\4.5_Databases\GIS\Figures\Wetlands\Figure 1 - Wetland Delineation Plan.pdf 05/31/2019 7:27 AM brian.peters

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 1 ***Direction:*** East ***Description:*** View of Stream A at Shore Road.	
Photographer: Charles Lyman ***Date:*** May 2019 ***Photograph:*** 2 ***Direction:*** Northwest ***Description:*** View of Stream A, lower section above Shore Rd.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 3 ***Direction:*** NA ***Description:*** View of plastic tile drain, discharging to stream (positive drain from existing house basement).	
Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 4 ***Direction:*** Northwest ***Description:*** View of Stream A, below man-made pond.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 5 ***Direction:*** Northwest ***Description:*** View of man-made pond.	
Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 6 ***Direction:*** Southeast ***Description:*** View of Stream A above man-made pond.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 7 ***Direction:*** West ***Description:*** View of woods road bisecting Wetland A.	
Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 8 ***Direction:*** West ***Description:*** View of woods road as it transitions out of Wetland A, and up slope.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 9 ***Direction:*** South ***Description:*** View of upland/wetland boundary, Wetland A.	
Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 10 ***Direction:*** South ***Description:*** View of Stream B, where it enters the property.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 11 ***Direction:*** East ***Description:*** View of Stream A, within Wetland A (PSS).	
Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 12 ***Direction:*** East ***Description:*** View of Stream B, bottom, Note Shore Road can be seen through trees..	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 13 ***Direction:*** NA ***Description:*** View of Wetland A (eroded) PFO area between fields.	
Photographer: Charles Lyman ***Date:*** May 13, 2019 ***Photograph:*** 14 ***Direction:*** North ***Description:*** View of Wetland A (eroded) PFO area.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 14, 2019 ***Photograph:*** 1 ***Direction:*** Northeast ***Description:*** View of Wetland A, typical PSS dominated.	
Photographer: Charles Lyman ***Date:*** May 14, 2019 ***Photograph:*** 2 ***Direction:*** West ***Description:*** View of woods road, eroded.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 14, 2019 ***Photograph:*** 3 ***Direction:*** Southwest ***Description:*** View of woods road through upland.	
Photographer: Charles Lyman ***Date:*** May 14, 2019 ***Photograph:*** 4 ***Direction:*** Northeast ***Description:*** View of Wetland A from upland, note dense scrub shrub growth	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 14, 2019 ***Photograph:*** 5 ***Direction:*** West ***Description:*** View of upland west of Wetland B, note open understory and white birch trees and lack of scrub shrub understory.	
Photographer: Charles Lyman ***Date:*** May 14, 2019 ***Photograph:*** 6 ***Direction:*** NA ***Description:*** View of wind throw in Wetland B.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 14, 2019 ***Photograph:*** 7 ***Direction:*** Northwest ***Description:*** View of Wetland B, note mound and pool microtopography.	
Photographer: Charles Lyman ***Date:*** May 14, 2019 ***Photograph:*** 8 ***Direction:*** West ***Description:*** View of vernal pool complex, Wetland C.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 14, 2019 ***Photograph:*** 9 ***Direction:*** South ***Description:*** View of vernal pool complex, Wetland C.	
Photographer: Charles Lyman ***Date:*** May 14, 2019 ***Photograph:*** 10 ***Direction:*** Northwest ***Description:*** View of vernal pool complex, Wetland C.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 14, 2019 ***Photograph:*** 11 ***Direction:*** NA ***Description:*** Typical view of spotted salamander eggs observed in vernal pool complex	
Photographer: Charles Lyman ***Date:*** May 14, 2019 ***Photograph:*** 12 ***Direction:*** Southeast ***Description:*** Typical view of spotted salamander eggs observed in vernal pool complex.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 15, 2018 ***Photograph:*** 1 ***Direction:*** West ***Description:*** View of Wetland C.	
Photographer: Charles Lyman ***Date:*** May 15, 2018 ***Photograph:*** 2 ***Direction:*** NA ***Description:*** View of mucky peat material at TP WL C Wet.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 15, 2018 ***Photograph:*** 3 ***Direction:*** South ***Description:*** View of Stream C.	
Photographer: Charles Lyman ***Date:*** May 15, 2018 ***Photograph:*** 4 ***Direction:*** Northeast ***Description:*** View of Stream C	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 15, 2018 ***Photograph:*** 5 ***Direction:*** NA ***Description:*** View of organic soil, TP WL B Wet.	
Photographer: Charles Lyman ***Date:*** May 15, 2018 ***Photograph:*** 6 ***Direction:*** West ***Description:*** View of Wetland B	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 15, 2018 ***Photograph:*** 7 ***Direction:*** NA ***Description:*** View of upland test pit, TP WL B UPL	
Photographer: Charles Lyman ***Date:*** May 15, 2018 ***Photograph:*** 8 ***Direction:*** Southeast ***Description:*** View of upland adjacent to Wetland B.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 15, 2018 ***Photograph:*** 9 ***Direction:*** NA ***Description:*** View of upland soil (29 inches bgs) TP WL A UPL	
Photographer: Charles Lyman ***Date:*** May 15, 2018 ***Photograph:*** 10 ***Direction:*** South ***Description:*** View of upland adjacent to Wetland A, TP WL A UPL.	

Site Photographs – USCG Perry			
Client:	USCG	***Project Number:***	**335000007.005.003**
Site Name:	USCG Perry	***Site Location:***	576 Shore Road

Photographer: Charles Lyman ***Date:*** May 15, 2018 ***Photograph:*** 11 ***Direction:*** NA ***Description:*** View of auger from Wetland A, TP WL A Wet. Bottom of organic lay/top of mineral layer.	
Photographer: Charles Lyman ***Date:*** May 15, 2018 ***Photograph:*** 12 ***Direction:*** West ***Description:*** View of Wetland A, TP WL A Wet.	

APPENDIX C

Endangered Species Act Concurrence Package

Amec Foster Wheeler HDR
JOINT VENTURE

July 3, 2019

From: Charles R. Harman, P.W.S.
Principal Ecologist
Amec Foster Wheeler HDR JV
285 Davidson Avenue, Suite 405
Somerset, NJ 08873
charles.harman@woodplc.com
908-507-2413

To: U.S. Fish and Wildlife Service
Maine Field Office
17 Godfrey Drive, Suite 2
Orono, Maine 04473

RE: USFWS THREATENED/ENDANGERED SPECIES CONFIRMATION OF FINDINGS, WASHINGTON COUNTY, MAINE;
USCG EASTPORT HOUSING DEVELOPMENT

Wood Environment & Infrastructure Solutions, Inc. (Wood) has reviewed the referenced project using the Maine Field Office's online project review process and have followed all guidance and instructions in completing the review. Wood concluded that no threaten and/or endangered species have the potential to be present at the location where the proposed project will be completed. We completed our review on June 10, 2019 and are submitting our project review package in accordance with the instructions for further review.

Our proposed action consists of: A 75-acre site at 576 Shore Road in Perry, Maine (County of Washington) in which the U.S. Coast Guard (USCG) is proposing the development of either six (6) duplex housing units (12 units total) consisting of four (4) 3-bedroom units (8 units total) and two (2) 4-bedroom units (4 units total) or twelve (12) single family units consisting of eight (8) 3-bedroom units and four (4) 4-bedroom units. A 5,000-square foot maintenance building and a 2,000-square foot community building are also being proposed. In addition, all associated roads, sidewalks, storm water controls, street lights, utilities, and typical infrastructure to support this community will be provided.

The location of the project and the action area are identified on **Figure 1** and **Figure 2** of the accompanying document. The project is expected to be completed by 2021, with construction beginning in the summer of 2020.

This project review is needed by the U.S. Coast Guard, the Federal Action Agency, for completion of the National Environmental Policy Act (NEPA) documentation.

The enclosed project review package provides the information about the species, critical habitat, and bald eagles considered in our review, and the species conclusions included in the package identifies our determinations for the resources that may be affected by the project.

It is our opinion that the project will not impact threatened and/or endangered species and the USCG requests concurrence of that.

For additional information, please contact Charles Harman at the address listed above.

Sincerely,

Charles R. Harman, P.W.S.
Principal Ecologist

Enclosures:

1) ESA Concurrence Request, Site Development for Eastport Housing Project

ESA Concurrence Request

Site Development for U.S. Coast Guard Eastport Housing Project

Contract Number: 70Z05018DAMFWHD02

Task Order: 70Z04719FPEPTEV00

Prepared For:

U.S. Coast Guard
Facilities Design and Construction Center
5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431

Prepared By:

Amec Foster Wheeler HDR
JOINT VENTURE

July 3, 2019

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS

BGEPA	Bald and Golden Eagle Protection Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
EA	Environmental Assessment
ESA	Endangered Species Act
IPaC	Information, Planning, and Conservation
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NAVD 88	North American Vertical Datum 1988
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NWI	National Wetlands Inventory
NWR	National Wildlife Refuge
Service	United States Fish and Wildlife Service
SHPO	State Historic Preservation Office
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USDOI	United States Department of the Interior
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WOTUS	Waters of the United States

1.0 INTRODUCTION

The United States Coast Guard (USCG) is submitting this Endangered Species Act (ESA) Consultation Package for a proposed housing development in Perry, Maine. The USCG station in Eastport, Maine is one of two USCG stations located within Washington County. This station consists of a working crew of eight search and rescue personnel and two boats that serve a 100-mile stretch of coastline. The USCG station building was constructed in 2004 and includes the local emergency response center. It is located adjacent to the repaired and expanded Eastport Breakwater on the downtown waterfront. The Eastport Breakwater re-opened in 2017, serving the commercial fishing fleet, the USCG, and visitors arriving from land and sea (City of Eastport, 2018).

The USCG is proposing the development of family housing for USCG service members reporting to USCG Station Eastport, Maine. The USCG is requesting this determination to ensure that the proposed housing project is consistent with the ESA.

1.1 Background

The USCG has recently acquired a 75-acre site located at 576 Shore Rd in Perry, Maine (County of Washington). This heavily wooded property is the proposed location for the Eastport Housing Project. This property currently contains a gravel driveway that leads to a 2,240-square foot, 2-story, colonial-style home built in 1968. A 2-story barn (24 feet wide by 64 feet long), a workshop, a wood shed, a wood boiler unit, and a shed/lean-to are also present. All these structures are in the eastern 1/3 of the land parcel. The house and barn are supported by private water supply wells. A 1,000-gallon concrete septic tank and associated leach field serve as the waste water disposal system for the property.

The USCG is proposing to develop the property under one of the two following scenarios:

1. Six (6) duplex housing units (12 units total) consisting of four (4) 3-bedroom units (8 units total) and two (2) 4-bedroom units (4 units total). Additionally, provide a 5,000-square foot maintenance building and a 2,000-square foot community building. Provide all associated roads, sidewalks, storm water controls, street lights, utilities, and typical infrastructure to support this community; or

2. Twelve (12) single family units consisting of eight (8) 3-bedroom units and four (4) 4-bedroom units. Provide a 5,000-square foot maintenance building and a 2,000-square foot community building. Provide all associated roads, sidewalks, storm water controls, street lights, utilities, and typical infrastructure to support this community.

Three-bedroom units would be 2,300 gross square feet and the 4-bedroom units would be 2,500 gross square feet.

2.0 ENVIRONMENTAL CONDITIONS

The subject property is located at 576 Shore Road (Book 2198 Page 285) in the Town of Perry, Maine (Lot 4, Block 013-004-000) (see **Figure 1**). As shown below, the property has been historically development and used for agricultural purposes. Much of the area just off Shore Road has been cleared and disturbed. The remainder of the area is wooded.

Topographically, the subject property is flat with a gradual grade downwards to the west. Small, unnamed brooks are located at the northern and southern edges of the property. The undeveloped portions of the property are heavily wooded. Soils through the developed section of the property are listed as Creasey gravelly silt loam, transitioning westward to Lamoine-Rawsonville Scantic Complex, 0 – 8% slopes, very stony.

A delineation of wetlands on the subject property identified several wetland units. As shown on **Figure 3**, there is a wetland located directly west of the cleared section of the subject property that has been categorized as a palustrine deciduous leafed, forested wetland (PF01). The wetland areas are dominated in the tree stratum by such species as red maple, balsam fir, red spruce, white birch, and yellow birch. In the subcanopy stratum, commonly observed species include winterberry and speckled alder. A vernal pool complex was identified in the western most section of the property, well away from any proposed development.

3.0 DESKTOP RESEARCH RESULTS

The list of potential threatened and/or endangered species for Maine is provided in **Appendix A**. A letter has been sent to the Maine Natural Areas Program requesting an Environmental Site Review of the subject project for rare and exemplary botanical features (see **Appendix B**). The Maine Natural Areas Program has noted that a rare and exemplary botanical feature has been found in proximity to the project area (**Appendix C**). Botanical notes for the species are included as **Appendix D**.

A field survey to identify whether this species is present onsite has not been conducted. It is anticipated that they USCG will evaluate further examine the property for the presence of this species during the site plan development stage of the project prior to construction.

A request was submitted to the USFWS for a list of threatened and endangered species that may potentially occur in the subject property. The USFWS provided an Information for Planning, and Consultation (IPaC) document in return (see **Appendix E).** The IPaC indicated the possible presence of only one species, the federally threatened northern long-eared bat (*Myotis septentrionalis*), as potentially present at the site. The USFWS provided a verification letter (**Appendix F**) that concluded that the Programmatic Biological Opinion (PBO) that was prepared by the USFWS satisfies and concludes the responsibilities for proposed project under ESA Section 7(a)(2) with respect to the northern long-eared bat.

.

FIGURES

SOURCE:
DELORME TOPO NORTH AMERICA 10.

0 1/2 1 2
SCALE IN MILES

Prepared/Date: WJW 6/11/19
Checked/Date: CRH 6/11/19

USCG 576 Shore Road Perry, Maine	wood.	LOCATION MAP Eastport Housing Site Development Project 3350-00-007 Figure 1

S:\USCG- COAST GUARD\Perry Maine\8.0 Drawings\Figures\Figure 1 - Locus.dwg Wed, 12 Jun 2019 - 11:13am william.whitten

OLD FARM POND
(MAN–MADE
FEATURE)

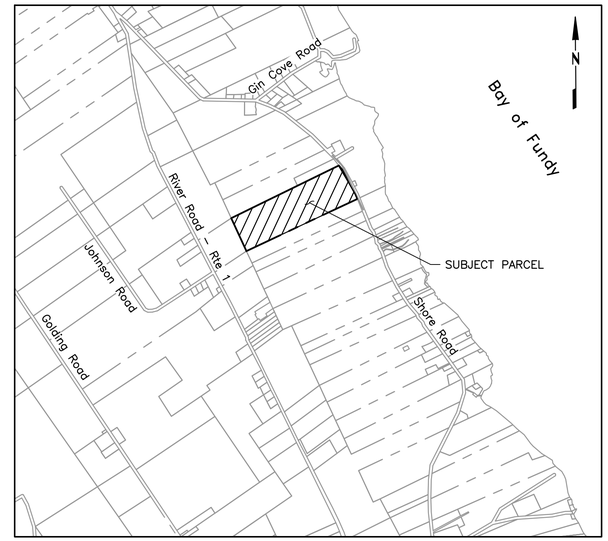
WETLAND BOUNDARY
(TYP)

250–FT SHORELAND ZONE SETBACK

APPROX. LOCATION EXISTING STRTEAM
(TYP)

Shore Road

Bay of Fundy



VICINITY MAP

0 50 100 200
SCALE IN FEET

Prepared/Date: WJW 6/13/19
Checked/Date: CRH 6/13/19

UNITED STATES COAST GUARD 576 Shore Road Perry, Maine	wood.	Site Development Evaluation and NEPA EA for Housing Project Project 3350-00-007 Figure 3 - ZONE BOUNDARIES

S:\USCG- COAST GUARD\Perry, Maine\8.0 Drawings\Figures\Figure 3 - NEPA Zones.dwg Thu, 13 Jun 2019 - 8:38am william.whitten

APPENDIX A

MAINE'S ENDANGERED SPECIES LIST

State List of Endangered & Threatened Species

Endangered and Threatened inland fish and wildlife species in Maine are listed either under Maine's Endangered Species Act [MESA], the U.S. Endangered Species Act [ESA], or both. Species listed under MESA receive state protection; species listed under ESA receive federal protection; and species listed under both receive state and federal protection.

The Maine Department of Inland Fisheries and Wildlife holds management responsibility for inland fish and wildlife listed under MESA, and shares responsibility with the U.S. Fish and Wildlife Service [USFWS] for inland fish and wildlife listed under ESA.

Endangered and Threatened marine species are listed under Maine's Marine Endangered Species Act or ESA. The Maine Department of Marine Resources (MDMR) has responsibility for these species.

The Maine Endangered Species Act applies only to animals - plants are not included in the legislation. The Maine Natural Areas Program maintains an "official" list of rare and endangered plants in Maine.

There are currently 26 inland fish and wildlife species listed as Endangered and 25 listed as Threatened under Maine's Endangered Species Act [MESA], some of which are also listed under the U.S. Endangered Species Act [ESA].

Information about the status, life history, and conservation of each listed species is available in a fact sheet linked to the species name in the following lists. Fact sheets are available in PDF format.

Species listed through the Maine Department of Inland Fisheries and Wildlife under Title 12 § 12803. Marine species listed separately through the Maine Department of Marine Resources under Title 12 § 6975, and federally listed species not listed under Maine's Endangered Species Act, are not included in this list.

Maine's Endangered Species

October 15, 2015

Birds

- American Pipit (PDF) (*Anthus rubescens*) (breeding population only) (species plan)
- Black-crowned Night Heron (*Nycticorax nycticorax*)
- Black Tern (PDF) (*Chlidonias niger*)
- Golden Eagle (PDF) (*Aquila chrysaetos*) (species plan)
- Grasshopper Sparrow (PDF) (*Ammodramus savannarum*)

- Least Bittern (*Ixobrychus exilis*)
- Least Tern (PDF) (*Sterna antillarum*) (species plan)
- Peregrine Falcon (PDF) (*Falco peregrinus*) (breeding population only)
- Piping Plover (PDF) (*Charadrius melodus*) (species plan)**
- Roseate Tern (PDF) (*Sterna dougallii*) (species plan)*
- Sedge Wren (PDF) (*Cistothorus platensis*)

Fish

- Redfin Pickerel (*Esox americanus americanus*)

Invertebrates

Beetles

- Cobblestone Tiger Beetle *(Cicindela marginipennis)*

Butterflies and Skippers

- Edwards' Hairstreak (PDF) (*Satyrium edwardsii*)
- Frigga Fritillary *(Boloria frigga)*
- Hessel's Hairstreak (PDF) (*Callophrys hesseli*)
- Juniper Hairstreak (*Callophrys gryneus*)
- Katahdin Arctic (PDF) (*Oenis polixenes katahdin*)

Dragonflies and Damselflies

- Rapids Clubtail (*Gomphus quadricolor*)

Snails

- Six-whorl Vertigo (Vertigo morsei)

Mammals

- Little Brown Bat *(Myotis lucifugus)*
- New England Cottontail (*Sylvilagus transitionalis*) (species plan)
- Northern Long-eared Bat *(Myotis septentrionalis)*

Reptiles

Snakes

- Black Racer (PDF) (*Coluber constrictor*) (species plan)

Turtles

- Blanding's Turtle (PDF) (*Emydoidea blandingii*) (species plan)
- Box Turtle (PDF) (*Terrapene carolina*) (species plan)

Maine's Threatened Species

October 15, 2015

Birds

- Arctic Tern (PDF) (*Sterna paradisaea*) (species plan)
- Atlantic Puffin (PDF) (*Fratercula arctica*) (species plan)
- Barrow's Goldeneye (*Bucephala islandica*) (species plan)
- Common Gallinule (*Gallinula chloropus*)
- Great Cormorant (*Phalacrocorax carbo*) (Breeding population only)
- Harlequin Duck (PDF) (*Histrionicus histrionicus*) (species plan)
- Razorbill (PDF) (*Alca torda*) (species plan)
- Short-eared Owl (*Asio flammeus*) (Breeding population only)
- Upland Sandpiper (PDF) (*Bartramia longicauda*) (species plan)`

Fish

- Swamp Darter (PDF) (*Etheostoma fusiforme*)

Invertebrates

Butterflies and Skippers

- Clayton's Copper (PDF) (*Lycaena dorcas claytoni*) (species plan)
- Purple Lesser Fritillary (*Boloria chariclea grandis*)
- Sleepy Duskywing (*Erynnis brizo*)

Dragonflies and Damselflies

- Boreal Snaketail (*Ophiogomphus colubrinus*)
- Ringed Boghaunter (PDF) (*Williamsonia lintneri*)

Freshwater Mussels

- Brook Floater (PDF) (*Alasmidonta varicosa*)
- Tidewater Mucket (PDF) (*Leptodea ochracea*)
- Yellow Lampmussel (PDF) (*Lampsilis cariosa*)

Mayflies

- Roaring Brook Mayfly (PDF) (*Epeorus frisoni*)

- Tomah Mayfly *(Siphlonisca aerodromia)*

Moths

- Pine Barrens Zanclognatha (PDF) (*Zanclognatha martha*)
- Twilight Moth (PDF) (*Lycia rachelae*)

Mammals

- Eastern Small-footed Bat *(Myotis leibii)*
- Northern Bog Lemming (PDF) (*Synaptomys borealis*)

Reptiles

- Spotted Turtle (PDF) (*Clemmys guttata*) (species plan)

**** Federally listed as Endangered***
***** Federally listed as Threatened***

APPENDIX B

REQUEST TO MAINE NATURAL AREAS PROGRAM

Wood Environment & Infrastructure Solutions, Inc.
511 Congress Street, Suite 200
Portland, ME, 04101,USA
T: 207-775-5401
www.woodplc.com

From: Charles H. Lyman
Wood Environment and Infrastructure Solutions
511 Congress Street
Portland, Maine 04101
Charles.lyman@woodplc.com
(207) 828-3280

To: Maine Natural Areas Program
93 State House Station
Augusta, Maine 04333-0093

May 17, 2018

Re: Environmental Site Review, USCG – Perry Housing, Washington County, Perry, Maine

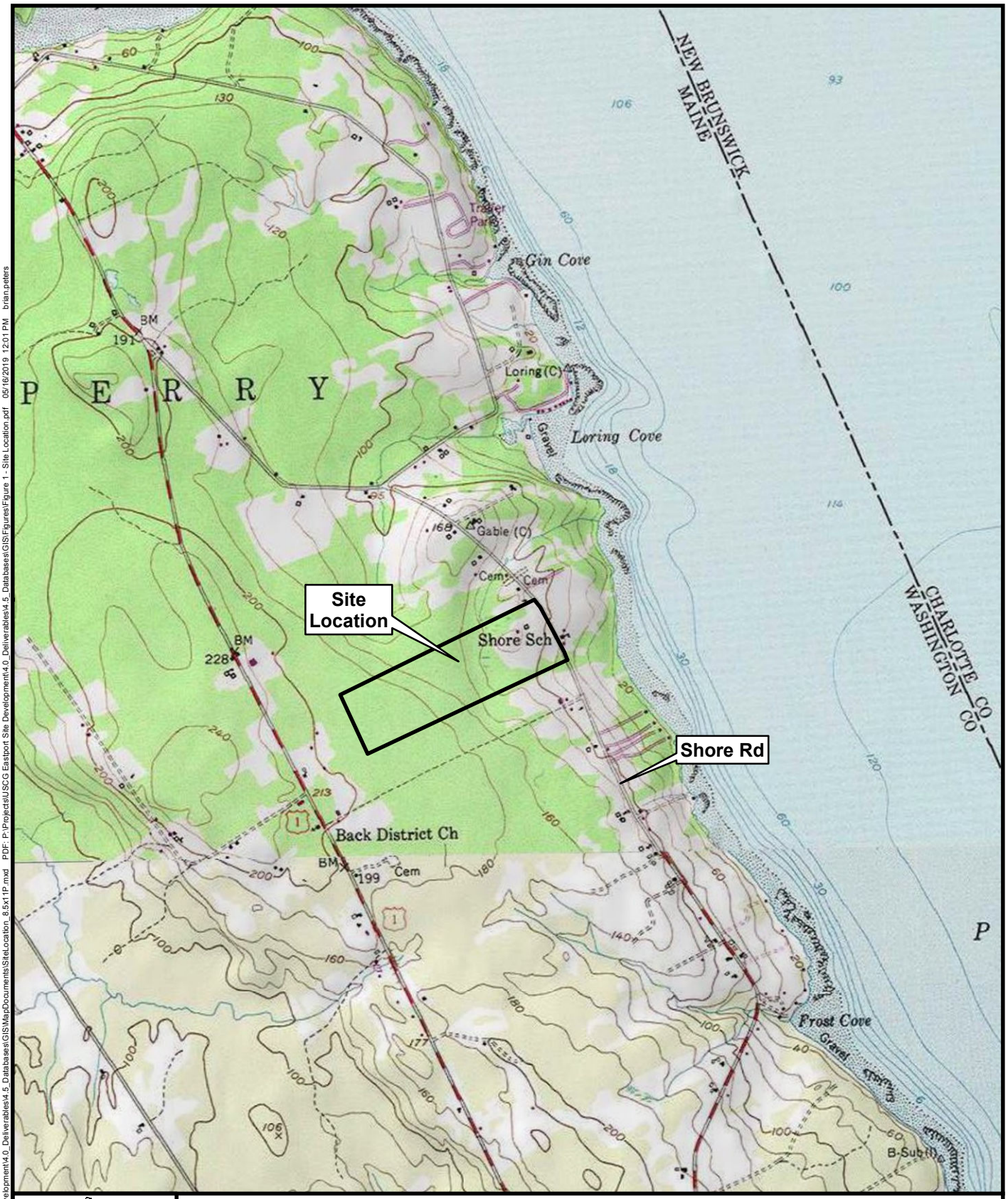
We are sending you this letter to request an Environmental Site Review of the subject project for rare and exemplary botanical features. The proposed project includes developing approximately 25 acres of a 75-acre site for USCG housing. Attached please find a Figure 1, which shows the location of the site. The proposed development will be limited to the front 1/3 of the property that abuts Shore Road and will include several residential buildings, maintenance building and general-purpose building.

For additional information or questions, please contact Charles Lyman at the address listed above.

Sincerely,

Charles H. Lyman, Senior Project Scientist
Wood Environment and Infrastructure Solutions

Enclosures:
1) Site Location Map



N

0 1,000 2,000 Feet

Prepared/Date: BRP 05/16/19 | Checked/Date: CHL 05/16/19

Figure 1
Site Location
576 Shore Rd.

USCG
Perry, Maine

APPENDIX C

RESPONSE FROM MAINE NATURAL AREAS PROGRAM

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

June 6, 2019

Charles Lyman
Wood Environment and Infrastructure Solutions
511 Congress Street
Portland, ME 04101

Via email: charles.lyman@woodplc.com

Re: Rare and exemplary botanical features in proximity to: USCG Perry Housing, Perry, Maine

Dear Mr. Lyman:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received June 5, 2019 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Perry, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-804490
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Kristen Puryear | Ecologist | Maine Natural Areas Program
207-287-8043 | kristen.puryear@maine.gov

Rare and Exemplary Botanical Features within 4 miles of Project: USCG Housing, Perry, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Dawn-land sedge						
	SC	SU	G5T2T4	2013-07-09	13	Old field/roadside (non-forested, wetland or upland)

STATE RARITY RANKS

S1 Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.

S2 Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

S3 Rare in Maine (20-100 occurrences).

S4 Apparently secure in Maine.

S5 Demonstrably secure in Maine.

SU Under consideration for assigning rarity status; more information needed on threats or distribution.

SNR Not yet ranked.

SNA Rank not applicable.

S#? Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).

Note: **State Rarity Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines State Rarity Ranks for animals.

GLOBAL RARITY RANKS

G1 Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.

G2 Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

G3 Globally rare (20-100 occurrences).

G4 Apparently secure globally.

G5 Demonstrably secure globally.

GNR Not yet ranked.

Note: **Global Ranks** are determined by NatureServe.

STATE LEGAL STATUS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

E ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.

T THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

NON-LEGAL STATUS

SC SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.

PE Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.

ELEMENT OCCURRENCE RANKS - EO RANKS

Element Occurrence ranks are used to describe the quality of a rare plant population or natural community based on three factors:

- **Size**: Size of community or population relative to other known examples in Maine. Community or population's viability, capability to maintain itself.
- **Condition**: For communities, condition includes presence of representative species, maturity of species, and evidence of human-caused disturbance. For plants, factors include species vigor and evidence of human-caused disturbance.
- **Landscape context**: Land uses and/or condition of natural communities surrounding the observed area. Ability of the observed community or population to be protected from effects of adjacent land uses.

These three factors are combined into an overall ranking of the feature of **A**, **B**, **C**, or **D**, where **A** indicates an **excellent** example of the community or population and **D** indicates a **poor** example of the community or population. A rank of **E** indicates that the community or population is **extant** but there is not enough data to assign a quality rank. The Maine Natural Areas Program tracks all occurrences of rare (S1-S3) plants and natural communities as well as A and B ranked common (S4-S5) natural communities.

Note: **Element Occurrence Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines Element Occurrence ranks for animals.

Visit our website for more information on rare, threatened, and endangered species!
http://www.maine.gov/dacf/mnap

APPENDIX D

BOTANICAL NOTES FOR *CAREX SCOPARIA*

Stantec

Botanical Notes

ISSN 1541-8626

An irregularly published newsletter dedicated to dispersing taxonomic and ecological information useful for plant identification and conservation primarily in New England

Available online at http://www.scribd.com/StantecInc

Number 14. 12 September 2012 30 Park Drive, Topsham, ME 04086

A NEW NAME AND STATUS FOR *CAREX SCOPARIA* VAR. *TESSELLATA* (CYPERACEAE)

In 1909, M. Fernald and K. Wiegand made collections of a *Carex* in Maine belonging to the section *Cyperoideae* (formerly *Ovales*) that had not been observed before (Fernald and Wiegand 1910). They allied the plant to *Carex scoparia* Schkuhr & Willd., noting that the new taxon had crowded spikes, relatively broader perigynia, and darker carpellate scales (giving the inflorescence a checkered appearance due to the contrast of the scales against the perigynia). They referred to the new taxon as *C. scoparia* var. *tessellata* Fern. & Wieg. and noted it was known from only Washington County. Over a hundred years have passed with little research occurring on this taxon, despite its very limited global distribution.

Mastrogiuseppe et al. (2002) upheld *Carex scoparia* var. *tessellata* as a variety of *C. scoparia*, noting it occurred in New Brunswick (Canada) and Maine (United States). The New Brunswick attribution is in error (see later in this article). They also provided a key to the varieties of *Carex scoparia*, essentially presenting those diagnostic characters of Fernald (1950), but adding perigynium length. This character (perigynium length) shows complete overlap, but those of *C. scoparia* var. *scoparia* range longer than those of *C. scoparia* var. *tessellata*.

Hipp et al. (2010) found great diversity in the chromosome numbers of *Carex scoparia*, with 2*n*=58–70. *Carex scoparia* var. *tessellata* has been found to have 2*n*=68. Though populations of *C. scoparia* var. *scoparia* from outside of Maine have been found to have the same chromosome number as *C. scoparia* var. *tessellata*, those from southeastern Maine (i.e., within the region of sympatry with *Carex scoparia* var. *tessellata*) have shown different numbers (2*n*=64, 66, and 67). Hipp et al. (2010) also examined genetic divergence between these two varieties and showed *Carex scoparia* var. *tessellata* to be genetically divergent from *Carex scoparia* var. *scoparia*. The estimate using the ITS region suggests these two taxa have been separate for 0.487 million years (with substantial uncertainty; the 95% confidence interval = 0.050–1.61 million years).

Over the past few growing seasons, field work (in great part by the first author of this manuscript) has revealed a number of novel differences between the two varieties of *Carex scoparia*. In particular, examination of sympatric populations has called into question the treatment of *C. scoparia* var. *tessellata* as a variety of *C. scoparia*. A discussion of the differences between these two taxa follows.

Inflorescence length

The length of the inflorescence, which in this case is an approximate measure of (1) how aggregated the individual spikes are and (2) how many spikes occur in each inflorescence, is a useful character for separating the two taxa (Figure 1), as was noted by Fernald and

Wiegand (1910). Examining well-formed inflorescences (i.e., avoiding clearly depauperate individuals), *Carex scoparia* var. *tessellata* is always somewhat to moderately congested and measurements from the base of the lowest spike to the apex of the uppermost spike range from 14–26 mm long with 4–6(–8) spikes. Those of *C. scoparia* var. *scoparia* that we have measured range from (18–)20–55 mm and have 4–10 spikes. The latter species varies in its congestion of spikes, and while many collections have somewhat elongated inflorescences, some individuals, in particular, late season collections, do have congested inflorescences. This has caused confusion in herbarium collections where specimens of *C. scoparia* var. *scoparia* with congested spikes are sometimes misidentified as *C. scoparia* var. *tessellata*. The lowest internode of the inflorescence also shows some discriminatory power: (1–)1.7–6 mm in *C. scoparia* var. *tessellata* and (1–)3.8–10.5 mm in *C. scoparia* var. *scoparia*.

Figure 1. Comparison of the inflorescences of *Carex scoparia* var. *scoparia* (left) and *C. scoparia* var. *tessellata* (right). Note color and number of spikes.

Carpellate scale color

Carex scoparia var. *tessellata* received its varietal epithet due to the darker scales (compared with those of var. *scoparia*) strongly contrasting against the green perigynium bodies. Once learned, this trait is very useful and a fairly reliable way to distinguish these two taxa during late spring through early summer. As the summer progresses, the perigynia of *C. scoparia* var. *tessellata* also darken and the contrast between the perigynia and carpellate scales becomes less pronounced. The carpellate scales of *C. scoparia* var. *tessellata* are brown with a light green or light brown midrib (infrequently the midrib becomes darker than the rest of the scale in drying). Black is frequently reported in the literature as the scale color; this is not accurate. Those of *C. scoparia* var. *scoparia* are usually light brown to yellow-brown (Figure 2).

Figure 2. Sympatric population of *Carex scoparia* var. *scoparia* (left, light green spikes) and *C. scoparia* var. *tessellata* (right, dark green spikes) showing differences in spike color.

Leaf blade width

When sympatric populations of *Carex scoparia* var. *scoparia* and *C. scoparia* var. *tessellata* are observed, it can be seen that the leaves (and to some degree the culms) are, on average, narrower in *C. scoparia* var. *tessellata*. Though there is a fair amount of overlap, measurements of the widest leaves on plants from several sympatric populations in eastern Maine ranged mostly from 2.1 to 3.5 mm for var. *scoparia* and 1.5 to 2.9 mm for var. *tessellata*. Though range-wide measurements of *C. scoparia* var. *scoparia* would overlap those of var. *tessellata* presented here, these observations are valuable nonetheless and can be observed when the two taxa grow in close proximity.

Phenology
Observations of sympatric populations in Washington County, Maine, show that *Carex scoparia* var. *tessellata* is significantly ahead of *C. scoparia* var. *scoparia* in terms of flowering and fruiting. The former flowers approximately 10–15 days earlier than the latter (Figure 3).

Figure 3. Inflorescences of *Carex scoparia* var. *scoparia* (left, anthers exserted) and *C. scoparia* var. *tessellata* (right, anthers shed) demonstrating phenological differences (i.e., *C. scoparia* var. *tessellata* is significantly ahead of *C. scoparia* var. *scoparia*). This image captured on 16 June 2012.

Perigynia length to width ratio
As noted by Fernald and Wiegand (1910), *Carex scoparia* var. *tessellata* has relatively broader perigynia than var. *scoparia*. The measurements provided by Mastrogiuseppe et al. (2002) appear to accurately describe the difference between these two taxa. The perigynia of var. *tessellata* are 2–2.6 times as long as wide, whereas those of var. *scoparia* are (2.5–)2.8–4 times as long as wide. We find it to be rare that perigynia length-to-width ratios overlap between these two taxa. This morphological difference manifests also as a different outline of the perigynium body. Those of var. *scoparia* are lanceolate to narrow-elliptic, whereas those of var. *tessellata* are elliptic (Figure 4).

Figure 4. Perigynia of *Carex scoparia* var. *tessellata* (left) and *C. scoparia* var. *scoparia* (right). Note outline, wing margin on beak, and color of perigynia (including beaks). Scale bar = 1 mm.

Perigynium beak apex
The perigynium beak differs in both color and length of wingless portion between *Carex scoparia* var. *scoparia* and var. *tessellata*. In var. *scoparia*, the beak is light brown to brown at maturity (green prior to maturity) and has a marginal wing that extends nearly or fully to the apex of the beak—the wingless portion measures 0–0.5 mm. This is in contrast to the perigynium beaks of var. *tessellata*. In this taxon, the apex is brown to dark purple-brown and lacks a marginal wing in the apical 0.3–1.1 mm (Figure 4). The dark color and lack of a ciliolate wing near the apex of the perigynium beak create a characteristic look to the perigynia of var. *tessellata*—even though the perigynia are relatively broader, their apices look very slender and dark. This difference has apparently not been noted before.

Distance from scale apex to perigynium beak apex
Measurements of the distance from the tip of the carpellate scale to the apex of the associated perigynium beak reveal differences between *Carex scoparia* var. *scoparia* and var. *tessellata*. For this character, measurements are performed on scales from the middle to apex of the spike (the lower carpellate scales are often longer and broader relative to the perigynia, so this portion of the spike is avoided for this measurement). This distance measures (0.8–)1–2(–2.3) mm in var. *scoparia* and 0.2–1.2 mm in var. *tessellata* (Figures 5 and 6). As a result, the carpellate scales more nearly cover

the associated perigynia than in var. *scoparia*. This difference has apparently not been noted before.

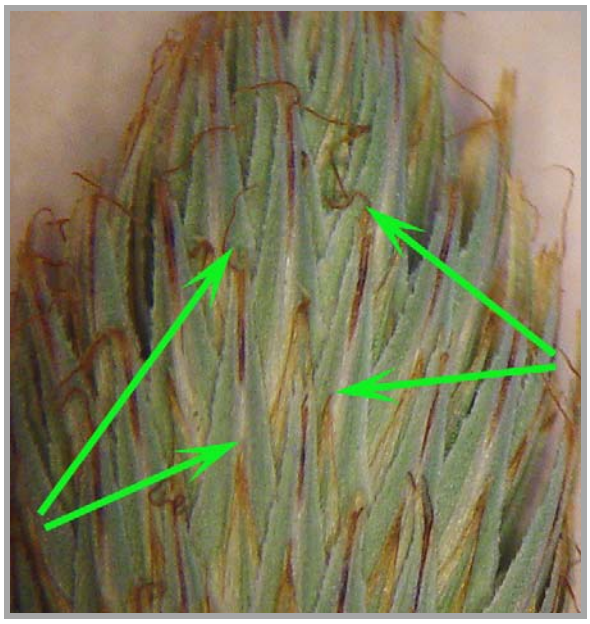


Figure 5. Intact spike of *Carex scoparia* var. *scoparia* showing apex of carpellate scale (lower arrow of each pair) and apex of associated perigynium beak (upper arrow of each pair).

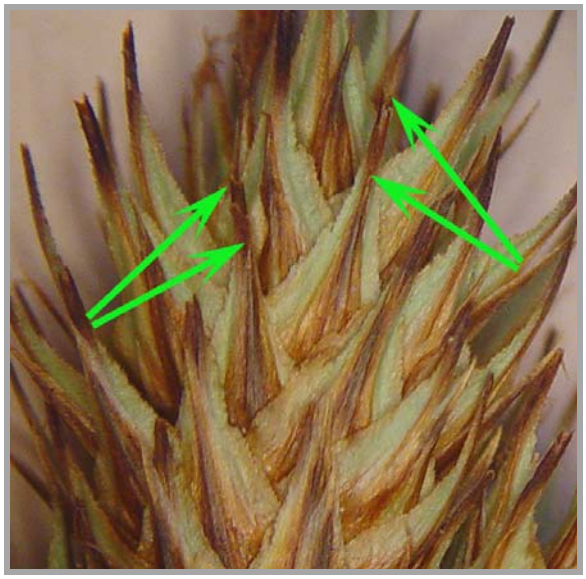


Figure 6. Intact spike of *Carex scoparia* var. *tessellata* showing apex of carpellate scale (lower arrow of each pair) and apex of associated perigynium beak (upper arrow of each pair).

Given the existence of multiple morphological characters that distinguish *Carex scoparia* var. *tessellata* from *C. scoparia* var. *scoparia*, combined with observable phenological differences and measurable genetic divergence, *C. scoparia* var. *tessellata* is here considered to represent a distinct species of highly limited geographic distribution. Only two collections were cited by Fernald and Wiegand (1910), but no holotype was designated.

***Carex waponahkikensis* M. Lovit & A. Haines**, stat. et nom. nov.
Based on: *Carex scoparia* Schkuhr *ex* Willd. var. *tessellata* Fern. & Wieg.; Rhodora 12: 135. 1910.
Lectotype (here designated): United States. Maine, Washington County, Pembroke, 8 Jul 1909, *Fernald 1464* (GH!).

Note: though the protologue states that the collection designated as the lectotype was collected by both Fernald and Wiegand, the actual specimen label lists only Fernald.

Etymology: The specific epithet *waponahkikensis* (pronounced wah-buh-nah-kee-GEN-sis) is derived from the Passamoquoddy word waponahkik (pronounced wah-buh-NAH-keeg), a locative noun meaning "in, at, or to the Dawn-land." The Dawn-land is broadly defined as northeastern North America (i.e., New England and maritime Canada), which receives the morning sunlight before most of North America. This spelling comes from the Passamaquoddy spelling of Wabanaki (their spelling: Waponahki). The Passamaquoddy are a Native American people living in southeastern Maine. *Carex waponahkikensis* is currently known only from this region. We suggest "Dawn-land sedge" as its common name.

Identification key to distinguish *Carex scoparia* and *Carex waponahkikensis*:

1a. Perigynia (2.5–)2.8–4 times as long as wide, lanceolate to narrow-elliptic; perigynium beak at maturity light brown to brown and wingless in the apical 0–0.5 mm, exceeding the tip of the associated subtending scale by (0.8–)1–2(–2.3) mm; inflorescence (18–)20–55 mm long …… ***C. scoparia***
1b. Perigynia 2–2.6 times as long as wide, elliptic; perigynium beak at maturity brown to dark purple-brown and wingless in the apical 0.3–1.1 mm, exceeding the associated subtending scale by 0.2–1.2 mm; inflorescence 14–26 mm long ……. ***C. waponahkikensis***

Distribution and Conservation
As a result of careful examination of specimens, especially in the light of the additional characters that separate these two taxa, it is now realized that *Carex waponahkikensis* is a globally restricted taxon that is found only in extreme eastern Maine along the coastal plain. Many collections, including all those from Canada

(New Brunswick and Nova Scotia) and regions of Maine outside of Hancock and Washington Counties, were misidentified. We are aware of fewer than 20 living populations (approximately 12), contributing to a tentative G-rank of G2. This species occupies open, early successional, often human-disturbed, habitats, including fields, roadsides, and ditches.

Specimens of *Carex waponahkikensis*

United States. ME. Hancock County. T10 SD, north side of Rte 182 at Jct with road to Tunk Mountain, about 11 miles west of Cherryfield, dry sandy/gravelly disturbed roadside through upland hardwoods, 10 Jul 1993, *Reznicek 9634* (MICH). T10 SD, north side of Rte #182 7 miles ENE of Jct with Hwy #200 at Franklin, moist open bottom of abandoned sand pit, 3 Jul 1994, *Reznicek 9921* (MICH). Hancock, bottom of moist sand pit, Jul 1995, *Dibble & Rotherrock* [sic] *s.n.* (UNB). **Washington County**. Cherryfield, north side of Ridge Road about 4.5 miles north of Cherryfield, 44° 39′ 50″ N, 67° 52′ 42″ W, seepy slope below sunny pond bank in gravelly soil, 2 Jul 2000, *Reznicek 11177* (MICH). Columbia Falls, moist low flat open sandy ditch, 11 Jul 1998, *Reznicek 10698* (MICH). Jonesport, meadows behind Sandy River Beach, 3.5 miles ENE of Jonesport, on the east side of Route 187, 44° 34′ N, 67° 32′ W, wet meadow near shore of artificial pond and nearby rough hay meadows of undulating terrain, 17 Jul 1992, *Reznicek 9154* (MICH). Jonesport, east side of Hwy #187 along entrance to Jonesport High School, dry open shallow sandy roadside ditch with sparse grasses and sedges, 7 Jul 1999, *Reznicek 10923* (MICH). Jonesport, hay meadow near salt marsh and sandy beach, near mouth of Sandy River, E of Rte #187, 8 July 1998, *Reznicek & Zika 13483* (MICH). Lubec, in a field west from the Straight Bay Road and east from Morong Cove, on land owned by the State of Maine. Maine Dept. of Inland Fisheries & Wildlife manages the field for grassland birds by annual mowing. In 2012 there were ~20 clumps of var. *tessellata* in a slight depression in the field, with *Carex scoparia, Carex conoidea, Anthoxanthum odoratum, Festuca rubra, Alopecurus pratensis, Phleum pratense, Ranunculus acris, Hieracium caespitosum, Rhinanthes minor, Spiraea alba, Vicia cracca, Trifolium arvense, Stellaria graminea, Fragaria virginiana, Potentilla simplex,* and *Rosa* sp., N 44.85295° W 067.08253, 27 Jun 2012, *Lovit 413* (MAINE). Marshfield, damp, low ground, 8 July 1902, *Fernald s.n.* (GH, MICH). Pembroke, dry low ground, 8 July 1909, *Fernald 1464* (GH, MICH, CONN, NY, BH). Robbinston, in a field that is generally mowed annually, at the corner of Sweeney Road and Brewer/Number 3 Road, with *Carex scoparia, Carex nigra, Onoclea sensibilis, Festuca rubra, Prunella vulgaris, Scirpus atrocinctus, Spiraea alba, Juncus filiformis, Symphiotrichum novi-belgii, and Rosa* sp., N 45.07499° W 067.13728°, 12 Jul 2012, *Lovit 420* (MAINE). Trescott, in a low area of an open field south of State Highway #189 at the Whiting Town Line, multiple clumps of this variety present, near *Scirpus microcarpus*, with *Carex nigra*, *Carex cannescens*, *Ranunculus acris*, *Doellingeria umbellata*, *Lysimachia terrestris*, and Galium sp., N 44.79006° W 067.16454°, 27 Jun 2012, *Lovit 411* (MAINE). West Pembroke, dry roadside, 8 July 1909, *Wiegand 96* (NY). Roque Bluffs, swale at Johnson Mountain, in sphagnum, 23 July 1988, *Dibble 1588* (MICH). Steuben, gravel pit at jct of Dyer Bay Road and Road to Eagle Hill, 27 Jul 1996, *Reznicek 10319* (MICH, MAINE). Steuben, east side of Unionville Road 5.3 miles north of US Rte #1, dry sandy ditch dominated by sedges and grasses, 4 Jul 1993, *Reznicek 9589* (MICH).

Literature Cited

Fernald, M.L. 1950. Gray's Manual of Botany, 8th edition. Van Nostrand Reinhold Company, New York, NY.

_____ and K.M. Wiegand. 1910. A summer's botanizing in eastern Maine and western New Brunswick. Part II. Rhodora 12: 133–146.

Hipp, A.L., P.E. Rothrock, R. Whitkus, and J.A. Weber. 2010. Chromosomes tell half of the story: the correlation between karyotype rearrangements and genetic diversity in sedges, a group with holocentric chromosomes. Molecular Evolution 19: 3124–3138.

Mastrogiuseppe, J., P.E. Rothrock, A.C. Dibble, and A.A. Reznicek. 2002. *Carex* section *Ovales*. Pages 332–378 *in* Flora of North America Editorial Committee, editors. Flora of North America, volume 23. Oxford University Press, New York, NY.

Acknowledgments: Kanchi Gandhi, Andrew Hipp, Tony Reznicek, Thomas Vining, and Emily Wood are thanked for their assistance with this manuscript.

Article contributed by Marilee Lovit (PO Box 95, Addison, ME 04606; marilee@mgemaine.com) and Arthur Haines (New England Wild Flower Society, 180 Hemenway Road, Framingham, MA 01702; ahaines@newfs.org).

APPENDIX E

USFWS IPAC LIST

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
Phone: (207) 469-7300 Fax: (207) 902-1588
http://www.fws.gov/mainefieldoffice/index.html

In Reply Refer To:
Consultation Code: 05E1ME00-2019-SLI-0744
Event Code: 05E1ME00-2019-E-01758
Project Name: USCG - Perry, Maine

May 16, 2019

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies the threatened, endangered, candidate, and proposed species and designated or proposed critical habitat that may occur within the boundary of your proposed project or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC Web site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the Endangered Species Consultation Handbook at: http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

This species list also identifies candidate species under review for listing and those species that the Service considers species of concern. Candidate species have no protection under the Act but are included for consideration because they could be listed prior to completion of your project. Species of concern are those taxa whose conservation status is of concern to the Service (i.e., species previously known as Category 2 candidates), but for which further information is needed.

If a proposed project may affect only candidate species or species of concern, you are not required to prepare a Biological Assessment or biological evaluation or to consult with the Service. However, the Service recommends minimizing effects to these species to prevent future conflicts. Therefore, if early evaluation indicates that a project will affect a candidate species or species of concern, you may wish to request technical assistance from this office to identify appropriate minimization measures.

Please be aware that bald and golden eagles are not protected under the Endangered Species Act but are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may require development of an eagle conservation plan: http://www.fws.gov/windenergy/eagle_guidance.html Information on the location of bald eagle nests in Maine can be found on the Maine Field Office Web site: http://www.fws.gov/mainefieldoffice/Project%20review4.html

Additionally, wind energy projects should follow the wind energy guidelines: http://www.fws.gov/windenergy/ for minimizing impacts to migratory birds and bats. Projects may require development of an avian and bat protection plan.

Migratory birds are also a Service trust resource. Under the Migratory Bird Treaty Act, construction activities in grassland, wetland, stream, woodland, and other habitats that would result in the take of migratory birds, eggs, young, or active nests should be avoided. Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g.,

cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm and at: http://www.towerkill.com; and at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
(207) 469-7300

Project Summary

Consultation Code: 05E1ME00-2019-SLI-0744

Event Code: 05E1ME00-2019-E-01758

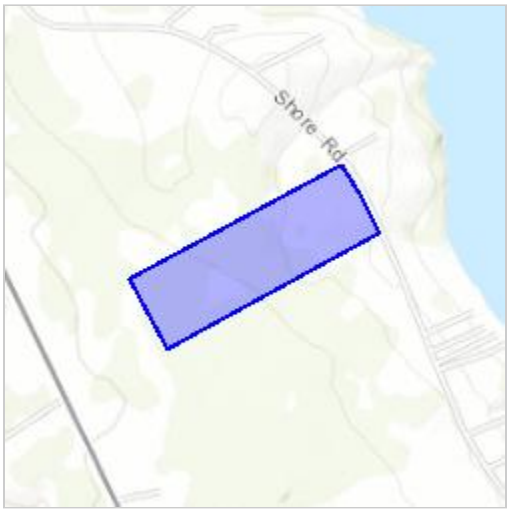
Project Name: USCG - Perry, Maine

Project Type: DEVELOPMENT

Project Description: The project includes developing approximately 25 acres of the 75 acre parcel. The proposed development includes housing for Coast Guard Personnel, up to 6 single family residences. The development to occur in areas formerly developed including the existing house lot, old farm field and fallow pasture. The remaining 2/3 of the property will be kept as forest/open space.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/45.00745909727843N67.08191525222853W



Counties: Washington, ME

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

APPENDIX F

USFWS VERIFICATION LETTER

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
Phone: (207) 469-7300 Fax: (207) 902-1588
http://www.fws.gov/mainefieldoffice/index.html

In Reply Refer To:
Consultation Code: 05E1ME00-2019-TA-0744
Event Code: 05E1ME00-2019-E-01759
Project Name: USCG - Perry, Maine

May 16, 2019

Subject: Verification letter for the 'USCG - Perry, Maine' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Charles Lyman:

The U.S. Fish and Wildlife Service (Service) received on May 16, 2019 your effects determination for the 'USCG - Perry, Maine' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"[1] prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

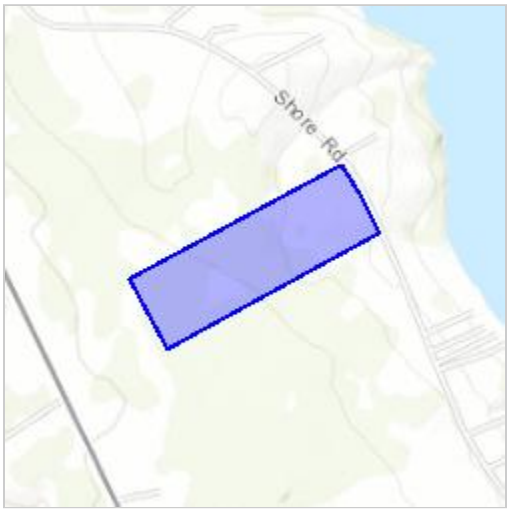
USCG - Perry, Maine

2. Description

The following description was provided for the project 'USCG - Perry, Maine':

> The project includes developing approximately 25 acres of the 75 acre parcel. The proposed development includes housing for Coast Guard Personnel, up to 6 single family residences. The development to occur in areas formerly developed including the existing house lot, old farm field and fallow pasture. The remaining 2/3 of the property will be kept as forest/open space.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/45.00745909727843N67.08191525222853W



Determination Key Result

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   Yes

2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")

   No

3. Will your activity purposefully **Take** northern long-eared bats?

   No

4. Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered

   No

5. Is the project action area located within 0.25 miles of a known northern long-eared bat hibernaculum?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency

   Automatically answered

   No

6. Is the project action area located within 150 feet of a known occupied northern long-eared bat maternity roost tree?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency

   Automatically answered

   No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

2

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?
0

APPENDIX D

Preliminary Cultural Resources Study and Consultation Letters/Responses

GRAY & PAPE

HERITAGE MANAGEMENT

Preliminary Cultural Resources Study United States Coast Guard Station Eastport Housing Project, Perry, Washington County, Maine

PREPARED FOR:

Wood Environment & Infrastructure Solutions, Inc.
511 Congress Street, Suite 200
Portland, Maine 04101

PREPARED BY:

Gray & Pape
60 Valley Street
Suite 103
Providence, Rhode Island 02909

19-68901.001

GRAY & PAPE
HERITAGE MANAGEMENT

Project No. 19-68901.001

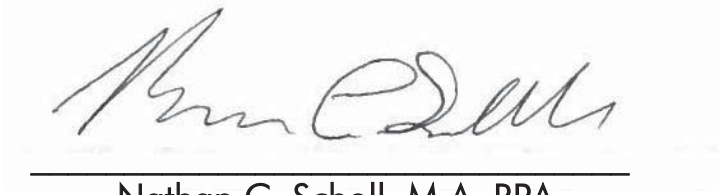
Preliminary Cultural Resources Study
United States Coast Guard Station Eastport Housing Project, Perry, Washington County, Maine

Prepared for:
Wood Environment & Infrastructure Solutions, Inc.
511 Congress Street, Suite 200
Portland, Maine 04101

Contact: Raymond D. Pasquariello, RPA
Associate Project Manager

Prepared by:
Nathan C. Scholl, M.A., RPA
Kimberly M. Smith, M.A., RPA
Kendal Anderson, M.A.

Gray & Pape
60 Valley Street
Suite 103
Providence, Rhode Island 02909



Nathan C. Scholl, M.A, RPA
Senior Principal Investigator

July 2, 2019

ABSTRACT

This report summarizes the results of a preliminary cultural resources investigation and sensitivity designation completed by Gray & Pape, Inc., of Providence, Rhode Island, of a 30-hectare (75-acre) property located at 576 Shore Road, in the Town of Perry, Maine. The purpose of the study is to assess the effects that plans of the United States Coast Guard to develop the property for personnel family housing for service members reporting to Station Eastport, Maine, may have on the human environment and historic resources in compliance with the National Environmental Policy Act and the National Historic Preservation Act. This study contains background environmental and literature information for the Project area and includes an initial reconnaissance of the property. The study develops a land-use history of the parcel and an archaeological sensitivity model for both pre-Contact Native American and post-Contact archaeological sites and identifies potentially interested parties.

In June 2018, Gray & Pape, Inc., conducted an initial pedestrian reconnaissance of the Project area. The parcel is located west of Shore Road at the intersection of Silver Springs Road and Mt. Auburn Road. The parcel is bounded to the west, north, and south by forested lots. The eastern part of the parcel contains several disused pastures and a grouping of late twentieth century structures. The wooded area of the parcel contains three streams, three wetlands, and one vernal pool complex. One historical scatter, an early twentieth-century trash dump, was identified during the reconnaissance.

Regional pre-Contact documentary evidence indicates that while Native American groups had a strong presence in the region around Passamaquoddy Bay, they may have only utilized the Project area for short periods to access the resources associated with the streams and wetlands it contains. Post-Contact period occupation of the project area likely began sometime in the early to mid-nineteenth century, after overland transportation and local road networks to the Project area were established. At least two historical occupations appear to have occurred within the site, likely relating to small family agricultural lifeways. Of small note is that one of the historical occupations was a Town Farm. No previously recorded archaeological sites or cultural resources were identified within the proposed Project area.

Gray & Pape, Inc., presents a sensitivity model, based on the data present within this report, for the possible location of both pre- and post-Contact archaeological sites. Gray & Pape, Inc., recommends a Phase IA archaeological reconnaissance survey be completed for the Project area to help revise the sensitivity models. Based on these results, additional Phase IB archaeological investigation may be warranted. Gray & Pape, Inc., finds no historical importance associated with any of the extant structures within the Project area and recommends no further work associated with these structures.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1.0 INTRODUCTION

Gray & Pape, Inc. (Gray & Pape), was retained to conduct a preliminary cultural resources study for the proposed United States Coast Guard (USCG) site development in the Town of Perry, Washington County, Maine. The USCG has identified a need to recapitalize USCG personnel family housing for service members reporting to Station Eastport, Maine. As such, the 30-hectare (ha) (75-acre [ac]) property located at 576 Shore Road, Perry, Maine, was acquired by the USCG (Project area) (Figure 1-1 and 1-2). The USCG would like to develop this property using one of the following scenarios:

- Six (6) duplex housing units (12 units total), consisting of four (4) 3-bedroom units (8 units total), and two (2) 4-bedroom units (4 units total). Additionally, provide a 5,000 square foot (ft^2) maintenance building and a 2,000 ft^2 community building. Provide all associated roads, sidewalks, storm water controls, streetlights, utilities, and typical infrastructure to support this community (Appendix A).

OR

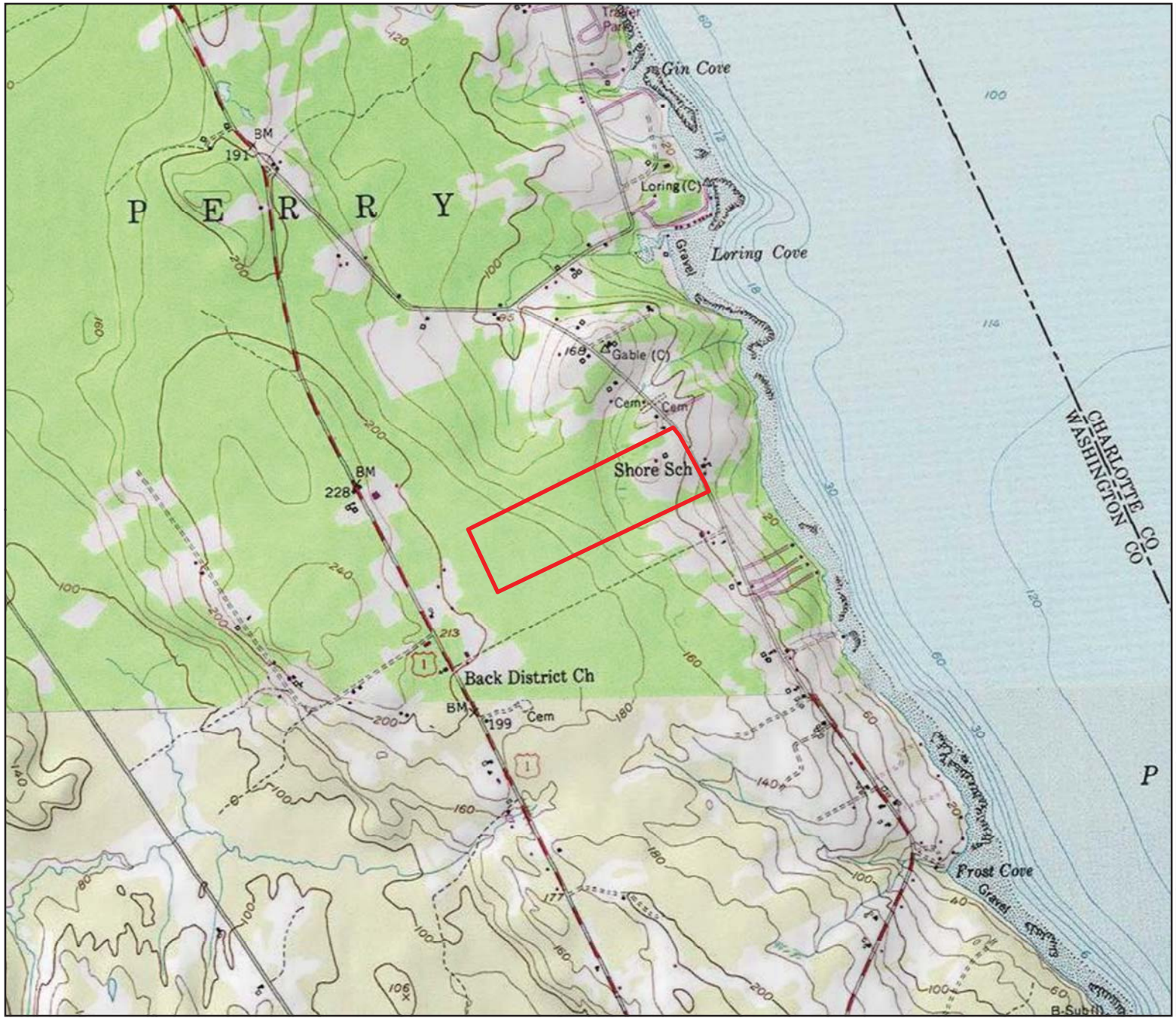
- Twelve (12) single-family units consisting of eight (8) 3-bedroom units, and four (4) 4-bedroom units. Provide a 5,000 ft^2 maintenance building and a 2,000 ft^2community building. Provide all associated roads, sidewalks, storm water controls, streetlights, utilities, and typical infrastructure to support this community. Three-bedroom units will be 2,300 gross $ft^2$and the four-bedroom units will be 2,500 gross ft^2 (Appendix A).

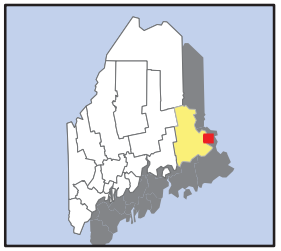
1.1 Regulatory Framework

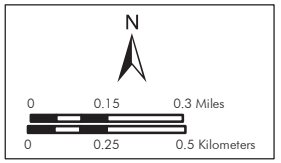
Primary Regulatory Drivers

- National Historic Preservation Act
- Native American Graves Protection and Repatriation Act
- Archaeological Resources Protection Act
- Archaeological and Historic Preservation Act
- American Indian Religious Freedom Act
- Executive Order 13175
- Executive Order 13007

Cultural resources are historic and prehistoric properties, as defined by the National Historic Preservation Act (NHPA); cultural items, as defined by the Native American Graves Protection and Repatriation Act (NAGPRA); archaeological resources, as defined by the Archaeological Resources Protection Act (ARPA) and the Archaeological and Historic Preservation Act (AHPA); sacred sites, as defined by Executive Order (EO) 13007 (*Indian Sacred Sites*) to which access is afforded under the American Indian Religious Freedom Act (AIRFA); and collections and associated records, as defined by 36 C.F.R. § 79. They include sites, buildings, structures, or objects that may have significant archaeological and historical values, or properties that may play a significant traditional role in a community's history, beliefs, customs, and practices. Thus, cultural resources encompass a wide range of sites and buildings from prehistoric Native American campsites to military buildings constructed during the Cold War, as well as traditional cultural properties still used today.





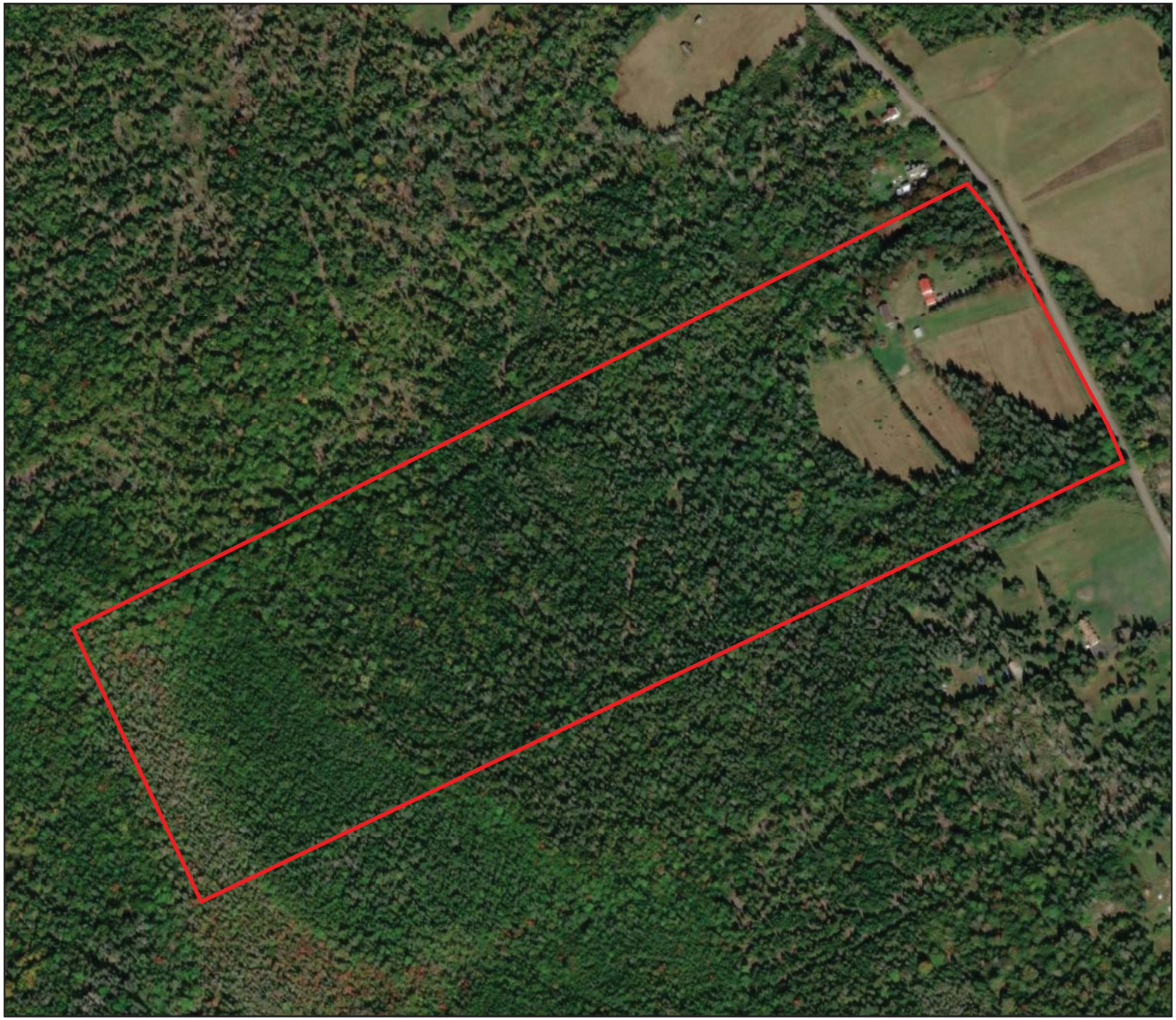


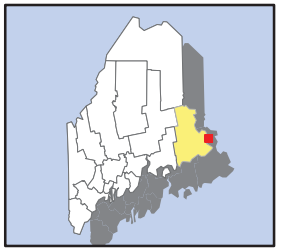
LEGEND

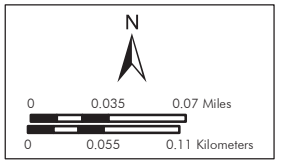
Project Area

Location of the property proposed for development, Perry, Maine, on the Robbinston Quadrangle. (USGS 1949).

GRAY & PAPE HERITAGE MANAGEMENT Figure 1-1







LEGEND

Project Area

Location of the property proposed for development, Perry, Maine on an aerial image.

GRAY & PAPE HERITAGE MANAGEMENT Figure 1-2

The principal federal law addressing cultural resources is the NHPA of 1966, as amended (54 U.S.C. § 300101.), and its implementing regulations (36 C.F.R. § 800). The regulations, commonly referred to as the Section 106 process, describe the procedures for identifying and evaluating historic properties; assessing the effects of federal undertakings on historic properties; and consulting to avoid, reduce, or minimize adverse effects. An 'undertaking' is defined in 36 C.F.R. § 800.16(y) as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license, or approval. As part of the Section 106 process, federal agencies are required to consult with the State Historic Preservation Office (SHPO) and other stakeholders and seek input from the public.

The term 'historic properties' refers to cultural resources that meet specific criteria for eligibility for listing in the National Register of Historic Places (NRHP); historic properties need not be formally listed on the NRHP. Section 106 does not require the preservation of historic properties but ensures that the decisions of federal agencies concerning the treatment of these places result from meaningful considerations of cultural and historic values, and of the options available to protect the properties. However, federal agencies are required under the NHPA to consult with stakeholders and develop reasonable mitigation when their actions will adversely affect historic properties. The proposed acquisition and future development are a federal undertaking, as defined by 36 C.F.R. § 800.3 is the USCG is, therefore, required to comply with Section 106.

Executive Order 13175 (*Consultation and Coordination with Indian Tribal Governments*) and Presidential Memoranda for *Heads of Executive Departments and Agencies on Government-to-Government Relations with Native American Tribal Governments* (29 April 1994) establish guidelines to strengthen the United States government-to-government relationships with Native American tribes, and ensure consultation occurs with federally recognized tribes for proposed activities that could affect tribal resources or interests.

1.2 Authority

Gray & Pape conducts archaeological investigations in compliance with Federal and State legislation. All archaeological procedures comply with legislation and regulations concerning the impact to archaeological properties from federally funded or permitted activities. These include the NHPA of 1966, as amended in 1992 (54 U.S.C. § 300101); the National Environmental Policy Act of 1969 (NEPA) (PL 91-990, 42 U.S.C. § 4321); Executive Order 11593, 1971 (16 U.S.C. § 470); Procedures for the Protection of Historic and Cultural Properties (36 C.F.R. § 800); and the Archaeological and Historic Preservation Act of 1974 (PL 93 291). Professional archaeological work in Maine is regulated by two chapters in the Code of Maine Rules: Chapters 100 and 812 (Sections 089c100 and 089c812, respectively). Archaeological site records access procedures and standards are contained in Chapter 100. The composition and functions of the Archaeological Advisory Committee, the credential requirements for persons on the Commission's approved lists of archaeologists, procedure for review of credentials, procedure for removal from approved lists, and environmental impact project guidelines and procedures are contained in Chapter 812.

1.3 Project Description

The proposed property under consideration for development was recently acquired by the USCG. The USCG would like to develop this

[1] An ***undertaking*** is defined in 36 C.F.R. § 800.16(y) as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license or approval.

property for USCG personnel family housing for service members reporting to Station Eastport, Maine. The property is located at 576 Shore Road, Perry, Maine 04667 and consists of approximately 30.3 ha (75.0 ac). The property is listed as Lot 4 on Planning Map 13, in the Town of Perry, Maine. The parcel is bounded to the northeast by Shore Road. All other bounds of the parcel are the wooded areas of the surrounding parcels. The property contains above-ground resources that include a ca. 1968 house and barn, and a series of ca. 1970 outbuildings.

The property is currently predominately forested, with some open lands towards its eastern end, likely former agricultural fields located in a rural area of Washington, County, Maine. The topography is generally flat, with an overall slope to the east, towards the St. Croix River. Topographic imagery indicates the possible presence of a drainage near the southeast corner of the property, a possible ephemeral stream tributary to the St. Croix River.

1.4 Report Organization

This report is organized into five sections. Part one serves to introduce the purpose and background of the report. Section two briefly describes the methodology of the study. Part three describes the results of the research, while part four presents the findings of the field survey. The final section provides conclusions and recommendations.

1.5 Acknowledgements

The cultural resources study was conducted under the direction of Regional Manager, Patrick O'Bannon, Ph.D.; Senior Principal Investigator Kimberly M. Smith, M.A., RPA; and Principal Investigator Nathan C. Scholl, M.A., RPA. The project mapping was completed by Kimberly M. Smith. Sarah E. Holland, Ph.D. edited the report and oversaw its production.

2.0 ENVIRONMETAL CONTEXT

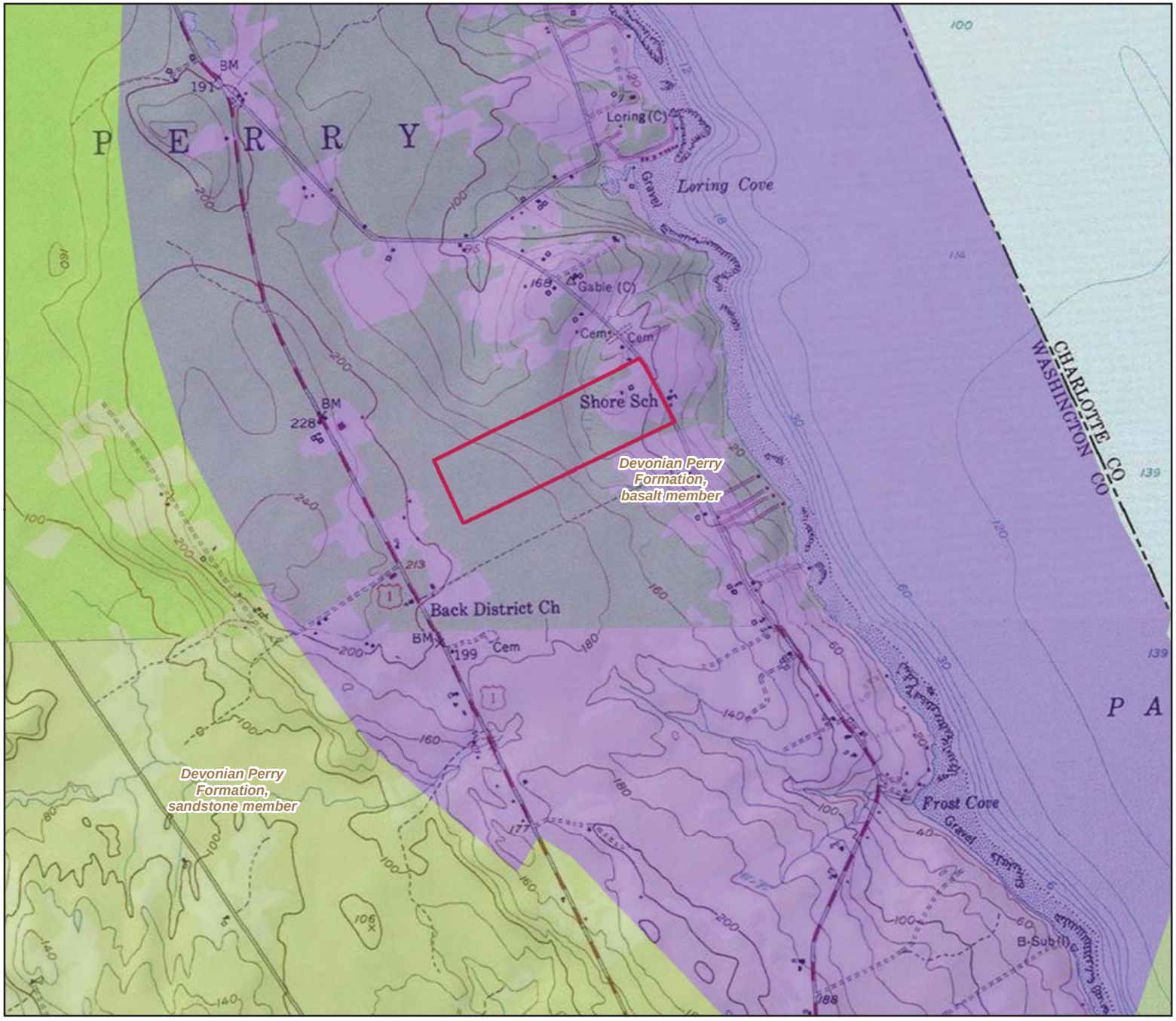
2.1 Physiography

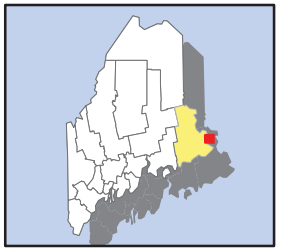
The Project area lies within the northeastern part of the continent that was glaciated during the last period of ice age. As such, much of its current physiography, hydrology, soils, and floral and faunal regimes was influenced by the actions of the glaciers and their modifications to the landscape. The following discussion of the environmental context will focus on the glacial and postglacial history of the region in which the Project area is located.

Physiography refers to the topographic expression of the surface of the landscape. Fenneman (1938) divided much of the eastern United States into physiographic provinces, broad areas of the country characterized by similar overall physiography. The Project area falls within the New England Physiographic Province, which is made up of five subdivisions, or sections. The Project area is located within the Seaboard Lowland section, the sloping margin of the uplands that includes areas that were inundated by the ocean or large proglacial lakes during the last glacial retreat. Biophysical regions are differentiated by the general nature of soils, landscapes, geology, native vegetation, climate, and land use. Within the state of Maine, the Project area can be found within the East Coast biophysical region, which is characterized by low ridges surrounded by poorly drained, relatively flat terrain, with elevations between 30 meters (m) (98.4 feet [ft])and 305 m (1,000.6 ft). Bedrock is predominantly igneous, with occasional outcrops of metavolcanic rocks (McMahon 1990).

While glaciers are responsible for much of the modern physiography on the Project area, the underlying bedrock geology (Figure 2-1) of the area also plays a significant role in its physiography. The Project area is primarily underlain by the basalt bedrock member of the Devonian-age Perry Formation. This bedrock type is surrounded, except to the east, by the sandstone member of the Devonian-aged Perry Formation, which is located within one kilometer (km) (0.6-miles [mi]) of the Project area (United States Geologic Survey [USGS] 2019).

During the last ice age, which occurred in the Pleistocene Epoch (1.6 million–10,000 years ago), the entire state of Maine was covered by ice up to 1.6 km (1.0 mi) thick, originating from the Laurentide ice sheet. The last glacial advance of the Pleistocene was called the Wisconsin stage, and it is this stage that is responsible for the majority of the landscape features present today in Maine. The Wisconsin stage ice sheet began its retreat around 22,000 years ago, and had begun to expose the land that would become Maine by around 14,500 years ago. By approximately 10,500 years, the glacial ice had completely retreated from Maine (Borns et. al. 2004). The timing of this retreat is transgressive across the continent and possibly within New England. In addition, the retreat of the ice sheet was not a uniform march to the north; many regressive pulses to the south were experienced during this period. Within Maine, glacial ice may have remained in the northern highlands of the state through, or advanced during, the Younger Dryas Chronozone (an approximately 1,000–year period of a return to near glacial climatic conditions), between 11,000 and 10,000 Before Present (B.P.) (Borns et al. 2004).





N

0 0.15 0.3 Miles

0 0.25 0.5 Kilometers

LEGEND

- Project Area
- Devonian Perry Formation, basalt member
- Devonian Perry Formation, sandstone member

Bedrock geology within the Project area (Maine Department of Conservation, Maine Geology Survey 1995).

GRAY & PAPE HERITAGE MANAGEMENT Figure 2-1

During the retreat, the coast of Maine was subsequently submerged by marine waters up to 175 km (108 mi) inland along some of the major river valleys (Borns et al. 2004). The extreme pressure from the weight of the glacial ice caused the continental crust to be depressed along the coast of Maine, and the rapidity of the ice melting and subsequent sea level rise flooded this area before the crust was able to rebound. Sea level rise caught up to the glacial ice approximately at the state's coast and floated the glacial ice in that location, allowing sea waters to flood in under the glaciers. Glaciers then deposited their meltwater sediments into a marine environment, forming a near ubiquitous deposit that is recognized today as the Presumpscot Formation. This period of marine submergence lasted from approximately 13,500 to 12,500 B.P., by the end of which the crust had rebounded above sea level and continued to rise until it was about 45.7 m (149.9 ft) above sea level. As glacial ice continued to melt, sea level would reach its modern level around 2000 B.P. (Caldwell 1998). The Project area is contained within the limits of this marine submergence.

2.2 Surface Geology

The ice- and seawater-free landscape that developed was blanketed by glacial deposits, primarily glacial till, or glacial marine sediments. Till is an unsorted deposit of sediment ranging from fine clays and silts to boulders. In areas where glacial meltwaters deposited sediments within lakes or the sea, the sediments are typically better sorted deposits, known as outwash. Till is usually found as ground or end moraines, while outwash-derived landforms can be deltas, eskers, and stream or lake basins (Caldwell 1998). Modern stream channels began to form, mostly occupying meltwater channels or preglacial channels. Water and wind would begin moving the glacial sediments and redepositing them as Holocene-aged alluvium and dune deposits.

Figure 2-2, based on the map by Borns (1974), details the surficial geology of the Project area and its immediate surroundings. The Project area is characterized as primarily glacial till, which can be up to 300 m (984.2 ft) in thickness in localized areas (Borns 1974). The till mapped in the area consists of basal till, which is compact and fine grained, or ablation till, which is loose and sandy. The till here often directl overlies bedrock and the northeastern section of the Project area is demarked as exhibiting bedrock exposure at the ground surface (hatch markings on map in Figure 2-2). Soils mapped within the Project area (see Section 2.3 below) indicate the till in the Project area is predominately of the ablation till variety. While glaciomarine deposits of the Presumpscot Formation are not mapped within the Project area, they can be found within 1.5 km (0.9 mi) of the Project area. These glaciomarine deposits appear to be located predominately in the larger drainage valleys, coastal coves, or coastal lowlands.

2.3 Soil

The United States Department of Agriculture Natural Resources Conservation Service (USDA-NRCS) Web Soil Survey was utilized to obtain data on soils within the APE. The Web Soil Survey defines soil types and their characteristics, based on decades of soil data collection by the USDA (USDA-NRCS 2019). Soil types within the Project area were identified and mapped to help identify areas in which archaeological sites are likely to be found and preserved.

Soils within the Project area are relatively flat, with slopes of zero to eight percent. These soils began forming directly after the glacial retreat. Up to five soil series (Figure 2-3; Table 2-1), representing multiple soil map units, can be found within, or near, the Project area (USDA-NRCS 2019). The Creasey, Hogback, Naskeag, and Rawsonville soil series, a spodosol, is a soil type found typically in environments dominated by acidic soils caused by millennia of pine tree growth. As such, these soils are generally stable and likely been forming relatively undisturbed since the retreat

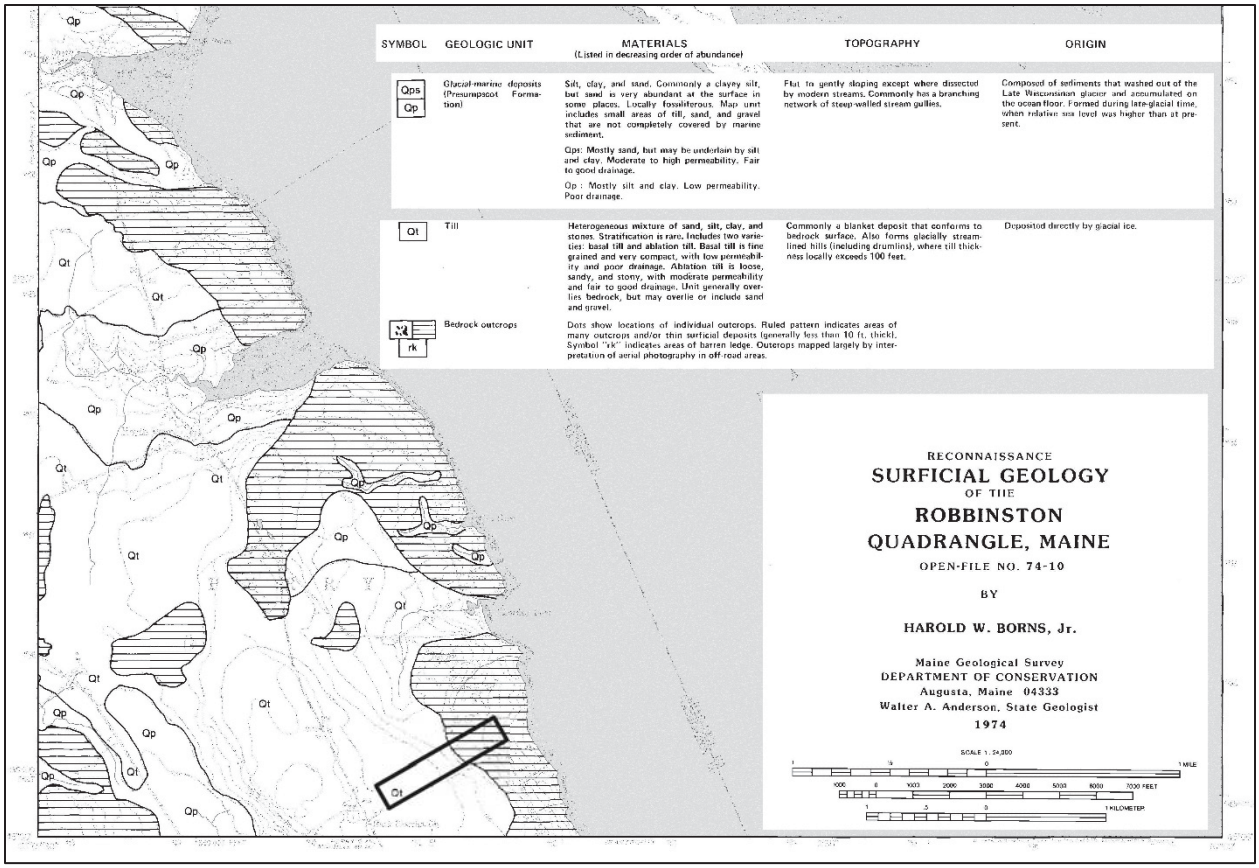
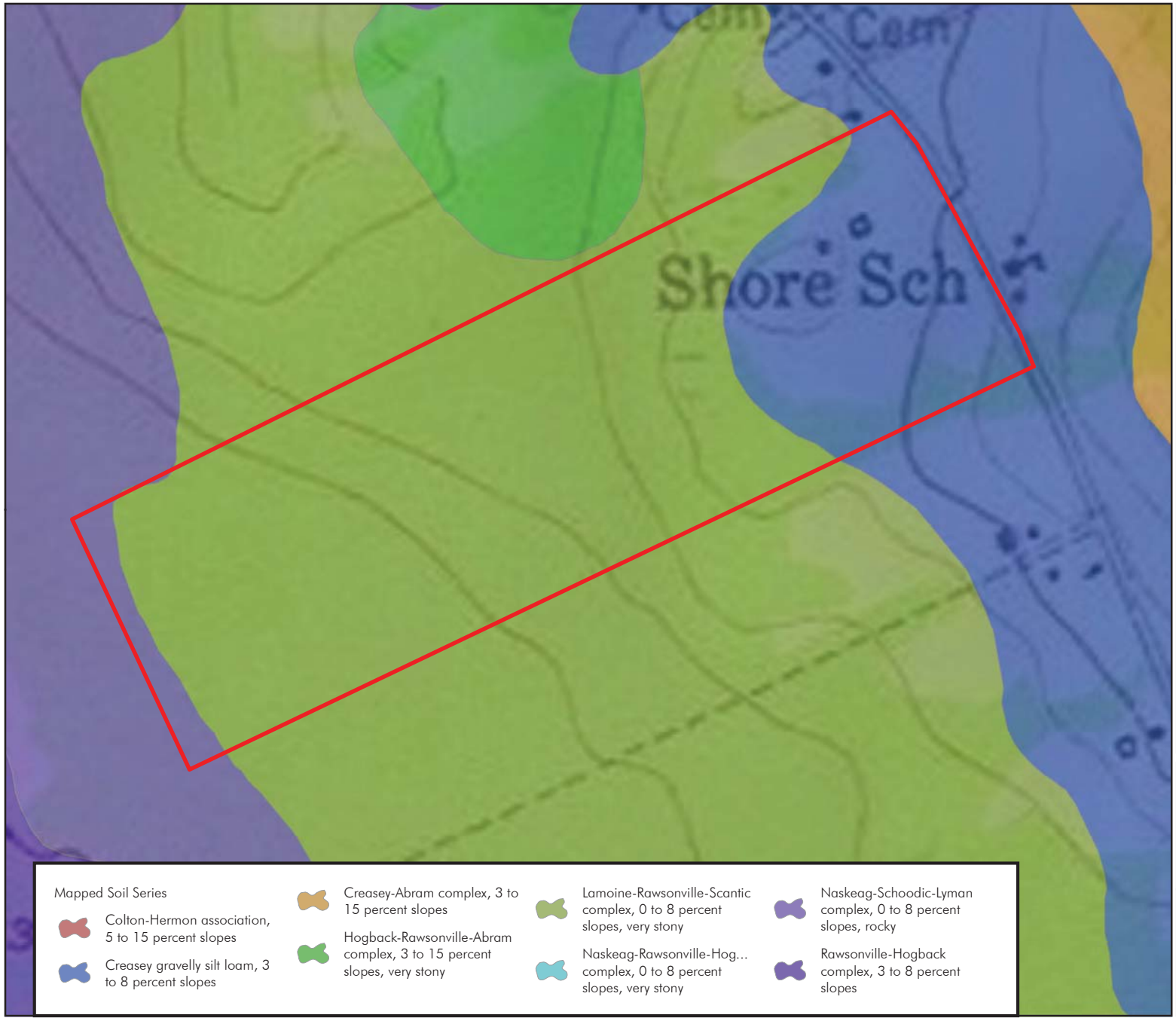


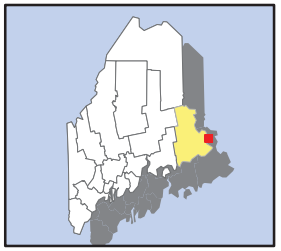
Figure 2-2. Surficial geology within the Project area (modified from Borns 1974). Black rectangular box indicates project location.

t of the last glacier. Lamoine and Scantic series soils are inceptisols, which are moderately to minimally weathered soils, indicating they have been stable for a relatively short time.

The Creasey, Hogback, Naskeag, and Rawsonville soils are best characterized as thin glacial till form over, and possible from, the local bedrock. Soil profile description indicate that the bedrock can be found within 0.50 to 1.0 m (1.6 to 3.2 ft) of the ground surface. Given the formation time of spodic soils like these, this could be evidence that this soil has been forming since the retreat of the glacial ice, in the late Pleistocene to early Holocene, and is likely to have received little sedimentation since that time. These soils may make up as much as 50 percent of the Project area.

Soils such as Lamoine and Scantic are late Pleistocene- to early Holocene-aged glacial lake or glacial marine deposits. These soils are thicker than the others in the Project area and do not appear to exhibit bedrock within or near to 1.0 m (3.2 ft) of the ground surface. The apparent lack of pedogenesis seen in these inceptsol soils is likely less of a function of the age of the deposits these soils formed in and more that of the types of sediments or environmental conductions. It may be that these soils were inundated or in a wetland-like environment until anthropogenic landscape alteration made in the historical period for agricultural land use.





N

0 0.04 0.08 Miles

0 0.06 0.12 Kilometers

LEGEND

Project Area

Mapped soil series within the Project area.

GRAY & PAPE HERITAGE MANAGEMENT Figure 2-3

Table 2-1. Soil Series in the Project Area.

Map Unit Soil Series	Soil Order	Soil Texture	Drainage Description	Landscape Setting	Sediment Origins
Creasey	Spodosol	Gravelly silt loam	Somewhat excessively drained	Bedrock-controlled landforms	Glacial till; thin, over red sandstone or conglomerate
Hogback	Spodosol	Gravelly fine sandy loam	Well drained	Summits, shoulders and backslopes of mountains, ridges and hills	Glacial till
Lamoine	Inceptisol	Silt loam	Somewhat poorly drained	Coastal lowlands and river valleys	Glaciolacustrine or Glaciomarine
Naskeag	Spodosol	Fine sandy loam	Somewhat poorly drained and poorly drained	Depressions between shallow glaciated bedrock ridges oi coastal peninsulas and islands	Glacial till
Rawsonville	Spodosol	Very fine sandy loam	Well drained	Mountain tops, mountain side slopes, ridges, hill tops, and hill slopes	Glacial till
Scantic	Inceptisol	Silt loam	Poorly drained	Coastal lowlands and river valleys	Glaciolacustrine or Glaciomarine

2.4 Hydrology

Modern stream courses developed after the glacial retreat in new or previously formed drainage channels. The Project area falls within the Passamaquoddy Bay watershed. This watershed is part of the Eastern Coastal Rivers watershed, with the St. Croix as the largest freshwater flow into the bay. Passamaquoddy Bay drains into the Bay of Fundy. Within the Project area, recent wetlands mapping by Wood indicates the presence of three streams (one man-made), three wetlands, and one vernal pool complex. The streams are all first or second order in size and all drain to the east into Passamaquoddy Bay.

2.5 Climate, Flora, and Fauna

Near the end of the Pleistocene, between approximately 14,500 and 14,000 B.P., a sharp warming trend occurred, which was followed by a cooler period that lasted into the early part of the Holocene. The tundral vegetation regime that followed the retreat of the glaciers was soon replaced by a mixed conifer and northern hardwoods type regime (Delcourt and Delcourt 1981, 1984, 2004), mainly white pine (Grimm and Jacobson 2004). After about 10,000 B.P., warming trends began again and lasted until approximately 6000 B.P., when an essentially modern climate was established. Vegetation in the region assumed the modern mix of oak-hickory and spruce-fir forests seen up to modern times (Delcourt and Delcourt 1981, 1984, 2004; Grimm and Jacobson 2004). The modern floral community of the Project area could be characterized as a spruce-pine woodland. These forest types contain canopy trees that include balsam fir, black spruce, northern white cedar, paper birch, red spruce, white pine, and white spruce. Sapling and shrub undergrowth can include bayberry, shadbush, wild raisin, black huckleberry, lowbush blueberry, and sheep

laurel. Herb undergrowth can include bracken fern and bryoid undergrowth can include dicranum moss, red-stemmed moss, and reindeer lichen (Gawler and Cutko 2010). Wetland areas of the Project area may also be characterized as a spruce bog natural community. In these common forest bogs, canopy trees include balsam fir, black spruce, gray birch, red spruce, and white pine. Sapling and shrub undergrowth can include balsam fir, black spruce, larch, mountain holly, rhodora, sheep laurel, black huckleberry, Labrador tea, and velvet-leaf blueberry. Herb undergrowth can include balsam fir, black spruce, cinnamon fern, creeping snowberry, lowbush blueberry, and three-seeded sedge. Bryoid undergrowth can include dicranum moss, red-stemmed moss, reindeer lichen, and sphagnum mosses (Gawler and Cutko 2010).

Around 14,000 years ago, many North American megafauna were still extant in the region. Stag moose, giant beaver, mastodon, among many others, inhabited this fresh land, along with many of the smaller animals still extant today. By around 10,000 B.P., most of these megafauna were extinct, along with many smaller animals, none of whom were equipped to evolve in a suddenly ice-free environment. Some migrated north, like the caribou herds, following the retreating ice and tundra environments. Predatorial species, such as black bear, wolf, coyote, and mountain lion, would take the top spots on the food chain as they moved into this newly re-exposed landscape. Moose, deer, turkey, opossum, snakes, and rabbits inhabited the woodlands and fields. Lakes and streams were occupied by beavers, otters, turtles, ducks, geese, loons, and salmon, among many others. Little change would be seen in the types of birds, fish, and animals present, even with the presence of Native American groups, until the arrival of historical settlers, who would have a profound impact on the environment and the creatures who inhabited it.

The contemporary climate of the study area is similar to that reported by its first Euroamerican settlers. The climate is classified as temperate-continental, with a significant temperature range among the seasons and moderate rainfall. The average summer temperature is 20 degrees Celsius (°C) (68 degrees Fahrenheit (°F), and the average winter temperature is -7°C (19.4°F) (National Oceanic and Atmospheric Administration [NOAA] 2000a). Terrain and plant cover affect local climatic conditions, creating microclimates. This is particularly true in areas of considerable topographic variation. While the prevailing winds blow ordinarily from the south and west, in the winter they blow frequently from the north. The annual rainfall is about 109 centimeters (cm) (42.9 inches [in]) (NOAA 2000b).

3.0 METHODOLOGY

The desktop analysis is meant to identify documented archaeological sites and architectural resources within the Project area. Identifying the presence of known resources and the extent of previous surveys and investigations provides the USCG and review agencies with information regarding the presence of previously recorded sites, including those listed in the NRHP and State Register of Historic Places, within or adjacent to the Project area. The scope of the project was limited to previous research and existing databases. Based on the assessment, recommendations as to the impact of the project are made.

3.1 Background Research

The analysis included a review of the files maintained by the Maine State Historic Preservation Commission (MHPC) in May and June 2019 for both previously documented architectural and historical resources and archaeological resources. The MHPC maintains a record of all known archaeological sites, including both Native American and historical period sites, as well as burial sites, and architectural records. The MHPC also maintains a database of previous cultural surveys.

Specifically, a file search was undertaken at MHPC and via the online Cultural & Architectural Resource Management Archive (CARMA) maintained by the Maine Department of Transportation (MDOT) to determine if previously surveyed architectural or historical resources were within a 0.8-km (0.5-mi) radius of the site at 576 Shore Road. The file search undertaken at MHPC to determine if previously surveyed archaeological resources were present was constrained to a 1-km (0.6-mi) radius of the Project area. Copies were made of all forms documenting previously identified architectural, historical, and archaeological resources.

Architectural resources located within sight of the property were identified and reviewed within the MHPC records. The NRHP files were also checked for the Town of Perry, to identify any NRHP-listed or -eligible properties located in, or near, the proposed location. Locational information from the files was crosschecked against MHPC documentation.

Primary sources of information included historical maps and the Perry, Maine, tax assessor valuations records. No historical Sanborn maps exist for the Project area. The historical data was utilized to produce a land-use history of the property as located in Section 4.6 below.

3.2 Reconnaissance Survey

A field reconnaissance level architectural survey was conducted in June 2019 to assess the condition and NRHP eligibility of the Project area, as well as to photo document the extant structures. A concurrent archaeological reconnaissance survey was also conducted over the Project area to identify initial areas of archaeological sensitivity. This reconnaissance consisted solely of a single-person walkover of the Project area, allowing for the identification of wetlands and surface soils. The reconnaissance was not completed using a systematic walkover spacing. It was utilized to take generalized view photographs of the Project area and structures therein. The locations of photographs, as well as wetlands and trash dumps identified, were give global positioning system (GPS) points using an EOS Arrow 100 sub-foot GNSS antenna in conjunction with ArcGIS Collector.

4.0 LITERATURE REVIEW RESULTS

4.1 Stakeholders

The project scope of work requested the identification of potentially interested parties in the property proposed for development by the USCG. Four potential stakeholders have been identified, consisting of federally recognized Native American tribal entities. The contact information for these Tribes is in Table 4-1. This list makes no guarantee that the enumerated groups will participate in consultation, but rather serves as a list of potentially interested parties.

4.2 Previous Surveys

Based on data from the MHPC records, the Project area has never been part of any previous cultural resources study. The closest previous study to the Project area was conducted approximately 6.4 km (4 mi) to the north in the Town of Robbinston. A Phase I pre-contact archaeological investigation was conducted in 2006 (Clark et al 2006) for a liquified natural gas import terminal. The project consisted of a 47-acre terminal and a 31-mile pipeline. From these 14 testing areas were chosen for archaeological survey, as the highest probability areas for location pre-contact Native American site. A total of 148 shovel test pits excavated and one previously unidentified Native American site (96.09) was identified. This site is located approximately 22 km to the northwest of the current Project area.

4.3 Native American Archaeological Sites

The MHPC records identify no previously recorded archaeological sites within 1.6 km (1 mi) of the current Project area. The closest site to the Project area, site 97.6, is located approximately 6.4 km (4 mi) to the north, in Mill Cove, in the Town of Robbinston. The site was identified by survey investigations of the Passamaquoddy Bay region undertaken by the Robert S. Peabody Foundation in the mid-twentieth century. Site has never been relocated or evaluated for NRHP eligibility (Clark et al 2006).

Table 4-1. Contact Information for Potential Stakeholders.

Group Name	Address	Point of Contact	Phone Number
Aroostook Band of Micmac	P O Box 772, 521-D Mani St. Presque Isle ME 04769	Jennifer Pictou THPO 7 Northern Road Presque Isle, ME 04769	207.764.1972, 207.764.7667
Houlton Band of Maliseet Indians	RR #3 Box 450 Houlton ME 04730-9514	Sharri Venno Environmental Planner/ Cultural Lead 88 Bell Road Littleton, ME 04730	207.532.4273, extension202
Passamaquoddy Tribe	Indian Township Reservation Post Office Box 301 Princeton ME 04668	Donald Soctomah THPO PO Box 159 Princeton, ME 04668	207.796.5533
Penobscot Nation	6 River Road, Indian Island Reservation Old Town ME 04468	Christopher Sockalexis THPO Cultural & Historic Preservation Department 12 Wabanaki Way Indian Island, ME 04468	207.817.7471

4.4 Historical Archaeological Sites

No previously recorded historical archaeological sites were identified proximate to the Project area.

4.5 Architectural Resources

No architectural resources previously documented by the MHPC or determined eligible for, or listed in, the NRHP are located within a 0.8-km (0.5-mi) radius of 576 Shore Point Road; however, Table 4-2 provides the list of all structures within a 0.8-km (0.5-mi) radius of the Project area.

4.6 Land-Use History

The Town of Perry, Maine, is in Washington County, near Latitude 45°, halfway between the equator and the North Pole. Perry is bounded by Passamaquoddy Bay to the east, the Town of Robbinston to the north, the Town of Pembroke on the west, and the Town of Eastport to the south. Perry is located within Washington County, the easternmost county of Maine. The county is predominately forested, but features large open blueberry barrens, and over twenty-five lakes. This rural county once included present-day Aroostook County until its separation in 1839 (Town of Eastport 2004).

Prior to European settlement, Native Americans of the Wabanaki Federation occupied the areas around Passamaquoddy Bay and Washington County. The current Passamaquoddy tribal members that today live on the Pleasant Point reservation in Perry are descendant from peoples who originally made their main village in the area of present-day St. Andrews, New Brunswick. Due to pressure from European settlement, those tribal people moved first to Indian Island in the Passamaquoddy Bay. During the War for Independence, the Passamaquoddy people of Indian Island declared themselves to be allied with the United States and, consequentially, were removed from Indian Island when the island became part of Canada after the war. Since 1794, Pleasant Point in Perry has been home to the Passamaquoddy reservation (Town of Perry 1968).

The Passamaquoddy native peoples practiced a lifestyle that focused on annual resource gathering and production. Tribal groups would move their settlements in response to the weather and availability of food. Areas along the coast or near streams and rivers were popular areas for large settlements due to the access to food and water transportation. The waterways were the transport systems of the regional native peoples throughout the history of their occupation of this landscape. The bay and rivers here provided good and consistent resources that allowed people to stay focused around them. Upland habitation was likely more limited to smaller groups with special resource collection goals, such as gathering nuts and berries or hunting (Maine Indian Program 1989). Archaeological evidence of these occupations is seen in the coastal shell middens that have been recorded at least as close by as Mill Cove in the Town of Robbinston (site 97.6) or at inland fishing locations, such as seen in the village of Meddybemps (site 96.2, the N'tolonapemk site) near the confluence of Denny's Stream and Meddybemps Lake (Clark et al. 2006). It was only after the pressures of European settlers, both in the form of introducing concepts such as individual family ownership of land (and not allowing for communal use of resources of the land) and the negative environmental impacts cause by the clearing of the lands for agricultural and industrial use, that the Passamaquoddy Bay tribal people were forced to abandon most of this traditional lifeway.

Table 4-2. Above-Ground Resources within 0.8-Kilometer (0.5-Mile) Radius of Project Area

Address	Date of Construction	National Register Status
31 Maynards Trailer Park	1940	Not Eligible
38 Kingsbury Road	1920	Not Eligible
442 Shore Road	1890	Not Eligible
456 Shore Road	1958	Not Eligible
457 Shore Road	1940	Not Eligible
491 Shore Road	1960	Not Eligible
524 Shore Road	1850	Not Eligible
576 Shore Road	1968	Not Eligible
594 Shore Road	1855	Not Eligible
602 Shore Road	1840	Not Eligible
632 Shore Road	1830	Not Eligible
647 Shore Road	1870	Not Eligible
658 Shore Road	1900	Not Eligible
665 Shore Road	1900	Not Eligible
712 Shore Road	1900	Not Eligible
750 Shore Road	1890	Not Eligible
Shore Road	1947	Not Eligible

In 1604, Samuel de Champlain and Sieur de Monts established the first European settlement north of St. Augustine, Florida, in Calais, Washington County, on St. Croix Island. This settlement failed after a harsh first winter, which claimed the lives of many of the colonists, with the colony removing itself to Nova Scotia. The island is located approximately 13 km (8 mi) north of the Project area; however, the colonists were known to have utilized the shoreline of what would become the United States, likely around the village of Red Beach. The island would again become important in the history of the nations of Canada and the United States after the War for Independence, as the location of the island helped determine the new international border. Of particular note in 1797, the historical identification of the island of St. Croix as the correct location of the French colony was determined through the first federally supported archaeological investigation (Donovan n.d.) utilized to accurately identify the ruins of the colony.

The first Euroamerican settler in the area of Perry was Captain John Frost, who settled at Pleasant Point in 1763, with the main aim of establishing a permanent trading center with the local Passamaquoddy Native American people and other regional Wabanaki tribes (Town of Perry 1968). Massachusetts purchased the area of the town as Plantation No. 1 between 1783 and 1784 (Varney 1886). The commonwealth also purchased 72.8 ha (180 ac.) of land, the majority of Pleasant Point, from Frost in 1794 to form a reservation for the Passamaquoddy people (Town of Perry 1968).

After the War of Independence, Euroamerican settlement in the town began in earnest and, by 1790, approximately 66 such settlers were living in the tow area. In 1818, the Town of Perry was incorporated, with a population that housed 57 eligible voters (Town of Perry 1968). Land bordering the Passamaquoddy Bay was disputed territory during the War of 1812, and the nearby Town

of Eastport was occupied by the British from July 1814 to July 1818 (Town of Eastport 2004).

The Town of Perry has always maintained a rural character. The earliest industry of the town was lumbering, which was quite profitable until the old growth trees had been removed. When the high value lumber had been removed, smaller lumber-related industries began in the town. As early as 1830, the first sawmill was established, followed in the later part of the century by smaller milling for products, such as barrel staves and hoops, box wood, laths, singles, and railroad ties. These were mostly smaller family business, supplied by family tree lots. It was not until the advent of the paper mill industry in the region, in 1906, that lumbering again became a highly profitable industry (Town of Perry 1968).

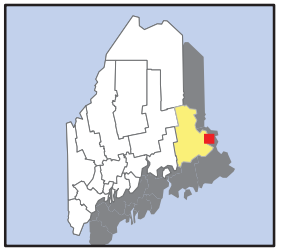
After the initial lumbering boom, industry turned to agriculture and aquaculture as its main industries. While crops, such a potatoes and blueberries were important industries, early agriculture focused on sheep, cattle, and hay as the main products. Coastal fishing was focused on herring, which could be easily taken with weirs. Sardine canning plants were occasionally seen in the late ninetieth and twentieth centuries, but never developed into as strong an industry (Town of Perry 1968) as seen further to the south on the Maine coast.

Shipbuilding was a somewhat consistent industry within the town; however, the industry did not flourish as much of the local timber was sold for use abroad. Shipbuilding records indicate that less than one ship was built in the town per year in the period between 1824 and 1849, and it was not until 1869 that multiple ships were seen to be built in a single year over many consecutive years. This may be a reflection of the lack of local timber of sufficient size to support a shipbuilding industry after the initial logging off of the land, until the mid to late nineteenth century. The last ship built in the town was in 1891(Town of Perry 1968).

Perry did not have railroad access until 1896; prior to that, the main transportation for the town was by Passamaquoddy Bay or via a few turnpike or carriage roads (Town of Perry 1968). The arrival of the railroad allowed lumber to be delivered to Machiasport for the construction of ships.

The Project area parcel today consists of rural farmland, surrounded by woods on the west side of Shore Road. Above-ground resources on the parcel include a ca. 1968 house and barn, and a series of ca. 1970 outbuildings. To the east of Shore Road are additional agricultural field and woods which descend to Passamaquoddy Bay.

According to historical maps, minimal development has occurred in the Project area. The earliest map depicting detail of the Shore Road area (Figure 4-1) indicates it was somewhat thickly settled by 1861 (Walling 1861). The settlements here are predominately on the west side of Shore Road, perhaps indicating that the east side of the road was considered too topographically steep for convenient occupation. Also lacking is evidence of much settlement or industrial structures at the water's edge by Passamaquoddy Bay, again likely due to local topography making such industry impractical. Within the Project area, Figure 4-1 shows structures belonging to D. Golding and S. Welch are present, likely indicating the parcel was, at this time, two separate properties. Figure 4-1 also shows that by 1861 the infrastructure of the roads which are still in modern use today are already in place. A road or trail once connected Shore Road to (current) Route 1 located just to the south of the Project area, as seen on this map, but is no longer present as a modern road. Of small note is that a schoolhouse, the Shore Road School, is located across the street from the Project area. This school was in operation from at least 1847 to 1944 when it was consolidated (Town of Perry 1968).



N

0 0.15 0.3 Miles

0 0.25 0.5 Kilometers

LEGEND

Project Area

Project area as shown on the 1861 map of Washington County (Walling 1861).

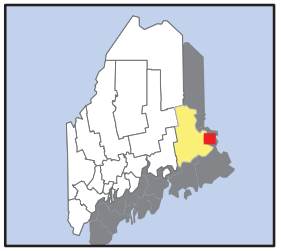
GRAY & PAPE HERITAGE MANAGEMENT Figure 4-1

Figure 4-2 depicts the Project area on an 1881 map (Colby 1881). Virtually no changes can be seen between this map and the one from 20 years earlier, with the exception of different property owner associated with structures along Shore Road. Within the Project area, at the time of this 1881 map, the structures are indicated as belonging to Mrs. Kelly and one that is a Town Farm. The Town Farm seen here is indication of the town either supporting a struggling family or that it had purchased the F. Walsh property to house families or individuals who could not support themselves. Town farms, or poor houses, were usually town-run institutions in which people of the community who were either too poor to care for themselves, or had a disability that made it hard for them to provide care for themselves, could be housed. Usually people on such town farms where able, or required, to farm the land they were housed on in turn for their housing. This kind of town run institutional care lasted from the early nineteenth to mid twentieth century.

Figure 4-3 depicts the Project area in 1929 as seen on the first USGS map of the Robbinston Quadrangle. The most notable aspect of this map in the marked decline in population along Shore Road, as indicated by a drastic reduction in mapped structures along the road. This map shows that the road connecting Shore Road to (current) Route 1 had already been downgraded to a trail or other secondary road at this time. This map gives the first indication of the topography of the region the Project area is located in, showing a relatively steep rise from Passamoquoddy Bay to about the location of Shore Road, the west side of which continues to rise more gently to a peak around 73 m (240 ft) above mean sea level (AMSL) before descending again towards Boydens Lake to the west. The Project area is shown here to lie across one or more toe slopes, dissected by somewhat ephemeral streams or dry drainages to the north and south. A colorized version of the 1929 USGS map, produced by the USGS in 1931 (Figure 4-4), indicated that the area around the Project area and Shore Road in general was much more cleared of wood lots than seen today, presumably indicative of a more agricultural landscape. The updated Robbinston USGS Quadrangle map of 1949 (Figure 4-5) shows that much of this open landscape had been allowed to return to forest lands by that time. Current aerial images (Figure 1-2) show that the agricultural land has continued to shrink and much of this land has reverted to forests. The 1947 map does indicate some renewed settlement in the area, this time close to the Passamaquoddy Bay shoreline, which is indicative of an influx of part-time vacation/leisure residences.

By the time of the 1929 USGS map (Figure 4-3), only one structure is shown as present on the Project area property. Its general orientation in the northeastern corner of the Project area indicates it is likely equivalent to the Golding/Kelly structure(s) location as depicted in the 1861 and 1881 maps (Figures 4-1 and 4-2). The modern extant structures within the Project area may be in an equivalent area to the historical structures; however, none of the extant structure show indication (architecturally or documentary) of being present/built before the late 1960s. No indication of the Welsh/Town Farm structure is seen on this or later maps. Town records indicate that the "poor farm", likely this same Town Farm on the 1881 map, was voted to be sold in 1888 (Town of Perry 1968). It may be likely that the associated structure was razed or sold off at that time.

Deed research shows that the modern structures on the project parcel were likely constructed by Fritz Gutsmidt and John Kalning who purchased the land from John W. Henderson in 1949. In 1995, William P. Butler and Joan Harrington sold the property to David and Betsy Myers, who sold the property to the current owner Eleanor A. and Charles E. Senior Barstow in 1997.



N

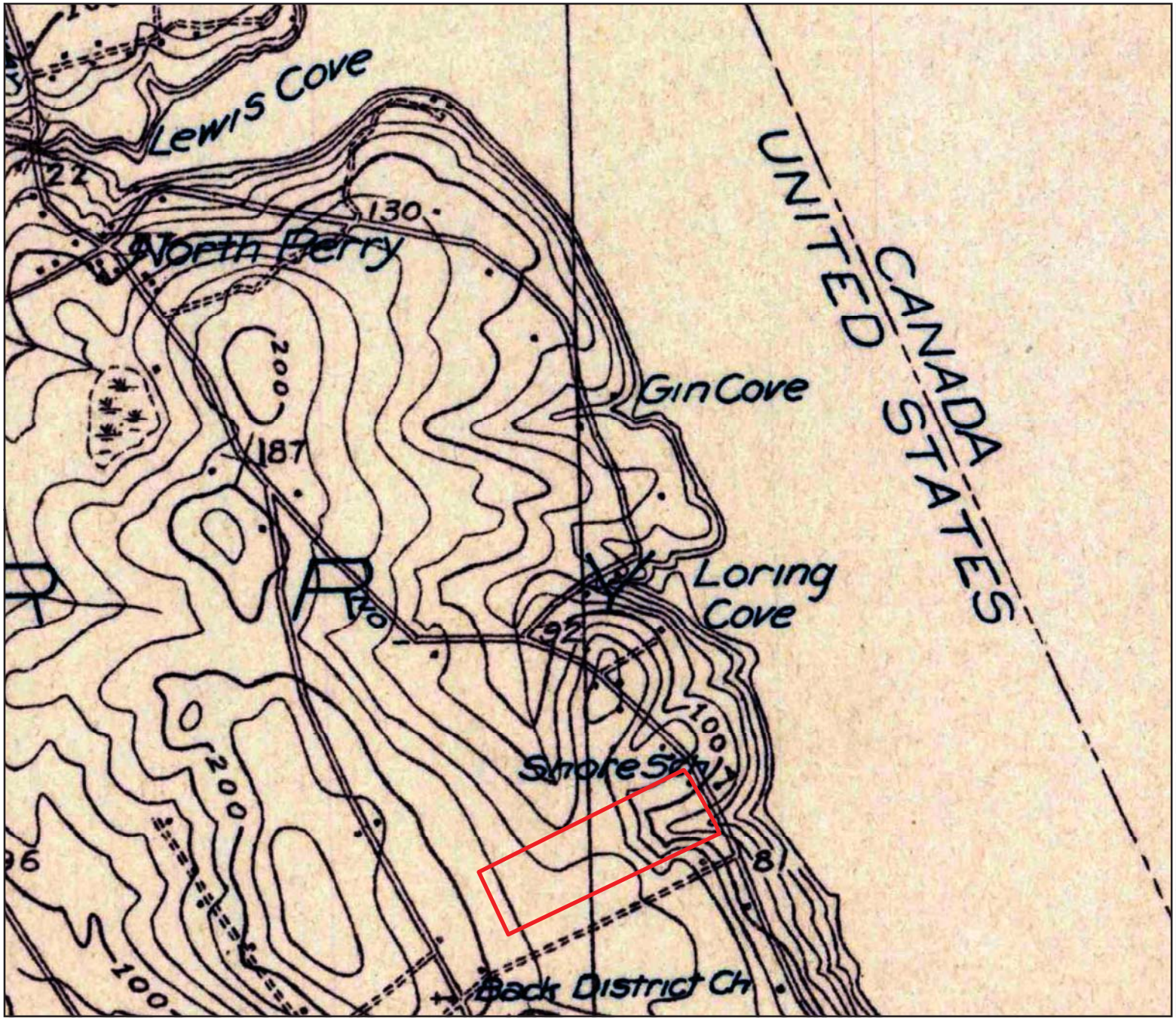
0 0.25 0.5 Miles
0 0.4 0.8 Kilometers

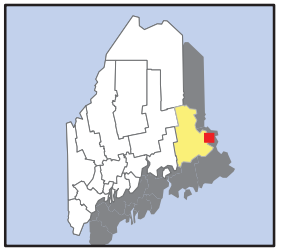
LEGEND

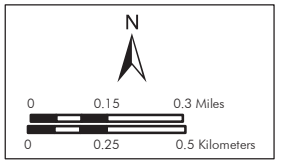
Project Area

Project area as shown on the 1881 map of the Town of Perry in Washington County (Colby 1881).

GRAY & PAPE HERITAGE MANAGEMENT Figure 4-2





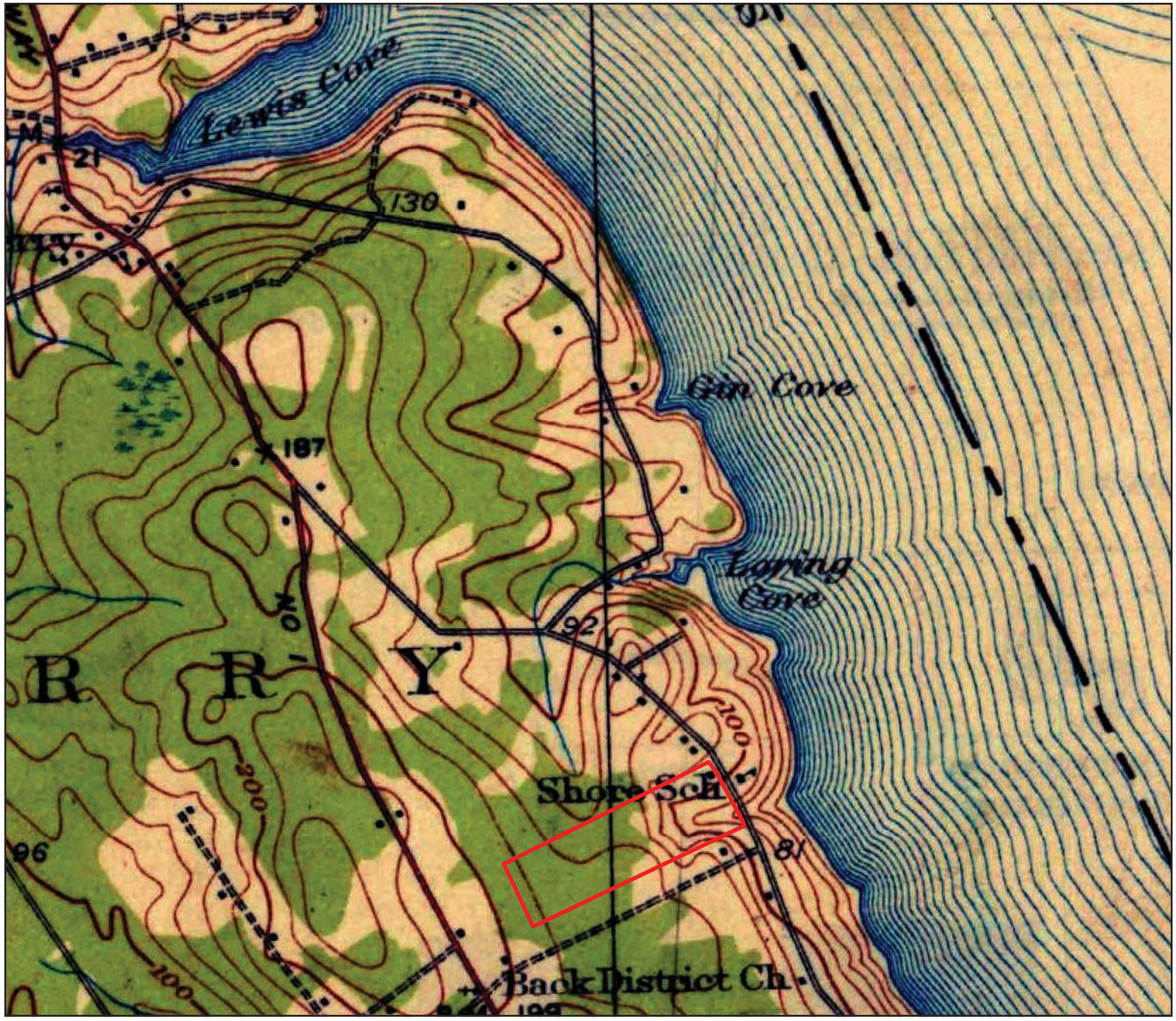


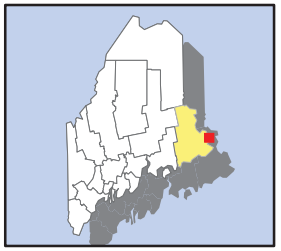
LEGEND

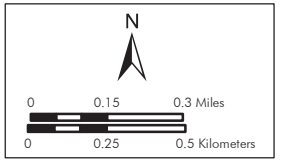
Project Area

Project area as shown on the 1929 USGS map of the Robbinston Quadrangle (USGS 1929).

GRAY & PAPE HERITAGE MANAGEMENT Figure 4-3





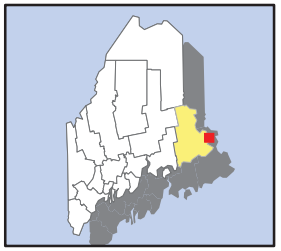


LEGEND

Project Area

Project area as shown on the 1931 USGS map of the Robbinston Quadrangle (USGS 1931).

GRAY & PAPE HERITAGE MANAGEMENT Figure 4-4



N

0 0.15 0.3 Miles

0 0.25 0.5 Kilometers

LEGEND

Project Area

Project area as shown on the 1949 USGS map of the Robbinston Quadrangle (USGS 1949).

GRAY & PAPE HERITAGE MANAGEMENT Figure 4-5

5.0 FIELD SURVEY RESULTS

A reconnaissance survey was conducted of the 576 Shore Road property in June 2019. The property was observed and photographed to provide an initial characterization of the landscape and potential cultural resource sensitivity, as well as the architectural characterization of the extant structures on the property.

5.1 Architectural Results

The house located at 576 Shore Road in Perry, Washington County, is a two-story, residential Ranch-style building constructed ca. 1968 (Figure 5-1). The two-story mass is attached its south façade to a one-story mass that connects to a two-bay garage. The building features a standing-seam metal side-gable roof, with a cross-gable roof on the one-story mass on the south façade. Exterior walls are clad in replacement vinyl siding and set atop a continuous concrete block foundation. The main entrance features sidelights, and is located on the east façade, flanked by two bow windows with decorative shutters. Remaining fenestration on the east façade includes eight-over-eight double-hung replacement windows, with decorative shutters, and a six-over-six double-hung replacement windows on the one-story mass adjacent to a secondary entrance. Fenestration on the west façade includes one-over-one, eight-over-eight, and six-over-six double-hung replacement windows, and a triple casement window with a metal awning. A fixed twelve mullioned picture window is located on the one-story mass next to a secondary entrance. Two one-over-one double-hung replacement windows with decorative shutters are on the east façade of the one-story mass. An attached two-bay garage is located on the south façade of the one-story mass. An exterior brick chimney is located on the ridgeline of the north façade and an interior brick chimney is located on the west slope of the side-gable roof between the one-story and two-story mass.

A barn, constructed ca. 1968, is located west of the main building (Figure 5-2). The barn features a gambrel roof clad in a combination of sheet metal and asphalt-shingles. Exterior walls are clad in wood shingles. A sliding wood door, a sliding replacement window and a hay window are located on the south façade. The north façade features a hay window. The east façade features an entrance, a double sliding door, and four bays of sliding windows.

Three modern outbuildings, constructed ca. 1970, are located southwest of the main building. A one-story wood framed shed featuring an asphalt-shingled side-gable roof is south of the historic barn. Exterior walls are clad in board-and-batten and the north façade features a wood sliding door and a picture window (Figure 5-3). A small metal pellet stove features a roll-up metal door on the west façade and a chimney pipe is offset north on the gabled roof (Figure 5-4). A metal shed is located south between the historic barn and the main building (Figure 5-5). The roof, and the east and west façades, are clad in standing-seam metal. The north and south façades are clad in board and batten. Three bays of two-over-two double-hung windows are located on the south façade. The north façade features a three-mullioned double door, offset west, and a wood sliding door, offset east. A chimney pipe is on the west slope of the roof.

5.2 Archaeological Reconnaissance Results

The Project area is bounded to the northeast by Shore Road and on all other borders by the wood lots of neighboring property. The Project area consists of small portion of open land or former agricultural fields and a house lot, with the majority of the property consisting of a large wood lot. The house lot area of the property contains the extant structures and is overgrown in places (Figure 5-7). The three former agriculture fields (pastures) are clustered on the

northeast side of the property, here called Pasture 1 (Figure 5-8), Pasture 2 (Figure 5-9), and Pasture 3 (Figure 5-10). Pasture 1 is nearest to Shore Road, abutting it; Pasture 2 abuts the west side of Pasture 1, and Pasture 3 abuts the west side of Pasture 2. The pastures a separated by small tree lines, and all three are bounded on their northern side by the house lots.

The rest of the Project area, representing its majority, is wooded with moderate aged growth (predominantly less than 100 years of growth). The wooded areas appear undeveloped, except for old logging roads (Figure 5-11), giving evidence that the property was extensively logged in the past. The tree growth consists mainly of softwoods and has a moderately open undergrowth (Figure 5-12).

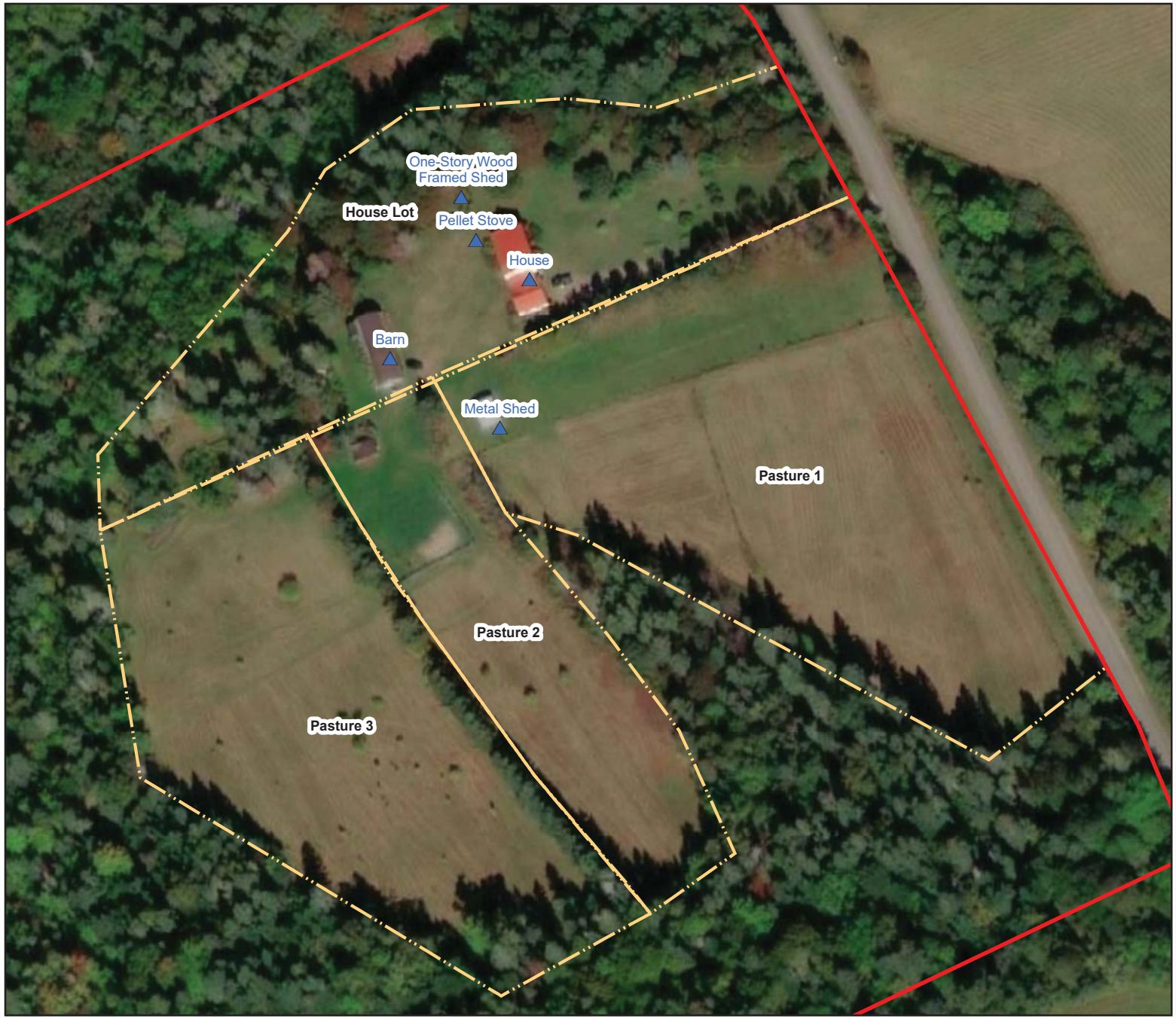
Figure 5-1. House at 576 Shore Road, view to the west.

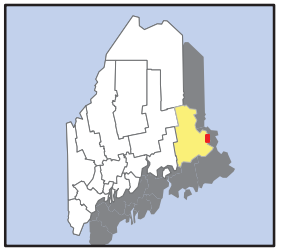
Figure 5-2. Barn at 576 Shore Road, view to the southwest.

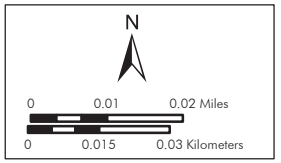
Figure 5-3. One-story wood-framed shed at 576 Shore Road, view to the north.

Figure 5-4. Small, metal pellet stove at 576 Shore Road, view to the south.

Figure 5-5. Metal shed at 576 Shore Road, view to the southeast.







LEGEND

- Structures
- Project Area
- Pastures and House Lot

Plan map showing the location of the structures and pastures within the Project area.

GRAY & PAPE HERITAGE MANAGEMENT Figure 5-6

Figure 5-7. House lot at 576 Shore Road, view to the southwest.

Figure 5-8. Pasture 1 area, view to the northwest.

Figure 5-9. Pasture 2 area, view to the southeast.

Figure 5-10. Pasture 3 area, view to the south.

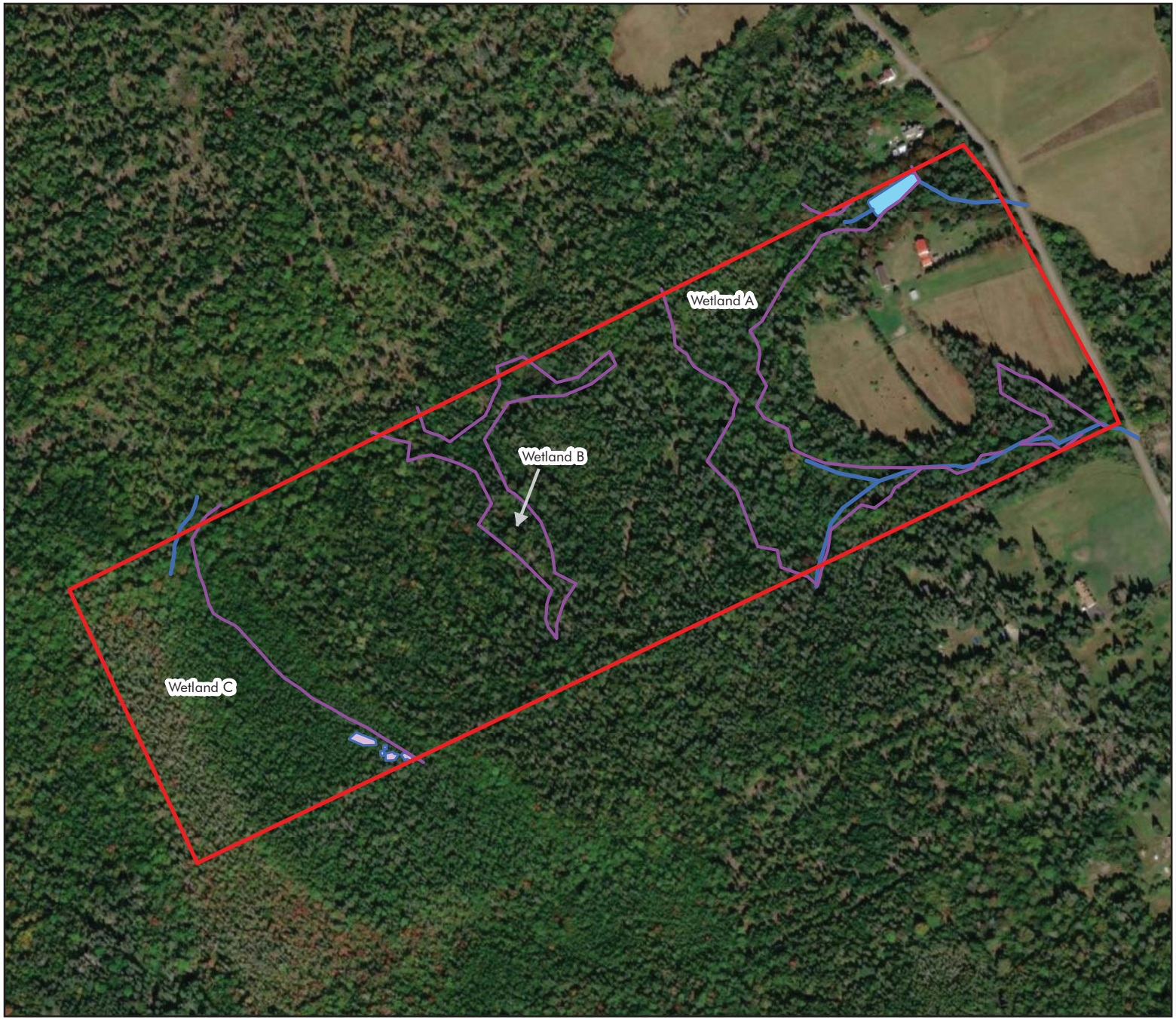
Figure 5-11. Representative example of disused logging road, view to the southwest.

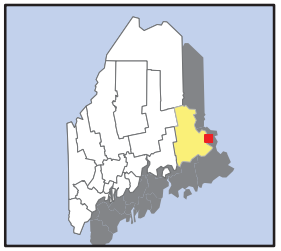
Figure 5-12. Representative view of wooded area, view to the west.

Within the wooded area are several first or second order streams and several wetlands. As defined by wetlands survey completed by Wood in May of 2019. Three streams (A, B, & C), three wetlands (A, B, & C), and one vernal pool complex were observed, as shown on Figure 5-9. These same wetland and stream areas were observed during the cultural reconnaissance (Figures 5-10 to 5-12). Both this and the wetland survey identify Stream A (and the pond it originates from) as man-made features. This was determined due to the presence of spoil piles of sediments on the banks of the stream (Figure 5-11). Wetlands observed consisted mainly of areas of mucky soil and wetland vegetation. The vernal pools described in the wetlands survey were not observed during the cultural reconnaissance.

A historical trash dump (Figures 5-13) was found inside the apex of the tree line that separates Pastures 1 and 2. This dump contained early to mid-twentieth century artifacts. Artifacts contained within this trash dump included domestic (bottles, ceramic, and metallic vessels, shoe leather) and specialized activity (oil and gas cans) artifacts. No apparent structural artifacts were seen within this trash dump, and no structural ruins were seen in association with this dump. The extant structures on the house lot area are the closest apparent historical occupation, at a distance of approximately 60 m (196.8 ft) to the north, for these artifacts to have originated. It is, therefore, assumed that the artifacts in this dump were associated with occupation taking place in the same general location of the current house lot. However, the age of the artifacts may indicate that they are associated with an occupation that occurred at that location which pre-dates the construction of the current house structure (ca. 1968). The artifacts appear to post-date any occupation that may have been associated with Walsh/Town Farm, the exact location of which is unclear.

No evidence of any archaeological sites was identified during the survey.





N

0 0.035 0.07 Miles

0 0.055 0.11 Kilometers

LEGEND

- Project Area
- Wetland
- Stream
- Pond
- Vernal Pond

Wetlands, streams, and vernal pools as defined by Wood during May 2019 survey of the Project area.

GRAY & PAPE HERITAGE MANAGEMENT Figure 5-13

Figure 5-14. Stream B, view to the south.

Figure 5-15. Stream A, view to the southwest. Opposite bank consists of a mounded spoil pile from the anthropogenic excavation and creation of this stream.

Figure 5-16. Representative view of Wetlands A, view to the northwest.

Figure 5-17. Representative artifacts found in the trash dump area within the Project area, view to the west.

6.0 CONCLUSIONS AND RECOMMENDATIONS

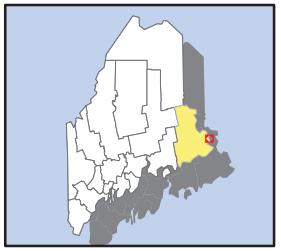
A preliminary cultural resources study was completed for the parcel located at 576 Shore Road in Perry, Maine for the potential development by the USCG for USCG personnel family housing for service members reporting to Station Eastport, Maine.

Research in local libraries and other repositories did not reveal the extant building located on the property to be associated with any significant events or persons. The building, therefore, is not eligible for inclusion in the NRHP under Criterion A or B. The resource is an undistinguished example of Ranch-style residential building. Furthermore, alterations to the building, including the use of replacement siding and windows, have compromised its integrity of design, workmanship, and materials. As a building that has lost historic integrity, the resource is not eligible for inclusion in the NRHP under Criterion C. Consequently, Gray & Pape recommends this resource as not eligible for inclusion in the NRHP.

Background research did not identify any known archaeological or historical archaeological resources associated with the 576 Shore Road property. Pre-Contact Native American presence in the Perry area was strong, especial leading up to the Contact period, but no background evidence was found to indicate a known Native American presence in the Project area. The Project area is in an upland landscape and is unlikely to contain larger pre-Contact sites as can be found closer to the shoreline of Passamaquoddy Bay. However, the presence of freshwater wetlands and streams could have attracted native peoples to the area to extract resources they may have possessed. Documentary evidence does show a post-Contact historical occupation within the Project area by at least the mid-nineteenth century. At least two separate historical occupations appear to have occurred within the Project area within the nineteenth to twentieth centuries. The current structures located in the Project area do not appear to relate directly to either of the historical occupations but may occupy the general location of at least one. No evidence of the other historical structure location, which may have housed a Town Farm, was directly observed during the field visit. A single historical scatter, a trash dump (Figure 6-1 and 5-13), was located during the field visit, which appears to be associated with an early to mid-twentieth century occupation predating the construction of the extant structures in the Project area.

Based on the soil data, the Project area is considered moderately well suited for the identification or preservation of archaeological sites. Typically, local uplands along permanent water sources only yield evidence of short-term occupation by pre-Contact period indigenous peoples. Post-Contact occupation of the region mainly follows major waterways, of which the St. Croix River is the closest (at a distance of between 300 and 1,300 m [984.2 and 4,265.0 ft]). The Project area is located at a flat area at the top of slight slope that runs down to east towards the St. Croix River, possibly making it a more attractive location for historical period occupation locations after initial settlement.

A preliminary cultural sensitivity assessment has been assigned to the Project area, separated by either pre-Contact or post-Contact period cultural sites, based on the results of the background literature review and the field reconnaissance visit. These sensitivity designations are shown in Figures 6-1 and 6-2. Previous archaeological investigations in the region and in the State of Maine indicate that pre-Contact Native American occupation sites are predominately associated proximal to water resources including seacoasts, streams, lakes, and wetlands. Proximity to water seems to be one of the single most important factors in locating these sites (Spiess 1994). Other factors



N

0 0.035 0.07 Miles

0 0.05 0.1 Kilometers

LEGEND

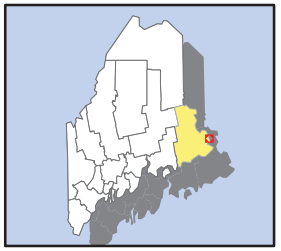
- Project Area
- Wetland
- Stream
- Pond
- Vernal Pond

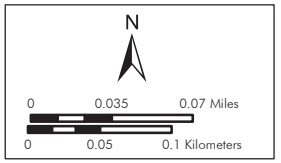
Archaeological Sensitivity Areas

- Post-Contact - None
- Post-Contact- High
- Post-Contact- Low

Post-Contact archaeological sensitivity map of the Project area.

GRAY & PAPE HERITAGE MANAGEMENT Figure 6-1





LEGEND

- Project Area
- Wetland
- Stream
- Pond
- Vernal Pond

Archaeological Sensitivity Areas

- Pre-Contact - None
- Pre-Contact - Low
- Pre-Contact - High

Pre-Contact archaeological sensitivity map of the Project area.

GRAY & PAPE HERITAGE MANAGEMENT Figure 6-2

include the soil or sediment type and the grade of the landscape. Pre-Contact Native sites are often associated with well-drained soils and on landscapes with slopes of generally less than 8 percent. Similar to the correlation of pre-Contact sites to streams, a correlation exists between post-Contact sites and roads, railroads, and streams. Proximity to known pre- or post-Contact archaeological sites are also a potential factor in determining archaeological sensitivity. Based on this, these factors were used to create the archaeological sensitivity areas modeled in Figures 6-1 and 6-2.

High pre-Contact sensitivity areas are designated as:

- areas within 50 m (164 ft) of potential water sources, including active and seasonal stream and wetlands,
- with well-drained soils,
- with slopes of less than 8 percent,
- or within 50 m (164 ft) of a previously identified pre-Contact archaeological resource.

Low pre-Contact sensitivity probability areas are designated as:

- areas greater than 50 m (984 ft) from a water source,
- with poorly drained soils,
- with slopes of greater than 8 percent,
- and evidence of significant historical or modern disturbance areas.

High post-Contact sensitivity areas are designated as areas:

- within 200 m (656 ft) of a road or railroad or navigable stream,
- with slopes of less than 8 percent,
- or within 50 m (164 ft) of a previously identified post-Contact archaeological resource, structure, historical scatter.

Low post-Contact sensitivity areas are designated as areas:

- greater than 200 m (656 ft) from a water source or transportation route,
- with poorly drained soils,
- with slopes of greater than 8 percent,
- and evidence of significant modern disturbance.

Areas labeled as no sensitivity are those within delineated wetlands and contain standing groundwater.

Based on the combined environmental and background literature data, the Project area is considered moderately to well suited for the identification or preservation of archaeological sites. The Project area is located on a relatively flat and well-drained landscape, formed by glacial activity, at the top of a slight slope that runs east towards the Passamaquoddy Bay. Typically, uplands away from large water sources only yield evidence of short-term occupation by pre-Contact period Native American peoples regionally; the wetlands and streams may have attracted people to the Project area during the pre-Contact period, if only for short-term occupations. Post-Contact occupation of the region mainly follows major transportation routes, of which Passamaquoddy Bay is the closest. Historical map documents presented in Section 4 indicate that it is unlikely that historical occupations occurred in the Project area before Shore Road was established, sometime in the early to mid-nineteenth century. No documentary evidence was found of any historical activities occurring in the Project area beyond those relating to a nineteenth to twentieth century agricultural occupation of the land. Of some small note is the fact that one of the historical occupations was used by the Town of Perry as a Town Farm to house and care for poor or disabled town residents.

Gray & Pape recommends consultation with MHPC regarding the level of additional work, if needed. Gray & Pape's recommendations include additional reconnaissance survey with

minimal shovel testing to identify the soils present within the Project area and to aid in better classifying the high- and low-sensitivity areas within the Project area. Depending on the results of the of the additional reconnaissance survey, additional archaeological shovel testing may be recommended.

A list of potential stakeholders is identified, who will be consulted regarding the property acquisition and potential development, is presented in Section 4.1.

7.0 REFERENCES CITED

Borns, Harold W. Jr.
1974 *Surficial Geology of the Robbinston Quadrangle, Maine*. Map. Maine Geological Survey, Augusta, Maine. Open file No. 74-10.

Borns, Harold W., Jr., Lisa A. Doner, Christopher C. Dorion, George L. Jacobson Jr., Michael R. Kaplan, Karl J. Kreutz, Thomas V. Lowell, Woodrow B. Thompson, and Thomas K. Weddle
2004 The Deglaciation of Maine, U.S.A. In *Quaternary Glaciations- Extent and Chronology, Part II*, edited by J. Ehlers and P. L. Gibbard. Elsiever, Inc., San Diego, California.

Caldwell, D. W.
1998 *Roadside Geology of Maine*. Mountain Press Publishing Company, Missoula, Montana.

Clark, James, Rebecca Cole- Will, Jacob Freedman
2006 *Phase I Pre-Contact Archaeological Survey Report Downeast LNG Project*. TRC Customer Focused Solutions. Report on file with the Maine Historic Preservation Commission.

Colby, George N, & Co.
1881 *Atlas of Washington County, Maine*. Lee and Marsh, Houlton and Machias, Maine.

Delcourt, Paul A., and Hazel R. Delcourt
1981 Vegetation Maps for Eastern North America: 40,000 Years B.P. to Present. In *Geobotany: An Integrating Experience*, edited by R. Romans, pp. 123–66. Plenum Publishing, New York, New York.

1984 Late Quaternary paleoclimates and biotic responses in eastern North America and western North Atlantic Ocean. *Palaeogeography, Palaeoclimatology, Palaeoecology* 48:263–284.

2004 Prehistoric Native Americans and Ecological Change: Human Ecosystems. In *Eastern North America since the Pleistocene*. Cambridge University Press, New York, New York.

Donovan, M. C,
n.d. *The St. Croix Boundary Issue*. Published and distributed by the author. Nashville, Tennessee.

Fenneman, N.M.,
1938 *Physiography of Eastern United States*. McGraw-Hill Book Co., Inc., New York, New York.

Gawler, Susan, and Andrew Cutko
2010 *Natural Landscapes of Maine: A Guide to Natural Communities and Ecosystems*. Maine Natural Areas Program, Maine Department of Conservation, August, Maine.

Grimm, Eric C, and George L Jacobson
2004 Late-Quaternary Vegetation History of the Eastern United States. In *The Quaternary period in the United States*, edited by A. R. Gillespie, S. C. Porter, and B. F. Atwater. Elsiever Inc., San Diego, California.

Maine Indian Program
1989 *The Wabanakis of Maine and the Maritimes: A Resource Book About the Penobscott, Passamaquoddy. Maliseet. Micmac, and Abenaki Indians:* Main Indian Program of the New England Regional Office of the American Friends Service Committee, Bath, Maine.

McMahon, F.P.
1990 *The Biophysical Regions of Maine: Patterns in the Landscape and Vegetation*. Unpublished Master's Thesis, University of Maine, Orono.

National Oceanic and Atmospheric Administration
2000a *Divisional Normals and Standard Deviations of Temperature, Precipitation, and Heating and Cooling Degree Days 1971–2000 (and previous normals periods): Section 1: Temperature*. Climatography of the United States NO. 85. National Climatic Data Center, Asheville, North Carolina.

2000b *Divisional Normals and Standard Deviations of Temperature, Precipitation, and Heating and Cooling Degree Days 1971–2000 (and previous normals periods): Section 2: Precipitation*. Climatography of the United States NO. 85. National Climatic Data Center, Asheville, North Carolina.

Spiess, A.E.
1994 CRM Archaeology and Hydroelectric Relicensing in Maine. In *Cultural Resources Management: Archaeological research, Preservation Planning, and Public Education in the Northeastern United States,* edited by J. E. Kerber. Greenwood Publishing, Westport, Connecticut.

Town of Eastport
2004 Eastport Compliance Plan, Historical and Archaeological Resources. Maine Historic Preservation Vertical Files.

Town of Perry
1968 *Perry, Maine Sesquicentennial 1818–1968 Historical Souvenir Book*. Copy on file at the Calais Free Public Library.

United States Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS)
2019 Online Web Soil Survey. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed June 2019.

United States Geological Survey (USGS)
1929 Robbinston, Maine Quadrangle Map. Department of the Interior, United States Geological Survey. Washington, D.C.

1931 Robbinston, Maine Quadrangle Map. Department of the Interior, United States Geological Survey. Washington, D.C.

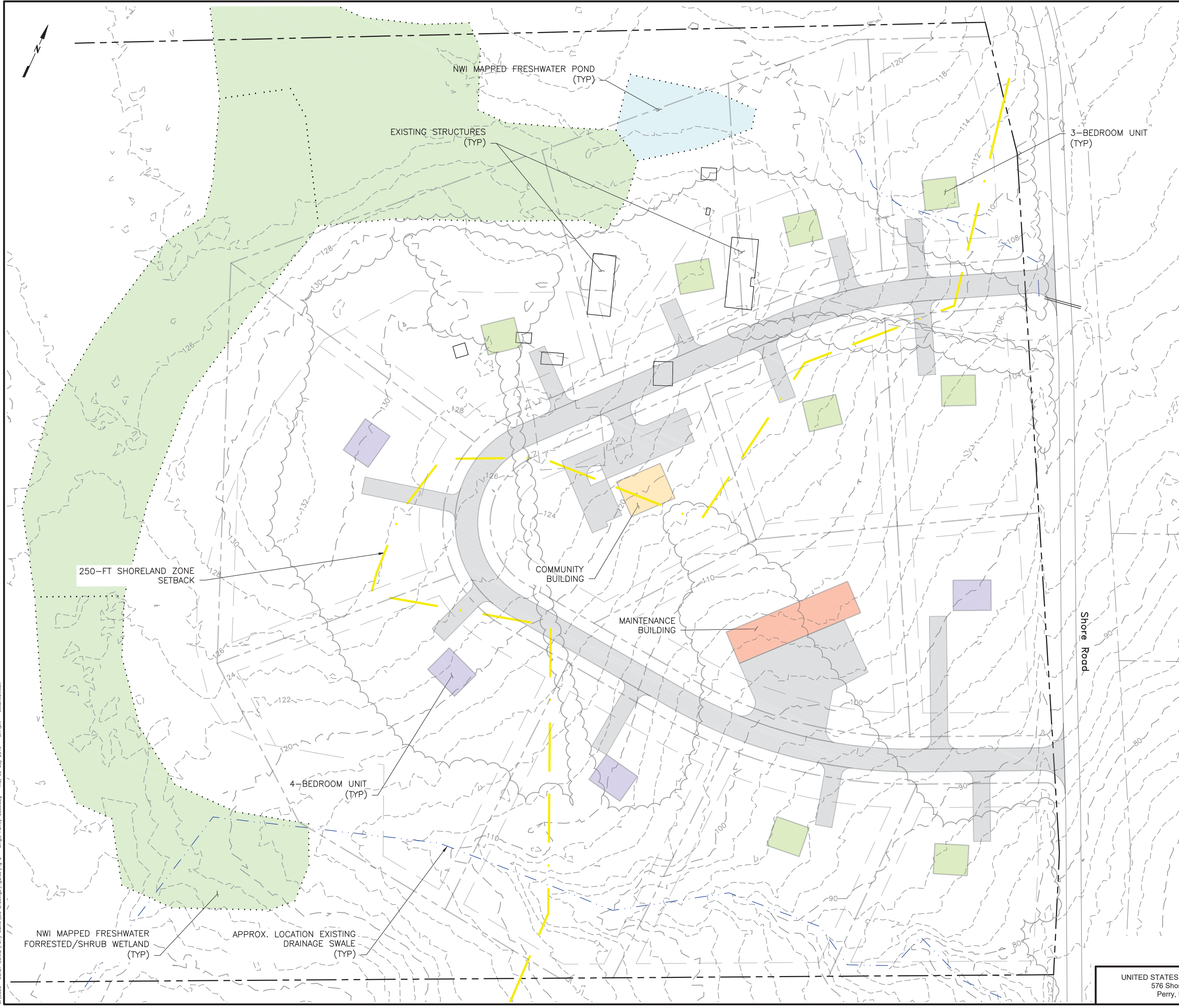
1949 Robbinston, Maine Quadrangle Map. Department of the Interior, United States Geological Survey. Washington, D.C.

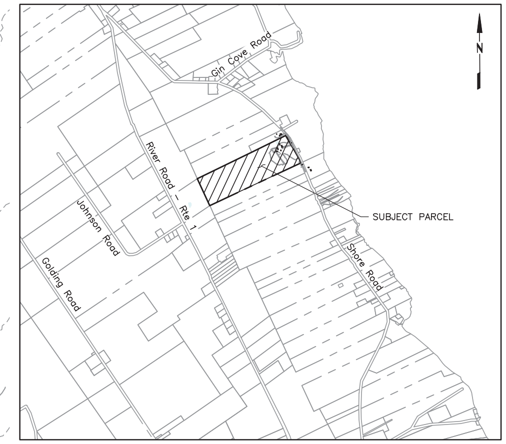
2019 Geologic Maps of the United States. Mineral Resources On-Line Spatial Data. https://mrdata.usgs.gov/geology/state/. Accessed June 2019.

Varney, George J.
1886 *History of Perry, Maine from A Gazetteer of the State of Maine*. B. B. Russell, Boston.

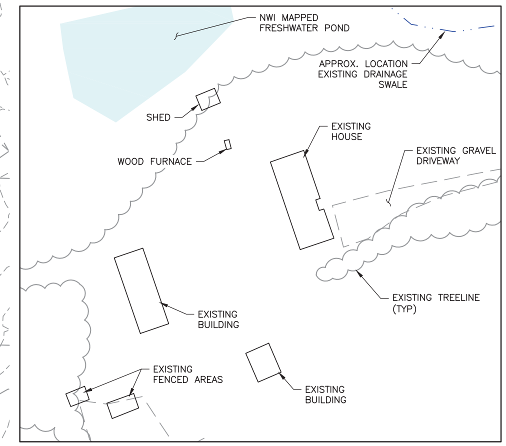
Walling, H. F.
1861 *Topographical Map of the County of Washington, Maine*. Lee and Marsh, New York.

APPENDIX A: CURRENT CONCEPTUAL PLANS





VICINITY MAP



EXISTING BUILDINGS

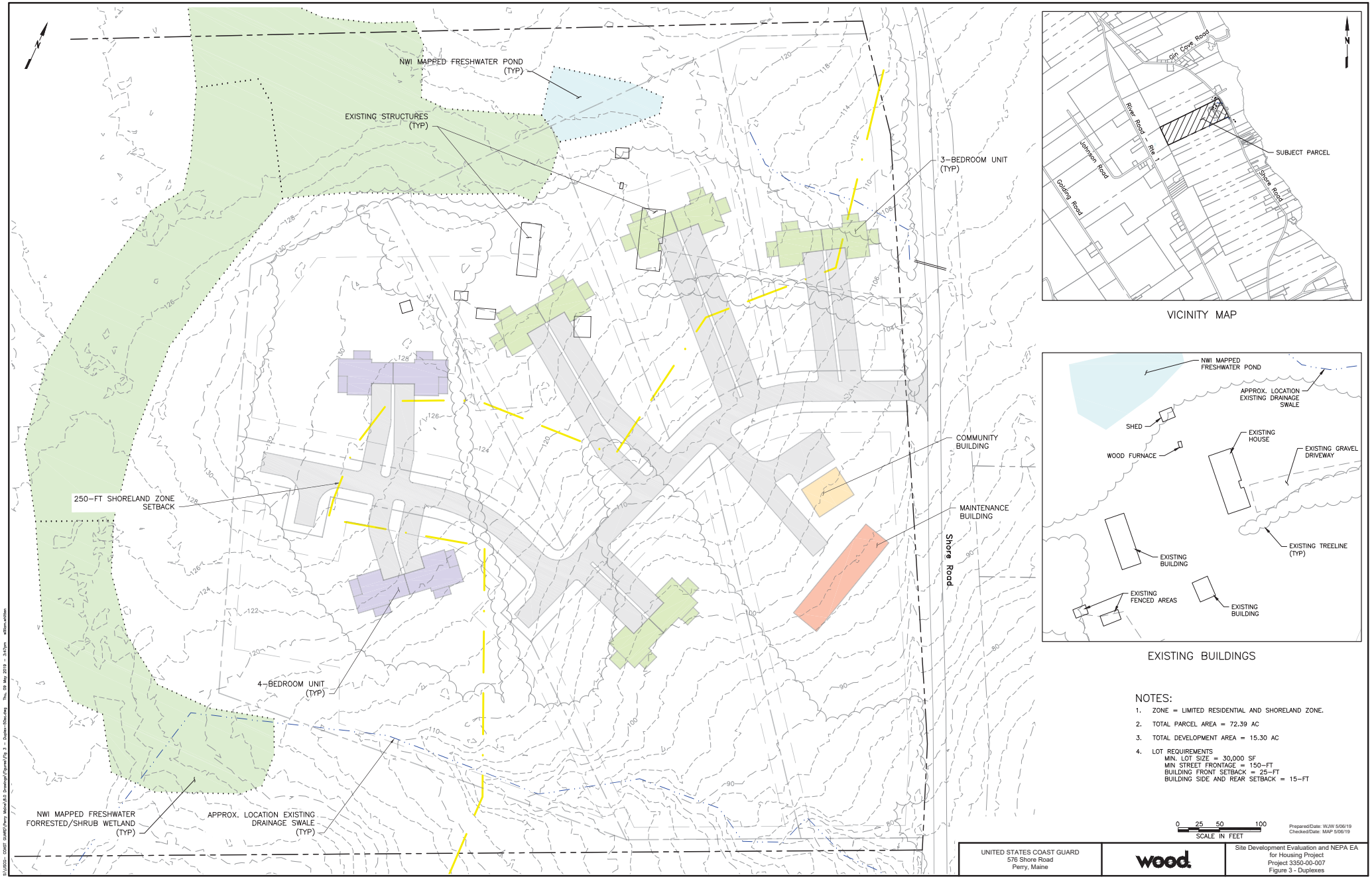
NOTES:

1. ZONE = LIMITED RESIDENTIAL AND SHORELAND ZONE.
2. TOTAL PARCEL AREA = 72.39 AC
3. TOTAL DEVELOPMENT AREA = 15.30 AC
4. LOT REQUIREMENTS
   MIN. LOT SIZE = 30,000 SF
   MIN STREET FRONTAGE = 150-FT
   BUILDING FRONT SETBACK = 25-FT
   BUILDING SIDE AND REAR SETBACK = 15-FT

0 25 50 100
SCALE IN FEET

Prepared/Date: WJW 5/06/19
Checked/Date: MAP 5/06/19

UNITED STATES COAST GUARD 576 Shore Road Perry, Maine	wood.	Site Development Evaluation and NEPA EA for Housing Project Project 3350-00-007 Figure 2 - Single Family



VICINITY MAP

EXISTING BUILDINGS

NOTES:

1. ZONE = LIMITED RESIDENTIAL AND SHORELAND ZONE.
2. TOTAL PARCEL AREA = 72.39 AC
3. TOTAL DEVELOPMENT AREA = 15.30 AC
4. LOT REQUIREMENTS
   MIN. LOT SIZE = 30,000 SF
   MIN STREET FRONTAGE = 150-FT
   BUILDING FRONT SETBACK = 25-FT
   BUILDING SIDE AND REAR SETBACK = 15-FT

0 25 50 100
SCALE IN FEET

Prepared/Date: WJW 5/06/19
Checked/Date: MAP 5/06/19

UNITED STATES COAST GUARD 576 Shore Road Perry, Maine	wood.	Site Development Evaluation and NEPA EA for Housing Project Project 3350-00-007 Figure 3 - Duplexes

This page intentionally left blank.

U.S. Department of
Homeland Security

**United States
Coast Guard**

Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

11000

JUL 1 9 2019

Kirk Mohney
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, ME 04333

Greetings Mr. Mohney,

In compliance with Section 106 of the National Historic Preservation Act (NHPA), as amended, the U.S. Coast Guard (USCG) Facilities Design and Construction Center (FDCC) requests to initiate consultation with your office for a proposed action to construct twelve residential housing units and supporting infrastructure (roads, sidewalks, utilities, maintenance support structures) for our personnel assigned to USCG Station Eastport. The housing will be located on a parcel of land in the Town of Perry, Maine.

The enclosure provides a Cultural Resources Assessment Report that was completed in June 2019. The property is a 76-acre tract located at 576 Shore Road, where construction is only to take place within the easternmost 7-acre area. All structures located on this property were built within the last 50 years and there are no known unique features, architecture, or any special historical events. The consultant did discuss the possibility of an old homestead and possibly historical town farm located within the property dating to the mid-nineteenth century. The consultant also identified the potential sensitivity for pre-Contact deposits within the property. Based on the Cultural Resources Assessment report, the USCG is requesting an opinion from your office on whether an additional level of archaeological effort should be considered or may be required.

The USCG will consult with the federally recognized Native American tribal groups and bands with interests in Maine. We have identified the Penobscot Indian Nation, the Aroostook Band of Micmacs, the Houlton Band of Maliseet Indians, and the Passamaquoddy Tribe of Indians. Please inform us of any other federal tribes or local groups that you believe should be contacted.

We look forward to working with your office and receiving your comments on the Cultural Resource Assessment and property findings at 576 Shore Road. If you have any questions, please contact Mr. Richard Hylton at (757) 852-3404 or rick.d.hylton@uscg.mil.

Sincerely,

J. F. BARRESI
Captain, U. S. Coast Guard

Enclosure: (1) Cultural Resources Assessment – 576 Shore Road

From: Kim Smith <ksmith@graypape.com>
Sent: Monday, August 05, 2019 4:09 PM
To: Baker, Peter S. <peter.baker@woodplc.com>; GeaslerBromley, Erica A <erica.geaslerbromley@woodplc.com>
Cc: Harman, Charles R <charles.harman@woodplc.com>; Pasquariello, Raymond <raymond.pasquariello@woodplc.com>
Subject: RE: [Non-DoD Source] Fw: Draft consultation letters - Eastport Coast Guard

Hi All,
Art confirmed that they will not be requesting additional archaeological survey. MHPC will be placing a letter in the mail today or tomorrow for Rick at the USCG stating this request for no additional work.

Sincerely,
Kim

Kimberly M. Smith, MA, RPA
Senior Principal Investigator
717.515.8994
ksmith@graypape.com

Facebook | LinkedIn | Website

From: Kim Smith [mailto:ksmith@graypape.com]
Sent: Thursday, July 25, 2019 1:49 PM
To: GeaslerBromley, Erica A <erica.geaslerbromley@woodplc.com>
Cc: Baker, Peter S. <peter.baker@woodplc.com>; Harman, Charles R <charles.harman@woodplc.com>
Subject: RE: [Non-DoD Source] Fw: Draft consultation letters - Eastport Coast Guard

Hi Erica (an project team)
The Project Archaeologist, Nate Scholl, has reached out to MHPC concerning the findings and recommendations for the Perry Project. Per our request MHPC has taken the time to review the project now to assist the USCG in their scheduling efforts. Preliminarily, MHPC has communicated that they will not ask for additional investigation concerning pre-Contact Native American archaeological resources. Concerning Historic Period Resources, MHPC was still consulting internally on if the Town Farm, that may have been located within the parcel, represented a resource that may need further investigation. If a determination is made that it is a resource of potential significance, MHPC is likely to ask for a further pedestrian reconnaissance survey to do a more detailed investigation into possible ruins related to the Town Farm, as a full reconnaissance was not part of the initial site visit. Nate's sense was the likelihood of a request for further work, related to the Town Farm or other historical resources, was low. None of this is in writing yet and spoken conversation cannot be taken as a verbal agreement, but overall the outlook is positive for a finding of no additional work requested.

MHPC did not commit to giving us a formal response by a particular date, but said they would start working on a response letter as soon as internal consultations were complete. The sense was that would be done soon. If such a response is not received by early next week, we can try asking for it again.

Kim

Kimberly M. Smith, MA, RPA
Senior Principal Investigator
717.515.8994
ksmith@graypape.com

Facebook | LinkedIn | Website

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

11000
JUL 1 9 2019

Houlton Band of Maliseet Indians
Ms. Sharri Venno, Director of Environmental Planning
88 Bell Road
Littleton, Maine 04730

Greetings Ms. Venno,

In compliance with Section 106 of the National Historic Preservation Act, as amended, the U.S. Coast Guard (USCG) Facilities Design and Construction Center is initiating consultation with your Tribe for a proposed project to construct twelve residential housing units and supporting infrastructure (roads, sidewalks, utilities, maintenance support structures) for our personnel assigned to USCG Station Eastport. The housing will be located on a single parcel of land in the Town of Perry, Maine.

The enclosure provides the Cultural Resources Assessment Report that was completed in June 2019. The property is a 76-acre tract located at 576 Shore Road, where construction is only to take place within the easternmost 7-acre area. All structures located on this property were built within the last 50 years and there are no known unique features, architecture, or any special historical events. The consultant did discuss the possibility of an old homestead and possibly historical town farm located within the property dating to the mid-nineteenth century. The consultant also identified the potential sensitivity for pre-Contact deposits within the property. Should any historical artifacts or human remains be discovered during construction activities, all work will be stopped until additional consultation with you and the Maine State Historic Preservation Office is accomplished and the appropriate actions are determined.

If you have any questions or concerns or further information is required, please contact Mr. Richard Hylton, at (757) 852-3404 or by e-mail at rick.d.hylton@uscg.mil.

Sincerely,

J. F. BARRESI
Captain, U. S. Coast Guard

Enclosure: (1) Cultural Resources Assessment – 576 Shore Road

U.S. Department of Homeland Security
United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

11000
JUL 1 9 2019

Passamaquoddy Tribe of Indians
Mr. Donald Soctomah, Tribal Historical Preservation Officer
Indian Township reservation and Pleasant Point Reservation
P.O. Box 301
Princeton, Maine 04668

Greetings Mr. Soctomah,

In compliance with Section 106 of the National Historic Preservation Act, as amended, the U.S. Coast Guard (USCG) Facilities Design and Construction Center is initiating consultation with your Tribe for a proposed project to construct twelve residential housing units and supporting infrastructure (roads, sidewalks, utilities, maintenance support structures) for our personnel assigned to USCG Station Eastport. The housing will be located on a single parcel of land in the Town of Perry, Maine.

The enclosure provides the Cultural Resources Assessment Report that was completed in June 2019. The property is a 76-acre tract located at 576 Shore Road, where construction is only to take place within the easternmost 7-acre area. All structures located on this property were built within the last 50 years and there are no known unique features, architecture, or any special historical events. The consultant did discuss the possibility of an old homestead and possibly historical town farm located within the property dating to the mid-nineteenth century. The consultant also identified the potential sensitivity for pre-Contact deposits within the property. Should any historical artifacts or human remains be discovered during construction activities, all work will be stopped until additional consultation with you and the Maine State Historic Preservation Office is accomplished and the appropriate actions are determined.

If you have any questions or concerns or further information is required, please contact Mr. Richard Hylton, at (757) 852-3404 or by e-mail at rick.d.hylton@uscg.mil.

Sincerely,

J. F. BARRESI
Captain, U. S. Coast Guard

Enclosure: (1) Cultural Resources Assessment – 576 Shore Road

U.S. Department of Homeland Security
United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

11000
JUL 1 9 2019

Penobscot Nation
Mr. Christopher Sockalexis, Tribal Historical Preservation Officer
12 Wabanaki Way
Indian Island, Maine 04468

Greetings Mr. Sockalexis,

In compliance with Section 106 of the National Historic Preservation Act, as amended, the U.S. Coast Guard (USCG) Facilities Design and Construction Center is initiating consultation with your Tribe for a proposed project to construct twelve residential housing units and supporting infrastructure (roads, sidewalks, utilities, maintenance support structures) for our personnel assigned to USCG Station Eastport. The housing will be located on a single parcel of land in the Town of Perry, Maine.

The enclosure provides the Cultural Resources Assessment Report that was completed in June 2019. The property is a 76-acre tract located at 576 Shore Road, where construction is only to take place within the easternmost 7-acre area. All structures located on this property were built within the last 50 years and there are no known unique features, architecture, or any special historical events. The consultant did discuss the possibility of an old homestead and possibly historical town farm located within the property dating to the mid-nineteenth century. The consultant also identified the potential sensitivity for pre-Contact deposits within the property. Should any historical artifacts or human remains be discovered during construction activities, all work will be stopped until additional consultation with you and the Maine State Historic Preservation Office is accomplished and the appropriate actions are determined.

If you have any questions or concerns or further information is required, please contact Mr. Richard Hylton, at (757) 852-3404 or by e-mail at rick.d.hylton@uscg.mil.

Sincerely,

J. F. BARRESI
Captain, U. S. Coast Guard

Enclosure: (1) Cultural Resources Assessment – 576 Shore Road

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

11000
JUL 1 9 2019

Aroostook Band of Micmacs
Ms. Jennifer Pictou, Tribal Historical Preservation Officer
7 Northern Road
Presque Isle, Maine 04769

Greetings Ms. Pictou,

In compliance with Section 106 of the National Historic Preservation Act, as amended, the U.S. Coast Guard (USCG) Facilities Design and Construction Center is initiating consultation with your Tribe for a proposed project to construct twelve residential housing units and supporting infrastructure (roads, sidewalks, utilities, maintenance support structures) for our personnel assigned to USCG Station Eastport. The housing will be located on a single parcel of land in the Town of Perry, Maine.

The enclosure provides the Cultural Resources Assessment Report that was completed in June 2019. The property is a 76-acre tract located at 576 Shore Road, where construction is only to take place within the easternmost 7-acre area. All structures located on this property were built within the last 50 years and there are no known unique features, architecture, or any special historical events. The consultant did discuss the possibility of an old homestead and possibly historical town farm located within the property dating to the mid-nineteenth century. The consultant also identified the potential sensitivity for pre-Contact deposits within the property. Should any historical artifacts or human remains be discovered during construction activities, all work will be stopped until additional consultation with you and the Maine State Historic Preservation Office is accomplished and the appropriate actions are determined.

If you have any questions or concerns or further information is required, please contact Mr. Richard Hylton, at (757) 852-3404 or by e-mail at rick.d.hylton@uscg.mil.

Sincerely,

J. F. BARRESI
Captain, U. S. Coast Guard

Enclosure: (1) Cultural Resources Assessment – 576 Shore Road

From: Hylton, Rick D CIV
Sent: Thursday, July 25, 2019 10:44 AM
To: 'Sue Young' <ogs1@maliseets.com>
Subject: RE: [Non-DoD Source] USCG Station Eastport

Good Morning Ms. Young;

Thank you for your quick/timely response! We will add your email information provided below to our ongoing NEPA Environmental Assessment, which becomes part of our project. As always, the U.S. Coast Guard will stop work should we encounter human remains or any other potentially significant culture artifacts until a suitable plan can be worked out with the Maine SHPO and the 4 identified THPOs (to include - Houlton Band of Maliseet Indians) that may have an interest in this project.

I currently estimate that construction at this project will not start until late spring/early summer of 2020. Please feel free to contact me if you have any questions, concerns, or require additional information.

Again, thank you for your assistance with this critical U.S. Coast Guard project.

Rick Hylton

Richard D. Hylton, P.E.
Environmental Engineer
U.S. Coast Guard
Facilities Design and Construction Center (FDCC)
5505 Robin Hood Road, Suite K
Norfolk, VA 23513

(757) 852 – 3404
rick.d.hylton@uscg.mil

From: Sue Young <ogs1@maliseets.com>
Sent: Thursday, July 25, 2019 10:15 AM
To: Hylton, Rick D CIV <Rick.D.Hylton@uscg.mil>
Subject: [Non-DoD Source] USCG Station Eastport

Mr. Hylton,

We do not have an immediate concern with your project or project site, and do not currently have the resources to fully investigate same. Should any human remains, archaelogical properties or other items of historical importance be unearthed while working on this project, we recommend that you stop your project and report your findings to the appropriate authorities including the Houlton Band of Maliseet Indians.

Please submit all future requests/permit applications to my attention via fax or email to the number or email address below. Thank you.

<><><><><><><><><><><>

Susan Young

Tribal Historic Preservation Officer
Natural Resources Director
Houlton Band of Maliseet Indians
88 Bell Road
Littleton, ME 04730
207-532-4273 ext. 202
fax 207-532-6883

ogs1@maliseets.com
www.maliseets.com