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*Draft Final*

**SUPPLEMENTAL ENVIRONMENTAL  
ASSESSMENT FOR THE PROPOSED  
DISPOSITION OF DEFENSE FUEL  
SUPPORT POINT, NEWINGTON, NEW  
HAMPSHIRE**

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## LIST OF ACRONYMS AND ABBREVIATIONS

°F	Degrees Fahrenheit
µg/m <sup>3</sup>	Microgram per cubic meter
AFB	Air Force Base
AFOOSH	Air Force Occupational and Environmental Safety, Fire Protection, and Health
ANG	Air National Guard
ANGB	Air National Guard Base
AQCR	Air quality control region
AQI	Air Quality Index
BMP	Best management practice
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon monoxide
CO <sub>2</sub>	Carbon dioxide
CZMA	Coastal Zone Management Act
DFSP	Defense Fuel Support Point
DLA	Defense Logistics Agency
DoD	Department of Defense
EA	EA Engineering, Science, and Technology, Inc., PBC
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact
ft	Foot (feet)
GHG	Greenhouse gas
GSC	Global Strike Command
in.	Inch(es)
JBSA	Joint Base San Antonio
JP-4	Grade 4 jet propulsion fuel
mg/kg	Milligram(s) per kilogram



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NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHCP	New Hampshire Coastal Program
NHDES	New Hampshire Department of Environmental Services
NO <sub>2</sub>	Nitrogen dioxide
NO <sub>x</sub>	Nitrogen oxide
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
O <sub>3</sub>	Ozone
OSHA	Occupational Safety and Health Administration
Pb	Lead
PCB	Polychlorinated biphenyl
PFAS	Perfluorinated alkylated substances
PM <sub>2.5</sub>	Particulate matter equal to or less than 2.5 microns in diameter
PM <sub>10</sub>	Particulate matter equal to or less than 10 microns in diameter
ppm	Part per million
PSD	Prevention of significant deterioration
RCRA	Resource Conservation and Recovery Act
SHPO	State Historic Preservation Office
SO <sub>2</sub>	Sulfur dioxide
SSPP	Strategic Sustainability Performance Plan
tpy	Ton(s) per year
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
UST	Underground storage tank
VOC	Volatile organic compound

## EXECUTIVE SUMMARY

### INTRODUCTION

Defense Fuel Support Point (DFSP) Newington includes approximately 14.87 acres of fee, easement, and right-of-way acreage situated in the county of Rockingham, New Hampshire. The DFSP Newington facility is located 4 miles northwest of Portsmouth and 2 miles northeast of Newington on the west bank of the Piscataqua River, a major waterway used for shipping manufactured products. The property was historically used as a fuel transfer and storage facility from its construction in 1961 until its closure in February 1990. DFSP Newington was privately owned until July 1980 when the U.S. Air Force (USAF) acquired the property and facilities by Condemnation. The facility was subsequently operated by the Defense Logistics Agency (DLA)–Energy under permit to the USAF for the storage and distribution of aviation gasoline and Grade 4 jet propulsion fuel. DFSP Newington supported local facilities including the former Pease Air Force Base, the Pease Air National Guard Base (ANGB), and other Department of Defense installations in the Northeast. The DFSP Newington site was deactivated in February 1990.

Air Force Instruction 32-9004, Disposal of Real Property, requires that the USAF dispose of all excess property that does not support the USAF mission. Under the Proposed Action, the USAF (Property Owner) and the DLA (Lease Holder) propose to demolish the inactive DFSP Newington facility and restore the property to a state that would allow the property to be transferred. The DFSP Newington facility (Area 1) consists of inactive bulk fuel storage tanks (subterranean), associated fuel transfer structures, aboveground storage tanks, as well as a former fuel offloading pier with four breasting dolphins (structures extending above the water level and not connected to shore). All storage tanks, structures, buildings, and associated infrastructure would be demolished and removed or properly closed in place. Concrete foundations associated with the bulk fuel storage tanks will be removed or properly closed in place (in accordance with state and federal guidelines).

Infrastructure at the current Pease ANGB (Area 2), which includes a section of aboveground pipeline and a manifold/valve area, will also be demolished. (It should be noted there is approximately 13,000 linear feet of underground pipeline that is located on public and private property that runs from the DFSP Newington facility to Pease ANGB. With the exception of the manifold/valve area, the pipeline will be addressed in a separate document and is not a part of this assessment.

In June 2015, a Finding of No Significant Impact (FONSI) was signed for the bulk fuel tank and manifold demolition, as described above. However, at this time (2017), Air Force Civil Engineer Center has determined due to costs and eventual transfer of the property, the four existing steel sheet pile cells (also known as dolphin structures) and dilapidated pier will be included in this deconstruction project.

This Supplemental Environmental Assessment has been prepared with the following changes:

1. The potential environmental impacts resulting from the installation and subsequent removal of cofferdams and associated template and protection piles necessary to complete the demolition of the dolphins.
2. The environmental analysis of the potential use of rail for transportation of demolition-related material to and from the site.
3. The identification of the presence of emerging contaminants at the site (perfluorinated alkylated substances [PFAS]; specifically, perfluorooctanoic acid and perfluorooctane sulfonic acid). It should be noted that remedial activities associated with PFAS may be part of the overall cleanup action; however, the full extent and concentrations are unknown at this time. Assessment and remediation activities associated with PFAS will be addressed as a separate action in a separate decision document.
4. The omission of the pipeline from the proposed action. Permanent closure of the pipeline will be treated as a standalone action in a separate decision document. The June 2015 Final Environmental Assessment included abandoning the pipeline in-place in its current condition (no grouting or removal), as it was deemed closed with no plans to return to service. However, after the FONSI was signed for the Environmental Assessment, project stakeholders agreed removal of the pipeline was warranted to minimize long-term liability. The pipeline, previously designated as Area 3, is no longer included in this action, however, the pipeline will undergo further investigation under a separate action.

Additionally, agreements are in the process of negotiation with adjacent property owners and other stakeholders to leave the subsurface drainage system with active regulatory permits intact. The USAF and DLA–Energy are working together to reach completion of this project. DLA’s agreement with the USAF requires the site to meet specific conditions prior to the property being accepted by the USAF. This includes site restoration and termination of the existing state-issued groundwater management permit. The USAF is working to transfer the site for beneficial use following USAF guidance.

Following demolition, the USAF proposes to restore the property to a stabilized state that does not pose or create a hazard to human health and the environment, in compliance with existing federal, state, and local environmental laws. Relevant leases, easements, permits, licenses, or other encumbrances would be terminated to the maximum extent practicable following completion of the Proposed Action. Any post-demolition requirements would be re-negotiated with appropriate regulatory agencies, if deemed necessary, to ensure continued protection of human health and the environment. The USAF would then dispose of the property by transferring it to allow beneficial reuse of the property.

The Supplemental Environmental Assessment evaluates the potential environmental consequences of the Proposed Action and alternative, including the No Action alternative, on the

following resource areas: noise, including anthropogenic noise and underwater acoustics on marine mammals and Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), air quality, land use and recreation, geological resources, water resources, coastal zone management, biological resources, human health and safety, utilities and infrastructure, hazardous materials and wastes, socioeconomic resources, environmental justice, and cultural and visual resources.

Interagency and Intergovernmental Coordination for Environmental Planning (Air Force Instruction 32-7060) was rescinded in June 2014. Despite this Instruction being rescinded, the USAF actively reached out and coordinated with relevant state and federal agencies as well as relevant local stakeholders during preparation of the original Environmental Assessment. This effort was similar to the Interagency/Intergovernmental Coordination for Environmental Planning process that had been required prior to June 2014. Limited coordination was required for this Supplemental Environmental Assessment, as the majority of coordination, notifications, and consultation had taken place under the previously prepared Environmental Assessment (2015), or through the concurrently prepared Programmatic General Permit (EA 2017) to support the demolition activities.

## **PURPOSE AND NEED FOR THE PROPOSED ACTION**

The purpose of the Proposed Action is to transfer property in a manner that minimizes or eliminates future USAF liability. The transfer of property will also be conducted in a manner that provides for beneficial uses that will be deemed a positive influence to the local community. This project is needed to restore the property to a condition suitable for property transfer to General Services Administration so that the DLA is released from its current lease obligations, and the USAF reduces or eliminates the liabilities associated with the ownership and maintenance of the subject property.

## **DESCRIPTION OF THE ALTERNATIVES**

***Preferred Alternative***—The Proposed Action includes the “full removal” of site facilities in Area 1 (property that is owned by USAF Global Strike Command (GSC) to include the full demolition and removal of all tanks, onsite (aboveground and underground) pipelines, associated appurtenances, pier structures, utilities, fence, etc. and subsequent backfill to grade (Figures 4 and 5). This Alternative also includes removal of aboveground DFSP pipeline (manifold) and valves in Area 2 (Pease ANGB). This action does not include the removal of the below ground fuel pipeline in Area 2 or the formerly designated Area 3 (Area 3 was previously identified as property that is owned by entities other than USAF GSC or the Pease ANGB). The Proposed Action would include transfer of the property from USAF ownership to the General Services Administration.

The demolition for the Proposed Action will include approximately 18,153 tons of recyclable debris and the disposal of approximately 22,615 tons of construction/demolition debris and soil. This material will likely be moved offsite by barge, tractor trailer trucks, dump trucks, or rail. The salvageable metal from the site will be brought to a recycling facility where it will be

disposed of as scrap, and the other demolition materials will be brought to a landfill or recycling facility.

**Area 1** demolition will include the removal of the bulk fuel tanks, aboveground and underground fuel pipelines, pier structures, four dolphins, administration/laboratory building, fire suppression system pump house, generator building, drainage and wastewater system, lagoon, truck racks, hazardous materials storage building, cathodic protection system, and other smaller miscellaneous items. This action will include the installation of 3 cofferdams surrounding the 4 dolphins, as well as template, mooring, and protection piles; and their removal when the in-water demolition work is completed. It may include cleaning and abandonment in place of certain underground fuel lines that are located in inaccessible locations (i.e., under the rail spur).

**Area 2** demolition will include the removal of the aboveground pipeline, including the valve and manifold area on Pease ANGB lands (excluding the unrelated aboveground pipeline extending from the DFSP manifold area to the active tanks).

**Regulatory Guidance**—Basic design standards for building and associated facility demolition in general would be followed. These design standards include:

- Air Force Handbook 32-1084, Facility Requirements
- Air Force Instruction 32-1021, Planning and Programming Military Construction Projects.

**No Action Alternative**—Under the No Action alternative, the DFSP Newington site would continue to be owned by the USAF, and there would be no disposal of the subject fee-owned property. Caretaker and maintenance operations currently being conducted would continue. The property and associated infrastructure would continue to be a liability burden to the USAF, and monitoring and maintenance would continue in perpetuity.

Council on Environmental Quality regulations require consideration of the No Action alternative for all proposed actions. The No Action alternative serves as a baseline against which the impacts of the Proposed Action and other potential alternatives can be compared and consequently be carried forward for further evaluation in the Environmental Assessment.

## **Alternatives Not Meeting the Purpose and Need**

### ***Alternative 1***

An alternative assessed, but not meeting the Project Purpose and Need requirements, includes the reactivating the Newington DFSP facility to provide support for an alternate USAF mission. Reactivating the facility would involve extensive modifications to the pier including re-installing pipelines to the pier that were removed after deactivation of the site, upgrading the six large storage tanks to comply with the New Hampshire Department of Environmental Services

underground storage tank regulations, reconstruction of the manifold area and associated piping, and installation of new transfer pumps. This would also involve reconstruction of onsite support buildings which have deteriorated over time and are currently unusable. Because of a lack of nearby USAF facilities that would support the site, prohibitive time, and cost considerations associated with reactivation of the facility, this alternative does not meet the Purpose and Need of the project and was eliminated from further consideration.

## SUMMARY OF ENVIRONMENTAL IMPACTS

Table ES-1 provides a brief summary and comparison of potential impacts under each alternative.

**Table ES-1 Comparison of Environmental Consequences**

<b>Resource Area</b>	<b>Preferred Alternative A</b>	<b>No Action Alternative</b>
Noise	Short-term, direct and indirect, major, temporary adverse. Long-term, direct and indirect, negligible beneficial.	None – No change
Air Quality	Short-term, direct, moderate, temporary, adverse. Long-term, direct and indirect, negligible, beneficial.	None – No change
Land Use and Recreation	Short-term, direct, negligible, and beneficial. Long-term, direct and indirect, minor, and beneficial.	None – No change
Geological Resources	Short-term direct, minor, and beneficial. Long-term, direct, moderate, and beneficial.	None – No change
Water Resources	<b>Surface Water:</b> Short-term, direct and indirect, minor, adverse temporary impacts. Long-term, direct and indirect, minor, and beneficial.  <b>Groundwater:</b> Short and long-term, direct and indirect, minor, beneficial impacts  <b>Floodplains:</b> Short-term direct, indirect, negligible, adverse. Long-term direct, indirect, negligible and beneficial.  <b>Wetlands:</b> Short-term, direct and indirect, major, temporary, adverse. Long-term, direct and indirect, minor, beneficial.	None – No change
Coastal Zone Management	Short-term, direct, major, adverse. Long-term, direct and indirect, negligible, beneficial.	None – No change
Biological Resources	<b>Terrestrial Vegetation:</b> Short-term, direct, moderate, and adverse. Long-term, direct, moderate, and beneficial.  <b>Wildlife:</b> Short-term, direct, minor, and adverse. Long-term, direct, negligible, and beneficial.  <b>Finfish:</b> Short-term, direct, indirect, major, adverse. Long-term, direct, indirect, beneficial.  <b>Benthic Invertebrates:</b> Short-term, direct, indirect, major, adverse. Long-term, direct, indirect, negligible, and beneficial  <b>Submerged Aquatic Vegetation:</b> Short-term, direct, indirect, minor, adverse. Long-term, direct, indirect, negligible, and beneficial.	None – No change

Resource Area	Preferred Alternative A	No Action Alternative
	<p><b>Marine Mammals:</b> Short-term, direct, indirect, minor, and adverse. Long-term, direct, indirect, negligible, and beneficial.</p> <p><b>Threatened and Endangered Species:</b> Resource not present, or expected within proximity during construction (due to time of year restrictions).</p>	
Human Health and Safety	Short-term, direct, indirect, moderate, adverse. Long-term, direct, moderate, beneficial.	None – No change
Utilities and Infrastructure	Short-term, direct, indirect, moderate, adverse. Long-term, direct and indirect, negligible, beneficial	None – No Change
Hazardous Materials and Wastes	Short-term and long-term, direct and indirect, major, beneficial	None – No change
Socioeconomic Resources and Environmental Justice	Short-term, direct and indirect, minor, adverse and beneficial. Long-term effects are not applicable for this resource area at the project site.	None – No change
Cultural and Visual Resources	<p><b>Cultural:</b> Not present.</p> <p><b>Visual:</b> Short-term and long-term, direct and indirect, major, beneficial</p>	No change; long-term, moderate, adverse

Unavoidable adverse effects would result from implementation of the Proposed Action. These effects are anticipated to be major, but only in the short-term (during demolition activities).

The project can be classified as *proactive restoration* as it involves the manipulation of the physical characteristics of the site with the goal of returning natural/historical functions to a waterway (a process commonly referred to as re-establishment).

## 1. PURPOSE AND NEED FOR THE PROPOSED ACTION

### 1.1 INTRODUCTION

The Defense Fuel Support Point (DFSP) Newington facility was deactivated and the U.S. Air Force (USAF) is required to dispose of the property. Air Force Instruction 32-9004, Disposal of Real Property, requires that the USAF dispose of all excess property that does not support the USAF mission. Under the Proposed Action, the USAF (Property Owner) and Defense Logistics Agency (DLA) (Lease Holder) propose to demolish the inactive DFSP Newington facility and restore the property to a state that would allow property transfer.

### 1.2 PROJECT LOCATION

The DFSP Newington facility is located in the county of Rockingham, 4 miles northwest of Portsmouth, New Hampshire and 2 miles northeast of Newington, on the Piscataqua River, which is a major waterway used for shipping manufactured products (Appendix A, Figure 1 and 2). DFSP Newington consists of approximately 14.87 acres including approximately 10.26 acres of fee-owned land (3 parcels) and 4.61 acres of easements (19 parcels) used as a fuel transfer and storage facility.

*Area 1* consists of approximately 10.26 acres fee (3 parcels) and 1.7 acres easement (13 parcels). Two of the easements connect the north and south parcels of Area 1. Two other easements allow right-of-way access and aboveground pipeline passage to the DFSP Newington-owned dolphin structures and pier, and to a Sprague Energy-owned dock further north. Another easement provides access for the drainage pipe from the Area 1 lagoon to the Piscataqua River. Other easements provide right-of-way access on the roads to Patterson Lane and for power lines entering the property in Area 1 (Figure 3).

Area 1 also includes a docking and fuel unloading/transfer pier in the northeast corner of the facility that borders the Piscataqua River. The fuel unloading pier is 360 feet (ft) long and consists of four cells (referred to as cell or dolphin #1, #2, #3, and #4) constructed of steel sheet piles, filled with fill material, and capped with a 16-inch (in.) thick concrete slab. The concrete cap on one of the dolphins has partially collapsed. The fuel unloading pier, infrastructure, and cells are identified on Figure 4. Infrastructure remains attached to the cells and includes former fuel pipes which were cleaned and capped, electrical utilities, manways, etc.

*Area 2* located on Pease Air National Guard Base (ANGB), a small aboveground section of the former manifold will be removed and capped. Less than 10 cubic yards of soil will be excavated to remove a portion of the manifold that is below ground, and used to backfill the hole once completed.



### 1.3 HISTORY AND BACKGROUND

Area 1 has been used as a fuel transfer and storage facility since its construction, and registration documents reviewed at the New Hampshire Department of Environmental Services (NHDES) indicate the tanks went into service in 1961. The USAF acquired the facility from New England Tank Industries, Inc. in 1980. Initial operations included upgrades and cleaning of tanks. It was reported that during cleaning operations in April 1981, an explosion at one of the underground storage tanks (USTs) (Tank 3) destroyed the top of the tank and that tank remained out-of-service until repairs were completed in 1985. The tanks, pipelines, and other facilities remained in service until the facility was deactivated in February 1990. After closure, tanks and pipelines were cleaned and purged with nitrogen and the manifold piping was dismantled and removed along with the transfer pumps in September 1991. A portion of the 13,000-linear ft cross-country pipeline between DFSP Newington and Pease ANGB exists within Area 1.

Area 2 also includes a portion of the 13,000-linear ft cross-country pipeline between DFSP Newington and Pease ANGB, and the manifold area located on Pease ANGB. No details were found regarding the history of Area 2; however, the pipelines were reportedly cleaned and purged with nitrogen in January 1991. In 2005, an NHDES memo stated that future remediation for the pipeline in Area 2 was not foreseen.

While active, the DFSP Newington facility served as a bulk fuel storage facility, which was operated under permit by the DLA–Energy for the receipt, storage, and distribution of aviation gasoline and Grade 4 jet propulsion fuel (JP-4). DFSP Newington supported local facilities including Pease Air Force Base (AFB); the Pease Air National Guard (ANG) facility; and other Department of Defense (DoD) installations including the New Hampshire State Military Reservation, Concord, and Fort Devens, Massachusetts (these facilities received fuel by tank truck). Prior to the closure of Pease AFB, the DFSP Newington terminal pumped JP-4 to Pease AFB through 8- and 10-in. diameter pipelines (Appendix A, Figure 3). DFSP Newington was deactivated in February 1990. Since that time, numerous investigations have been completed at the site including groundwater monitoring under a state-issued groundwater management permit.

In addition to these 19 easements, 2 easements are held by others through the DFSP Newington fee acreage. A storm drain easement is held by a neighboring property owner (Sprague Energy), which runs through the fee acreage parcels in Area 1. Currently, drainage from this neighboring property runs through a drainage pipe within this easement and discharges into the lagoon in Area 1 and to the outfall. Another easement along the southeast border of the property allows for the passage of aboveground pipelines. The Boston & Maine Railroad (operated by PanAm Railroad) divides Area 1 into a northern and southern parcel. Project proponents are currently discussing the potential to remove soil, steel, and other demolition materials from the deconstruction project by railcar.

The property has been used as a fuel transfer and storage facility since its construction and is surrounded by industrial facilities. Two 80,000-barrel and four 50,000-barrel (semi-buried) USTs are present onsite. The tanks are constructed of steel and have a 12-in. concrete and 4-ft soil cap. About half of each of the USTs is located above surrounding grade; however, these

portions are earthen covered, with a concrete cap, and supported by internal steel support columns. There are no floating roofs inside the tanks and no secondary containment for the tanks. Instead, a French drain is located at the bottom of each tank. The drains are connected to a surface lagoon located on the northwest portion of the property. The lagoon discharges into the Piscataqua River. An 8- and 16-in. diameter pipeline connected the fuel farm manifold to the pier manifold. UST registration documents reviewed at the NHDES indicate the tanks went into service in 1961. The USAF acquired the facility from New England Tank Industries, Inc. in 1980 by condemnation. Structures within Area 1 include support structures (administration/laboratory building, a water tower and pump house, generator building, and hazardous materials storage building), along with smaller aboveground storage tanks and loading/unloading structures (including a docking pier for unloading fuel from barges and tankers, and a truck loading rack) along with other ancillary facilities (Figure 4).

The pier is approximately 360 ft long and includes four 38-ft diameter cells contained by steel sheet piles (dolphin structures) and remnants of a superstructure that formerly connected the four dolphin structures as a pier. The dolphin structures are situated in water that is up to 40 ft deep at mean high water, and include various minor associated appurtenances and debris that has fallen off the dolphin superstructure over the years. The dolphin structures are filled with sand, soils, and cobbles and are capped with concrete.

DLA–Energy is working to terminate the DLA–Energy/USAF operating permit for DFSP, which includes DFSP Newington restoration (i.e., demolition/removal of on-facility structures and the pier along with a combination of pipeline removal/abandonment) and termination of the existing state-issued groundwater management permit currently in place at DFSP. The USAF is working to transfer DFSP Newington for beneficial reuse in accordance with USAF guidance.

## **1.4 PURPOSE AND NEED FOR THE PROPOSED ACTION**

The purpose of the Proposed Action is to transfer property in a manner that minimizes or eliminates future USAF liability. The transfer of property will also be conducted in a manner that provides for beneficial uses that will be deemed a positive influence to the local community. This project is needed to restore the property to a condition suitable for property transfer to General Services Administration so that the DLA is released from its current lease obligations, and the USAF reduces or eliminates the liabilities associated with the ownership and maintenance of the subject property.

## **1.5 SUMMARY OF KEY ENVIRONMENTAL QUALITY COMPLIANCE REQUIREMENTS**

### **1.5.1 National Environmental Policy Act**

The National Environmental Policy Act (NEPA) is a federal statute requiring the identification and analysis of potential environmental impacts associated with proposed federal actions before those actions are taken. The intent of NEPA is to help decision makers make well-informed decisions based on an understanding of the potential environmental consequences; and take

actions to protect, restore, or enhance the environment. NEPA established the Council on Environmental Quality (CEQ) that was charged with the development of implementing regulations and ensuring federal agency compliance with NEPA.

The CEQ regulations mandate that all federal agencies use a prescribed structured approach to environmental impact analysis. This approach also requires federal agencies to use an interdisciplinary and systematic approach in their decision-making process. This process evaluates potential environmental consequences associated with a Proposed Action and considers alternative courses of action.

The regulations established by CEQ ensuring compliance with NEPA are contained in 40 Code of Federal Regulation (CFR) Parts 1500-1508. Those regulations dictate that an Environmental Assessment is prepared to provide evidence for determining whether to prepare a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement is needed. The Environmental Impact Analysis Process (32 CFR Part 989, as amended) outlines the process for implementing NEPA.

The USAF NEPA policy, 32 CFR Part 989 *Environmental Impact Analysis Process (EIAP)* provides policy and procedures for DoD officials to review environmental considerations when evaluating major DoD actions. The directive requires DoD components to integrate the NEPA process during the initial planning stages of proposed DoD actions to ensure that planning and decisions reflect environmental values.

USAF Policy Directive 32-70 states that the USAF would comply with applicable federal, state, and local laws and regulations, including NEPA. The USAF implementing regulation for NEPA is 32 CFR Part 989 *Environmental Impact Analysis Process (EIAP)*.

Upon completion of the Environmental Assessment review and consultation process, the project sponsor, USAF, would determine whether the Proposed Action would result in significant impacts to environmental or other resources. If significant impacts are expected to result, the USAF would then be required to decide whether to move forward with the development of an Environmental Impact Statement or to abandon the Proposed Action altogether. If no significant impacts are expected, then the USAF can publish a FONSI/Finding of No Practicable Alternative (FONPA) and move forward with the Proposed Action as such.

## **1.6 COORDINATION FOR ENVIRONMENTAL PLANNING AND PUBLIC INVOLVEMENT**

Initial coordination was performed by the USAF Global Global Strike Command (GSC) who notified relevant federal, state, and local agencies of the Proposed Action. USAF GSC requested the federal, state, and local agencies provide any initial comments or concerns regarding the Proposed Action. The list of agencies contacted, a copy of the coordination letter, and the correspondence received to date are provided in Appendix C.

A Notice of Availability for the FONSI/FONPA and Draft Final Supplemental Environmental Assessment was published in the *Seacoast Sunday* (distributed to subscribers of the *Portsmouth Herald*, *Forster's Daily Democrat*, *Hampton Union*, and the *Exeter News Letter*), on October 8, 2017. The Notice of Availability initiated a 30-day public review period that concluded on November 8, 2017. Comments received during the public review period will be considered and a response provided in Appendix C of this document.

## 1.7 ORGANIZATION OF THIS DOCUMENT

This Environmental Assessment is organized into six chapters and includes four appendixes as follows:

- **Chapter 1** provides the background information, project location, and purpose and need for the Proposed Action.
- **Chapter 2** contains a description of the Proposed Action and alternatives, including the No Action Alternative.
- **Chapter 3** contains a description of the environmental resources and baseline conditions that could potentially be affected by the Proposed Action and alternatives, and will present an analysis of the potential environmental consequences of implementing the Proposed Action and the No Action Alternative.
- **Chapter 4** includes an analysis of the potential cumulative impacts at DFSP Newington.
- **Chapter 5** lists the preparers of this Environmental Assessment.
- **Chapter 6** lists the references used in the preparation of this document.
- **Appendix A** provides the site figures.
- **Appendix B** provides the air modeling input data.
- **Appendix C** provides the list of agencies included in the initial coordination, the coordination letter, and the responses received.
- **Appendix D** provides the coastal zone management assessment.

## **2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES**

The following selection criteria were used to evaluate the Proposed Action and alternatives. Any alternative considered must: (1) fulfill the requirements of NEPA, (2) fulfill the requirements of Air Force Instruction 32-9004, (3) allow for the greatest reuse and redevelopment of the DFSP Newington, and (4) relieve the USAF of any future responsibility.

### **2.1 PROPOSED ACTION**

The Proposed Action includes the “full removal” of site facilities in Area 1 (property that is owned by USAF GSC) to include the full demolition and removal of all tanks, onsite (aboveground and underground) pipelines, associated appurtenances, pier structures, utilities, fence, etc. and subsequent backfill to grade (Figures 4 and 5). This Alternative also includes removal of aboveground DFSP pipeline (manifold) and valves in Area 2 (Pease ANGB). This action does not include the removal of the below ground fuel pipeline which connects Area 1 to Area 2 (Figures 4 and 5). The Proposed Action would include transfer of the property from USAF ownership to the General Services Administration for disposition.

### **2.2 PREFERRED ALTERNATIVE**

#### **2.2.1 Bulk Fuel Tank and Upland Areas**

The six bulk fuel tanks, which are partially buried relative to surrounding grade, would be demolished and removed. To accomplish this, the soil cap would be removed, the concrete cap would be crushed, and each tank would be progressively disassembled. Concrete foundations associated with the bulk fuel storage tanks would also be removed or properly closed in place (in accordance with state and federal guidelines). The lower section of several of the bulk fuel tanks is likely situated in groundwater so some level of dewatering will be required to fully remove the tanks. As the tanks historically stored petroleum, the potential for impacts to groundwater in the area of the tanks may exist. Therefore, a treatment system would be required to treat all groundwater removed from the excavations. Some of the bulk fuel tanks are located adjacent to Sprague Energy’s access roads or the rail line (Boston-Maine Railroad, operated by Pan Am Railways) that divides the DFSP parcels (Figure 4). Therefore, shoring would be required to support this critical infrastructure during the excavation.

Aboveground and underground fuel pipelines are present across the DFSP facility extending to the pier (Area 1). The pipelines (which were previously cleaned) would be removed from the facility and recycled. The pipelines are situated on supports in several locations, including along the bulkhead (shoreline) leading to the pier. All supports would be removed except for the piles located along the bulkhead (the steel supports atop the piles would be removed). The only DFSP fuel pipelines that will remain in Area 1 are located beneath the railroad line and beneath the Sprague Access road. These sections of pipeline that were previously cleaned would likely be sealed in place to prevent access and properly closed in place (in accordance with state and federal guidelines).

Several buildings are located throughout the property including the generator building, administration/laboratory building, fire suppression building, and hazardous material storage building. All of these structures would be completely removed. A 90,000-gallon water tank associated with the fire suppression building would be dismantled and removed. The concrete slab foundations would also be removed. Three truck racks are located north of the administration/laboratory building. The truck racks consist of metal-framed open air structures set on concrete pad foundations. The truck racks would also be completely removed. Associated separators, aboveground tanks, and a septic tank and field would also be removed.

All underground and aboveground utilities, including all associated equipment, support poles, concrete thrust blocks, etc., are to be removed. All lighting and communication facilities would be completely removed. All pavement and curbing located across Area 1 would be removed. All retaining walls would be removed. All stormwater management structure functions would be maintained during demolition activities, and restored, if they are adversely impacted, after demolition activities are complete. The chain link fencing surrounding Area 1 would also be removed. All disturbed areas would be graded and re-seeded with an appropriate seed mix. At the time of the preparation of this Supplemental Environmental Assessment, 95 percent design drawings were being prepared.

The aboveground portion of the pipeline (manifold) at Pease ANGB would be removed and the underground piping connected to this section would be capped and remain in place (Figure 5). This activity would require coordination with Pease ANGB.

### **2.2.2 Waterfront Area**

The pier including the dolphin structures, pipelines, and debris would be demolished and removed. Barges will be utilized to provide access to the structures (one barge to work from, and one to receive excavated material and move it to shore for offloading). Dolphin deconstruction activities will begin by removing fallen infrastructure debris from the top of the mudline to allow for the installation of an outer sheet pile cofferdam support and piles. The cofferdam will provide a containment structure around the outside of the dolphins, and the piles will provide vertical and angled support, as well as protection of the cofferdams from collisions with the barges or other unanticipated equipment.

The outer cofferdam sheet piles will be advanced into place with vibrating hammers until competent bedrock is encountered. The soil from within each dolphin cell will then be excavated using mechanical methods, tested, and properly handled and disposed of as dredge material. Due to concerns that the dolphin structures might collapse or become unsafe during preliminary sampling activities, the fill material from inside each cell was not able to be sampled for chemical analysis; therefore, the material will be sampled once it is removed from the dolphin structures, and brought to shore via barge where it will be dewatered onsite at a dewatering pad prior to appropriate offsite disposal.

Once all fill material from the inside of each of the four dolphin structures has been removed, the cofferdams and piles will be vibrated out, thereby completing in-water deconstruction activities.

No activities that involve removal of sediment from outside the dolphin structures will occur. No dewatering would be required to complete the demolition of the pier; however, should water need to be pumped from inside the cofferdams, the water will be pumped through a silt bag prior to discharge back into the river.

The deconstruction activities will be conducted under the New Hampshire Programmatic General Permit. The proposed Project is characterized as a Major *dredge* project under the Programmatic General Permit as the impact (limit of disturbance) within waters of the United States is greater than 20,000 square ft, but less than 3 acres, and occurs within Essential Fish Habitat). While the permitting focuses mainly on the removal of the dolphin structures and associated fill material, and the removal of sediment that has been deposited by natural processes is not proposed, it is still classified as a dredge operation due to the fact that fill removal from within the dolphin structures will occur below mean high water (EA 2017).

Depending on the hazardous nature of the waste, demolition and excavation materials would be transported to either the Waste Management Turnkey facility in Rochester, New Hampshire (approximately 15 miles northwest of the Area); Aggregate Recycling Company in Eliot, Maine (approximately 12 miles north of the Area); or Environmental Resource Return Corporation in Epping, New Hampshire (approximately 22 miles southwest of the Area). Steel would likely be salvaged to offset demolition costs. Salvage facilities in the area include Wentworth Scrap Metals of Portsmouth, New Hampshire (approximately 5 miles southeast of the facility) and Berwick Iron and Metal Recycling of Berwick, Maine (approximately 15 miles north of the facility). Another alternative for steel disposal would be preparing the steel within Area 1 (i.e., cut to maximum size of 5- × 2-ft pieces) and delivering it directly to Portsmouth Trading of Portsmouth, New Hampshire (approximately 3 miles southeast of the facility). Portsmouth Trading cannot process any material on the property; material can only be handled to support shipping activities.

At the completion of activities in the upland area, the area will be backfilled with clean fill soil. The top 4 in. of topsoil that was segregated at the start of the project and which is acceptable to use will be replaced on the top of the backfill material in order to retain the seedbank and organic matter. Permanent and temporary seeding measures will utilize native seed mixtures for the wetland and the upland areas, with the goal to return the site to a natural state.

Stormwater management infrastructure currently exists at the site. Stormwater infrastructure will remain in the same location, and will continue to serve both the DFSP Newington facility and the neighboring Sprague Energy.

As part of the Proposed Action, further refinement of remediation goals would occur to provide guidance for soil removal actions if petroleum-impacted soil is encountered. DLA–Energy is currently responsible for returning the property to a condition appropriate for industrial/commercial use and groundwater monitoring required in the interim. The USAF is responsible for securing the property and subsequent disposition of the property.

### **2.2.3 Site Access and Transportation**

The DFSP Newington facility currently only has legal access via Patterson Lane. The Town of Newington has imposed an ordinance on this street to restrict the number of truck axles to two and limit the total weight to 10 tons. Avery Lane and Avery Road are currently used to access the site; however, the USAF does not currently possess legal rights to use these roads.

Transportation routes being considered include the area along the border of the abutting facility Cogentrix (former Newington Energy, LLC) and Avery Road Avery Lane. To prevent potential delays, the potential use of rail in lieu of or to supplement these routes is being evaluated in parallel to pursuing other means of ingress/egress. Pan Am Railways currently owns and operates the Newington Branch of the Boston & Maine Railroad. The track lies between the DFSP Newington Southwest and Northeast parcels.

Included in the environmental analysis of the preferred alternative is not only the transportation of scrap metal, demolition material, and soil using trucks, but also the use of rail. Because the site lies locked between private industrial properties, and the existing easement only provides access to Patterson Lane, an alternative to trucking (which is the transportation included in the Preferred Alternative) may be required. This possibility is the use of the Pan Am Railways line that lies between the Southwest and Northeast parcels (Figures 3 and 5).

### **2.3 NO ACTION ALTERNATIVE**

Under the No Action Alternative, the USAF would continue ownership of DFSP Newington, and there would be no disposal of the subject fee-owned property. Current caretaker and maintenance operations would continue. Under this alternative, the facility would continue to pose a physical threat as infrastructure continues to corrode and deteriorate over time. Additionally, this alternative would result in continued maintenance costs and other responsibilities of facility ownership.

CEQ regulations require consideration of the No Action alternative for all Proposed Actions. The No Action alternative serves as a baseline against which the impacts of the Proposed Action and other potential alternatives can be compared and consequently be carried forward for further evaluation in the Environmental Assessment.

### **2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS**

#### **Alternative 1**

An alternative assessed, but not meeting the Project Purpose and Need requirements, includes the reactivating the Newington DFSP facility to provide support for an alternate USAF mission. Reactivating the facility would involve extensive modifications to the pier including re-installing pipelines to the pier that were removed after deactivation of the site, upgrading the six large storage tanks to comply with NHDES UST regulations, reconstruction of the manifold area and associated piping, and installation of new transfer pumps. The would also require extensive



reconstruction of the other existing infrastructure (buildings, electric, fire suppression, etc.) to make the site functional again. Because of a lack of nearby USAF facilities that would support the site, prohibitive time, and cost considerations associated with reactivation of the facility, this alternative does not meet the Purpose and Need of the project and was eliminated from further consideration.

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### 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

All potentially relevant resource areas were initially considered for analysis in this Supplemental Environmental Assessment. In compliance with NEPA and all other relevant regulations, only those resource areas considered potentially subject to impacts and with potentially significant issues are discussed below. This section includes discussions of noise, air quality, land use and recreation, geological resources, water resources, human health and safety, utilities and infrastructure, hazardous materials and wastes, socioeconomic and environmental justice, and cultural and visual resources.

The following sections present a description of the environmental resources and baseline conditions that could potentially be affected from implementing the Proposed Action. In addition, an analysis of the potential environmental consequences of implementing the Proposed Action, as well as the No Action Alternative, is also presented. In accordance with CEQ guidelines (40 CFR Part 1508.8), each alternative considered was evaluated for its potential effect on physical, biological, and socioeconomic resources.

The impact analyses consider all alternatives discussed in Chapter 2 that have been identified as reasonable for meeting the purpose and need for action. Those alternatives include:

- ***Preferred Alternative***—The Preferred Alternative includes the full removal of facilities in Area 1 to include the demolition and removal of all tanks (in accordance with state and federal guidelines), associated appurtenances, pier structures, dolphins, aboveground pipeline along the bulkhead, utilities, fencing, etc. and subsequent backfill to grade and re-seeding. This Alternative also includes removal of the manifold (aboveground pipeline and valves) in Area 2. The Preferred Alternative would include transfer of the property from USAF ownership.
- ***No Action Alternative***—Under the No Action Alternative, the USAF would continue ownership of DFSP Newington, and there would be no disposal of the subject fee-owned property. Current caretaker and maintenance operations would continue. Under this alternative, the facility would continue to pose a physical threat as infrastructure continues to corrode and deteriorate over time. Additionally, this alternative would result in continued maintenance costs and other responsibilities of facility ownership.

The criteria below were used to analyze impacts on the resources. For the purposes of this report, the existing conditions are used as a baseline comparison for the Preferred Alternative or No Action Alternative impacts. Each impact discussion for each resource area in the Environmental Consequences section will begin with the following:

- No effects would be expected
- Minor adverse effects would be expected
- Minor beneficial effects would be expected

- Moderate adverse effects would be expected
- Moderate beneficial effects would be expected
- Major adverse effects would be expected
- Major beneficial effects would be expected
- Combination of the above (minor beneficial and minor adverse effects would be expected).

To further clarify the nature of the various impacts upon each resource in the Environmental Consequences section of this Supplemental Environmental Assessment, the following terms were used and are defined.

***Short-Term or Long-Term***—These characteristics are determined on a case-by-case basis and do not refer to any rigid time period. In general, short-term impacts are those that would occur only with respect to a particular activity or for a finite period or only during the time required for construction or installation activities. Long-term impacts are those that are more likely to be persistent and chronic.

***Direct or Indirect***—A direct impact is caused by and occurs contemporaneously at or near the location of the action. An indirect impact is caused by a Preferred Alternative and might occur later in time or be farther removed in distance but still be a reasonably foreseeable outcome of the action. For example, a direct impact of erosion on a water body might include sediment-laden waters in the vicinity of the action, whereas an indirect impact of the same erosion might lead to lack of spawning and result in lowered reproduction rates of indigenous fish in nearby waters.

***Negligible, Minor, Moderate, or Major***—These relative terms are used to characterize the magnitude or intensity of an impact. Negligible impacts are generally those that might be perceptible but are at the lower level of detection. A minor effect is slight, but detectable. A moderate impact is readily apparent. A major impact is one that is severely adverse or exceptionally beneficial.

***Adverse or Beneficial***—An adverse impact is one having unfavorable or undesirable outcomes on the man-made or natural environment. A beneficial impact is one having positive outcomes on the man-made or natural environment. A single act might result in adverse impacts on one environmental resource and beneficial impacts on another resource.

### **3.1 NOISE**

#### **3.1.1 Definition of the Resource**

Sound is defined as a particular auditory effect produced by a given source. Noise and sound share the same physical aspects; however, noise is considered a disturbance while sound is defined as an auditory effect. Noise is typically defined as any sound that is undesirable because it interferes with communications, is intense enough to damage hearing, or is otherwise bothersome. Noise can be intermittent or continuous, steady or impulsive, and can involve any number of sources and frequencies. Human response to increased sound levels varies according to the source type, characteristics of the sound source, distance between source and receptor, receptor sensitivity, and time of day. Affected receptors can be specific, such as schools or specific fish species, or broad, such as green space or wildlife reserves, in which occasional or persistent sensitivity to noise above ambient levels exists.

#### **3.1.2 Existing Conditions**

DFSP Newington is currently not used for regular USAF operations and generates no noise. When formerly occupied, minor industrial-type noise was generated by operations.

#### **3.1.3 Environmental Consequences**

##### **Preferred Alternative**

Short-term, direct and indirect, major, temporary adverse impacts and long-term, direct and indirect adverse negligible and beneficial impacts are expected from the Preferred Alternative.

##### **Noise as a Result of In-Water Demolition Activities**

The Piscataqua River and nearby bays provide habitat for marine mammals. Harbor seal, harbor porpoise, and gray seal are found from November until April in Little Bay, with infrequent sighting in Great Bay and the Piscataqua River (U.S. Army Corps of Engineers [USACE] 2014). To evaluate this action and through consultation with the National Oceanic and Atmospheric Administration (NOAA), an assessment of the effects of anthropogenic noise and underwater acoustics on marine mammals and Atlantic sturgeon was conducted. Considering site conditions, the estimated duration and number of strikes with the hammer per pile, and known source specific information, an estimate of frequency threshold for each marine species was determined (EA 2017a). The consultation and acoustic model is occurring as part of the Programmatic General Permit and, at the time of this publication, was in review with agencies.

Major and adverse effects to noise resources would be expected with the Preferred Alternative in the short-term due to demolition activities in the waterfront area. The installation of the cofferdam and piles will require the use of impact and vibratory hammers through sediment and into bedrock. The Piscataqua River and nearby bays provide habitat for marine mammals. Harbor seal, harbor porpoise, and gray seal are found from November until April in Little Bay,

with infrequent sighting in Great Bay and the Piscataqua River (USACE 2014). To evaluate this action and through consultation with NOAA, an assessment of the the effects of anthropogenic noise and underwater acoustics on marine mammals and Atlantic sturgeon was conducted as part of the Programmatic General Permit prepared for the site (EA 2017). The assessment measured peak injury isopleth distances and were found to be very limited for all species (marine mammals and sturgeon) and occur in less than 23 meters from the impact. Individuals of these species are not expected to remain within this distance once the sound occurs, and encourage individuals to relocate away from the sound. Long-term noise levels would return to ambient levels after the in-water work was completed.

### **Noise as a Result of Typical Construction Activities**

The adverse effects caused by other, more typical out-of-water construction equipment would be short term and, following completion of the demolition and site restoration activity, the noise levels would return to ambient levels. It should be noted, however, that the demolition activities may occur non-contiguously over a 1-year period.

Noise that is typically associated with construction equipment generally includes the movement of trucks, demolition of buildings, and other similar sounds. In general, the sound of a heavy truck at 50 ft is approximately 75 decibels. In comparison, a rating of 75 decibels is louder than an average vacuum cleaner (approximately 70 decibels at 3 ft), but quieter than a garbage disposal (approximately 80 decibels at 3 ft). As such, construction noises are typically classified as “moderate” levels of noise. Typical noise levels of representative construction equipment that would be used for the Preferred Alternative are provided in Table 3-1.

All construction activities would be conducted during normal business hours (from approximately 7 a.m. to 5 p.m.), and all equipment would be outfitted with mufflers that would be in good working condition. These operational hours are within the allowable time for demolition and construction as stated in the Town of Newington Noise Ordinance (ARTICLE IV: NOISE CONTROL Section 3.401).

**Table 3-1 Noise Levels of Representative Construction Equipment**

Equipment	Noise Level (decibels)
Backhoe	80
Concrete Saw	90
Crane	85
Dozer	85
Dump Truck	84
Excavator	85
Front End Loader	80
Grader	85
Impact Pile Driver	95
Jackhammer	88
Pickup Truck	55
Pumps	77
Rail Cars	63
Vibratory Pile Drivers	95

Noise levels are given at a distance of 50 ft from the source.  
Source: Construction Noise Handbook (Federal Highway Administration 2006), and  
Noise Impact Assessment Spreadsheet (US. Department of Transportation Federal  
Railroad Administration 2017)

## No Action Alternative

Under the No Action Alternative, demolition of DFSP Newington would not occur. As a result, no effects to noise resources would be expected.

## 3.2 AIR QUALITY

### 3.2.1 Definition of the Resource

In accordance with the Federal Clean Air Act (CAA) (42 U.S. Code 7409) requirements, the air quality in a given region or area is measured by the concentration of criteria pollutants in the atmosphere. The air quality in a region is a result of not only the types and quantities of atmospheric pollutants and pollutant sources in an area, but also surface topography, the size of the topological “air basin,” and the prevailing meteorological conditions.

**Ambient Air Quality Standards**—Under the CAA, the U.S. Environmental Protection Agency (EPA) developed National Ambient Air Quality Standards (NAAQS) for pollutants that have been determined to affect human health and the environment. The NAAQS represent the maximum allowable concentrations for ozone (O<sub>3</sub>) measured as either volatile organic compounds (VOCs) or total nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), respirable particulate matter (including particulate matter equal to or less than 10 microns in diameter [PM<sub>10</sub>] and particulate matter equal to or less than 2.5 microns in diameter [PM<sub>2.5</sub>]), and lead (Pb) (40 CFR Part 50). New Hampshire has adopted the Federal NAAQS as its ambient air quality standards (Table 3-2).

Units of measure for the standards are parts per million (ppm) by volume and micrograms per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ).

**Table 3-2 National Ambient Air Quality Standards**

		Federal Air Quality Standards			
		Primary Standard		Secondary Standard	
		Level	Statistic	Level	Statistic
	8-hour	9 ppm	Maximum		
	1-hour	35 ppm	Maximum		
	Quarterly average	0.15 $\mu\text{g}/\text{m}^3$	Maximum	Same as Primary	
	Rolling 3-month average	0.15 $\mu\text{g}/\text{m}^3$	Maximum	Same as Primary	
	Annual	0.053 ppm	Arithmetic Mean	Same as Primary	
	1-hour	0.100 ppm	3-year average	None	
PM <sub>10</sub>	24-hour	150 $\mu\text{g}/\text{m}^3$	Maximum	Same as Primary	
	Annual	12 $\mu\text{g}/\text{m}^3$	Arithmetic Mean	15 $\mu\text{g}/\text{m}^3$	Arithmetic Mean
	24-hour	35 $\mu\text{g}/\text{m}^3$	3-year average	Same as Primary	
O <sub>3</sub>	8-hour (2008 standard)	0.075 ppm	3 year average	Same as Primary	
	3-hour	None		0.5 ppm	Maximum
	1-hour	0.075 ppm	3-year average	None	

**Attainment versus Non-Attainment and General Conformity**—EPA classifies the air quality in an air quality control region (AQCR), or in subareas of an AQCR, according to whether the concentrations of criteria pollutants in ambient air exceed the NAAQS. Areas within each AQCR are, therefore, designated as either “attainment,” “non-attainment,” “maintenance,” or “unclassified” for each of the six criteria pollutants. Attainment means that the air quality within an AQCR is better than the NAAQS; non-attainment indicates that criteria pollutant levels exceed NAAQS; maintenance indicates that an area was previously designated non-attainment but is now meeting attainment; and an unclassified air quality designation by EPA means that there is not enough information to appropriately classify an AQCR, so the area is considered unclassified. EPA has delegated the authority for ensuring compliance with the NAAQS in New Hampshire to the NHDES Division of Air Resources. In accordance with the CAA, each state must develop a State Implementation Plan, which is a compilation of regulations, strategies, schedules, and enforcement actions designed to move the state into compliance with all NAAQS.

The General Conformity Rule requires that any Federal action meets the requirements of a State Implementation Plan or Federal Implementation Plan. More specifically, CAA conformity is ensured when a Federal action does not cause a new violation of the NAAQS; contributes to an increase in the frequency or severity of violations of NAAQS; or delays the timely attainment of any NAAQS, interim progress milestones, or other milestones toward achieving compliance with the NAAQS. The General Conformity Rule applies only to significant actions in non-attainment or maintenance areas.

NHDES has created an Air Quality Index (AQI) for reporting daily air quality. It simply states how clean or polluted the air is and what associated health effects might be a concern. It was created to correlate levels of different pollutants onto one scale and simplifies air quality



understanding. When levels of O<sub>3</sub>, fine particles, and/or sulfur dioxides are expected to exceed an AQI value of 100, an Air Quality Health Advisory is issued. The AQI is not a regulatory level; however, it is a measure of the general air quality.

***Federal Prevention of Significant Deterioration***—Federal Prevention of Significant Deterioration (PSD) regulations apply in attainment areas to a major stationary source, (i.e., source with the potential to emit 250 tons per year [tpy] of any criteria pollutant), and a significant modification to a major stationary source (i.e., change that adds 15-40 tpy to the facility’s potential to emit depending on the pollutant). Additional PSD major source and significant modification thresholds apply for greenhouse gases (GHGs). PSD regulations can also apply to stationary sources if: (1) a proposed project is within 10 kilometers of national parks or wilderness areas (i.e., Class I Areas), and (2) regulated stationary source pollutant emissions would cause an increase in the 24-hour average concentration of any regulated pollutant in the Class I area of 1 µg/m<sup>3</sup> or more (40 CFR 52.21[b][23][iii]). A Class I area includes national parks larger than 6,000 acres, national wilderness areas and national memorial parks larger than 5,000 acres, and international parks. PSD regulations also define ambient air increments, limiting the allowable increases to any area’s baseline air contaminant concentrations, based on the area’s Class designation (40 CFR 52.21[c]).

***Greenhouse Gas Emissions***—GHGs are gaseous emissions that trap heat in the atmosphere. These emissions occur from natural processes and human activities. The most common GHGs emitted from natural processes and human activities include carbon dioxide (CO<sub>2</sub>), methane, and nitrous oxide. GHGs are primarily produced by the burning of fossil fuels and through industrial and biological processes. On 22 September 2009, EPA issued a final rule for mandatory GHG reporting from large GHG emissions sources in the United States. The purpose of the rule is to collect comprehensive and accurate data on CO<sub>2</sub> and other GHG emissions that can be used to inform future policy decisions. In general, the threshold for reporting is 25,000 metric tons or more of CO<sub>2</sub> equivalent emissions per year, but excludes mobile source emissions. The first emissions report was due in 2011 for 2010 emissions.

Executive Order (EO) 13514 was signed in October 2009, and requires agencies to set goals for reducing GHG emissions. One requirement within EO 13514 is the development and implementation of an agency Strategic Sustainability Performance Plan (SSPP) that prioritizes agency actions based on life cycle return on investment. Each SSPP is required to identify, among other things, “agency activities, policies, plans, procedures, and practices” and “specific agency goals; a schedule, milestones, and approaches for achieving results; and quantifiable metrics” relevant to the implementation of EO 13514. On 26 August 2010, DoD released its SSPP to the public. This implementation plan describes specific actions DoD would take to achieve its individual GHG reduction targets, reduce long-term costs, and meet the full range of goals of the EO. All SSPPs segregate GHG emissions into three categories: Scope 1, Scope 2, and Scope 3 emissions. Scope 1 emissions are those directly occurring from sources that are owned or controlled by the agency. Scope 2 emissions are indirect emissions generated in the production of electricity, heat, or steam purchased by the agency. Scope 3 emissions are other indirect GHG emissions that result from agency activities but from sources that are not owned or directly controlled by the agency. The GHG goals in the DoD SSPP include reducing Scope 1 and Scope 2 GHG emissions by 34 percent by 2020, relative to Fiscal Year 2008 emissions; and

reducing Scope 3 GHG emissions by 13.5 percent by 2020, relative to Fiscal Year 2008 emissions.

### **3.2.2 Existing Air Quality**

#### **3.2.2.1 Climate**

Newington, New Hampshire has a humid continental climate with warm summers and no dry season. The area within 25 miles of this station is covered by forests (62 percent), oceans and seas (34 percent), and lakes and rivers (2 percent). Over the course of a year, the temperature typically varies from 17 degrees Fahrenheit (°F) to 81°F and is rarely below 3°F or above 89°F. The warm season lasts from 4 June to 15 September with an average daily high temperature above 71°F. The highest temperatures occur in July, with an average high of 81°F and low of 63°F. The cold season lasts from 5 December to 13 March with an average daily high temperature below 42°F. The coldest temperatures occur in January, with an average low of 17°F and high of 32°F (Northeast Regional Climate Center 2013).

The wind is most often out of the west (24 percent of the time), northwest (14 percent of the time), and southwest (11 percent of the time). Over the course of the year, typical wind speeds vary from 0 miles per hour to 16 miles per hour (calm to moderate breeze), rarely exceeding 25 miles per hour (strong breeze). Winds are generally highest during the springtime (Northeast Regional Climate Center 2013).

#### **3.2.2.2 Attainment Status**

The area is in attainment with the NAAQS for PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub>, CO, Pb, and SO<sub>2</sub>, and considered maintenance for the 8-hour O<sub>3</sub> (1997) standard. The entire state of New Hampshire is part of the Northeast Ozone Transport Region, which was established in the 1990 CAA Amendments in recognition of the long-standing ozone non-attainment problems in the Northeast. The Ozone Transport Region is the area consisting of the Northeast and Mid-Atlantic states that historically has had a ground-level ozone attainment problem, a large amount of which is accounted for by emissions generated outside the region in up-wind states.

#### **3.2.2.3 Air Quality Impacts**

Rockingham County in New Hampshire is designated as a maintenance area for the 8-hour O<sub>3</sub> (1997) standard. For O<sub>3</sub>, emissions have been estimated for the O<sub>3</sub> precursor pollutants NO<sub>x</sub> and VOCs. Annual emissions for these compounds were estimated for the project activities to determine if they would be below or above the *de minimis* levels established in the Rule. The *de minimis* threshold for maintenance areas in an Ozone Transport Region is 100 tpy for NO<sub>x</sub> and 50 tpy for VOCs. Any activity exceeding the *de minimis* levels from the construction activities associated with the Preferred Alternatives must undergo a General Conformity determination.

### 3.2.3 Environmental Consequences

#### Preferred Alternative

Short-term, direct, moderate, temporary and adverse impacts and long-term, direct and indirect, negligible, and beneficial impacts are expected from the Preferred Alternative.

The Preferred Alternative is expected to result in moderate temporary adverse impacts followed by long-term beneficial impacts to air quality (i.e., reduction of potential mold sources). During the construction phase of the demolition and redevelopment of the site, the air quality is expected to likely be temporarily impacted by dust and exhaust from the operation of heavy equipment. To evaluate the potential impacts to air quality resultant from the Preferred Alternative, construction activities are categorized into the following activities:

- ***Non-Road Equipment Engines***—Emissions from cranes, excavator, and other construction equipment.
- ***Trucking Fugitives***—Fugitive emissions from trucking activities.
- ***Rail Fugitives***—Fugitive emissions from rail activities.
- ***Off-Shore Marine Vessels***—Emissions from offshore construction equipment like barges, cranes, and tugboats.

Emissions from these source categories were calculated using emission factors and EPA models from the following sources (Appendix B):

- Compilation of Air Pollutant Emission Factors, EPA AP-42
- EPA 21A-2001, Nonroad Engine and Vehicle Emission Study Report, 1991.
- Air Emissions Guide for Air Force Mobile Sources, US Air Force Installations, 2016.
- EPA 420-R-00-002, Analysis of Commercial Marine Vessels Emissions and Fuel Consumption Data, February 2000.

For the Preferred Alternative, it was assumed that the project would occur during a 1-year period in 2018/2019 (activities occurring concurrently). Table 3-3 summarizes the expected emission estimates for the Preferred Alternative. Back-up calculations including model inputs are provided in Appendix C.

**Table 3-3 Emission Estimates**

Source	Emissions (annual tpy)						
	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>
Non-Road Equipment Engines	6.46	2.22	0.50	0.41	0.38	0.38	--
Trucking Fugitives	--	--	--	--	10.90	1.08	--
Off-Shore Marine Vessels	12.37	1.92	2.10	0.22	0.31	0.31	844
TOTAL	18.83	4.14	2.6	0.63	11.59	1.77	844

A review of Table 3-3 indicates that the projected total emissions from construction do not exceed the General Conformity Analysis threshold of 100 tpy for SO<sub>2</sub>; thus, a full conformity determination is not required and the Preferred Alternative is not subject to the General Conformity Rule. Best management practices (BMPs) would be conducted during all demolition activities to minimize dust generation. Air monitoring would also be conducted during demolition activities to monitor dust levels and other potential air quality impacts.

### No Action Alternative

The No Action Alternative is not expected to affect air quality.

## 3.3 LAND USE AND RECREATION

### 3.3.1 Definition of the Resource

Land use generally refers to real property classifications that indicate either natural conditions or the types of human activity occurring on a parcel. In many cases, land use descriptions are coded in local zoning laws. However, there is no nationally recognized convention or uniform terminology for describing land use categories. As a result, the meanings of various land use description definitions vary among jurisdictions. Natural conditions of property can be described or categorized as unimproved, undeveloped, conservation or preservation area, and natural or scenic area. Descriptive terms often used include residential, commercial, industrial, agricultural, institutional, and recreational.

In appropriate cases, the location and extent of a Preferred Alternative needs to be evaluated for its potential effects on the project area and adjacent land uses. The foremost factor affecting a Preferred Alternative in terms of land use is its compliance with any applicable land use or zoning regulations. Other relevant factors include matters such as existing land use at the project area, the types of land uses on adjacent properties and their proximity to a Preferred Alternative, the duration of a proposed activity, and its “permanence.”

### 3.3.2 Existing Conditions

Land use in the vicinity of DFSP Newington is predominantly commercial, waterfront industrial (Figure 10), and residential. According the Town of Newington land use planning, DFSP Newington is zoned as Waterfront Industrial.

The Town of Newington, zones “Waterfront Industrial “districts as “W.” The “W” District is established as a zone in which the principal use is for activities that depend on the ocean for transport or resources. There is a relatively limited amount of deep water frontage in the state of New Hampshire. This prime land is recognized as an invaluable natural resource to the town of Newington and should be reserved for optimum utilization so that the economic benefits may be realized to their fullest extent. Any installation onshore or offshore, temporary or permanent, that interferes with the purposes of this district is prohibited.

Uses permitted within Waterfront Industrial Districts include:

- Any industrial or commercial activity dependent upon the ocean for transport or resources
- Any research laboratory or testing or experimental facility related to the ocean
- Business signs, subject to the provisions of Article IV, Section 6
- Telecommunication facilities, subject to the provisions of Article XIV.

The Piscataqua River is located directly adjacent to DFSP Area 1. The river is tidal, and is used for recreation and commercial transportation (i.e., tug, barge, and tanker).

### **3.3.3 Environmental Consequences**

#### **Preferred Alternative**

Short-term, direct, negligible, and beneficial impacts are expected from the Preferred Alternative; and long-term, direct and indirect, minor and beneficial impacts are expected from the Preferred Alternative.

The Preferred Alternative is not expected to affect land use or recreational resources. DFSP Newington would be left as a vacant lot following demolition activities, and the zoning classifications would remain Waterfront Industrial.

The USAF classified land use would transition from industrial to open space.

#### **No Action Alternative**

The No Action Alternative is not expected to affect land use or recreation resources.

## **3.4 GEOLOGICAL RESOURCES**

### **3.4.1 Definition of the Resource**

Geological resources consist of all bedrock and soil materials within DFSP Newington. Geologic factors such as soil stability and seismic properties influence the stability of structures. Soil, in general, refers to unconsolidated earthen materials overlying bedrock and other parent material. Soil structure, elasticity, strength, shrink-swell potential, and erodibility all determine the ability for the ground to support structures and facilities. Soils typically are described in terms of their type, slope, physical characteristics, and relative compatibility or limitations with regard to particular construction activities and types of land use.

Topography consists of the physiographic, or surface, features of an area and is usually described with respect to elevation, slope, aspect, and landforms. Long-term geological, erosional, and depositional processes typically influence topographic relief.

### **3.4.2 Existing Conditions**

Soils within and directly adjacent to the DFSP Newington are classified as Udorthents (Figures 6 and 7). Based on a subsurface investigation conducted by EA, and a review of historical investigations, bedrock beneath DFSP Newington ranges from approximately 5 to 30 ft below ground surface. Weathered bedrock was observed to consist of decomposed shale during the field investigation. Although there are no confirmatory cores documenting the bedrock, the boring refusals are assumed to indicate the top of bedrock rather than isolated boulders or similar features. Based on geologic publications of the area, bedrock underlying the site is Silurian-aged metamorphics (COMPA Industries, Inc. and Geo-Marine, Inc. 1997).

### **3.4.3 Environmental Consequences**

#### **Preferred Alternative**

Short-term direct, minor, beneficial, impacts and long-term, direct, moderate, and beneficial impacts are expected from the Preferred Alternative.

The Preferred Alternative would result in short-term minor impacts to soils in Area 1, including the excavation of the wetland (stormwater basin). The basin was formerly identified as an oil/water separator; therefore, the excavation of the wetland may potentially remove petroleum impacted soils from the site. After the excavation of soils in Area 1, the wetland will be replaced in-kind, and restored with an approved native wetland seed mix.

The preferred Alternative will likely result in a long-term moderately beneficial effect to geological resources. The soils within Area 1 are considered cut and fill lands; therefore, any impact to these resources resultant from grading, excavation, filling, and similar demolition activities would not likely have a significant impact on their characterization. However, because

of the significance of the restoration efforts, it is likely that restoring fill material after UST removal would have a moderate, beneficial impact.

### **No Action Alternative**

The No Action Alternative is not expected to affect geological resources.

## **3.5 WATER RESOURCES**

### **3.5.1 Surface Water**

#### **3.5.1.1 Definition of the Resource**

Surface water resources generally consist of permanently or seasonally flooded water features including lakes, ponds, rivers, streams, and oceans.

#### **3.5.1.2 Existing Conditions**

Piscataqua River flows southeast along DFSP Newington's eastern boundary (Figures 8 and 9) to its confluence with the Atlantic Ocean. Stormwater from DFSP Newington currently collects at the site in a detention basin (lagoon), then discharges into the river.

#### **3.5.1.3 Environmental Consequences**

### **Preferred Alternative**

Short-term, direct and indirect, major, and adverse temporary impacts are expected from the Preferred Alternative; and long-term, direct and indirect, minor, and negligible impacts are expected from the Preferred Alternative.

The Preferred Alternative is expected to result in the temporary degradation of water quality by suspended sediment as a result of the installation and removal of the cofferdams and piles. The cofferdams, however, will prevent a catastrophic release of fill material to surface waters, should one of the dolphins continue to corrode and breach.

The demolition of DFSP Newington would also result in short- and long-term minor impacts due to stormwater discharges into the Piscataqua River. The dewatered water generated from the fill material in the dolphin structures and from groundwater in the Area 1 excavation will also result in short-term direct and indirect, minor impacts to the Piscataqua River should they be treated and discharged onsite as opposed to containerized and transported for offsite disposal.

Long-term negligible beneficial impacts are expected from the removal of impervious surfaces such as building footprints and pavement that are currently part of the installation; however, long-term minor adverse impacts would be expected due to stormwater discharge to the Piscataqua River.

The site would be restored after demolition to natural vegetation cover. As such, water quality within the river can generally be expected to improve in the long term, as a result of a reduction of stormwater runoff volume and velocity from DFSP Newington. A change from impervious surface to pervious ground typically results in a reduction of stormwater runoff volume by retarding the velocity of runoff. Vegetation allows for runoff to infiltrate into the ground prior to discharging into a water body (i.e., the Piscataqua River).

### **No Action Alternative**

The No Action Alternative would continue to discharge stormwater, which would continue to impact surrounding receptors by negatively affecting water quality, water volume, and surface water velocities. The No Action Alternative would lead to the eventual collapse of the dolphin structures. The release of sediment and material into the water column would have a temporary adverse impact to water resources as a result of no action.

## **3.5.2 Groundwater**

### **3.5.2.1 Definition of the Resource**

Groundwater resources consist of water located beneath the ground surface in soil pore space, bedrock fractures, and subterranean drainage (i.e., karst dissolution features). Groundwater is often pumped and utilized for both municipal and industrial uses.

### **3.5.2.2 Existing Conditions**

Groundwater was observed as shallow as 1 ft below ground surface on DFSP Newington. Groundwater flows to the northeast, toward the river, and does not appear to be influenced by tidal variations in the river. Previous investigations indicated that shallow groundwater has been impacted by operations of the DFSP Newington facility.

The presence of emerging contaminants at the site (perfluorinated alkylated substances [PFAS] substances; specifically, perfluorooctanoic acid and perfluorooctane sulfonic acid) have recently been identified in groundwater at the site. It should be noted that remedial activities associated with PFAS may be part of the overall cleanup action; however, the full extent and concentrations are unknown at this time. If encountered during demolition activities, groundwater impacted with PFAS will be treated prior to discharge.

### **3.5.2.3 Environmental Consequences**

#### **Preferred Alternative**

Short and long-term, direct and indirect, minor, beneficial impacts are expected from the Preferred Alternative.



The Preferred Alternative is expected to result in short- and long-term, direct and indirect, moderate, beneficial effect on groundwater resources. Excavation of DFSP Newington soils, removal of the USTs, and subsequent backfilling would help restore natural groundwater flows, and would reduce the potential for further impacts to groundwater. Restoration of the site from impervious surface to pervious ground would typically result in a beneficial impact to groundwater resources by allowing precipitation and stormwater runoff to infiltrate the ground and recharge groundwater resources. Future site cleanup activities after the demolition is completed would address PFAS, and would ensure water quality criteria are met.

### **No Action Alternative**

The No Action Alternative is not expected to impact groundwater features. The groundwater will continue to be obstructed by the USTs and the impervious surfaces.

### **3.5.3 Floodplains**

#### **3.5.3.1 Definition of the Resource**

Floodplains are flat or nearly flat land adjacent to a stream or river that is periodically flooded during periods of heavy precipitation or snow melt. Floodplains are composed of sediments deposits and by floodwaters and/or historic meanders. They act as areas for floodwater storage during flood events. Certain facilities inherently pose too great a risk to be in either the 100- or 500-year floodplain, such as hospitals, schools, or storage buildings for irreplaceable records. federal, state, and local regulations often limit floodplain development to passive uses, such as recreational and preservation activities, to reduce the risks to human health and safety.

EO 11988 requires federal agencies to determine whether a Preferred Alternative would occur within a floodplain. This determination typically involves consultation of the Federal Emergency Management Agency Flood Insurance Rate Maps, which contain enough general information to determine the relationship of the project area to nearby floodplains. EO 11988 directs federal agencies to avoid floodplains unless the agency determines that there is no practicable alternative.

#### **3.5.3.2 Existing Conditions**

DFSP Newington is located within the Piscataqua River floodplain. The portion of the site east of the railroad is mapped within the 100-year floodplain (Figure 8).

#### **3.5.3.3 Environmental Consequences**

##### **Preferred Alternative**

Short-term direct, indirect, negligible adverse and long-term, direct and indirect, negligible, and beneficial impacts are expected from the Preferred Alternative.

The Preferred Alternative is expected to result in short-term, direct, and indirect negligible adverse impacts to the floodplain during demolition. There will also be long-term, direct and indirect, negligible beneficial effects by removing DFSP Newington structures from the floodplain. Flood damage and monies spent repairing said damages will be avoided.

### **No Action Alternative**

The No Action Alternative is not expected to impact floodplain resources. The property would remain a Waterfront Industrial development within an area that may experience flooding.

## **3.5.4 Wetlands**

### **3.5.4.1 Definition of the Resource**

Wetlands and waters of the United States are defined within the Clean Water Act, as amended, and jurisdiction is addressed by EPA and USACE. These agencies assert jurisdiction over traditionally navigable waters, wetlands adjacent to navigable waters, non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-around or have continuous flow at least seasonally, and wetlands that directly abut such tributaries. Section 404 of the Clean Water Act regulates the discharge of dredge or fills into waters of the United States, including wetlands. Encroachment into waters of the United States and wetlands typically requires a permit from the state and the Federal government. The state of New Hampshire defines a wetland as:

*...an area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include swamps, marshes, bogs, and similar areas.*

The state of New Hampshire maps wetlands throughout the state, and has wetlands maps available online. New Hampshire mapped wetland complexes are constructed from the National Wetlands Inventory base layer generated by U.S. Fish and Wildlife Service (USFWS) in the mid-1980s.

### **3.5.4.2 Existing Conditions**

The Piscataqua River, although not a wetland, is a Water of the United States, and is afforded the same protections as wetlands. The pier and dolphin structures will be removed from the river, and cofferdams and piles will be vibrated through sediment and driven by impact hammer into competent bedrock. The cofferdams must be installed prior to the removal activities, in order to protect water quality, in the event dolphin structure breaches and the fill material in the dolphin are found to contain elevated chemical concentrations.

A wetland measuring 1,753 square ft was delineated in Area 1 (Figure 8). No wetlands are located in Area 2 (Figure 9). A site visit was conducted on 20 August 2015 to perform a

delineation of the wetland resources on the DFSP site. Hydrophytic vegetation and hydric soils were identified; however, the soil hydrology was deemed to be unnatural because the source of the water was identified as the drainage from the french drain system. This system was associated with the bulk fuel tanks and is also a part of the existing stormwater drainage system. The wetland investigation further identified the wetland feature as having a dam structure with a gate valve controlling the outflow.

During site operations, the wetland was created through the construction of a lagoon/stormwater basin. The basin, also referred to as an oil/water separator/lagoon in historical documents, was historically used to capture discharge from the french drains below each tank and collected stormwater from the DFSP site and the neighboring Sprague property. The french drain system has been capped but the basin still currently accepts stormwater from the DFSP and Sprague parcels. The basin discharges directly to the Piscataqua River.

### **3.5.4.3 Environmental Consequences**

#### **Preferred Alternative**

Short-term, direct and indirect, major, and adverse impacts are expected from the Preferred Alternative; and long-term, direct and indirect, minor, and beneficial impacts are expected from the Preferred Alternative. As discussed above, the wetland associated with stormwater runoff from the site and adjacent properties will be excavated as part of deconstruction activities in Area 1. Any petroleum-impacted soil that may exist in the wetland (formerly identified as an oil/water separator) will be excavated and properly disposed. After the excavation of soils in Area 1, the wetland will be replaced in-kind, and restored with an approved native wetland seed mix.

The pier including the dolphin structures, pipelines along the waterfront, and debris would be demolished and removed. Barges will be utilized to provide access to the structures (one barge to work from, and one to receive excavated material and move it to shore for offloading). Dolphin deconstruction activities will begin by removing fallen infrastructure debris from the top of the mudline to allow for the installation of an outer sheet pile cofferdam support and piles. The cofferdam will provide a containment structure around the outside of the dolphins, and the piles will provide vertical and angled support, as well as protection of the cofferdams from collisions with the barges or other unanticipated equipment. The sheet piles will be advanced into place with vibrating hammers until competent bedrock is encountered. The soil from within each dolphin cell will then be excavated. Material brought to shore via barge will be dewatered onsite at a dewatering pad prior to appropriate offsite disposal.

Once all fill material from the inside of each of the four dolphin structures has been removed, the cofferdams and piles will be vibrated out, thereby completing in-water deconstruction activities.

## No Action Alternative

The No Action Alternative would lead to the eventual collapse of the dolphin structures. The release of sediment and material into the water column would have a temporary adverse impact to wetland resources.

## 3.6 COASTAL ZONE MANAGEMENT

### 3.6.1 Definition of the Resource

The Coastal Zone Management Act (CZMA) (16 U.S. Code 1451 et seq.) declares a national policy to preserve, protect, and develop, and, where possible, restore or enhance the resources of the Nation's coastal zone. The coastal zone generally refers to the coastal waters and the adjacent shorelines, including islands, transitional and intertidal areas, salt marshes, wetlands, and beaches; and include the Great Lakes. The CZMA encourages states to exercise their full authority over the coastal zone through the development of land and water use programs in cooperation with federal and local governments. Development projects affecting land/or water use, or natural resources of a coastal zone, must ensure the project is, to the maximum extent practicable, consistent with the state's coastal zone management program.

A federal agency may review their activities, other than development projects within the coastal zone, to identify *de minimis* activities, and request state agency concurrence that these *de minimis* activities should not be subject to further state review. *De minimis* activities are activities that are expected to have insignificant direct or indirect (cumulative and secondary) coastal effects and that the state agency concurs are *de minimis*. The state agency is required to provide for public participation under Section 306(d)(14) of the CZMA when reviewing the federal agency's *de minimis* activity request.

The mission of the New Hampshire Coastal Program (NHCP) is to balance the preservation of coastal resources with the social and economic needs of current and succeeding/future generations. Through coordination with New Hampshire state agencies such as the Department on Environmental Services, Fish and Game Department, Department of Transportation, and Public Utilities Commission, federal activities occurring within the coastal zone are reviewed and assessed by NHCP for their potential impacts on coastal resources. NHCP has been consulted in reference to the CZMA consistency determination and the coordination letter and their subsequent response is included in Appendix D.

Pursuant to CZMA § 307(c)(1), any federal agency undertaking an activity within or outside the coastal zone that affects any coastal use or resource of the coastal zone shall provide a consistency determination to the NHCP. Pursuant to NOAA regulations at 15 CFR § 930.46, modifications of any such activity or development project previously reviewed by the NHCP, and determined to be consistent with the NHCP but have not yet begun, require initiation of another consistency review when the activity or development project presents substantially different effects on coastal uses or resources. In certain circumstances, even if a federal agency

determines that the activity will not have coastal effects, the agency must provide a negative determination to the NHCP, pursuant to NOAA regulations at 15 CFR § 930.35. On this basis, and because the project was revised to include the waterfront deconstruction activities, a second consistency review was initiated.

### **3.6.2 Evaluation Criteria**

Consistency with the NHCP is determined based on an evaluation of an action's effects on New Hampshire's coastal zone resources and consistency to the maximum extent practical with the policies and procedures of the program.

### **3.6.3 Existing**

DFSP Newington is located in the New Hampshire Coastal Management Zone. During the coordination phase of this project, NHCP was contacted. The first official Coastal Consistency Determination letter is provided in Appendix D, and the second letter is in process and would be required prior to receiving an approved Programmatic General Permit for the project.

### **3.6.4 Environmental Consequences**

#### **Preferred Alternative**

Short-term, direct, major, and adverse impacts are expected from the Preferred Alternative; and long-term, direct and indirect, negligible, and beneficial impacts are expected from the Preferred Alternative.

The Preferred Alternative is expected to have a major short-term adverse impact to the coastal zone management areas, and a long-term minimal beneficial impact to the coastal zone.

The Coastal Consistency Determination Correspondence (Appendix D) has additional information on specific impacts to the coastal zone.

#### **No Action**

The No Action Alternative is not expected to impact coastal zone management assessments since there would be no changes, alterations, or activities within the coastal management zone. Under this alternative, the site would continue to pose a physical threat as infrastructure continues to deteriorate and corrode.

## **3.7 BIOLOGICAL RESOURCES**

### **3.7.1 Vegetation**

#### **3.7.1.1 Definition of the Resource**

Vegetation resources refer to the plant communities at any scale including grasses, herbs, forbs, shrubs, vines, and trees. For the purposes of this Environmental Assessment, vegetation refers to the terrestrial and marine plant life at and in the immediate vicinity of DFSP Newington.

Submerged aquatic vegetation includes vegetation growing from the benthic zone, but does not emerge beyond the surface of the water. Submerged aquatic vegetation, including eelgrass (*Zostera marina*) performs and provides multiple important ecological functions, such as habitat for finfish and shellfish, protection from predators, food for waterfowl, fish, and mammals, absorbs wave energy and nutrients, produces oxygen, and improves water quality by settling suspended sediment and stabilizing sediments (NOAA 2017).

#### **3.7.1.2 Existing Conditions**

DFSP Newington is located in the Middle New England Section of the Eastern Broadleaf Forest (Oceanic) Province of the Hot Continental Division (McNab and Avers 1994). The predominant forest type in this area is coastal white pine, beech, and maritime red cedar. However, during operation of the facility, the site was covered by native grasses and small forbs and was maintained with a regular mowing program. Since closure of the site, the earth covered fuel storage tanks have become covered by a dense growth of shrubs, mainly autumn and Russian olive (*Elaeagnus umbellata*).

Eelgrass communities have been surveyed annually in the Piscataqua River and surrounding inlets and rivers, including the Great Bay estuary, through the research of Dr. Fredrick Short of the University of New Hampshire. University of New Hampshire and NHDES have conducted annual aerial surveys of eelgrass communities with additional ground-truthing activities since 1986. Based on the documented conditions of the substrate at DFSP Newington in the area of the pier and dolphin structures, sand and cobbles are not conducive to eelgrass establishment. General habitat preference criteria for eelgrass establishment includes shallow water and the presence of a muddy or sandy bottom. Evidence of scouring along the river bottom in the area of the dolphin structures was observed during a side-scan sonar survey conducted by Childs Engineering in July 2015 (Childs 2015).

### 3.7.1.3 Environmental Consequences

#### Preferred Alternative

Short-term, direct, moderate, and adverse impacts are expected from the Preferred Alternative; and long-term, direct, moderate, and beneficial impacts are expected from the Preferred Alternative.

The clearing, grading, and stripping of vegetation at DFSP Newington would result in short-term adverse impacts. The Preferred Alternative is expected to result in minor beneficial impacts to the vegetative resources at DFSP Newington following completion of demolition activities. Following the demolition activities, the disturbed soils on DFSP Newington would be reseeded with native grasses to establish a natural vegetative cover.

Negligible impacts would occur to submerged aquatic vegetation because there is not a presence of submerged aquatic vegetation at the site.

#### No Action Alternative

The No Action Alternative is not expected to affect vegetation resources at DFSP Newington.

## 3.7.2 Wildlife

### 3.7.2.1 Definition of the Resource

Wildlife resources refer to the animal communities that are considered likely to or have been specifically observed to utilize the habitats that occur within the site. The wildlife community typically includes fish, amphibians, reptiles, birds, and mammals (terrestrial and marine).

### 3.7.2.2 Existing Conditions

#### *Terrestrial Wildlife Species*

DFSP Newington is completely developed as commercial/industrial space and does not provide suitable habitat for a wide diversity of wildlife. However, species that commonly occur on the installation are generally those that are frequently found in the northeast United States and are very tolerant of human activities such as the American robin (*Turdus migratorius*), blue jay (*Cyanocitta cristata*), common raccoon (*Procyon lotor*), eastern gray squirrel (*Sciurus carolinensis*), various gull species (*Larus* spp.), white-tailed deer (*Odocoileus virginianus*), white-footed mouse (*Peromyscus eucopus*), and other similar species. In general, these species typically utilize what minimal habitat that is present on the DFSP property (Areas 1 and 2) for foraging and/or shelter.

### ***Marine Mammals***

The Piscataqua River and nearby bays provide habitat for marine mammals. Harbor seal, harbor porpoise, and gray seal are found from November until April in Little Bay, with infrequent sighting in Great Bay and the Piscataqua River (USACE 2014). However, there is a very low likelihood of occurrences of hooded seal (*Crystphora cristata*) or harp seal (*Pagophilus groenlandicus*) in the Piscataqua River.

### ***Finfish***

Seven species of diadromous fish utilize the Piscataqua River for some portion of their life cycle. These species are: Atlantic Sturgeon, American eel (*Anguilla rostrata*), American shad (*Alosa sapidissima*), alewife, blueback herring, rainbow smelt, and sea lamprey (*Petromyzon marinus*). Diadromous fish species are those that collectively migrate between sea and fresh water. These species are present in the Piscataqua River and in the vicinity of the nearby Portsmouth Harbor during spawning migrations (USACE 2014). As part of the Programmatic General Permit prepared for the site, an Essential Fish Habitat (EFH) Assessment was conducted, which described the habitat requirements for the sixteen managed species that may occur within the project area and are provided protection through the designation of EFH.

### ***Shellfish***

The State of New Hampshire conducts annual surveys of shellfish in waters throughout the region, including the Piscataqua River. The Piscataqua River supports several shellfish including oysters, Northern lobster (*Homarus americanus*), shrimp (*Mysis* sp.), and rock crab (*Cancer irroratus*) softshell clams, blue mussels, razor clams, and sea scallops (USACE 2014).

## **3.7.2.3 Environmental Consequences**

### **Preferred Alternative**

#### ***Terrestrial Wildlife Species***

The Preferred Alternative is expected to result in a temporary adverse impact to wildlife. During the demolition activities, an increase in noise and site activity may disturb wildlife that occupies DFSP Newington, and its immediate vicinity. The restoration of the site after demolition activities are completed would restore some wildlife habitat in the long term providing a beneficial impact.

#### ***Marine Mammals***

Short-term, direct, indirect, minor, and adverse are expected from the Preferred Alternative; and long-term, direct, indirect, negligible, and beneficial impacts are expected from the Preferred Alternative for all marine mammals.



The Preferred Alternative is expected to result in a temporary adverse impact due to acoustic noise during cofferdam and pile installation and removal. BMPs such as soft starts during pile driving, time restrictions (daylight hours) and time of year restrictions (from October to March) for in-water construction activities will act to reduce auditory impacts to marine mammals. An assessment to better understand underwater acoustic impacts will be conducted in consultation with NOAA. Long-term impacts would be negligible and beneficial because no disturbances would occur at the site while it is vacant.

### ***Finfish***

The Preferred Alternative is expected to result in a temporary adverse impact to finfish due to suspended sediment during cofferdam and pile installation and removal, as well as barge spuds during deconstruction. The removal of the fill material inside each dolphin structure (if the material was found to contain elevated chemical concentrations) would provide a long-term beneficial impact to finfish.

Because of the temporary nature of the effects on EFH managed species, adverse effects are considered negligible. While suspended sediment that will impair water quality is expected during the installation and removal of the cofferdams and piles, it is anticipated that the removal of the dolphin structures and the pier will ultimately increase tidal flushing to the surrounding area, thereby improving the health of the localized system. In addition, the timing of the construction occurring in winter months minimizes any direct potential impacts to EFH managed species. Finally, the implementation of BMPs will minimize impacts to water quality and the habitat. (EA 2017).

### ***Shellfish***

The Preferred Alternative is expected to result in a temporary adverse impact due to suspended sediment during cofferdam and pile installation and removal. Long-term impacts would be negligible and beneficial because no additional disturbances would occur.

## **No Action Alternative**

The No Action Alternative is not expected to affect wildlife resources at DFSP Newington. The No Action Alternative would lead to the eventual collapse of the dolphin structures. The release of sediment and material into the water column would have a temporary adverse impact to various marine species as a result.

## **3.7.3 Threatened and Endangered Species**

### **3.7.3.1 Definition of the Resource**

The ESA (16 U.S. Code 1531 et seq.) establishes a federal program to protect and recover imperiled species and the ecosystems upon which they depend. The ESA requires federal

agencies, in consultation with the USFWS, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. An endangered species is defined by the ESA as any species in danger of extinction throughout all or a significant portion of its range. A threatened species is defined by the ESA as any species likely to become an endangered species in the foreseeable future. The ESA also prohibits any action that causes a take of any listed species. “Take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or attempt to engage in any such conduct. Listed plants are not protected from take, although it is illegal to collect or maliciously harm them on Federal land.

Critical habitat is designated if the USFWS determines that the habitat is essential to the conservation of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must ensure that their activities do not adversely modify critical habitat to the point that it would no longer aid in the species’ recovery. Areas that are currently unoccupied by the species, but which are needed for the species’ recovery, are protected by the prohibition against adverse modification of critical habitat.

In general, the state of New Hampshire defines an endangered species as meaning any species of native wildlife whose continued existence as a viable component of the state's wild fauna is determined to be in jeopardy and includes any species of wildlife determined to be an endangered species pursuant to the endangered species act. A threatened species is defined as any species of wildlife that appears likely, within the foreseeable future, to become endangered. The term shall also include any species of wildlife determined to be a threatened species under the ESA.

### **3.7.3.2 Existing Conditions**

According to the USFWS Information for Planning and Consultation (IPAC) database, federally listed threatened and endangered species that may occur at the site are: red knot (threatened), population: wherever found; and Northern long-eared bat (threatened), population: wherever found.

No occurrence of these species have been documented at the site (Figure 11). Atlantic sturgeon, which is a threatened species listed by NOAA in the Gulf of Maine, distinct population (population unique to the Gulf of Maine), can be found in the Piscataqua River, but their occurrence is reportedly rare.

### **3.7.3.3 Environmental Consequences**

#### **Preferred Alternative**

Since there are no federally- or state-listed threatened or endangered terrestrial species occurring on DFSP Newington, demolition activities are not expected to affect them. Atlantic sturgeon, which is a threatened species listed by NOAA in the Gulf of Maine distinct population can be

found in the Piscataqua River, but their occurrence in the Piscataqua River is infrequent. Sturgeon spend most of their lifecycle in the ocean, and their occurrence into rivers would typically be for spawning in the springtime. Due to time of year restrictions, construction would not be occurring at this time, therefore, the likelihood of encountering this species is low.

### **No Action Alternative**

The No Action Alternative is not expected to have any impacts to federally- or state-listed threatened or endangered species since there are no threatened or endangered species known to occur within the limits of DFSP Newington.

## **3.8 HUMAN HEALTH AND SAFETY**

### **3.8.1 Definition of the Resource**

A safe environment is one in which there is no, or there is an optimally reduced, potential for death, serious bodily injury or illness, or property damage. Human health and safety addresses both workers' health and public safety during demolition activities.

Demolition site safety is largely a matter of adherence to regulatory requirements imposed for the benefit of employees and implementation of operational practices that reduce risks of illness, injury, death, and property damage. The health and safety of onsite military and civilian workers are safeguarded by numerous DoD and USAF regulations designed to comply with standards issued by Occupational Safety and Health Administration (OSHA) and EPA. These standards specify the amount and type of training required for industrial workers, the use of protective equipment and clothing, engineering controls, and maximum exposure limits for workplace stressors.

Safety and accident hazards can often be identified, and reduced or eliminated. Necessary elements for an accident-prone situation or environment include the presence of the hazard itself together with the exposed (and possibly susceptible) population. The degree of exposure depends primarily on the proximity of the hazard to the population. Activities that can be hazardous include transportation, maintenance and repair activities, and the creation of extremely noisy environments. The proper operation, maintenance, and repair of vehicles and equipment carry important safety implications. Any facility or human use area with potential explosive or other rapid oxidation process creates unsafe environments for nearby populations. Extremely noisy environments can also mask verbal or mechanical warning signals such as sirens, bells, or horns.

The Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program (USAF 1996) implements the Occupational Safety and Health Air Force Policy Directive (USAF 1993) by outlining the AFOSH Program. The purpose of the AFOSH Program is to minimize loss of USAF resources and to protect USAF personnel from occupational deaths, injuries, or illnesses by managing risks. In conjunction with the USAF Mishap Prevention Program, these standards ensure all USAF workplaces meet federal safety and health requirements. This instruction applies to all USAF activities.

### **3.8.2 Existing Conditions**

DFSP Newington is currently vacant and in poor condition and has not been used or maintained for several years. The structures on DFSP Newington property are currently in disrepair, with tripping, falling, or collapse hazards present onsite. Some structures contain mold and/or non-friable asbestos. As such, the installation currently does not consist of a safe environment and could result in injury or the loss of life.

### **3.8.3 Environmental Consequences**

#### **Proposed Action**

Short-term direct, moderate, and adverse impacts are expected from the Proposed Action; and long-term, direct, moderate, and beneficial impacts are expected from the Proposed Action.

The Proposed Action is expected to result in a permanent net neutral effect to human health and safety. Demolition of the installation would remove many of the hazards that are currently present on DFSP Newington including the unsafe building condition, as well as some of the other hazardous products found at the installation and within the buildings (i.e., mold and non-friable asbestos).

During the demolition process, workers would likely be exposed to materials that may result in injury or ill health. As such, a Health and Safety Plan would be developed in accordance to regulations under OSHA. A Community Air Monitoring Plan would be developed to assess concentrations of particles and VOCs in the air during excavation of potentially contaminated soils. All personnel working on or visiting the site would be required to wear the appropriate personal protective equipment. Other safety measures will be in place and action will be taken to control dust and or fugitive emissions during demolition.

#### **No Action Alternative**

Under the No Action Alternative, impacts to health and safety at DFSP Newington are expected to result in a net adverse effect. The health and safety risks posed by the unsafe condition at DFSP Newington would remain. The threat of injury or ill health from site conditions, including non-friable asbestos, and mold would continue to be an issue. However, since the installation would not be demolished, there would be no potential threat to demolition crews.

## **3.9 UTILITIES AND INFRASTRUCTURE**

### **3.9.1 Definition of the Resource**

Infrastructure consists of the systems and physical structures that enable a population in a specified area to function, to include utility lines. Infrastructure is wholly human-made, with a high correlation between the type and extent of infrastructure, and the degree to which an area is characterized as “urban” or developed. The availability of infrastructure and its capacity to support growth are generally regarded as essential to the economic growth of an area. Utilities

and infrastructure generally include water supply, storm drainage systems, sanitary sewer and wastewater systems, power supply, and solid waste management.

The transportation resource is defined as the system of roadways, highways, and other transportation facilities and systems that are in the vicinity of a project site and could be potentially affected by a Proposed Action. The resource also includes parking, access to the installation, and vehicular movement within the installation. Transportation represents the movement of humans and commodities from one place to another. It is directly related to areas of production and habitation, and to the system of vehicle access roads and alternative forms of travel, including rail and air. Primary roadways (e.g., major interstates) are principal routes designed to move traffic efficiently to adjacent areas. Secondary roadways, or arterials (e.g., major surface streets), are designed to provide access to residential, commercial, and parking areas and access points for the installation.

### **3.9.2 Existing Conditions**

EA conducted reconnaissance of the DFSP Newington parcels on 28 April and 15 October 2014 (EA 2014). The DFSP Newington site consists of 3 parcels encompassing approximately 10.26 acres fee. The southern parcel is improved with three buildings, a fire suppression water tank, three truck fuel filling racks, chain-link fencing, asphalt paving, four partially buried USTs and associated appurtenances, septic tank and field, separators, and associated corrugated metal shed (Figure 4). The northern parcel is improved with one building, a stormwater basin (historically referred to as a “lagoon”), two partially buried USTs, chain-link fencing, asphalt paving, separators, aboveground storage tanks, and the concrete remnants of a former pipeline manifold area. The third parcel (pier) includes the following for demolition: the former pier that contains four dolphins formerly used for fuel offloading operations. Legal ingress/egress for the site is via Patterson lane over lands owned by Sprague Energy via an easement. Historical information suggests Avery Lane and Avery Road were used for ingress and egress; however, no legal instruments allowing government use of these roads has been found. A rail line operated by Pan Am Railways lies between the Southwest and Northeast parcels dividing the fee acreage. This rail line is still in use making deliveries to Sprague Energy.

### **3.9.3 Environmental Consequences**

#### **Proposed Action**

Short-term, direct, moderate, and adverse impacts are expected from the Proposed Action; and long-term direct and indirect, negligible, and beneficial impacts are expected from the Proposed Action.

The Proposed Action would result in direct moderate adverse impact to infrastructure during the demolition phase of the Proposed Action. Utilities and infrastructure in the local community are not expected to be affected by the Proposed Action in the long term. Additionally, the utilities would no longer require regular maintenance or service on the site since they would no longer exist.

As part of the Proposed Action, it is estimated that approximately 18,153 tons of recyclable debris, and approximately 22,615 tons of construction/demolition debris and soil, would be trucked offsite. Entering and existing the site would occur either by Avery Lane via Avery Road, or through the easement and road off of Patterson Lane (Figure 3). Loads would not exceed posted highway weight limits, and traffic on and off the site would occur during normal business hours. If rail is used, loading and operations would be in accordance with appropriate state and federal guidance and in accordance with current railroad operations. Loads would not exceed engineered railroad weight limits and traffic on and off the site would occur during normal rail road operating hours.

### **No Action Alternative**

Under the No Action Alternative, the USAF would continue ownership of DFSP Newington, and there would be no disposal of the subject fee-owned property. Current caretaker and maintenance operations would continue. Under this alternative, the facility would continue to pose a physical threat as infrastructure (i.e., buildings, pier, dolphins, utilities, tanks, etc.) continue to corrode and deteriorate over time. Additionally, this alternative would result in continued maintenance costs and other responsibilities of facility ownership.

## **3.10 HAZARDOUS MATERIALS AND WASTES**

### **3.10.1 Definition of the Resource**

A hazardous substance, pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S. Code 9601(14)), is defined as, “any substance designated pursuant to Section 1321(b)(2)(A) of Title 33; any element, compound, mixture, solution, or substance designated pursuant to Section 9602 of this title; any hazardous substance having the characteristics identified under or listed pursuant to Section 3001 of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended (42 U.S. Code 6921); any toxic pollutant listed under Section 1317(a) of Title 33; any hazardous air pollutant listed under Section 112 of the CAA; and any imminently hazardous chemical substance or mixture with respect to which the Administrator of EPA has taken action pursuant to Section 2606 of Title 15. The term does not include petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance; and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).”

Hazardous materials are defined by 49 CFR Part 171.8 as “hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (49 CFR Part 172.101), and materials that meet the defining criteria for hazard classes and divisions” in 49 CFR Part 173. Transportation of hazardous materials is regulated by the U.S. Department of Transportation regulations within 49 CFR Parts 105-180.

RCRA defines a hazardous waste as “a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.”

Promulgated NHDES standards exist for a limited list of PFAS in groundwater, but no promulgated NHDES standards exist for soil. Direct contact criteria for PFOS and PFOA in soils have been identified by the NHDES Environmental Health Program.

### **3.10.2 Existing Conditions**

#### **Structures**

A limited hazardous materials survey of building materials was conducted by EA in 2014. The survey identified asbestos in five distinct building materials in the office/administration building (floor tiles, linoleum, and caulk) and the generator building (two types of caulk). Additional testing is required to meet the federal requirements by confirming the presence of asbestos. Lead paint was identified on 26 of 71 surfaces screened. These screening locations include indoor and exterior structures across the facility. The impacted locations include the paints in the office building, generator building, fire suppression pump house, truck racks, pier, and various other site components. These results provide an indication that lead paint is present at the site and the survey identifies the items that should be further evaluated and handled properly by the demolition contractor to ensure proper disposal techniques. Polychlorinated biphenyls (PCBs), specifically Aroclor 1254, were detected in one caulk sample collected from an office building window at a concentration of 0.175 milligrams per kilogram (mg/kg), slightly above the laboratory Method Reporting Limit of 0.170 mg/kg. Since concentrations of PCBs detected in caulk are below the regulatory threshold of 50 mg/kg in caulk, no additional testing is warranted and no special requirements are necessary during demolition for these materials.

#### **Soils**

A geo-technical investigation, conducted by EA at DFSP Newington in 2014, identified soils containing weathered petroleum products along the northern boundary of the property. Samples from the area had one analyte reported at a concentration that slightly exceeded the NHDES Soil Remediation Standards. Based on the findings, it was noted that residual contamination may be encountered during bulk tank demolition or earth moving activities. No hazardous materials were identified as being present in soils.

#### **Defense Fuel Support Point Groundwater**

Groundwater at the DFSP facility previously was impacted by a leak at the former manifold area. This area has been remediated over the past several decades and groundwater quality has been restored. Groundwater monitoring in the area indicates compliance with applicable

NHDES Groundwater Quality Standards, and closure of the existing Groundwater Management Permit is anticipated.

The presence of emerging contaminants at the site (PFAS) were recently identified in groundwater at the facility. Remedial activities associated with PFAS may be part of the overall cleanup action; however, the full extent and concentrations are unknown at this time. Assessment and remediation activities associated with PFAS will be addressed as a separate action in a separate decision document and are not the focus of the proposed demolition project.

### **Other Groundwater Concerns**

Analytical results indicate the presence of methyl tertiary-butyl ether at concentrations exceeding the applicable NHDES Ambient Groundwater Quality Standards in groundwater near the former DFSP lagoon/generator building area. An adjacent property owner is the responsible party for methyl tertiary-butyl ether impacts to groundwater related to a gasoline release. This historical gasoline release is due to discharges from the oil/water separators into the adjacent property's stormwater management system, which discharges to the stormwater lagoon on DFSP property. Adjacent property owners currently conduct regular groundwater monitoring at the DFSP facility.

### **3.10.3 Environmental Consequences**

#### **Proposed Action**

Short-term and long-term, direct and indirect, major, and beneficial impacts are expected from the Proposed Action.

The Proposed Action is expected to result in a major permanent beneficial impact to hazardous materials and wastes at DFSP Newington. Clean soil would be used to backfill the excavated areas and building footprints. Additionally, known hazardous materials within the building, including asbestos and lead-based paint, would be removed from the property. As such, the threat to the public from those hazardous materials that currently are found at the installation would be removed, thereby eliminating the potential for injury or ill health resultant from exposure to those agents. All practicable materials such as plastics, metals, glass, and compostable materials would be collected and stored at DFSP Newington. The materials would be transported to the nearest recycling facility in accordance with the material type. Recycling and reuse of these materials would keep excess waste from being stored in local landfills thereby facilitating further beneficial impacts to the surrounding environment.

During demolition, soils would be monitored and screened as appropriate. Contaminated soils should would be stockpiled, sampled, characterized, and disposed of in accordance with applicable regulations. Soil removal is presumed to be ancillary to demolition activities and not a primary component of the demolition. For disposal purposes, the reported presence of PFAS in soils and groundwater would require additional screening.



## **No Action Alternative**

The No Action Alternative is expected to result in a net adverse impact. Hazardous materials at the site would remain in place. The threat of injury or ill health would continue due to deteriorating conditions of the tanks and buildings, and facilities onsite.

### **3.11 SOCIOECONOMIC RESOURCES AND ENVIRONMENTAL JUSTICE**

#### **3.11.1 Definition of the Resource**

***Socioeconomics***—Socioeconomics is typically defined as the relationship between economies and social elements, such as population and economic activity. Factors that describe the socioeconomic resources represent a composite of several attributes. There are several factors that can be used as indicators of economic conditions for a geographic area, such as demographics, income, unemployment, poverty level, and employment.

***Environmental Justice***—EO 12898 pertains to environmental justice issues and relates to various socioeconomic groups and the disproportionate impacts that could be imposed on them. That EO requires that federal agencies' actions substantially affecting human health or the environment do not exclude persons, deny persons benefits, or subject persons to discrimination because of their race, color, or national origin. The EO was enacted to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Consideration of environmental justice concerns includes race, ethnicity, and the poverty status of populations in the vicinity of a Proposed Action.

#### **3.11.2 Existing Conditions**

The Town of Newington, incorporated in 1764, is approximately 4.5 square miles, with an estimated population of 753 according to the 2010 census. The population density of Newington equals approximately 91.9 persons per square mile of land area (New Hampshire Employment Security 2014). The Town contains a mixture of residential, industrial/commercial, and open space land uses (Town of Newington, New Hampshire 2012). Table 3-5 summarizes the socioeconomic resources of the town.

NHDES does not define or map Environmental Justice Zones; therefore, New England EPA's definition was used for this report. New England EPA maps possible areas of Environmental Justice concern based on 2010 Census demographic data as well as environmental data. Demographic factors that are considered include poverty levels and minority population (EPA 2001).

The DFSP Newington site is not located within a high poverty or a high minority population area, so Environmental Justice is not a concern. The nearest possible area of concern due to higher minority and poverty levels is Dover, New Hampshire, 9 miles north of Newington (EPA 2012) (Figure 1).

### 3.11.3 Environmental Consequences

#### Proposed Action

Short-term, direct and indirect, minor, adverse, and beneficial impacts are expected as a result of the Proposed Action.

The Proposed Action would result in a minor temporary beneficial effect to the socioeconomic resources of the community. Since the DFSP Newington site is not currently in operation and vacant, the installation is not providing any job opportunities; however, construction activities related to the proposed demolition of the DFSP Newington site would result in the creation of temporary work opportunities.

Given that there are no Environmental Justice Zones located within proximity to the DFSP Newington site, the Proposed Action would not result in any effects to those areas.

All government-owned real property (land and buildings) that is underutilized, unutilized, or deemed to be excess or surplus must be reported to the Department of Housing and Urban Development for screening for potential use as facilities to assist the homeless in accordance with the Stewart B. McKinney Homeless Assistance Act (10 U.S. Code 2546).

#### No Action Alternative

The No Action Alternative is expected to result in a net neutral effect to socioeconomic resources and Environmental Justice. As a result of this alternative, the DFSP Newington site would not be demolished and the temporary creation of construction jobs would not be realized. Since there are no Environmental Justice Zones within proximity to the installation, the No Action Alternative would not impact those areas.

## 3.12 CULTURAL AND VISUAL RESOURCES

### 3.12.1 Definition of the Resource

**Visual Resources**—Visual resources are generally defined as the natural and man-made features of a landscape or other area that comprise its aesthetic qualities. Those features define the landscape character of an area and form the overall impression that an observer receives of that area. Evaluating the aesthetic qualities of an area is a subjective process because the value that an observer places on a specific feature varies depending on his/her perspective. In general, a feature observed within a landscape can be considered as characteristic if it is inherent to the composition and function of the landscape. This is particularly true if the landscape or area in question is part of a scenic byway, a state or national scenic river, or other similar area. Landscapes can change over time; therefore, the assessment of the environmental impacts of a Proposed Action on a given landscape or area must be made relative to the characteristic features currently composing the landscape or area.

***Cultural Resources***—As part of the process for compliance with NEPA, federal agencies are required to assess potential impacts on the human environment (40 CFR Part 1508.14). That analysis is generally conducted in terms of cultural resources, which includes a variety of resources that are defined by specific federal laws, regulations, EOs, and other requirements. Those include the National Historic Preservation Act, Native American Graves Protection and Repatriation Act, Archaeological Resources Protection Act, American Indian Religious Freedom Act, and EO 13007 among other regulations. Typically, cultural resources are divided into archaeological resources, historic buildings, and traditional cultural properties.

**Table 3-5 Socioeconomic Resources**

	Newington Town		Rockingham County		New Hampshire		United States	
<b>Population and Race</b>	753		295,223		1,316,470		308,745,538	
White	725	96.3%	281,966	95.5%	1,236,050	93.9%	231,040,398	74.8%
Black/African American	4	0.5%	1,996	0.7%	15,035	1.1%	42,020,743	13.6%
Asian	10	1.3%	4,943	1.7%	28,407	2.2%	17,320,856	5.6%
Other	4	0.5%	1,678	0.6%	12,062	0.9%	21,748,084	7.0%
Native American	1	0.1%	486	0.2%	3,150	0.2%	5,220,579	1.7%
Hispanic or Latino of any race	8	1.1%	6,142	2.1%	36,704	2.8%	50,477,594	16.3%
<b>Age</b>	48.0		42.2		41.1		37.2	
Median age	48.0		42.2		41.1		37.2	
Over 18 years of age	623	82.7%	227,785	77.2%	1,029,236	81.0%	234,564,071	76.0%
Over 65 years of age	120	15.9%	37,424	12.7%	178,268	13.5%	40,267,984	13.0%
<b>Language Spoken at Home</b>	94.9%		93.5%		92.1%		79.4%	
English only	618	94.9%	276,034	93.5%	1,149,608	92.1%	229,673,150	79.4%
“Less than very well”	3	0.5%	5,019	1.7%	30,519	2.4%	25,223,045	8.7%
Spanish	5	0.8%	5,609	1.9%	25,944	2.1%	36,995,602	12.87%
Indo-European	14	2.2%	8,857	3.0%	51,430	4.1%	10,666,771	3.7%
Asian-Pacific	0	0.0%	3,543	1.2%	15,334	1.2%	9,340,583	3.2%
Other languages	14	2.2%	1,476	0.5%	5,786	0.5%	2,539,640	0.9%
<b>Disability Status</b>	13.1%		4.6%		47.8%		11.9%	
Population 5 years of age and older	85	13.1%	13,688	4.6%	74,187	47.8%	36,354,712	11.9%
<b>Education</b>	92.0%		94.0%		91.4%		85.6%	
High school graduate or higher	92.0%		94.0%		91.4%		85.6%	
High school including General Education Diploma	124	23.0%	82,662	28.0%	265,671	29.3%	58,225,602	28.5%
Associate’s degree	41	7.6%	29,818	10.1%	87,017	9.6%	15,553,106	7.6%
Bachelor’s degree	132	24.4%	69,377	23.5%	191,995	21.2%	36,244,474	17.7%
Graduate or professional degree	86	15.9%	38,969	13.2%	111,375	12.3%	21,333,568	10.4%
<b>Employment, Class of Worker and Commuter Status</b>	79.7%		80.1%		73.0%		79.0%	
Labor force pool (population >age 16)	600	79.7%	238,038	80.1%	960,498	73.0%	243,832,923	79.0%
Employed	362	48.1%	161,613	54.7%	650,871	67.8%	139,033,928	57.0%
Unemployment	8	1.3%	10,673	4.5%	25,500	2.7%	16,883,085	6.9%
Private for profit workers	280	77.3%	122,548	75.8%	516,575	79.4%	108,824,974	78.3%
Self-employed workers – includes agriculture, forestry, fishing, hunting	3	0.4%	8,516	5.3%	49,520	7.6%	8,740,557	6.3%
Non-profit workers	40	5.3%	10,893	4.6%	72,057	29.6%	10,970,221	7.9%
Government	42	11.6%	19,481	12.0%	83,271	12.8%	21,291,233	15.3%

**Table 3-5 Socioeconomic Resources**

	Newington Town		Rockingham County		New Hampshire		United States	
Federal	16	2.1%	2,958	1.8%	14,924	60.7%	4,938,966	1.6%
State	6	0.8%	3,432	2.1%	25,370	44.6%	6,270,462	2.0%
Local	20	2.7%	13,091	8.1%	52,355	32.8%	10,453,506	3.4%
<b>Occupation</b>								
Management, professional and related occupations	158	43.6%	67,201	41.6%	232,927	35.8%	49,975,620	35.9%
Service occupations	58	16.0%	21,780	13.5%	84,618	13.0%	25,059,153	18.0%
Sales and office occupations	75	20.7%	42,215	26.1%	173,282	26.6%	35,711,455	25.0%
Production, transportation, and material moving occupations	39	10.8%	16,016	9.9%	96,154	14.8%	16,590,396	11.9%
Construction, extraction, and maintenance occupations	35	9.7%	14,401	8.9%	60,988	9.4%	12,697,304	9.1%
<b>Commuting to Work</b>								
Worked in county of residence	515	68.4%	87,433	54.1%	440,452	65.0%	99,361,852	72.6%
Worked outside county of residence	111	14.7%	28,929	17.9%	128,747	19.0%	32,364,811	23.6%
Worked outside the state of residence	127	16.9%	45,413	28.1%	108,419	16.0%	5,214,347	3.8%
<b>Housing</b>								
Number of households	278		115,033		518,973		116,716,292	
Number of housing units	310		126,709		614,754		131,704,730	
Occupied	278	89.7%	115,033	90.8%	518,973	84.4%	116,716,292	88.6%
Owner occupied	206	74.1%	88,365	76.8%	368,316	71.0%	75,986,074	65.1%
<b>Income</b>								
Median annual household income	\$72,500		\$77,939		\$49,467		\$50,046	
Median family income	\$92,614		\$111,097		\$57,575		\$60,609	
Per capita income	\$37,970		\$37,820		\$23,844		\$26,059	
Fulltime, year-round male median income	\$61,458		\$63,375		\$39,689		\$46,500	
Fulltime, year-round female median income	\$35,417		\$44,902		\$27,488		\$36,551	
<b>Poverty</b>								
Number of families	Not applicable	6.4%	Not applicable	3.5%	Not applicable	4.3%	Not applicable	11.3%
Sources: U.S. Census Bureau 2010; 2012a, b, c, and d; 2013.								

Under Section 106 of the National Historic Preservation Act, the federal agency official is charged with providing the Advisory Council on Historic Preservation and the State Historic Preservation Office (SHPO) an opportunity to comment on the effect of Federal undertakings on historic properties. Federal agencies identify and evaluate historic properties listed or eligible for inclusion in the National Register of Historic Places within the Area of Potential Effect; determine effects of an undertaking on historic properties; and consult to avoid, minimize, or mitigate adverse effects on the historic properties in consultation with the SHPO and other parties including Native Tribes.

### **3.12.2 Existing Conditions**

Since the buildings on the DFSP Newington installation are greater than 50 years old, buildings on DFSP Newington -might be eligible for the National Register. A Section 106 consultation was carried out with the New Hampshire SHPO during the initial EA.

### **3.12.3 Environmental Consequences**

#### **Proposed Action**

No impact to cultural and visual resources is anticipated. A consultation with New Hampshire SHPO was conducted, and a determination of “No Historical Properties Affected” was made (Appendix C).

#### **No Action Alternative**

As a result of the No Action Alternative, the DFSP Newington facility, valve manifolds, dolphins, and subterranean bulk storage tanks would not be demolished. The dolphins and the pier would continue to deteriorate, and buildings, the manifold, and subterranean bulk fuel tanks would prevent the transfer of the property.

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## 4. CUMULATIVE AND OTHER EFFECTS

### 4.1 CUMULATIVE EFFECTS

CEQ regulations stipulate that the cumulative effects analysis of an Environmental Assessment should consider the potential environmental effects resulting from “the incremental impacts of the action when added to other past, present, and reasonably foreseeable future action regardless of what agency or person undertakes such other actions” (40 CFR Part 1508.7). CEQ guidance in considering cumulative effects affirms this requirement, stating that the first steps in assessing cumulative effects involve defining the scope for the other actions and their interrelationship with a Proposed Action. The scope must consider other projects that coincide with the location and timetable of a proposed action and other actions. Cumulative effects analyses must also evaluate the nature of interactions among these actions (CEQ 1997).

To identify cumulative effects, the analysis needs to address two questions:

1. Does a relationship exist such that affected resource areas of the Proposed Action or alternatives might interact with the affected resource areas or past, present, or reasonably foreseeable actions?
2. If such a relationship exists, does an Environmental Assessment or an Environmental Impact Statement reveal any potential significant impacts not identified when the Proposed Action is considered alone?

The scope of the cumulative effects analysis involves both timeframe and geographic extent in which effects could be expected to occur, and a description of what resources could potentially be cumulatively affected. For the purposes of this analysis, the temporal span of the Proposed Action is 2 years, which would encompass the demolition period. For most resources, the spatial areas for consideration of cumulative effects include the areas immediately surrounding the buildings of DFSP Newington though a larger area is considered for some resources (e.g., air quality).

#### 4.1.1 Projects Identified for Potential Cumulative Effects

A review of available meeting minutes from the Newington Planning Board, Zoning Board, did not identify any proposed projects within close proximity to the Newington demolition areas that would result in a significant negative impact to the environment.

#### 4.1.2 Cumulative Effects Analysis

As previously discussed, there are no known projects within proximity of DFSP Newington that would add to the cumulative effects of the Proposed Action. As such, the effects of the Proposed Action would not significantly contribute to the cumulative effects of the surrounding area.



## 4.2 UNAVOIDABLE ADVERSE EFFECTS

Unavoidable adverse effects would result from implementation of the Proposed Action. These effects are not anticipated to be significant.

**Geological Resources**—Under the Proposed Action, demolition activities, such as grading and excavating, would result in minor soil disturbance. Implementation of BMPs during demolition would minimize environmental consequences resulting from ground-disturbing activities. Standard erosion control measures would also reduce environmental consequences related to these characteristics. Although unavoidable, effects on soil at DFSP Newington are not considered significant.

**Noise**—The Proposed Action would result in temporary adverse impacts to noise resulting from the demolition activities. Demolition activities would be conducted using well maintained and job-suitable machinery to minimize noise generation. Site workers would be instructed to wear ear protection when working around loud equipment. Site work would be conducted during normal working hours when neighboring residents are not likely to be sleeping. Following completion of the demolition and restoration activities, the noise levels would return to ambient levels. Marine mammal and finfish impacted by underwater acoustics would be expected to leave the area if isopleths were above thresholds.

**Air Quality**—During the demolition and fine grading phases of the Proposed Action, the air quality at the area is expected to be temporarily adversely impacted by dust and exhaust from the heavy equipment. BMPs would be implemented during all construction activities to minimize dust generation. BMPs are likely to include dust suppression via watering truck, gravel entrances and exits, and air monitoring. Air monitoring would be conducted to monitor dust levels and other potential air quality impacts. Following completion of the demolition and fine grading activities, the air quality would return to ambient levels.

**Wildlife**—Under the Proposed Action, demolition activities would result in a temporary adverse impact to wildlife communities. The demolition would create a disturbance to wildlife that inhabits the area or its immediate vicinity. Following completion of the demolition, grading, and reseeded activities, the wildlife quality would return to pre-construction levels.

**Human Health and Safety**—During the demolition phases of the Proposed Action, area workers would likely be exposed to materials that may result in injury or ill health. As such, a Health and Safety Plan would be developed in accordance to regulations under OSHA; Engineer Manual 385-1-1; and AFOSH. The potential for adverse impacts to human health and safety would be minimized by implementing engineering controls, administrative measures, and the use of personal protective equipment.

**Cultural Resources**—Under the Proposed Action, demolition activities would result in no impacts to cultural resources.

#### **4.3 COMPATIBILITY OF PROPOSED ACTION AND ALTERNATIVES WITH THE OBJECTIVES OF FEDERAL, REGIONAL, STATE, AND LOCAL LAND USE PLANS, POLICIES, AND CONTROLS**

The Proposed Action would be consistent with existing and future uses. Demolition activities would not interfere with applicable land use policies or objectives. Demolition activities would allow the area to be used for future development.

#### **4.4 RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY**

Short-term uses of the biophysical components of the human environment include direct impacts, typically associated with demolition activities that occur over a period of less than 5 years. Long-term uses of the human environment generally include those impacts that occur over a period of more than 5 years, including the permanent loss of resources.

This Supplemental Environmental Assessment identifies potential short-term, adverse effects on the natural environment as a result of demolition activities. These potential adverse effects include noise emissions, air emissions, water quality, soil erosion, and stormwater runoff into surface water. Demolition of old, outdated, and underutilized facilities and disposal of underutilized property would help meet the long-term mission-related needs of the USAF, as well as the planning objectives.

#### **4.5 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

An irreversible or irretrievable commitment of resources refers to impacts on or losses to resources that cannot be reversed or recovered, even after an activity has ended and facilities have been decommissioned. A commitment of resources is related to use or destruction of non-renewable resources, and effects that such a loss will have on future generations. The Proposed Action would involve the irreversible and irretrievable commitment of material resources and energy, land resources, and human resources. The impacts on these resources would be permanent.

**Material Resources**—Material resources irretrievably used for the Proposed Action would include building materials, imported soils for backfilling purposes, or other materials that may be utilized during the restoration of the area to a vegetated green space. Such materials are not in short supply and would not be expected to limit other unrelated construction activities. Where practicable, materials would be recycled and reused to avoid excess use of material resources, the irretrievable use of material resources would not be considered significant.

**Energy Resources**—Energy resources used for the Proposed Action would be irretrievably lost. These would include petroleum-based products (e.g., gasoline and diesel) and electricity. During demolition, gasoline and diesel fuel would be used for the operation of demolition vehicles.

Consumption of these energy resources would not place a significant demand on their availability in the region; therefore, no significant impacts would be expected.

***Human Resources***—The use of human resources for demolition is considered to be an irretrievable loss only in that it would preclude such personnel from engaging in other work activities. However, the use of human resources for the Proposed Action would represent employment opportunities, and is considered to provide a net benefit.

## 5. LIST OF PREPARERS

This Supplemental Environmental Assessment was prepared for the USAF under the direction of the Air Force Civil Engineer Center. The individuals who contributed to the preparation of this document are listed below.

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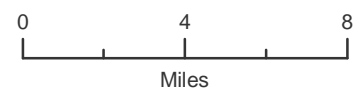
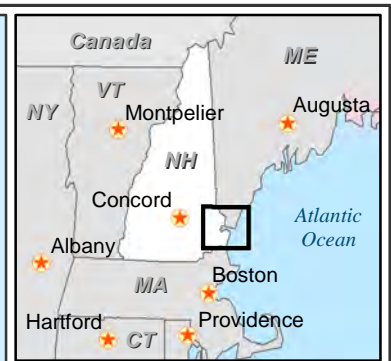
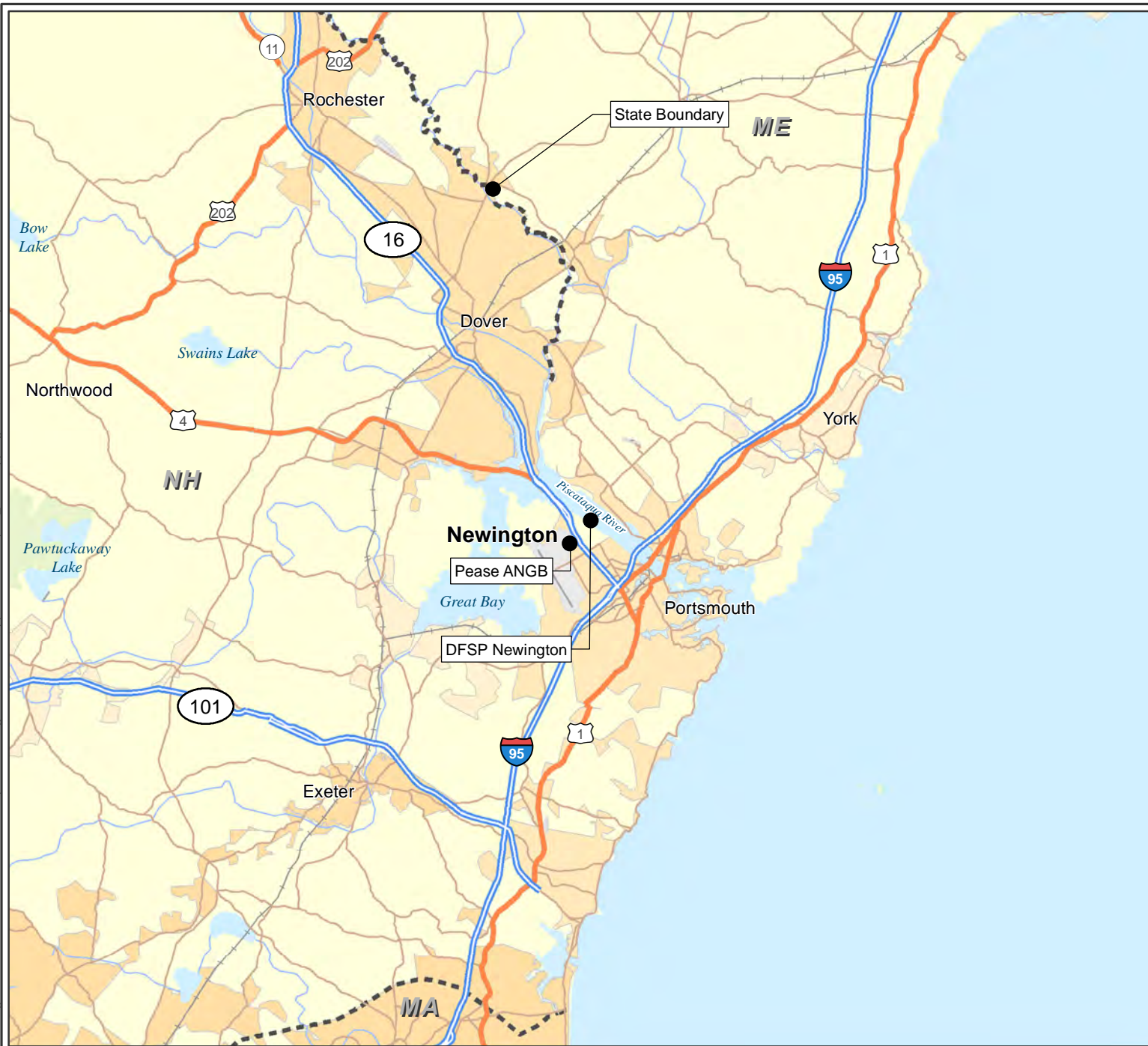


# Appendix A

## Figures

- Figure 1 Site Location Map
- Figure 2 US Geographical Survey Topographical Map
- Figure 3 General Site Plan
- Figure 4 Site Plan - Area 1
- Figure 5 Site Plan Depicting Area 2 on Pease Air National Guard Base
- Figure 6 Defense Fuel Support Point Newington (Area 1) Soils
- Figure 7 Pease Air National Guard Base (Area 2) Soils
- Figure 8 Defense Fuel Support Point Newington (Area 1) Hydrology
- Figure 9 Pease Air National Guard Base (Area 2) Hydrology
- Figure 10 Site Map (Land Use)
- Figure 11 Site Map (Critical Habitat)

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**References:**

Street Map:  
ESRI ArcGIS Map Service, 2013

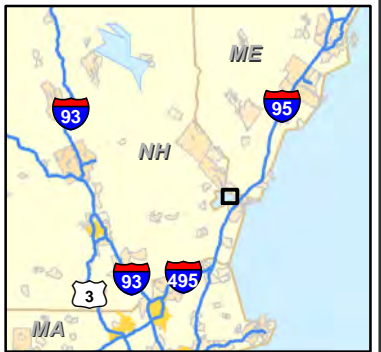
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Figure 1.  
Site Location Map



\\novetcon\GIS\Detail\Federal\Northeast\NewHampshire\Newington\MXD\PermitApplications\Stackpole - PermitApp\Figure 2 USGS Topo Map.mxd



- Legend**
- Property Boundary
  - Easement Boundary
  - 12 Unit Hydrologic Unit Code (HUC-12 Watershed)

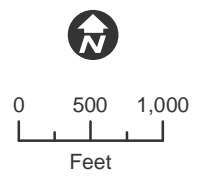
**References:**

Pipeline Easement Boundaries:  
*Lot Line Adjustment and Right of Way Plat, Pease AFB NH, Plan 50740*  
 Sheets 1-4 of 4. Durgin and Schofield Associates, December 1988.

Property Boundary:  
 Survey performed by Danny R. Bolender of AMEC Foster Wheeler Environmental and Infrastructure Inc.

Hydrologic Unit Names:  
*Watershed Boundary Dataset (WBD)*, USGS and USDA - NRCS. 2015. ESRI Shapefile. Decimal Degrees, North America Datum 1983.

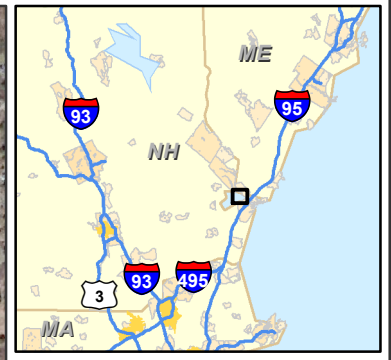
Topo:  
 ESRI ArcGIS Map Service, 2013









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Figure 2.  
 USGS Topographical Map



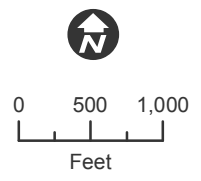


- Legend**
-  Property Boundary
  -  Easement Boundary/Pipeline
  -  Aboveground Pipeline
  -  Underground Pipeline
  -  Manifold Excavation
  -  Site Access Options

**References:**

Pipeline location approximated per *Environmental Baseline Survey, Defense Fuel Support Point, Newington, New Hampshire* Figure 4. COMPA Industries, Inc. et. al. Property and Easement Boundaries: *Lot Line Adjustment and Right of Way Plat, Pease AFB NH, Plan 50740* Sheets 1-4 of 4. Durgin and Schofield Associates, December 1988.

Aerial:  
Google Earth Map Service, 2013

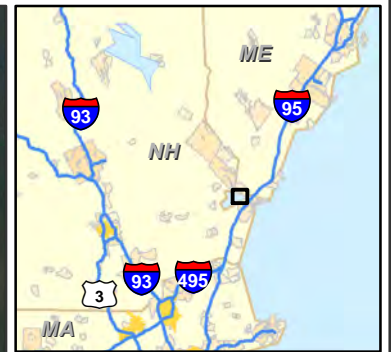
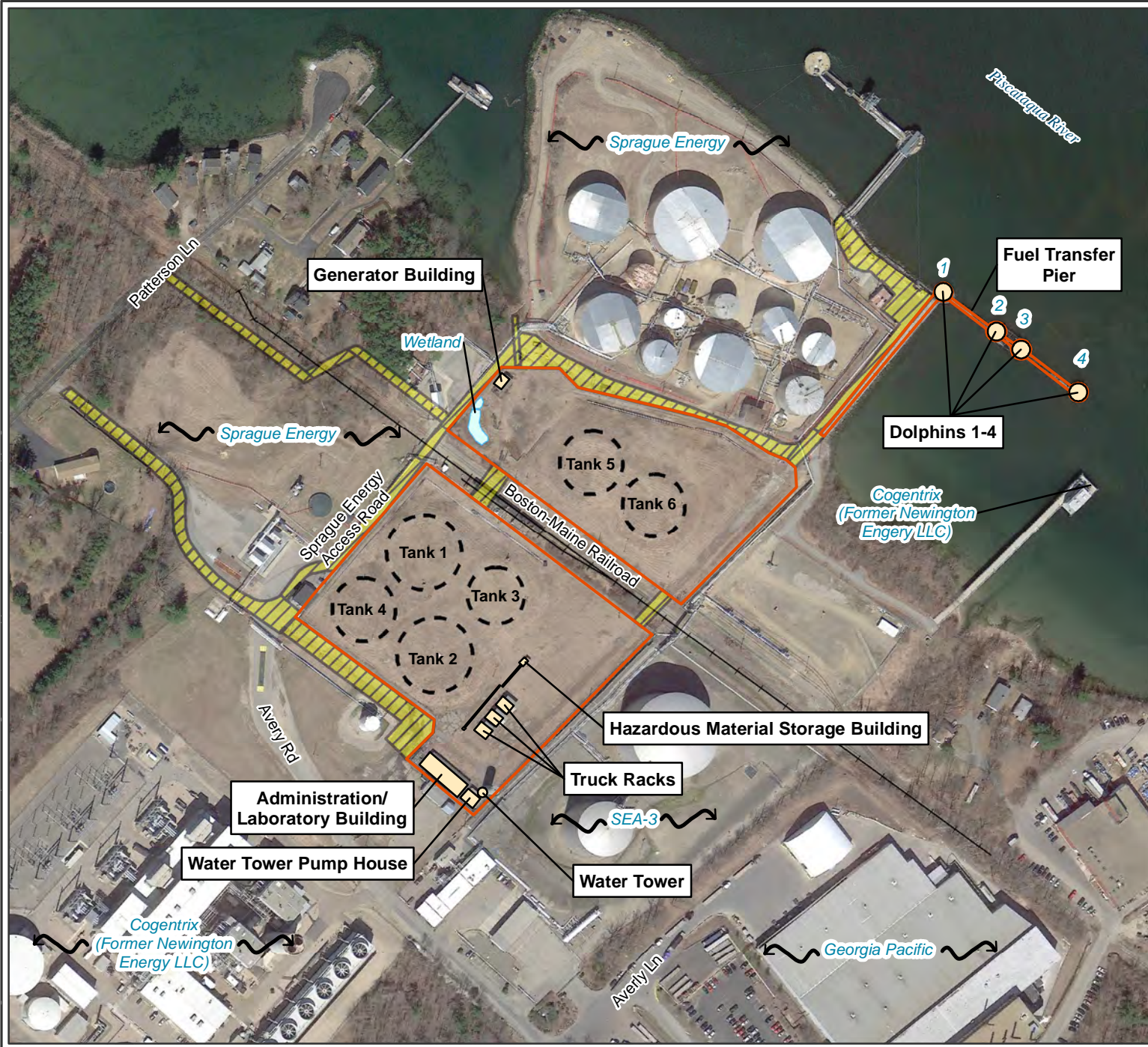


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Figure 3.  
Site Map  
Aerial



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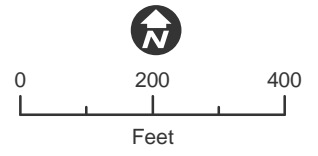


- Legend**
- Property Boundary
  - Easement Boundary
  - Structure for Demolition
  - Fuel Tank
  - Railroad

**References:**

Property and Easement Boundaries:  
*Lot Line Adjustment and Right of Way Plat, Pease AFB NH, Plan 50740*  
 Sheets 1-4 of 4, Durgin and Schofield Associates, December 1988.

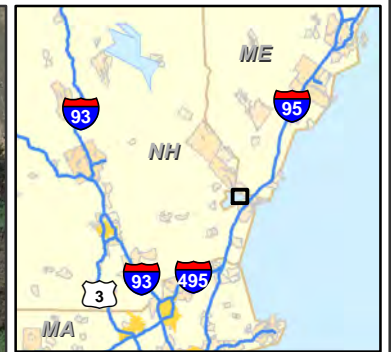
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Figure 4.  
 Site Plan - Area 1





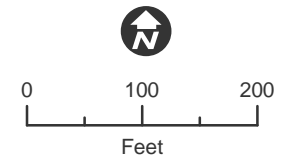
**Legend**

- Aboveground Pipeline
- Valve Area

**References:**

Pipeline location approximated per *Environmental Baseline Survey, Defense Fuel Support Point, Newington, New Hampshire* Figure 4. COMPA Industries, Inc. et. al. Property and Easement Boundaries: *Lot Line Adjustment and Right of Way Plat, Pease AFB NH, Plan 50740* Sheets 1-4 of 4. Durgin and Schofield Associates, December 1988.

Aerial:  
Google Earth Map Service, 2013



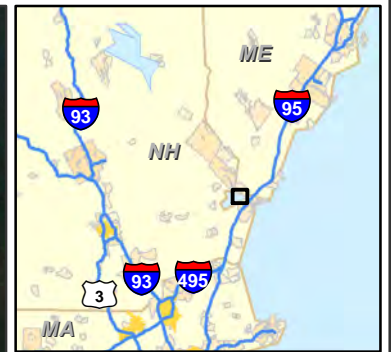
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**Figure 5.**  
Site Plan Depicting Area 2  
on Pease ANG B



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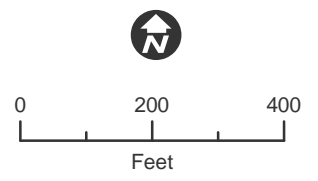
**Legend**

- Property Boundary
- Railroad
- Soils**
- Boxford Silt Loam (32A, 32B, 32C)
- Pennichuck Channery Very Fine Sandy Loam (460B, 460C)
- Udorthents (299)
- Urban land (699)

**References:**

Survey performed by Danny R. Bolender of AMEC Foster Wheeler Environmental and Infrastructure Inc.

Aerial:  
Google Earth Map Service, 2013  
Soils:  
USDA NRCS SSURGO, 2014



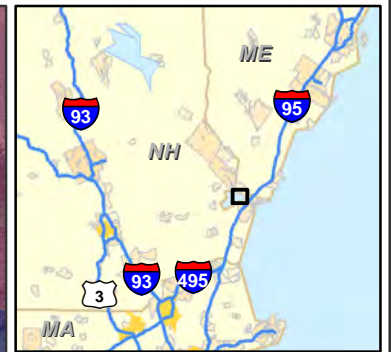
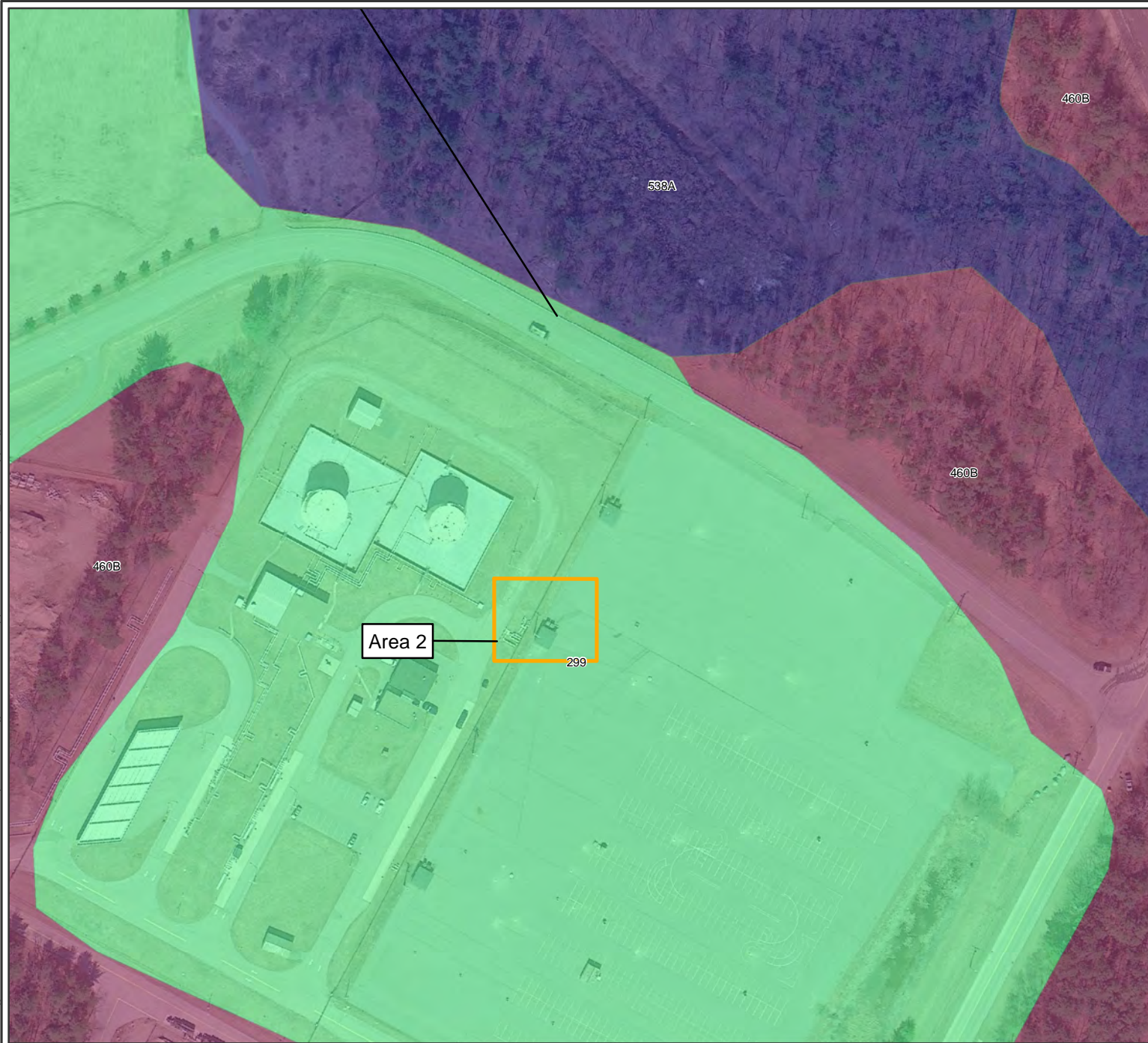
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
**Figure 6.**  
DFSP Newington (Area 1)  
Soils



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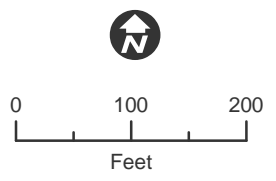


**Legend**

-  Valve Area
- Soils**
-  Pennichuck Channery Very Fine Sandy Loam (460B, 460C)
-  Squamscott Fine Sandy Loam (538A)
-  Udorthents (299)

**References:**

- Aerial: Google Earth Map Service, 2013
- Soils: USDA NRCS SSURGO, 2014

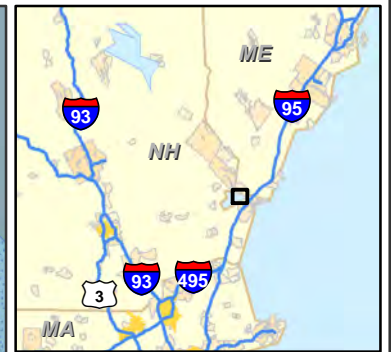
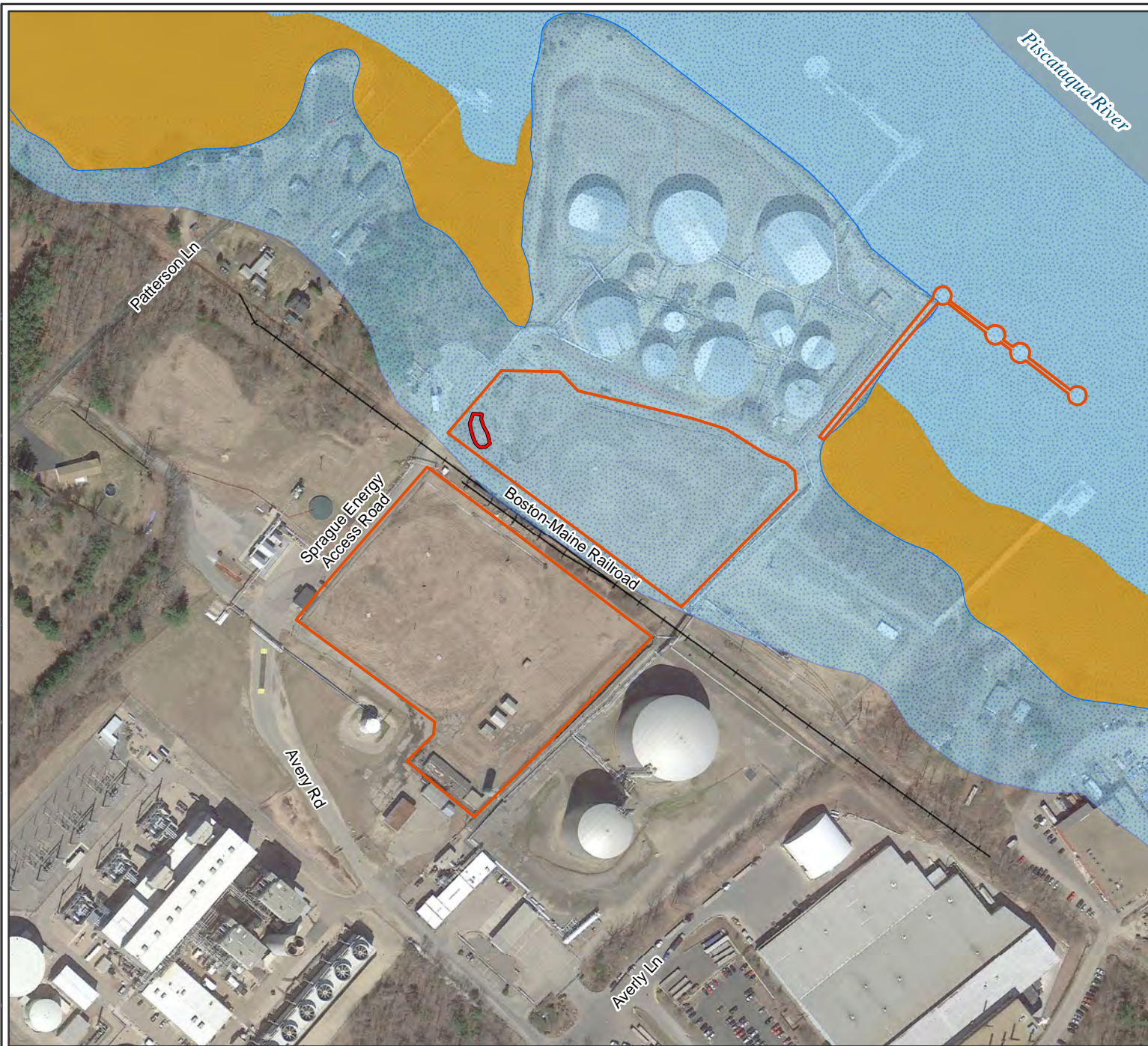


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**Figure 7.**  
Pease ANGB (Area 2)  
Soils





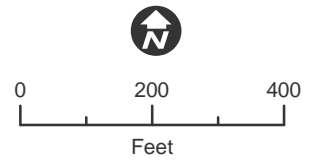
**Legend**

- Property Boundary
- Railroad
- Wetland Delineation
- 100 yr Floodplain
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

**References:**

Property and Easement Boundaries:  
*Lot Line Adjustment and Right of Way Plat, Pease AFB NH, Plan 50740*  
 Sheets 1-4 of 4. Durgin and Schofield Associates, December 1988.

Aerial:  
 Google Earth Map Service, 2013  
 Wetlands:  
 USFWS, 2014  
 Floodplain:  
 FEMA, 2014

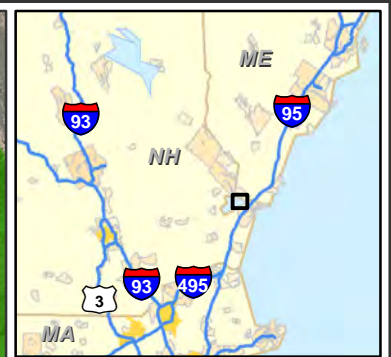


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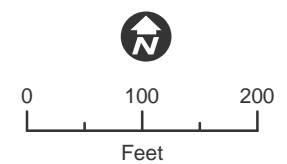
**Figure 8.**  
DFSP Newington (Area 1)  
Hydrology





- Legend**
- Valve Area
  - Freshwater Forested/  
Shrub Wetland
  - Freshwater Pond

- References:**
- Aerial: Google Earth Map Service, 2013
  - Wetlands: NWI, 2014

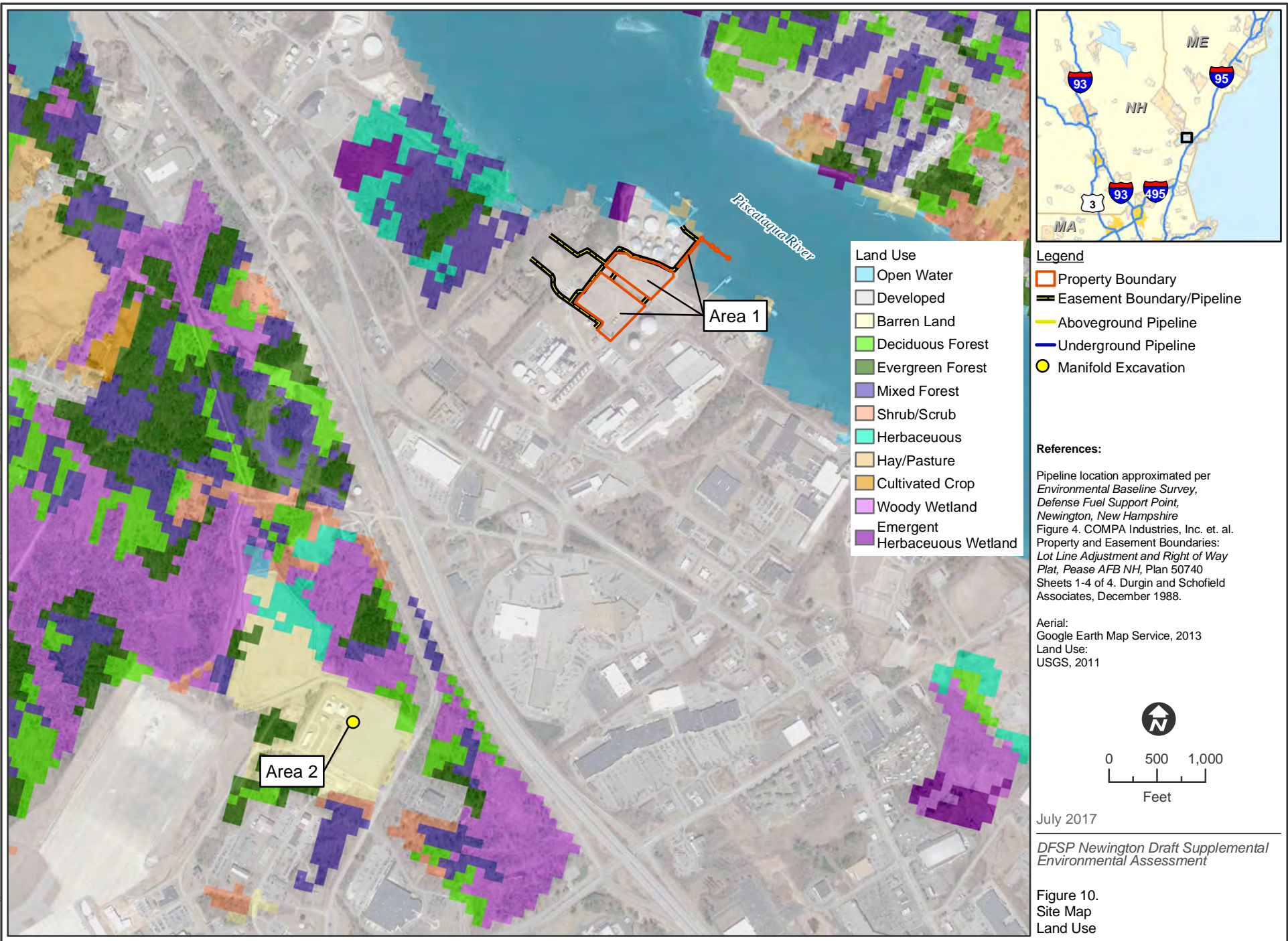


July 2017  
DFSP Newington Draft Supplemental Environmental Assessment

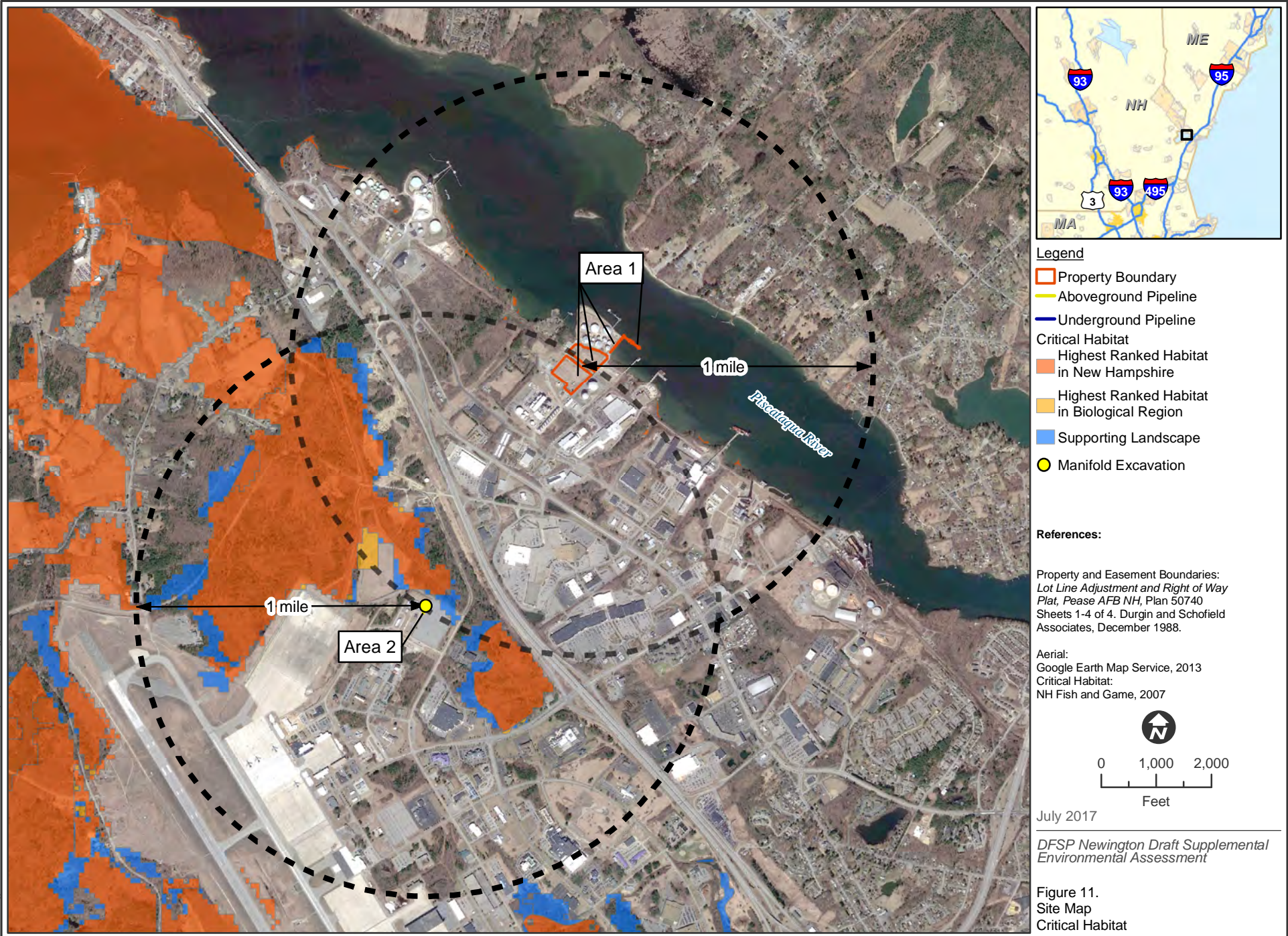
Figure 9.  
Pease ANGB (Area 2)  
Hydrology



\\lovetoncis\GIS\data\Federal\Northeast\NewHampshire\Newington\MXD\Permit\Applications\Stackpole\_PermitApp\Figure\_10\_Land\_Use.mxd







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## **Appendix B**

### **Air Modeling Input Data**

## Construction Equipment Air Quality Emission Factors

Diesel Equipment	Average Rated HP <sup>1</sup>	Loading Factors <sup>2</sup>	Emission Factors (lb/ 1000 HP-hr) <sup>2</sup>					Emission Factors (lbs/hr) <sup>3</sup>				
			CO	NO <sub>x</sub>	VOC	PM <sup>4</sup>	SO <sub>x</sub>	CO	NO <sub>x</sub>	VOC	PM	SO <sub>x</sub>
Asphalt Pavers	91	59%	4.76	10.72	0.900	0.88	0.84	0.26	0.58	0.05	0.05	0.05
Plate Compactors	8	43%	9.92	14.99	2.430	1.72	0.90	0.03	0.05	0.01	0.01	0.00
Concrete Pavers	130	59%	4.76	10.72	0.900	0.88	0.84	0.37	0.82	0.07	0.07	0.06
Rollers	99	59%	5.78	11.09	1.010	0.99	0.86	0.34	0.65	0.06	0.06	0.05
Scrapers	311	59%	4.70	10.98	0.660	0.68	0.82	0.86	2.01	0.12	0.12	0.15
Paving Equipment	99	59%	6.26	11.69	1.150	1.06	0.86	0.37	0.68	0.07	0.06	0.05
Signal Boards	6	43%	7.32	13.08	2.030	1.35	0.90	0.02	0.03	0.01	0.00	0.00
Trenchers	60	59%	8.05	11.95	1.320	1.32	0.88	0.28	0.42	0.05	0.05	0.03
Bore/Drill Rigs	209	43%	5.49	15.37	1.320	1.06	0.84	0.49	1.38	0.12	0.10	0.08
Excavators	183	59%	3.75	10.03	0.750	0.71	0.84	0.40	1.08	0.08	0.08	0.09
Concrete/Indust. Saw	56	59%	8.78	11.69	1.410	1.46	0.90	0.29	0.39	0.05	0.05	0.03
Cement Mixers	11	43%	7.17	15.79	1.810	1.35	0.86	0.03	0.07	0.01	0.01	0.00
Cranes	194	43%	3.02	12.06	0.840	0.64	0.82	0.25	1.01	0.07	0.05	0.07
Graders	172	59%	3.33	10.05	0.750	0.68	0.82	0.34	1.02	0.08	0.07	0.08
Off-Highway Trucks	489	59%	3.66	11.27	0.640	0.57	0.82	1.06	3.25	0.18	0.16	0.24
Crushing/Proc Equip.	127	43%	4.21	12.72	0.990	0.79	0.84	0.23	0.69	0.05	0.04	0.05
Rough Terrain Lifts	93	59%	7.30	11.71	1.230	1.21	0.88	0.40	0.64	0.07	0.07	0.05
Rubber Tired Loaders	158	59%	4.87	11.75	0.860	0.82	0.84	0.45	1.10	0.08	0.08	0.08
Tractor/Loader/Backhoe	77	21%	14.64	15.61	3.420	2.36	1.01	0.24	0.25	0.06	0.04	0.02
Crawler Tractors/Dozer	157	59%	4.50	11.09	0.770	0.73	0.84	0.42	1.03	0.07	0.07	0.08
Skid Steer Loader	42	21%	19.58	16.01	4.850	3.11	1.06	0.17	0.14	0.04	0.03	0.01
Off-Highway Tractor	214	59%	6.11	12.97	0.930	0.84	0.82	0.77	1.64	0.12	0.11	0.10
Dumpers/Tenders	23	21%	18.74	16.43	5.010	3.11	1.04	0.09	0.08	0.02	0.02	0.01
Forklifts	83	59%	6.50	9.97	0.900	0.90	0.88	0.32	0.49	0.04	0.04	0.04
Paving Equipment	99	59%	6.26	11.69	1.15	1.06	0.86	0.37	0.68	0.07	0.06	0.05
Trenchers	60	59%	8.05	11.95	1.32	1.32	0.88	0.28	0.42	0.05	0.05	0.03
Other Const. Equip.	161	59%	6.46	13.01	0.990	0.95	0.82	0.61	1.24	0.09	0.09	0.08

1. Table 2-04 for Inventory A (Inventory A generally gives higher results and is, therefore, more conservative than Inventory B) provided in the Nonroad Engine and Vehicle Emission Study--Report, US EPA Doc 21A-2001, 1991.
2. Table 4-1 provided in the Air Emissions Guide for Air Force Mobile Sources, U.S. Air Force Installations, 2016.
3. **Emission Factors (lbs/hr) = Average Rated HP X Loading Factors X Emission Factors (grams/HP-hr) / 1,000**
4. Assume PM<sub>10</sub> = PM<sub>2.5</sub>

## Construction Equipment Air Emissions Calculation

Construction Equipment	Usage (hrs)	Emissions (lbs)				
		CO	NO <sub>x</sub>	VOC	PM	SO <sub>x</sub>
Asphalt Pavers						
Plate Compactors		-	-	-	-	-
Concrete Pavers		-	-	-	-	-
Rollers		-	-	-	-	-
Scrapers		-	-	-	-	-
Paving Equipment		-	-	-	-	-
Signal Boards		-	-	-	-	-
Trenchers		-	-	-	-	-
Bore/Drill Rigs		-	-	-	-	-
Excavators	4320.00	1,749.11	4,678.30	349.82	331.17	391.80
Concrete/Indust. Saw		-	-	-	-	-
Cement Mixers		-	-	-	-	-
Cranes		-	-	-	-	-
Graders		-	-	-	-	-
Off-Highway Trucks	2480.00	2,618.75	8,063.74	457.92	407.84	586.71
Crushing/Proc. Equipment		-	-	-	-	-
Rough Terrain Lifts		-	-	-	-	-
Rubber Tired Loaders		-	-	-	-	-
Tractor/Loader/Backhoe		-	-	-	-	-
Crawler Tractors/Dozers	180.00	75.03	184.91	12.84	12.17	14.01
Skid Steer Loader		-	-	-	-	-
Off-Highway Tractor		-	-	-	-	-
Dumpers/Tenders		-	-	-	-	-
Forklifts		-	-	-	-	-
Other Construction Equipment		-	-	-	-	-
<b>TOTAL</b>	<b>(lbs):</b>	<b>4,442.9</b>	<b>12,926.9</b>	<b>820.6</b>	<b>751.2</b>	<b>992.5</b>
	<b>(tons):</b>	<b>2.22</b>	<b>6.46</b>	<b>0.410</b>	<b>0.38</b>	<b>0.496</b>

**Note:** Assume PM = PM10 = PM2.5



## Emissions from Marine Engines

### Marine Engine Emission Factors Calculation

Analysis of Commercial Marine Vessels Emissions and Fuel Consumption Data, EPA Feb 2000

Pollutant	Exponent (x)	Intercept (b)	Coefficient (a)
PM	1.5	0.2551	0.0059
NO <sub>x</sub>	1.5	10.4496	0.1255
NO <sub>2</sub>	1.5	15.5247	0.18865
SO <sub>x</sub>	N/A	0	2.3735
CO	1	0	0.8378
HC	1.5	0	0.0667
CO <sub>2</sub>	1	648.6	44.1

1 All regression but SO2 are in the form of:

$$\text{Emission Rate (g/kW-hr)} = a * (\text{Fractional Load})^x + b$$

2 SO2 regression is the form of:

$$\text{Emission Rate (g/kW-hr)} = a * (\text{fuel sulfur flow in g/kW-hr}) + b$$

3 Fuel Consumption (g/kW-hr) = 14.12/(Fractional load) + 205.717

4 Fractional Load 50%  
 Fuel Sulfure Concentration 3300 ppm  
 Fuel Consumption 233.957 g/kW-hr

### Marine Engine Emission Factors

Pollutant	Emission Rate (g/kW-hr)	Emission Rate (lb/hp-hr)
PM	0.272	0.0004
NO <sub>x</sub>	10.805	0.0177
NO <sub>2</sub>	16.058	0.0263
SO <sub>x</sub>	1.832	0.0030
CO	1.676	0.0027
VOC (HC)	0.189	0.0003
CO <sub>2</sub>	736.8	1.2087

### Marine Engine Emission Calculations

	Capacity (hp)	Operation Hour	PM <sub>10/2.5</sub>	NO <sub>x</sub>	NO <sub>2</sub>	SO <sub>x</sub>	CO	VOC (HC)	CO <sub>2</sub>
Crane on Barge	320	1686	0.120	4.782	7.107	0.811	0.742	0.083	326.072
Excavator	114	160	0.004	0.162	0.240	0.027	0.025	0.003	11.024
Tug	800	1048	0.187	7.430	11.044	1.260	1.152	0.130	506.708
		Total	0.31	12.37	18.39	2.10	1.92	0.22	843.80

## Emissions from Trucking Activity

Vehicle Type	Emission Factors (lb/VMT) <sup>1</sup>		Control Eff. (%) <sup>2</sup>	Emissions Rate (tpy)	
	PM10	PM2.5		PM10	PM2.5
Dump Trucks	1.91	0.19	75	10.90	1.08

1. Emissions were calculated using emission factor equations in Section 13.2.2, USEPA AP-42 Fifth Edition, 10/98

Unpaved Roads:  $E = k(s/12)^a(W/3)^b[(365-p)/365]$

k Factor (PM10, PM2.5), lb/VMT	1.5	0.15	AP-42 Table 13.2.2-2
Silt content, s	8.5		AP-42 Table 13.2.2-1
Number of Rain Days, p	140		AP-42 Figure 13.2.2-1
a (PM10, PM2.5)	0.9	0.9	AP-42 Table 13.2.2-2
b (PM10, PM2.5)	0.45	0.45	AP-42 Table 13.2.2-2

2. Assumed average dust control efficiency for road watering from AP-42 Section 13.2.2 and related background documents.

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## **Appendix C**

### **Coordination for Environmental Planning and Public Involvement**

## Supplemental Environmental Assessment

### Interagency and Intergovernmental Coordination for Environmental Planning List

#### Federal Agency Contacts

U.S. Environmental Protection Agency, Region 1  
Environmental Impact Branch 1  
1 Congress Street, Suite 1100  
Boston, MA 02114-2023

U.S. Army Corps. Of Engineers  
Concord Park  
696 Virginia Road  
Concord, MA 01742-2718

New Hampshire Army National Guard  
NGNH-FMO-ENV  
1 Minute Man Way  
Concord, NH 03301-5607

U.S. Dept. of Housing and Urban Development  
Manchester Field Office  
Norris Cotton Federal Building  
275 Chestnut Street, 4<sup>th</sup> Floor  
Manchester, NH 03101

U.S. Department of Commerce  
National Oceanic and Atmospheric Administration  
Greater Atlantic Regional Fisheries Office  
Attention Mr. Mike Johnson, Habitat Conservation  
Division  
55 Great Republic Drive  
Gloucester, MA 01930

North East Coordinator  
U.S. Fish and Wildlife Services, Region V  
300 Westgate Center Dr.  
Hadley, MA 01035

U.S. Coast Guard  
Attn: Water Ways  
259 High Street  
South Portland, ME 04106-0007

New Hampshire Air National Guard  
Environmental Manager  
ATTN : Andy Smith  
157ARW/EM  
302 Newmarket Street BLDG 100  
Pease ANGB NH 03803-0157

U.S. Department of Commerce  
National Oceanic and Atmospheric Administration  
Maine Field Station  
Attention: Mr. Max Tritt  
17 Godfrey Drive, Suite 1  
Orono, Maine 04473

## Supplemental Environmental Assessment

### Interagency and Intergovernmental Coordination for Environmental Planning List

#### State Agency Contacts

New Hampshire Department of Environmental Services  
PO BOX 95  
Concord, New Hampshire 03302

New Hampshire State Port Authority  
555 Market St.  
Portsmouth, NH 0381

New Hampshire Department of Transportation  
Bureau of Environment  
JOM Building, Room 160  
PO Box 483; 7 Hazen Dr.  
Concord, NH 03302

New Hampshire Department of Environmental  
Services  
Wetlands Bureau  
PO BOX 95  
Concord, NH 03302

NHDES Public Information and Permitting Unit  
Attn: Tim Drew  
29 Hazen Drive; PO Box 95  
Concord, NH 03302-0095

New Hampshire Fish and Game Department  
11 Hazen Dr.  
Concord, NH 03301

Historic Preservation Officer  
New Hampshire Division of Historic Resources  
19 Pilsbury St., 2nd Fl  
Concord, NH 03301

NHDES Coastal Program  
Pease International Tradeport  
222 International Drive, Suite 175  
Portsmouth, NH 03801

New Hampshire Office of Energy and Planning  
Governor Hugh J. Gallen State Office Park  
Johnson Hall, 3rd Floor  
107 Pleasant Street  
Concord, NH 03301

## **Supplemental Environmental Assessment**

### **Interagency and Intergovernmental Coordination for Environmental Planning List**

#### **Local Agency Contacts**

Bonnie Newsom, THPO  
Penobscot Indian Nation  
12 Wabanaki Way  
Indian Island, ME 04468

Kirk Francis  
Tribal Chief  
Penobscot Indian Nation  
12 Wabanaki Way  
Indian Island, ME 04668



EA Engineering, Science, and Technology, Inc.

2374 Post Road, Suite 102  
Warwick, RI 02886  
Telephone: 401-736-3440  
Fax: 401-736-3423  
[www.eaest.com](http://www.eaest.com)

26 July 2017

Agency/Representative  
Address  
City, State Zip Code

RE: Notification and Solicitation of Comments for Proposed Deconstruction Activities, Defense Fuel Support Point, Newington, New Hampshire

To Whom It May Concern:

On behalf of the U.S. Air Force (USAF) and acting as their authorized agent, EA Engineering, Science and Technology, Inc., PBC, hereby solicits concerns and/or comments regarding the proposed deconstruction of the Defense Fuel Support Point (DFSP) Newington facility located in Newington, New Hampshire.

An Environmental Assessment was prepared for this action, and a Finding of No Significant Impact was signed in June 2015. However, the proposed project has significantly changed such that a Supplemental Environmental Assessment is required. Changes include the following:

- The installation of cofferdams and piles in the Piscataqua River to protect water quality, should a catastrophic release of fill material inside each dolphin occur. The cofferdams and piles support the demolition of the docking pier formerly used for unloading fuel from barges and tankers (commonly referred to as dolphin structures). Once the dolphin structures and pier are completely removed, the cofferdams and piles would be removed.
- The notification that the presence of emerging contaminants at the site (per- and polyfluoralkyl substances [PFAS]; specifically, perfluorooctanoic acid and perfluorooctane sulfonic acid) have been found. While remedial activities associated with PFAS may be part of the overall cleanup action, the full extent and concentrations are unknown at this time. Any activities associated with PFAS will be addressed as a separate action in a separate decision document.
- The omission of any actions occurring with the pipeline located outside of DFSP Newington property boundary or at its terminus at Pease Air National Guard. The 1.25-mile pipeline is no longer included in this action, however, the pipeline will undergo further investigation under a separate action.





As this action is being fully funded by a Federal agency and per the National Environmental Policy Act (NEPA) of 1969, the Supplemental Environmental Assessment is being prepared to evaluate environmental and public-interest concerns associated with this proposed project. This document is currently being prepared and your department will have an opportunity to review and comment on the Draft Final Supplemental EA.

Per NEPA, all pertinent federal, state, and local agencies are being consulted during the Supplemental Environmental Assessment process. Environmental, social, and economic impact analyses will be conducted to evaluate the impacts of the Proposed Action on surrounding environments. An additional alternative is being considered (a No Action Alternative).

Information and data collected from this solicitation will be included in the Draft Final Supplemental Environmental Assessment for the Proposed Action. Please forward concerns/comments to me no later than 31 August 2017, so that they might be included in the Draft Final Supplemental Environmental Assessment. If you should have any questions regarding this letter, please feel free call me at 401-287-0363, or email me at [kstackpole@eaest.com](mailto:kstackpole@eaest.com). We look forward to your response.

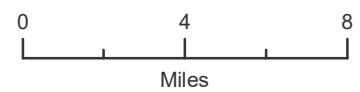
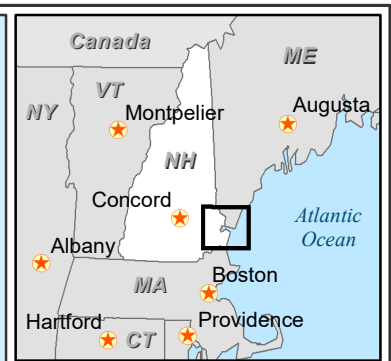
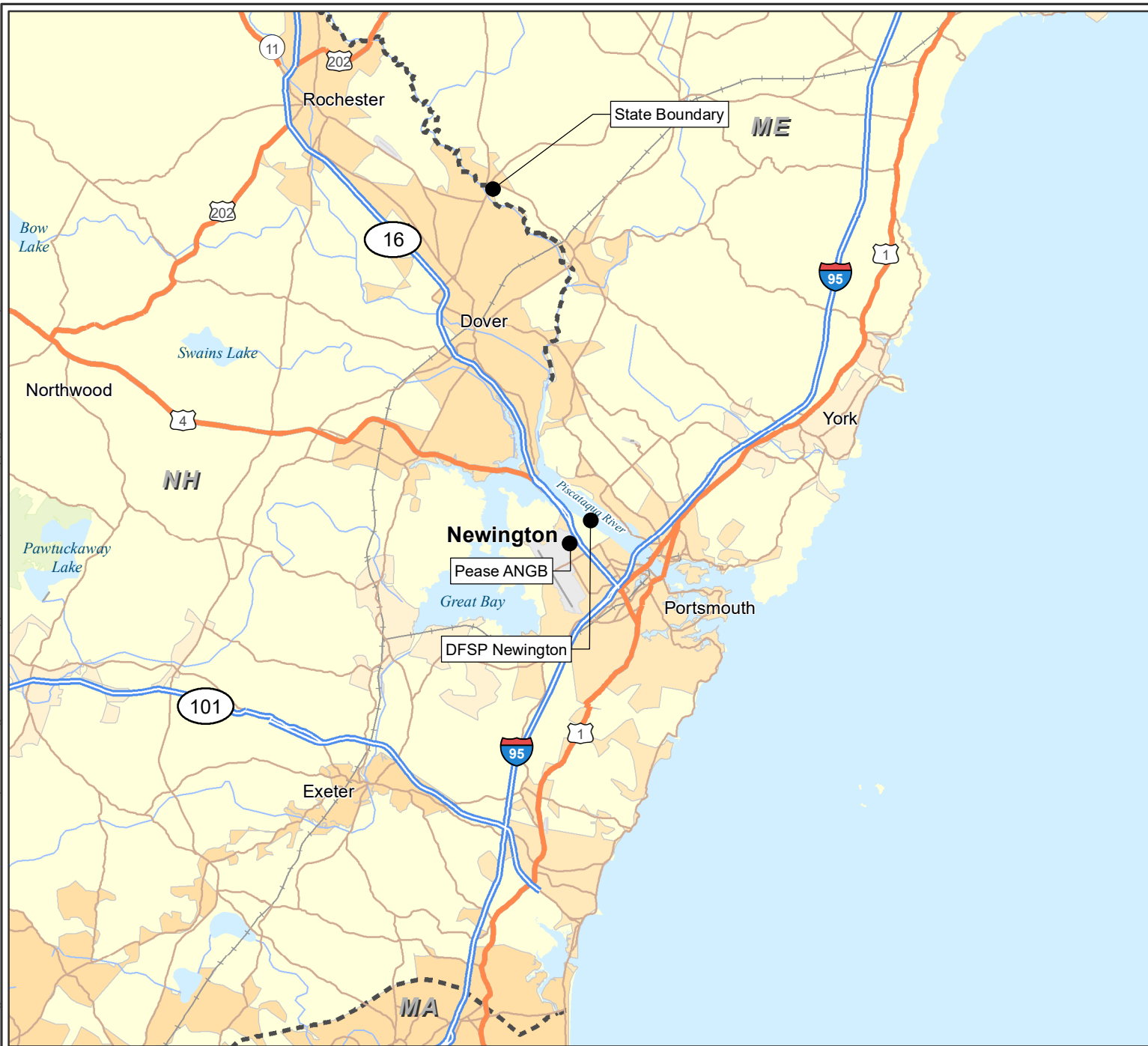
Sincerely yours,

EA ENGINEERING, SCIENCE,  
AND TECHNOLOGY, INC.

Karen Stackpole  
Biologist/NEPA Specialist

Attachments

\\loveton\gis\GISdata\Federal\NewHampshire\Newington\MXD\Permit\Applications\Stackpole\_PermitApp\Figure\_1\_Site\_Location\_Map.mxd



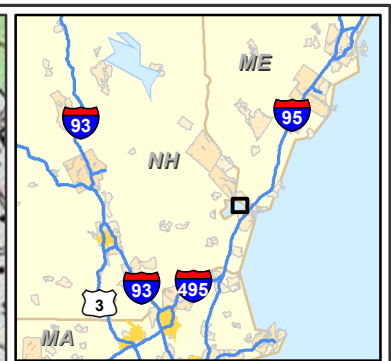
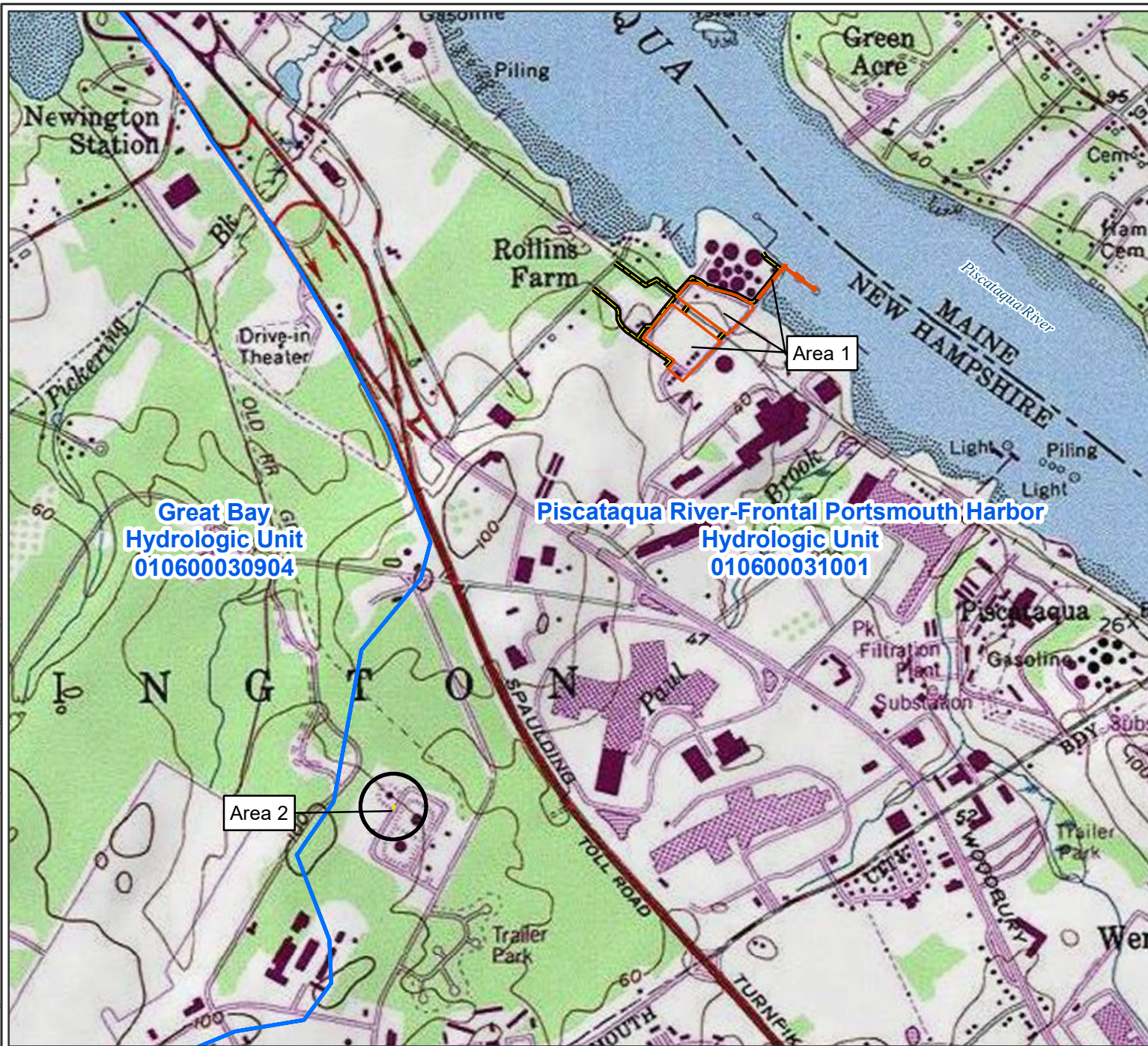
**References:**  
Street Map:  
ESRI ArcGIS Map Service, 2013

July 2017  
DFSP Newington

Figure 1.  
Site Location Map



\\lovetonci\GIS\data\Federal\NewHampshire\Newington\MXD\PermitApplications\Stackpole - Permit\Map\Figure 2 USGS Topo Map.mxd



- Legend**
- Property Boundary
  - Easement Boundary
  - 12 Unit Hydrologic Unit Code (HUC-12 Watershed)

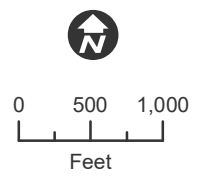
**References:**

Pipeline Easement Boundaries:  
*Lot Line Adjustment and Right of Way Plat, Pease AFB NH, Plan 50740*  
 Sheets 1-4 of 4. Durgin and Schofield Associates, December 1988.

Property Boundary:  
 Survey performed by Danny R. Bolender of AMEC Foster Wheeler Environmental and Infrastructure Inc.

Hydrologic Unit Names:  
*Watershed Boundary Dataset (WBD)*, USGS and USDA - NRCS. 2015. ESRI Shapefile. Decimal Degrees, North America Datum 1983.

Topo:  
 ESRI ArcGIS Map Service, 2013



July 2017  
 DFSP Newington

Figure 2.  
 USGS Topographical Map

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Please mail the completed form and required material to:

New Hampshire Division of Historical Resources  
State Historic Preservation Office  
Attention: Review & Compliance  
19 Pillsbury Street, Concord, NH 03301-3570

**RECEIVED**  
OCT 29 2014

DHR Use Only	
R&C #	6221
Log In Date	10/29/14 8/21/11
Response Date	11/13/14 9/5/17
Sent Date	11/13/14 9/5/17

## Request for Project Review by the New Hampshire Division of Historical Resources

- This is a new submittal  
 This is additional information relating to DHR Review & Compliance (R&C) #:

### GENERAL PROJECT INFORMATION

Project Title Disposition of DFSP Newington, Newington, NH

Project Location 78 Patterson Ln.

City/Town Newington

Tax Map 14

Lot # 14-17

NH State Plane - Feet Geographic Coordinates: Easting 1215267.937 Northing 222506.9312  
(See RPR Instructions and R&C FAQs for guidance.)

Lead Federal Agency and Contact (if applicable) U.S. Air Force, Global Strike Command  
(Agency providing funds, licenses, or permits)

Permit Type and Permit or Job Reference #

State Agency and Contact (if applicable)

Permit Type and Permit or Job Reference #

### APPLICANT INFORMATION

Applicant Name Walter Lewis

Mailing Address 841 Fairchild Ave, Suite 329

Phone Number (318) 456-3073

City Barksdale AFB

State LA Zip 71110

Email walter.lewis.8@us.af.mil.

### CONTACT PERSON TO RECEIVE RESPONSE

Name/Company EA Engineering, Science, and Technology, Inc.

ATTN: Mike O'Neill

Mailing Address 225 Schilling Circle

Phone Number 410-584-7000

City Hunt Valley

State MD Zip 21031

Email moneill@eaest.com

This form is updated periodically. Please download the current form at [www.nh.gov/nhdhr/review](http://www.nh.gov/nhdhr/review). Please refer to the Request for Project Review Instructions for direction on completing this form. Submit one copy of this project review form for each project for which review is requested. Include a self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: [www.nh.gov/nhdhr/review](http://www.nh.gov/nhdhr/review) or contact the R&C Specialist at [christina.st.louis@dcr.nh.gov](mailto:christina.st.louis@dcr.nh.gov) or 603.271.3558.

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION

Project Boundaries and Description

- Attach the relevant portion of a 7.5' USGS Map (photocopied or computer-generated) **indicating the defined project boundary.** (See RPR Instructions and R&C FAQs for guidance.)
- Attach a detailed narrative description of the proposed project.
- Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation.
- Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) (Informative photo captions are requested.)
- A DHR file review must be conducted to identify properties within or adjacent to the project area. Provide file review results in **Table 1** or within project narrative description. (Blank table forms are available on the DHR website.)  
File review conducted on \_\_\_\_ / \_\_\_\_ / \_\_\_\_.

Architecture

Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the project area?  Yes  No  
If no, skip to Archaeology section. If yes, submit all of the following information:

Approximate age(s):

- Photographs of **each** resource or streetscape located within the project area, with captions, along with a photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused.)
- If the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures, provide additional photographs showing detailed project work locations. (i.e. Detail photo of windows if window replacement is proposed.)

Archaeology

Does the proposed undertaking involve ground-disturbing activity?  Yes  No  
If yes, submit all of the following information:

- Description of current and previous land use and disturbances.
- Available information concerning known or suspected archaeological resources within the project area (such as cellar holes, wells, foundations, dams, etc.)

Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.

**DHR Comment/Finding Recommendation** *This Space for Division of Historical Resources Use Only*

- Insufficient information to initiate review.  Additional information is needed in order to complete review.
- No Potential to cause Effects  No Historic Properties Affected  No Adverse Effect  Adverse Effect

Comments:

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If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation.

Authorized Signature: Richard Bourne DSHA Date: 9-5-17

## **Appendix D**

### **Coastal Zone Management Assessment**

**From:** [Williams, Chris](#)  
**To:** [Stackpole, Karen](#)  
**Cc:** [Sandin, Peter](#); [Price, David](#); [Patterson, Cheri](#)  
**Subject:** RE: Supplemental Coastal Zone Consistency Determination for DFSP Newington, New Hampshire  
**Date:** Wednesday, September 13, 2017 8:30:56 AM  
**Attachments:** [image002.png](#)

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Hi Karen,

The New Hampshire Coastal Program (NHCP) has reviewed your email below regarding additional work at the Defense Fuel Support Point (DFSP) Newington. The proposed work involves the installation of cofferdams and protection piles in the Piscataqua River in order to protect water quality during the deconstruction and removal of four existing breasting dolphin structures. Based on review of the information contained in your email, the NHCP finds that proposed activities remain consistent, to the maximum extent practicable, with the enforceable policies of New Hampshire's federally approved coastal management program. This decision is contingent upon the condition that installation and removal of the cofferdams and protection piles occur from November 15 – March 15, pursuant to New Hampshire Code of Administrative Rule Env-Wt 304.11(b), relative to dredging in tidal waters, in order to protect Atlantic sturgeon that may be present in the Piscataqua River. Please note, this decision does not infer approval from any other Program within the New Hampshire Department of Environmental Services, or any other state or federal agency.

Please feel free to contact me should you have any questions.

Sincerely,

**Christian Williams**  
Program Coordinator  
New Hampshire Coastal Program  
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**From:** Stackpole, Karen [<mailto:kstackpole@eaest.com>]  
**Sent:** Tuesday, August 22, 2017 9:47 AM  
**To:** Williams, Chris  
**Subject:** Supplemental Coastal Zone Consistency Determination for DFSP Newington, New Hampshire

Dear Mr. Williams:

Recall we spoke in July about the Defense Fuel Support Point (DFSP) Newington (former fuel terminal facility with 4-breasting dolphins located on the shore of the Piscataqua River). Per our recent conversation, the Coastal Zone Consistency Determination was signed for this project in April 2015, and the Finding of No Significant Impact (FONSI)/Finding of No Practicable Alternative (FONPA) was signed in July 2015. However, the project has undergone changes that requires a supplemental analysis in accordance with the National Environmental Policy Act (NEPA). Pursuant to 15 CFR § 930.46 *Supplemental Coordination for Proposed Activities*, and on behalf of Air Force Civil Engineering Center (AFCEC), below and attached



please find supplemental information for your review and determination regarding the DFSP Newington facility.

Specifically, the proposed demolition activities occurring in the Piscataqua River have been changed to protect water quality, should a catastrophic event occur during the demolition of the four breasting dolphins. This will be accomplished through the installation of cofferdams and protection piles prior to deconstruction (and their subsequent removal). Piles will protect the cofferdam structures during weather events or from an accidental collision with vessels or barges. This project change was not analyzed in the April 2015 Determination.

The DFSP Newington facility consists of six inactive bulk fuel storage tanks (semi-buried), associated fuel transfer structures, aboveground storage tanks, aboveground and underground pipelines, surface and subsurface infrastructure, as well as a former fuel offloading pier with four breasting dolphin structures (structures extending above the water level with only the leading dolphin connected to shore). The dolphin structures are situated in water that is up to 40 ft deep at mean high water, and include various minor associated appurtenances and debris that has fallen off the dolphin superstructure over the years. The dolphin structures are filled with sand and cobbles and are capped with concrete. Dolphin deconstruction activities will begin by removing fallen infrastructure debris from the top of the mudline to allow for the installation of an outer sheet pile cofferdam support and mooring piles. The cofferdams will provide a containment structure around the outside of the dolphins (dolphin 1 and 4 would be contained by individual cofferdams, and dolphins 2 and 3 would be contained by one larger cofferdam). The sheet piles will be advanced into place with vibrating hammers until competent bedrock is encountered. A series of template and battered piles will support each cofferdam (61 template piles and 76 battered piles). A total of 13 mooring piles will serve to protect the cofferdam from accidental collisions with one of the barges that will be used to conduct the work, or other unanticipated vessel or debris occurrences.

After installation of the cofferdams and piles, the soil from within each dolphin cell will then be excavated using mechanical methods, tested, and properly handled and disposed. Once all fill material from the inside of each of the four dolphin structures has been removed, the cofferdams and piles will be vibrated out, thereby completing in-water deconstruction activities. No activities that involve removal of sediment from outside the dolphin structures will occur. Overall, the project can be classified as *proactive restoration*, as it involves the manipulation of the physical characteristics of the site with the goal of returning natural/historic functions to a waterway.

Table 1 attached provides the enforcement policy, our position in the April 2015 Determination, and our current findings, taking into consideration the project changes. After review of the April 2015 Determination, we believe the project remains consistent with the enforcement policies of the Coastal Program.

Also attached are Figures 1 and 2 depict the regional and site location, and Figure 3 depicts the conceptual site plan of Area 1, which includes the location of the in-water deconstruction activities.

We appreciate your time and thank you in advance for your review of the changes to the project within the coastal zone. Please feel free to contact me should have any questions or require additional information. I can be reached at 401.287.0363, or via email at [kstackpole@eaest.com](mailto:kstackpole@eaest.com).

Karen Stackpole  
Scientist III

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**Table 1 Supplemental Coastal Zone Consistency Determination**

Coastal Program Enforcement Policy	April 2015 Discussion	July 2017 Discussion
<b>PROTECTION OF COASTAL RESOURCES</b>		
<p>No. 1: Protect and preserve and, where appropriate, restore the water and related land resources of the coastal and estuarine environments. The resources of primary concern are coastal and estuarine waters, tidal and freshwater wetlands, beaches, sand dunes, and rocky shores.</p>	<p>The disposition of DFSP Newington will remove all structures, infrastructure, and utilities on USAF-owned property, and restore the property to a natural state. Therefore, the project remains consistent with the intent of Enforceable Policy No. 1 and the NHCP.</p>	<p>The project remains consistent with the intent of Enforceable Policy No. 1 and the NHCP.</p>
<p>No. 2: Manage, conserve and, where appropriate, undertake measures to maintain, restore, and enhance the fish and wildlife resources of the state.</p>	<p>DFSP Newington is currently developed as commercial/industrial space and does not provide suitable habitat for a wide diversity of wildlife. Several species typically utilize what minimal habitat exists on the DFSP property for forage and/or shelter. The proposed action will result in a temporary adverse impact during demolition activities, including an increase in noise and site activity. Erosion, sedimentation, and stormwater management practices will be implemented and maintained during construction consistent with New Hampshire Department of Environmental Services (NHDES) regulations to ensure that runoff from the site does not impact water quality or habitat in adjacent or downstream water bodies. The restoration of the site after demolition activities are complete will restore some habitat long term providing a beneficial impact for fish and wildlife resources; therefore, the project remains consistent with the intent of Enforceable Policy No. 2 and the NHCP.</p>	<p>A water quality plan has been prepared to measure and record turbidity during the cofferdam and pile installation and subsequent removal. As part of the preparation of the Programmatic General Permit submitted to the NHDES Wetlands Bureau in May 2017, a sediment transport plume model, turbidity monitoring plan, and marine mammal acoustic model and Essential Fish Habitat Assessment were prepared to assess impacts to resources. The project site will provide long-term beneficial impacts for resources, thereby remaining consistent with the intent of Enforcement Policy No. 2 and the NHCP.</p>
<p>No. 3: Regulate the mining of sand and gravel resources in offshore and onshore locations so as to ensure protection of submerged lands, and marine and estuarine life. Ensure adherence to minimum standards for restoring natural resources impacted from onshore sand and gravel removal operations.</p>	<p>The disposition of DFSP Newington does not include mining of sand and gravel resources in any location; therefore, Enforceable Policy No. 3 is <i>not applicable</i> to this project.</p>	<p>The project remains consistent with the intent of Enforceable Policy No. 3 and the NHCP.</p>



Coastal Program Enforcement Policy	April 2015 Discussion	July 2017 Discussion
<p>No. 4: Undertake oil spill prevention measures, safe oil handling procedures, and, when necessary, expedite the cleanup of oil spillage that will contaminate public waters. Institute legal action to collect damages from liable parties in accordance with state law.</p>	<p><b>Structures:</b> A limited hazardous materials survey of building materials was conducted by EA Engineering, Science, and Technology, Inc., PBC (EA) in 2014. The survey identified asbestos in five distinct building materials in the office/administration building (floor tiles, linoleum, and caulk) and the generator building (two types of caulk). Additional testing is required to meet the federal requirements by confirming the presence of asbestos. Lead paint was identified on 26 of 71 surfaces screened. These screening locations include indoor and exterior structures across the facility. The impacted locations include the paints in the office building, generator building, fire suppression pump house, truck racks, pier, and various other site components. These results provide an indication that lead paint is present at the site and the survey identifies the items that should be further evaluated and handled properly by the demolition contractor to ensure proper disposal techniques. Polychlorinated biphenyls (PCBs), specifically Aroclor 1254, were detected in one caulk sample collected from an office building window at a concentration of 0.175 milligrams per kilogram (mg/kg), slightly above the laboratory Method Reporting Limit of 0.170 mg/kg. Since concentrations of PCBs detected in caulk are below the regulatory threshold of 50 mg/kg in caulk, no additional testing is warranted and no special requirements are necessary during demolition for these materials.</p> <p><b>Soils:</b> A recent investigation conducted by EA in 2014 of soil at the property found an area of weathered petroleum contamination along the northern boundary of the property. Residual contamination on the DFSP property may be encountered during site disturbance activities, and pockets of contaminated soils may be encountered during bulk tank demolition or earth moving activities. No hazardous materials were identified in soils.</p>	<p><b>Structures:</b> No change. The project remains consistent with the intent of Enforceable Policy No. 4 and the NHCP.</p> <p><b>Soils:</b> No Change. The project remains consistent with the intent of Enforceable Policy No. 4 and the NHCP.</p> <p><b>DFSP Groundwater:</b> Through further investigation, the presence of emerging contaminants at the site (per-and polyfluoralkyl substances; specifically, perfluorooctanoic acid and perfluorooctane sulfonic acid) were identified. Remedial activities associated with PFAS may be part of the overall cleanup action, however, the full extent and concentrations are unknown at this time and will not be the focus of the demolition project. Because of this, the project remains consistent with the intent of Enforceable Policy No. 4 and the NHCP.</p> <p><b>Other Groundwater Concerns:</b> No Change. The project remains consistent with the intent of Enforceable Policy No. 4 and the NHCP.</p> <p><b>Environmental Consequences:</b> No Change. The project remains consistent with the intent of Enforceable Policy No. 4 and the NHCP.</p>



Coastal Program Enforcement Policy	April 2015 Discussion	July 2017 Discussion
	<p><b>Defense Fuel Support Point Groundwater:</b> Groundwater at the DFSP facility previously was impacted by a leak at the former manifold area. This area has been remediated over the past several decades and groundwater quality has been restored. Groundwater monitoring in the area indicates compliance with applicable NHDES Groundwater Quality Standards, and closure of the existing Groundwater Management Permit is anticipated.</p> <p><b>Other Groundwater Concerns:</b> Analytical results indicate the presence of methyl tertiary-butyl ether at concentrations exceeding the applicable NHDES Ambient Groundwater Quality Standards in groundwater near the former DFSP lagoon/generator building area. An adjacent property owner is the responsible party for methyl tertiary-butyl ether impacts to groundwater related to a gasoline release. This historical gasoline release is due to discharges from the oil/water separators into the adjacent property's stormwater management system, which discharges to the stormwater lagoon on property. Adjacent property owners currently conduct regular groundwater monitoring at the DFSP facility.</p> <p><b>Environmental Consequences:</b> The Proposed Action is expected to result in a major permanent beneficial impact to hazardous materials and wastes at DFSP Newington. Clean soil would be used to backfill the excavated areas and building footprints. Additionally, known hazardous materials within the building, including asbestos and lead-based paint, would be removed from the property. As such, the threat to the public from those hazardous materials that currently are found at the installation would be removed, thereby eliminating the potential for injury or ill health resultant from exposure to those agents. All practicable materials such as plastics, metals,</p>	



Coastal Program Enforcement Policy	April 2015 Discussion	July 2017 Discussion
	<p>glass, and compostable materials would be collected and stored at DFSP Newington. The materials would be transported to the nearest recycling facility in accordance with the material type. Recycling and reuse of these materials would keep excess waste from being stored in local landfills thereby facilitating further beneficial impacts to the surrounding environment. During demolition, soils would be monitored and screened as appropriate. Contaminated soils should be stockpiled, sampled, characterized, and disposed of in accordance with applicable regulations. Soil removal is presumed to be ancillary to demolition activities and not a primary component of the demolition. Therefore, the project is consistent with the intent of Enforceable Policy No. 4 and the NHCP.</p>	
<p>No. 5: Encourage investigations of the distribution, habitat needs, and limiting factors of rare and endangered animal species and undertake conservation programs to ensure their continued perpetuation.</p>	<p>The disposition of DFSP Newington includes the removal of structures, infrastructure, and utilities within the Piscataqua River and on land near the shore. The removal of these structures and utilities will enhance environmental resources. Therefore, the project is consistent with the intent of Enforceable Policy No. 5 and the NHCP.</p>	<p>As part of the Programmatic General Permit prepared for the project and currently in review with NHDES, the following assessment and predictive models were conducted for the in-water demolition activities (specifically, the installation of cofferdams) on resources:</p> <ol style="list-style-type: none"> <li>1. Sediment samples were collected in the work area and analyzed for the presence of a full suite of contaminants;</li> <li>2. Sediment Plume Transport Model; and,</li> <li>3. Acoustic Model Predicting Underwater Anthropogenic Impacts to marine Mammals and Atlantic Sturgeon.</li> </ol> <p>The removal of these structures and utilities will enhance environmental resources. Therefore, the project remains consistent with the intent of Enforceable Policy No. 5 and the</p>



Coastal Program Enforcement Policy	April 2015 Discussion	July 2017 Discussion
<p>No.6: Identify, designate, and preserve unique and rare plant and animal species and geologic formations that constitute the natural heritage of the state. Encourage measures, including acquisition strategies, to ensure their protection.</p>	<p>There are no unique or rare plant and animal species or geologic formations in the project area. Therefore, the project is consistent with the intent of Enforceable Policy No. 6 and the NHCP.</p>	<p>NHCP.          No Change. The project remains consistent with the intent of Enforceable Policy No. 6 and the NHCP.</p>
<b>RECREATION AND PUBLIC ACCESS</b>		
<p>No. 7: Provide a wide range of outdoor recreational opportunities including public access in the seacoast through the maintenance and improvement of the existing public facilities and the acquisition and development of new recreational areas and public access.</p>	<p>The disposition of DFSP Newington will have a positive effect on the public access to beach areas, existing public facilities, or public access. Upon completion of the Preferred Alternative, the property will be transferred to Government Services Agency. The Proposed Alternative will allow future reuse of the property, not possible before. Therefore, the project is consistent with the intent of Enforceable Policy No. 7 and the NHCP.</p>	<p>No Change. The project remains consistent with the intent of Enforceable Policy No. 7 and the NHCP.</p>
<b>MANAGING COASTAL DEVELOPMENT</b>		
<p>No.8: Preserve the rural character and scenic beauty of the Great Bay estuary by limiting public investment in infrastructure within the coastal zone in order to limit development to a mixture of low and moderate density.</p>	<p>The disposition of DFSP Newington will result in the removal of buildings and infrastructure and restore the site as an undeveloped, vegetated green space in place of an industrial/commercial area. This is consistent with Enforceable Policy No. 8 and the NHCP.</p>	<p>No Change. The project remains consistent with the intent of Enforceable Policy No. 8 and the NHCP.</p>
<p>No. 9: Reduce the risk of flood loss to minimize the impact of floods on human safety, health and welfare, and preserve the natural and beneficial value of floodplains, through the implementation of the National Flood Insurance Program and applicable state laws and regulations,</p>	<p>DFSP Newington is located within the Piscataqua River floodplain. The portion of the site east of the railroad is mapped within the 100-year floodplain. The proposed action will return the floodplain to a more natural state with the removal of the structures and utilities onsite that indirectly reduces the risk of flood loss; minimizes the impact of floods on human safety, health, and welfare; and preserves the natural</p>	<p>No Change. The project remains consistent with the intent of Enforceable Policy No. 9 and the NHCP.</p>



Coastal Program Enforcement Policy	April 2015 Discussion	July 2017 Discussion
and local building codes and zoning ordinances.	and beneficial value of the floodplain. The project is consistent with the intent of Enforceable Policy No. 9 and the NHCP.	
No. 10: Maintain the air resources in the coastal area by ensuring that the ambient air pollution level, established by the New Hampshire State Implementation Plan pursuant to the Clean Air Act, as amended, is not exceeded.	Emissions from construction equipment would be expected to be temporary and minimal and would only occur during site demolition and restoration activities. Construction equipment would be expected to have properly operating emission control systems. This will minimize potential adverse effects to ambient air quality. Long term, the site is expected to require little to no energy; therefore, only beneficial air quality impacts would be expected once demolition and restoration activities are complete. The project is consistent with the intent of Enforceable Policy No. 10 and the NHCP.	No Change. The project remains consistent with the intent of Enforceable Policy No. 10 and the NHCP.
No. 11: Protect and preserve the chemical, physical, and biological integrity of coastal water resources, both surface and groundwater.	It is anticipated that contaminated soils may be encountered during demolition activities at the DFSP Newington site. Any contaminated soils recovered will be stockpiled, sampled, characterized, and disposed of in accordance with applicable regulations. Removal of any contaminated soils and backfill with clean soil will enhance the integrity of any groundwater at the site. In addition, erosion, sedimentation, and stormwater management practices will be implemented and maintained during construction consistent with NHDES regulations to ensure that runoff from the site does not impact water quality or habitat in adjacent or downstream water bodies. Once demolition activities are complete, restoration of the property to an undeveloped vegetated green space will minimize potential impacts to any water body, including groundwater. This project is consistent with the intent of Enforceable Policy No. 11 and the NHCP.	No Change. The project remains consistent with the intent of Enforceable Policy No. 11 and the NHCP.
No. 12: Ensure that the siting of any proposed energy facility in the coast will consider the national interest; will not unduly interfere with the orderly development of the region; and will not	The project does not include the siting of a proposed energy facility; therefore, Enforceable Policy No. 12 is <i>not applicable</i> to this project.	No Change. Enforceable Policy No. 12 remains not applicable to this project.





Coastal Program Enforcement Policy	April 2015 Discussion	July 2017 Discussion
<p>have an unreasonable adverse impact on aesthetics, historic sites, coastal and estuarine waters, air and water quality, the natural environment, and the public health and safety.</p>		
<b>COASTAL DEPENDENT USES</b>		
<p>No. 13: Allow only water dependent uses and structures on state properties in Portsmouth-Little Harbor, Rye Harbor, and Hampton-Seabrook Harbor, at state port and fish pier facilities and state beaches (except those uses or structures that directly support the public recreation purpose). For new development, allow only water-dependent uses and structures over waters and wetlands of the state. Allow repair of existing over-water structures within guidelines. Encourage the siting of water dependent uses adjacent to public waters.</p>	<p>The project does not include the siting of any new development on state properties or over waters and wetlands of the state; therefore, Enforceable Policy No. 13 is <i>not applicable</i> to this project.</p>	<p>No Change. Enforceable Policy No. 13 remains not applicable to this project.</p>
<p>No. 14: Preserve and protect coastal and tidal waters and fish and wildlife resources from adverse effects of dredging and dredge disposal, while ensuring the availability of navigable waters to coastal-dependent uses. Encourage beach renourishment and wildlife habitat restoration as a means of dredge disposal whenever compatible.</p>	<p>The project does not include any dredging or dredged material disposal; therefore, Enforceable Policy NO. 14 is <i>not applicable</i> to this project.</p>	<p>No Change. Enforceable Policy No. 14 remains not applicable. It should be noted, however, that the removal of the fill material that is inside each dolphin structure classifies the project as a dredge operation under the New Hampshire Programmatic General Permit, due to the fact that anthropogenic derived material (dolphins and associated caps) will be removed from Waters of the United States. The removal operation is clearly supportive of Enforcement Policy No. 14, in that access to the navigable waters will be enhanced by the removal of these obstructions to navigation. Based on this, Enforceable Policy No. 14 remains not</p>



Coastal Program Enforcement Policy	April 2015 Discussion	July 2017 Discussion
		applicable as it relates to dredging and dredge disposal, but is consistent with the policy as it relates to the availability of navigable waters.
<b>PRESERVATION OF HISTORIC AND CULTURAL RESOURCES</b>		
No. 15: Support the preservation, management, and interpretation of historic and culturally significant structures, sites, and districts along the Atlantic Coast and in the Great Bay area.	Since the buildings on the DFSP Newington installation are greater than 50 years old, buildings on DFSP Newington may be considered historic. A Section 106 consultation will be carried out with the New Hampshire State Historic Preservation Office. All demolition activities will be conducted in compliance with New Hampshire State Historic Preservation Office requirements; therefore, this project is consistent with the intent of Enforceable Policy No. 15 and the NHCP.	The New Hampshire Division of Historic Resources, State Historic Preservation Office (SHPO) responded to the June 2015 EA for the site and indicated no historic properties will be affected. The dolphin structures were depicted as part of the demolition at that time. The installation of the cofferdams and piles were not included, but would be located within the work area formerly evaluated by the SHPO. On this basis, this project remains consistent with the intent of Enforceable Policy No. 15 and the NHCP.
<b>MARINE AND ESTUARINE RESEARCH AND EDUCATION</b>		
No. 16: Promote and support marine and estuarine research and education that will directly benefit coastal resource management.	The disposition of DFSP Newington will remove all structures, infrastructure, and utilities on USAF-owned property, and restore the property to a natural state. There are no components of the project that include marine or estuarine research or education; therefore, the project will have no effect on Enforceable Policy No. 16.	No change. The project will have no effect on Enforceable Policy No. 16.

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