Final
Preliminary Assessment Report
Caswell Training Site
Limestone, Maine

Perfluorooctane-Sulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA) Impacted Sites
ARNG Installations, Nationwide

November 2019

Prepared for:

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Table of Contents

Tables

Figures

Appendices

Acronyms and Abbreviations

°F	degrees Fahrenheit
AAB	Anti-Aircraft Battery
AECOM	AECOM Technical Services, Inc.
AFFF	aqueous film forming foam
amsl	above mean sea level
AOI	Area of Interest
ARNG	Army National Guard
bgs	below ground surface
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CSM	conceptual site model
CTS	Caswell Training Site
DHHS	Department of Health and Human Services
EDR	Environmental Data Resources, Inc.
FFA	Federal Facility Agreement
FLDD	Flightline Drainage Ditch
ft	feet/foot
FTA	fire training area
IWTF	Industrial Wastewater Treatment Facility
LAFB	Loring Air Force Base
LCHP	Loring Controlled Humidity Protection
LDA	Loring Development Authority
MEARNG	Maine Army National Guard
MEDEP	Maine Department of Environmental Protection
MEG	Maximum Exposure Guideline
µg/L	micrograms per liter
mg/L	milligrams per liter
ng/L	nanograms per liter
PA	Preliminary Assessment
PFAS	per- and poly-fluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
SI	Site Inspection
US	United States
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VSI	visual site inspection
Wood	Wood Environment & Infrastructure Solutions, Inc.
WWTP	Wastewater Treatment Plant

Executive Summary

The United States (US) Army Corps of Engineers (USACE) Baltimore District on behalf of the Army National Guard-Installations & Environment Division, Cleanup Branch contracted AECOM Technical Services, Inc. (AECOM) to perform *Preliminary Assessments (PAs) and Site Inspections (SIs) for Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanoic acid (PFOA) Impacted Sites at Army National Guard (ARNG) Facilities Nationwide*. The ARNG is assessing potential effects on human health related to processes at facilities that used per- and poly-fluoroalkyl substances (PFAS), primarily in the form of aqueous film forming foam released as part of firefighting activities, although other PFAS sources are possible.

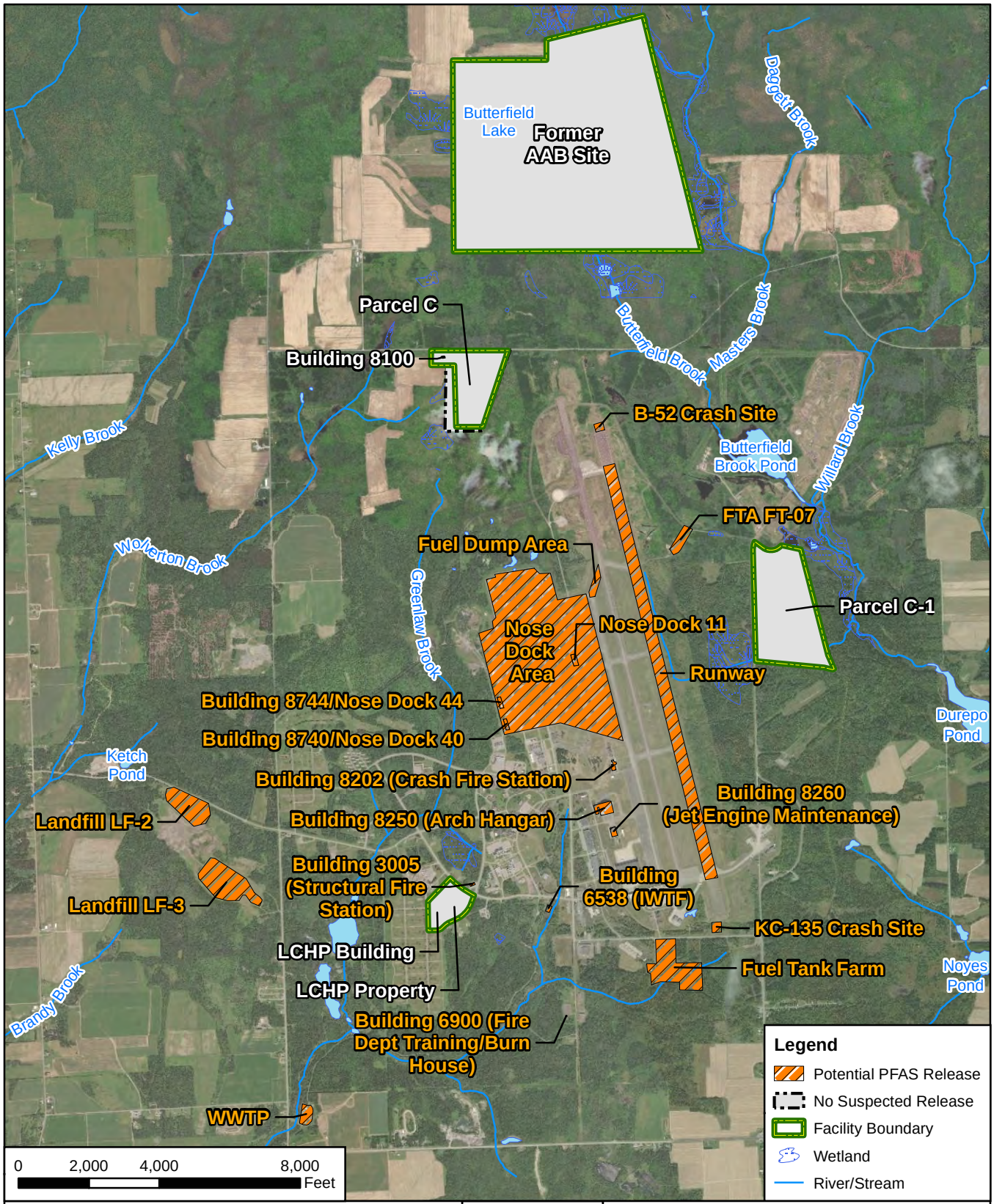
AECOM completed a PA for PFAS at Caswell Training Site (CTS; also referred to as the "facility") in Loring, Maine, to assess potential PFAS release areas and exposure pathways to receptors. The performance of this PA included the following tasks:

- Reviewed data resources to obtain information relevant to suspected PFAS releases
- Conducted a site visit on 2 July 2019
- Interviewed current Maine ARNG (MEARNG) personnel, a former Captain with the Paul L. Barnes Loring Fire Department, and the Air Force Base Realignment and Closure caretaker for the adjacent former Loring Air Force Base (LAFB)
- Completed visual site inspections at known or suspected PFAS release locations and documented with photographs

Several adjacent off-facility potential PFAS release areas were identified in association with the former LAFB, including multiple fire training areas, the runway, hangar spaces, crash sites, fuel storage and maintenance areas, and fire stations. Secondary sources, such as landfills and wastewater treatment plants, were also identified adjacent to the MEARNG CTS. As a result of adjacent PFAS releases, it is possible PFAS are in site media surrounding the CTS.

Based on the US Environmental Protection Agency (USEPA) Unregulated Contaminant Monitoring Rule 3 data, it was indicated that no PFAS was detected in a public water system above the USEPA Health Advisory level within 20 miles of the facility.

No Areas of Interest related to PFAS release were identified at CTS based on PA data. Based on the documented absence of the use/release of PFAS-containing materials at CTS, evidence does not support current or former ARNG activities at the facility having contributed to PFAS contamination in soil, groundwater, surface water, or sediment at the facility or adjacent areas. The summary of findings is presented in **Figure ES-1**.



CLIENT	ARNG			
NOTES	Preliminary Assessment for PFAS at Caswell Training Site, ME			
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SCALE	1:48,000	CHK BY	LC	11/12/2019
Base Map: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,		PM	RG	11/12/2019

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Summary of Findings

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Figure ES-1

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1. Introduction

1.1 Authority and Purpose

The United States (US) Army Corps of Engineers (USACE) Baltimore District on behalf of the Army National Guard (ARNG)-Installations & Environment Division, Cleanup Branch contracted AECOM Technical Services, Inc. (AECOM) to perform *Preliminary Assessments (PAs) and Site Inspections (SIs) for Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanoic acid (PFOA) Impacted Sites at ARNG Facilities Nationwide* under Contract Number W912DR-12-D-0014, Task Order W912DR17F0192, issued 11 August 2017. The ARNG is assessing potential effects on human health related to processes at facilities that used per- and poly-fluoroalkyl substances (PFAS), primarily in the form of aqueous film forming foam (AFFF) released as part of firefighting activities, although other PFAS sources are possible. In addition, the ARNG is assessing businesses or operations adjacent to the ARNG facility (not under the control of ARNG) that could potentially be responsible for a PFAS release.

PFAS are classified as emerging environmental contaminants that are garnering increasing regulatory interest due to their potential risks to human health and the environment. PFAS formulations contain highly diverse mixtures of compounds. Thus, the fate of PFAS compounds in the environment varies. The regulatory framework at both federal and state levels continues to evolve. The US Environmental Protection Agency (USEPA) issued Drinking Water Health Advisories for PFOA and PFOS in May 2016, but there are currently no promulgated national standards regulating PFAS in drinking water. In the absence of federal maximum contaminant levels, some states have adopted their own drinking water standards for PFAS. Maine does not currently have legally enforceable drinking water standards for PFAS.

This report presents findings of a PA for PFAS at Caswell Training Site (CTS; also referred to as the “facility”) in Limestone, Maine, in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, the National Oil and Hazardous Substances Pollution Contingency Plan (40 Code of Federal Regulations Part 300), and USACE requirements and guidance.

This PA documents locations where PFAS may have been released into the environment at and near CTS. The term PFAS will be used throughout this report to encompass all PFAS chemicals being evaluated, including PFOS and PFOA, which are key components AFFF.

1.2 Preliminary Assessment Methods

The performance of this PA included the following tasks:

- Reviewed data resources to obtain information relevant to suspected PFAS releases
- Conducted a site visit on 2 July 2019
- Interviewed current Maine ARNG (MEARNG) personnel, a former Captain with the Paul L. Barnes Loring Fire Department, and the Air Force Base (AFB) Realignment and Closure (BRAC) caretaker for the adjacent former Loring Air Force Base (LAFB)
- Completed visual site inspections (VSIs) at known or suspected PFAS release locations and documented with photographs

1.3 Report Organization

This report has been prepared in accordance with the USEPA *Guidance for Performing Preliminary Assessments under CERCLA* (USEPA, 1991). The report sections and descriptions of each are:

- **Section 1** – **Introduction:** identifies the project purpose and authority and describes the facility location, environmental setting, and methods used to complete the PA
- **Section 2** – **Fire Training Areas:** describes the fire training areas (FTAs) at the facility identified during the site visit
- **Section 3** – **Non-Fire Training Areas:** describes other locations of PFAS releases at the facility identified during the site visit
- **Section 4** – **Emergency Response Areas:** describes areas of AFFF release at the facility, specifically in response to emergency situations
- **Section 5** – **Adjacent Off-Site Sources:** describes sources of PFAS release adjacent to the facility that are not under the control of ARNG
- **Section 6** – **Preliminary Conceptual Site Model:** describes the pathways of PFAS transport and receptors for the Areas of Interest (AOIs) and the facility
- **Section 7** – **Conclusions:** summarizes the data findings and presents the conclusions of the PA
- **Section 8** – **References:** provides the references used to develop this document
- **Appendix A** – Data Resources
- **Appendix B** – Preliminary Assessment Documentation
- **Appendix C** – Photographic Log

1.4 Facility Location and History

CTS is located on four properties comprised of several parcels within the former LAFB located in Aroostook County, at the northeastern tip of Maine, approximately 2 miles northwest of the town of Limestone, 8 miles northeast of Caribou, and 3 miles west of the Canadian border at New Brunswick, Canada (**Figure 1-1**).

The former LAFB underwent BRAC in 1994. Four parcels totaling 859.6 acres were licensed indefinitely to MEARNG on 28 March 1986 in preparation for the facility BRAC. These parcels make up what is referred to as the MEARNG Former Anti-Aircraft Battery (AAB) Site (see License DACA51-3-86-584 included in **Appendix A**). Two additional Parcels, C and C-1 (64 and 132 acres, respectively) were licensed indefinitely from USACE to MEARNG on 4 March 1997 (see License DACA33-3-00-012 included in **Appendix A**). Additionally, the Loring Controlled Humidity Protection (LCHP) facility is operated by MEARNG (AMEC Foster Wheeler Environment and Infrastructure, Inc. [Amec Foster Wheeler], 2015). These four properties (Former AAB Site, Parcel C, Parcel C-1, and the LCHP facility) comprise CTS.

In 1946, the Strategic Air Command developed a plan for a global Air Force, which included the development of the Limestone AFB. The installation became active in 1953 and became the home to a series of state-of-the-art bombers and support aircraft. The installation was renamed Loring Air Force Base in 1954. In 1955, the 42nd Air Refueling Squadron was activated. Substantial renovations to the installation began in 1981, including the addition of a second runway. Base improvements continued through 1991, with the completion of a renovated alert facility, a new medical center, and a new maintenance facility and upgraded aircraft refueling. The installation

was officially deactivated on 30 September 1994. Upon closure, responsibility for environmental cleanup at the installation transferred to the AFB Conversion Agency (AFCEC, 2011).

The installation was placed on USEPA's National Priorities List of sites in 1990. Under the CERCLA 120, a Federal Facility Agreement (FFA) between USEPA Region 1, the Maine Department of Environmental Protection (MEDEP), and the US Air Force was signed in January 1991 and amended in 1995. The FFA governs the environmental activities being conducted at the former LAFB. Following the signing of the FFA, Loring was placed on the U.S Congress Base Closure List (1991) and was closed in September 1994.

1.5 Facility Environmental Setting

Section 1.5 presents information taken from several sources, including a 2015 Former LAFB PA (AMEC Foster Wheeler, 2015), the 2015 MEARNG Integrated Cultural Resources Management Plan (MEARNG, 2015), and a 2009 MEARNG Environmental Baseline Study (Summit Environmental Consultants, Inc., 2009).

The CTS is situated within the Uplands physiographic zone, which extends northward and eastward from the mountains of central Maine across Aroostook County into adjacent counties and Canada. CTS lies at an elevation between 753-800 feet (ft) above mean sea level (amsl), within the Spruce-Fir-Northern Hardwoods vegetation zone. This zone is diverse, with tree species varying across microenvironments, although the areas adjacent to CTS are largely agricultural (MEARNG, 2015). Because the CTS comprises several properties geographically isolated from each other, the specific environmental setting varies from parcel to parcel.

1.5.1 Geology

The surficial geology at the former LAFB generally consists of a total of approximately 20 ft of unstratified till in direct contact with the limestone bedrock or stratified glacial ice-contact deposits. The surficial geology at the MEARNG CTS properties is anticipated to be the same. The till includes both ablation and basal deposits of Pleistocene age. The ablation till is the primary unconsolidated material identified at the former LAFB and consists of loose, silty sands and gravels with small percentages of cobbles and clay. The basal till is identified as poorly sorted sands, silts, and gravels, with smaller percentages of clay and cobbles (AMEC Foster Wheeler, 2015).

Bedrock in the vicinity of the former LAFB is comprised of the Carys Mills Formation of upper Ordovician to lower Silurian age (**Figure 1-2**). The Carys Mills Formation consists of up to 700 ft of grayish, extensively fractured limestone (AMEC Foster Wheeler, 2015). Within the MEARNG LCHP property, weathered bedrock was encountered at depths ranging from 2.8 to 6.5 ft below ground surface (bgs) (Summit Environmental Consultants, Inc., 2009). Parcel-specific bedrock depths for the remaining MEARNG CTS properties is unknown.

Soils at the former LAFB are primarily of the Caribou-Conant association. The Caribou series consists of deep, well-drained soils with a firm gravelly loam subsoil, and the Conant series consists of moderately well drained soils that have developed on firm calcareous glacial till (AMEC Foster Wheeler, 2015).

1.5.2 Hydrogeology

Information in this section is derived from the 2015 Former LAFB PA (AMEC Foster Wheeler, 2015). Two principal aquifers occur beneath the former LAFB and surrounding area, including a discontinuous shallow overburden aquifer and a fractured bedrock aquifer (ABB, 1995). The overburden groundwater reportedly occurs under unconfined conditions, and the fractured

bedrock aquifer is commonly unconfined, but may be confined in places by overlying till deposits. The overburden materials that contain groundwater include ice-contact deposits, till, and fluvial streambed deposits consisting predominantly of sand and gravel. The ice-contact deposits located in the western and northwestern potions of the former LAFB are locally mapped as sand and gravel aquifers (ABB, 1995). Tills comprise a large part of the overburden deposits at the former installation; however, the material is not classified as an aquifer due to the mixture of clay, silt, sand, and cobbles. Groundwater associated with the till deposits is generally discontinuous or perched except in the vicinity of major streams and drainages (ABB, 1995).

Groundwater depths at the adjacent former LAFB former FTA FT-07 ranged from 20-30 ft bgs (Summit Environmental Consultants, Inc., 2009). The former FT-07 is approximately 0.4 miles northwest of MEARNG Parcel C-1, and groundwater depth is anticipated to be similar within the parcel. Historical groundwater depths in the vicinity of the MEARNG LCHP parcel range from 9-23 ft bgs (Harding ESE, Inc., 2000). Groundwater depths at the remaining MEARNG CTS parcels are unknown.

The fractured bedrock aquifer is a significant source of water and is reportedly stored in secondary bedrock openings including joints, faults and fracture zones (Prescott, 1972). Groundwater flows preferentially along bedrock bedding planes and areas of dissolution at the intersection of the bedding plane and fractures (ABB, 1995). The groundwater flow direction varies across the former LAFB based on the presence of a groundwater divide that is generally located along the flightline. East of the flightline, within the vicinity of MEARNC Parcel C-1, groundwater generally flows to the east. West of the flightline, within the vicinity of the MEARNG LCHP parcel and Parcel C, groundwater generally flows to the south and southwest (AMEC Foster Wheeler, 2015). Groundwater at the MEARNG Former AAB Site is expected to flow southeast, towards Butterfield Brook Pond. Generalized bedrock groundwater flow direction is shown on **Figure 1-2**.

None of the MEARNG parcels at CTS are provided drinking water. Some municipal wells and unknown use wells exist within 2.5 miles of the former LAFB flightline to the north, southeast, and southwest (both upgradient and downgradient of the flightline). Groundwater from the bedrock aquifer is currently used for water supply for some homes in the area surrounding the former LAFB. Based on the USEPA Unregulated Contaminant Monitoring Rule 3 data, it was indicated that no PFAS were detected in a public water system above the USEPA Health Advisory level within 20 miles of CTS.

1.5.3 Hydrology

CTS is located on a drainage divide between tributaries of the Aroostook River, including Greenlaw Brook, Butterfield Brook, Masters Brook, and Willard Brook. The flightline at the former LAFB is located at the approximate center of the drainage divide, with drainage on the west side flowing to the west-southwest to Greenlaw Brook, and areas to the east flowing east-southeast towards Butterfield Brook (ERM, 1994). Butterfield Brook subsequently flows southeast, off-base, towards the Durepo Reservoir in the town of Limestone as seen in **Figure 1-3**.

Wetlands and streams within the Former AAB Site flow southeast via Butterfield Brook, towards Parcel C-1, and continue southeast. Surface water at Parcel C-1 flows east to Butterfield Brook and continues southeast to Durepo Reservoir (CH2M Hill, 1983).

Wetlands and streams within Parcel C flow southwest to Wolverton Brook, and south via Greenlaw Brook towards the former LAFB cantonment area, and discharges to the Little Madawaska River, which subsequently flows south to the Aroostook River (CH2M Hill, 1983). There are no mapped wetlands within the MEARNG LCHP property, but surface water runoff is expected to follow topography at the site and generally flow to the south and west.

Other surface water bodies located at the former LAFB include East Loring Lake, located in the northeast corner of the installation, and Malabeam Lake, Green Pond, and Chapman Pond, which are all located in the southwestern portion of the former LAFB, downgradient from the MEARNG LCHP property and Parcel C.

1.5.4 Climate

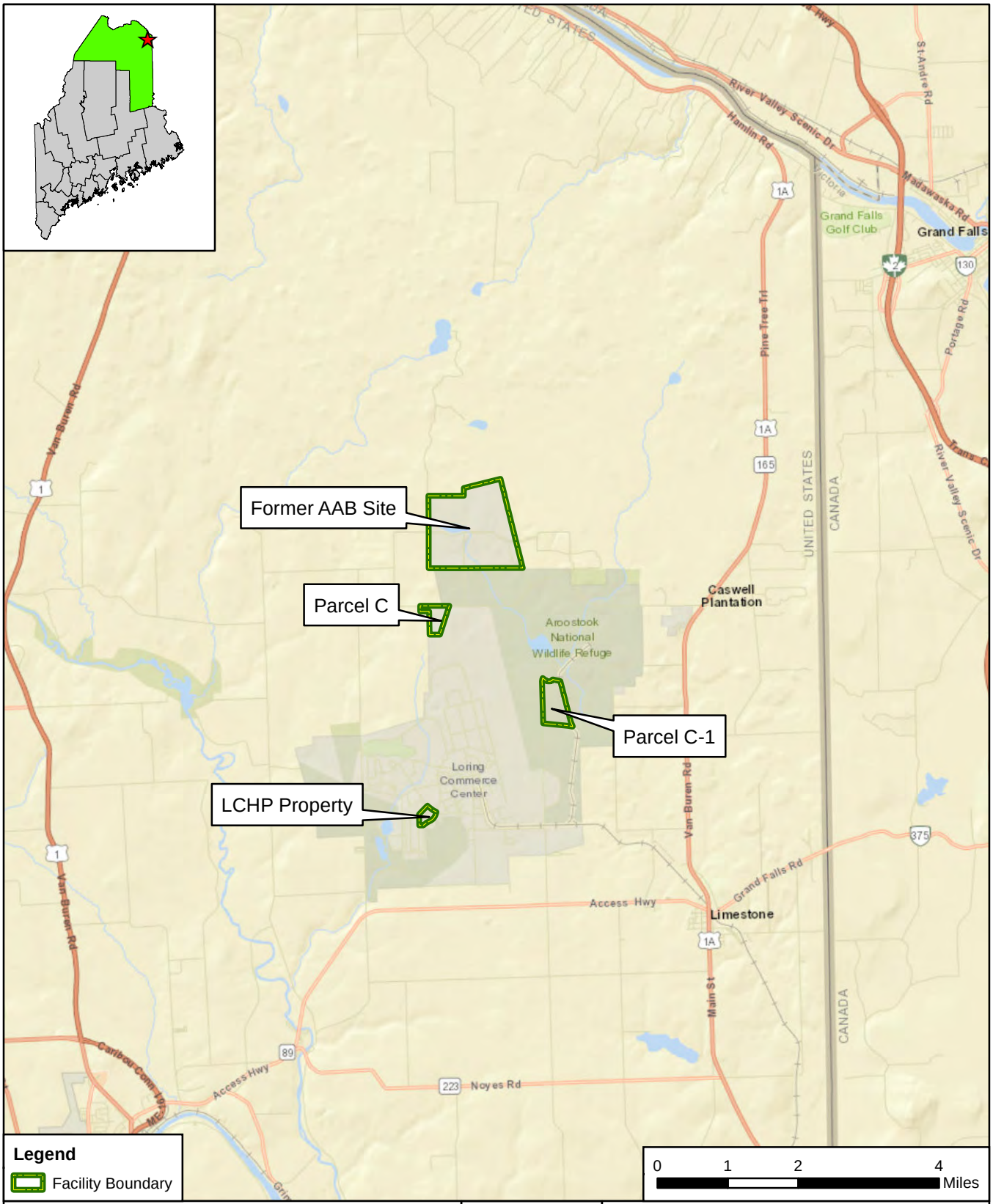
The CTS is in Northeastern Maine, and the climate is characterized by warm summers and cold, snowy winters. Average air temperatures at CTS range between 51.6 degrees Fahrenheit (°F) to 73.4°F in summer, and between 2.1°F to 23.1°F in winter. Average annual precipitation is 40.74 inches, with an average monthly precipitation of 3.39 inches. Annual snowfall is approximately 109 inches, with the majority of this falling between December and March (National Oceanic and Atmospheric Administration, 2019).

1.5.5 Current and Future Land Use

CTS is currently used for weekend and annual training requirements for the ARNG and other military branches. Reasonably anticipated future land use is not expected to change from current land use. Land uses around the MEARNG parcels vary.

The Loring Development Authority (LDA) was created in 1994 to acquire and manage properties within the former LAFB following its closure. The LDA created the Loring Commerce Centre, a commercial, industrial and aviation park that currently comprising 20 businesses. Current operations at within the former LAFB include the Loring International Airport, various governmental entities, and industrial and commercial developments, such as Bigelow Aerospace, Frontier Transport, HB Speciality Foods, the Sitel Corporation, and Pioneer Broadband. Approximately 4,700 acres of land are also designated for operation as the Aroostook National Wildlife Refuge. Additionally, land has been conveyed to construct housing for the Aroostook Band of Micmacs Tribe (AMEC Foster Wheeler, 2015).

Much of the area surrounding the former LAFB is used for agricultural purposes.



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Base Map: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI,		PM	RG	10/18/2019

Facility Location

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Figure 1-1

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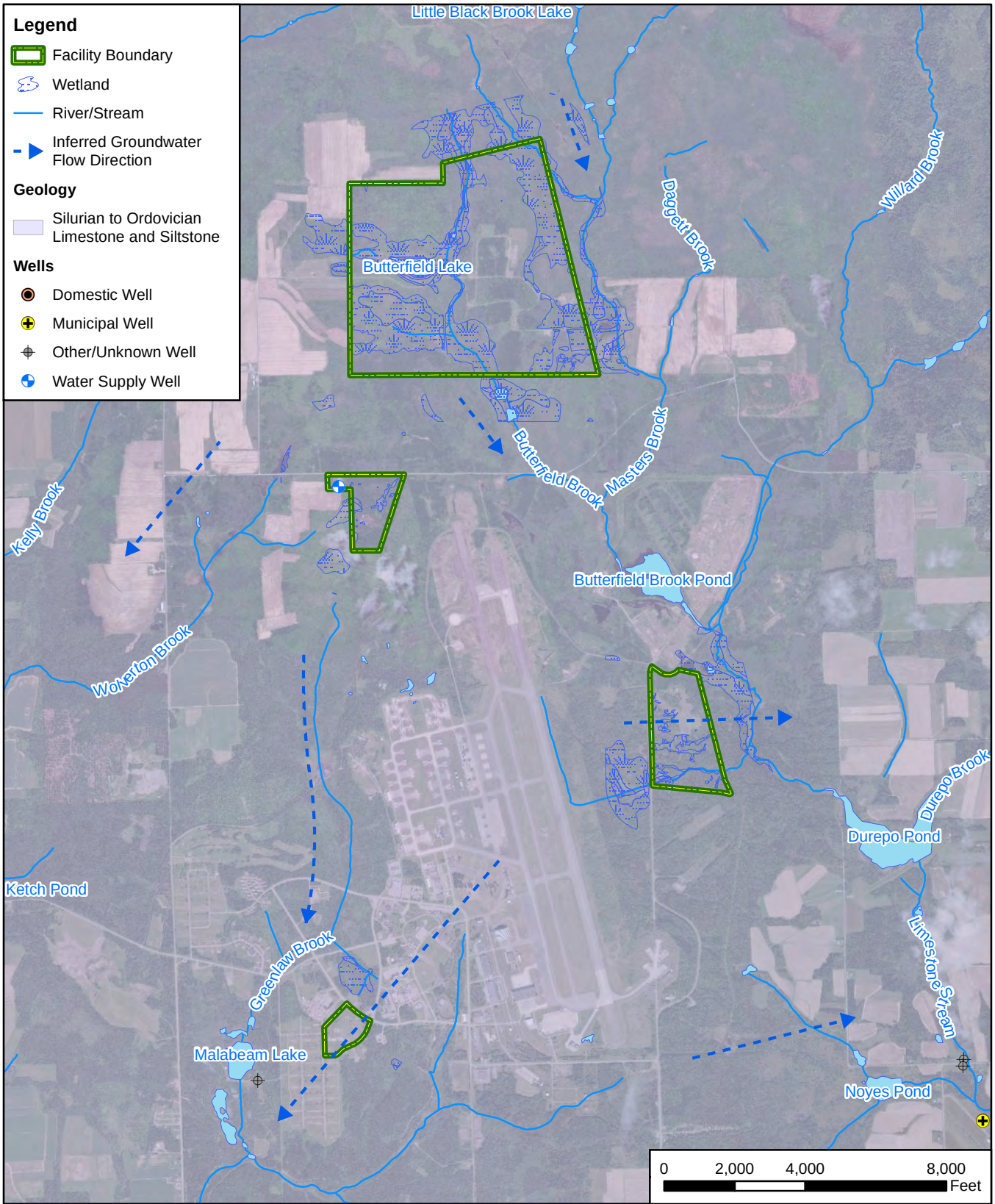

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Base Map: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,		PM	RG	10/18/2019

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Groundwater Features

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Figure 1-2

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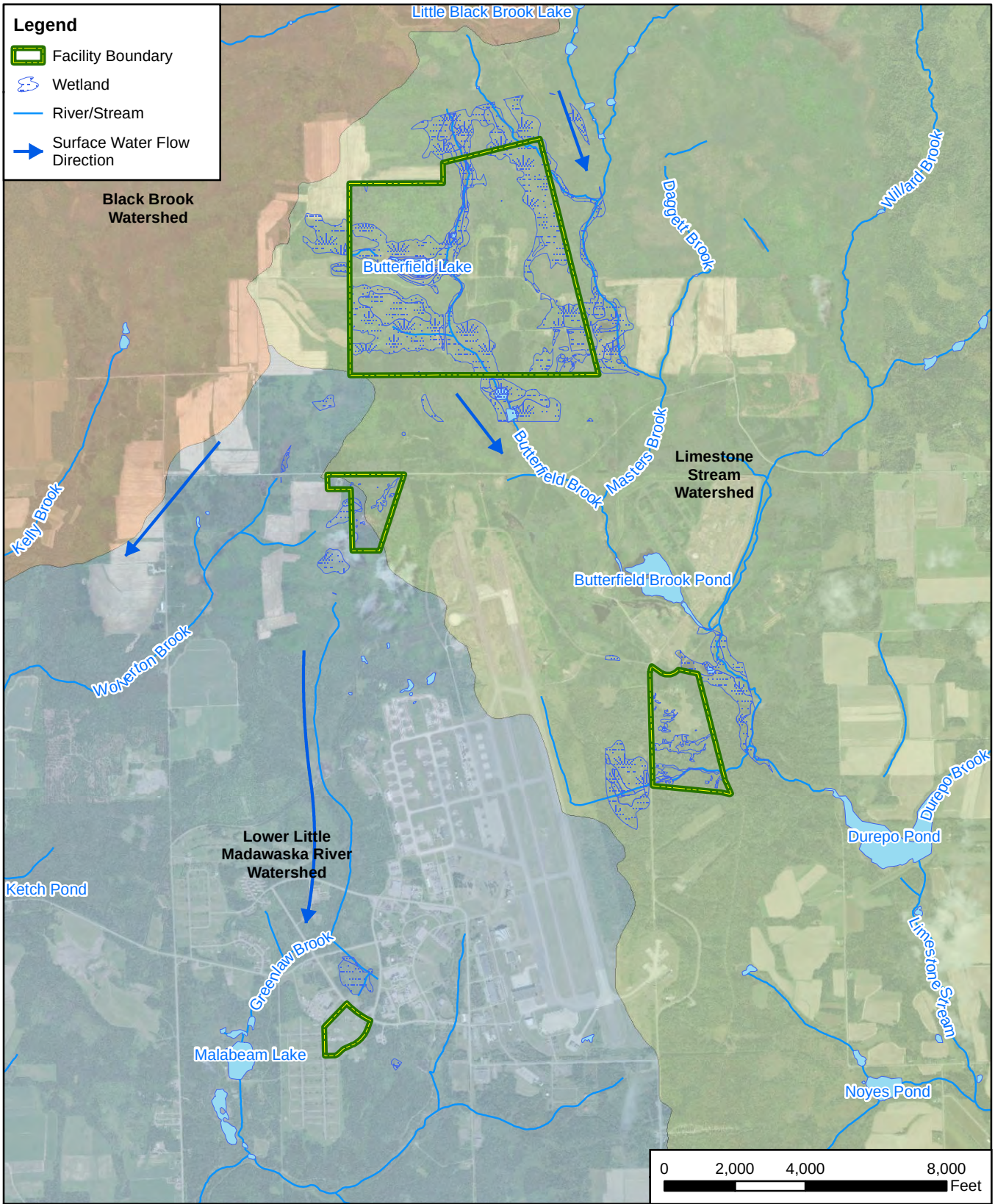

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Surface Water Features

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Figure 1-3

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2. Fire Training Areas

No FTAs were identified at CTS during the PA. Interviewees whose fist-hand knowledge of the former LAFB and MEARNG parcels span from 1991-present stated that no FTAs exist or have ever existed on MEARNG parcels. The interviewees' tenure covers the history of the MEARNG parcels following BRAC in 1994 to present day. Current MEARNG personnel also confirmed that there is no fire training performed currently on any MEARNG parcels at CTS. The Town of Limestone Fire Department responds to emergencies at CTS, but does not perform any fire training activities on MEARNG parcels associated with CTS. Multiple former FTAs associated with the former LAFB were identified adjacent to the MEARNG CTS, and are discussed in **Section 5**.

3. Non-Fire Training Areas

Several non-FTAs where AFFF could have been potentially stored and/or released were investigated during the PA. A description of each non-FTA is presented below, and the non-FTAs and are shown on **Figure 3-1**.

3.1 Former Anti-Aircraft Battery (AAB) Site

The Former AAB Site comprises four contiguous parcels (859.6 acres) in the northern section of the former LAFB that were originally used as an AAB by the US Army until their transfer to the Air Force in 1956. After the removal of the artillery battery the property was used by the Air Force as a survival training area. These parcels were transferred to USACE on 28 March 1966. During the BRAC at LAFB, these parcels were licensed to MEARNG indefinitely for National Guard Purposes on 28 March 1986. No improvements on the land have been made since its ownership by the Air Force. The MEARNG uses the property for training purposes. Access roads to the Former AAB Site are gated. Due to the heavily wooded nature of the property, surface water drainage is unclear but is generally anticipated to flow towards the southeast.

According to interviewees, the Former AAB Site has never been used for fire training activities, and no emergencies have occurred at the parcel that required fire suppression. No evidence indicates that AFFF has ever been used or stored at the Former AAB Site. The Former AAB Site is located upgradient of adjacent PFAS releases at the former LAFB.

3.2 Parcel C-1

Parcel C-1 comprises approximately 132 acres and is located in a forested area east of the former LAFB runway. Road access to the parcel is restricted by a gate, concrete barriers, and signage. Parcel C-1 includes two former outdoor range facilities: Facility 700 and Facility 701. Facility 700 is located in the northern portion of Parcel C-1, and Facility 701 comprises the majority of the remaining acres of the parcel. The facility buildings have no water supply and do not have wastewater treatment facilities. Due to the heavily wooded nature of Parcel C-1, surface water drainage is unclear but is generally anticipated to flow east. Parcel C-1 is located downgradient of several adjacent PFAS release areas at the former LAFB, including releases at the former FTA FT-07, a B-52 crash site, and the runway.

According to interviewees, Parcel C-1 has never been used for fire training activities, and no emergencies have occurred at the parcel that required fire suppression. No evidence indicates that AFFF has ever been used or stored at Parcel C-1. Parcel C-1 was licensed indefinitely to MEARNG for National Guard Purposes by USACE on 4 March 1997.

3.3 Parcel C

Parcel C comprises approximately 64 acres and is located in a forested area northwest of the former LAFB runway. The parcel was used historically as the former LAFB prime base engineer emergency force headquarters but has been used by the MEARNG for training purposes since its acquisition. Access to the parcel is restricted by a fenced gate and concrete barriers. The parcel contains a single structure, Building 8100. There is no water supply to the building, and no wastewater treatment facilities within the parcel. Due to the heavily wooded nature of Parcel C, surface water drainage is unclear but is anticipated to flow southwest and south. Parcel C is located cross-gradient from potential PFAS releases at the adjacent former LAFB runway.

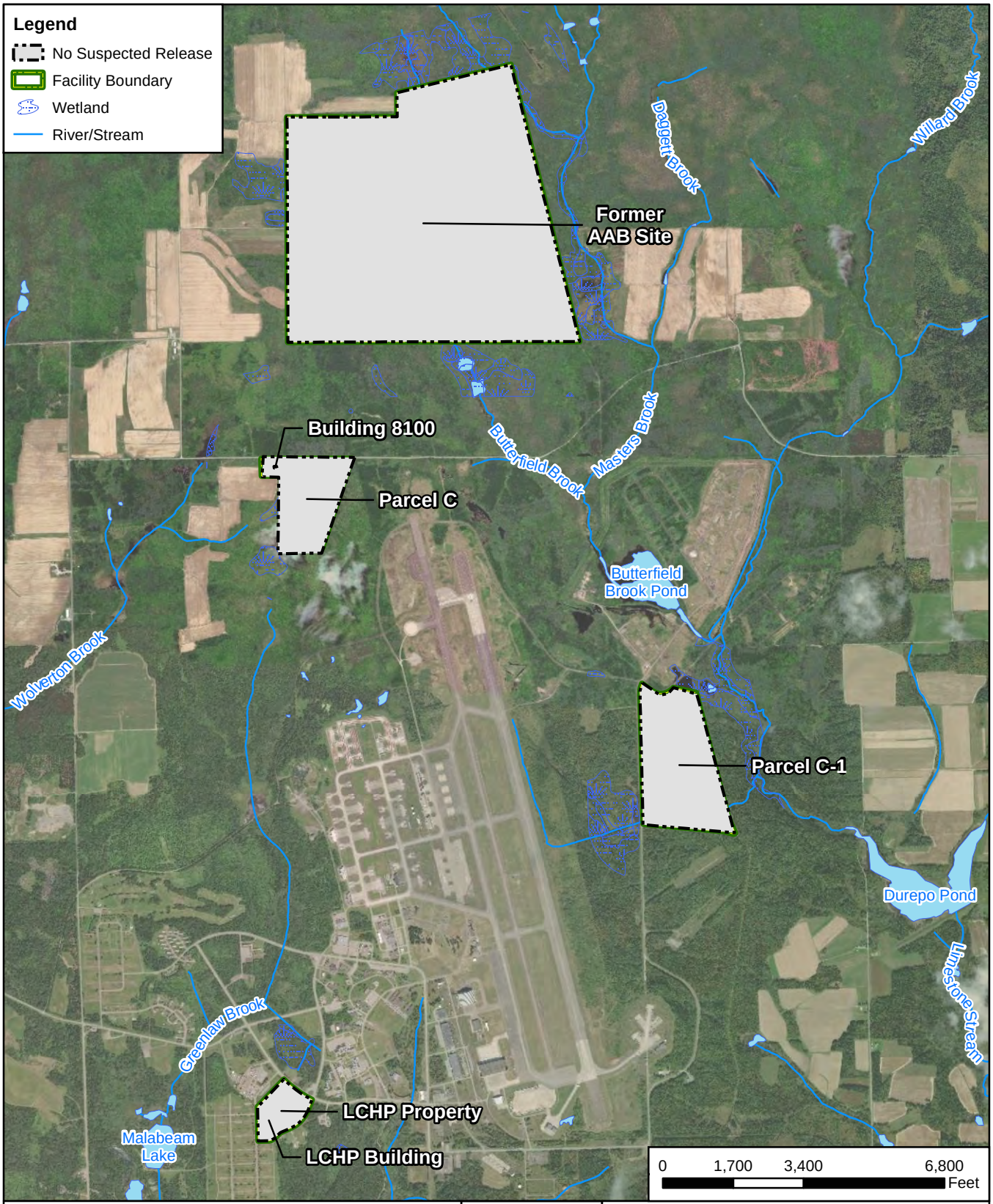
According to interviewees, Parcel C has never been used for fire training activities and no emergencies have occurred at the parcel that required fire suppression. No evidence indicates

that AFFF has ever been used or stored at Parcel C. Along with Parcel C-1, Parcel C was licensed indefinitely to MEARNG for National Guard Purposes by USACE on 4 March 1997.

3.4 Loring Controlled Humidity Protection (LCHP) Building

MEARNG operates a 27-acre property located west of the southern end of the former LAFB runway that includes the LCHP Building, which serves for cold storage of equipment. The property is bounded by Weinman Road to the north, Hickam Drive to the west, and Owens Drive along the southern and eastern borders. The LCHP site formerly comprised seven buildings previously used for military housing: S. Wherry Housing One and Two, and Buildings 4100, 4102, 4108, 4109, and 4111. Garages and storage buildings were also previously present on the property. These buildings have all been razed. The property is currently undeveloped with the exception of concrete slab foundations and asphalt driveways associated with the previous military residential structures, and a cold storage building currently used by the MEARNG.

According to interviewees, the LCHP Building has never been used for fire training activities and no emergencies have occurred within the parcel that required fire suppression. No evidence indicates that AFFF has ever been used or stored at the LCHPP Building or parcel. The property is, however, located downgradient from numerous adjacent PFAS release areas at the former LAFB.



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Base Map: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,		PM	RG	10/18/2019

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Non-Fire Training Areas

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Figure 3-1

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4. Emergency Response Areas

No emergency response areas for incidents involving the use of AFFF were identified within the footprints of the MEARNG properties at the CTS during the PA based on interviews, online research, and the Environmental Data Resource (EDR) report (**Appendix A**). The Aroostook County Emergency Management Agency director, whose fist-hand knowledge of the former LAFB and MEARNG parcels span 1994-present, stated that no emergencies requiring fire suppression have occurred on MEARNG parcels since the former LAFB underwent BRAC in 1994. Emergency response locations have been identified in areas surrounding the CTS and are described in **Section 5**.

5. Adjacent Off-Facility Sources

Several potential off-facility sources of PFAS adjacent to CTS, not under the control of MEARNG, were identified during the PA through interviews, review of the EDR report for a 1-mile radius surrounding CTS (**Appendix A**), and historical document review. A description of each potential adjacent source is presented below, and the sources are shown on **Figure 5-1**.

5.1 Former Loring Air Force Base (LAFB)

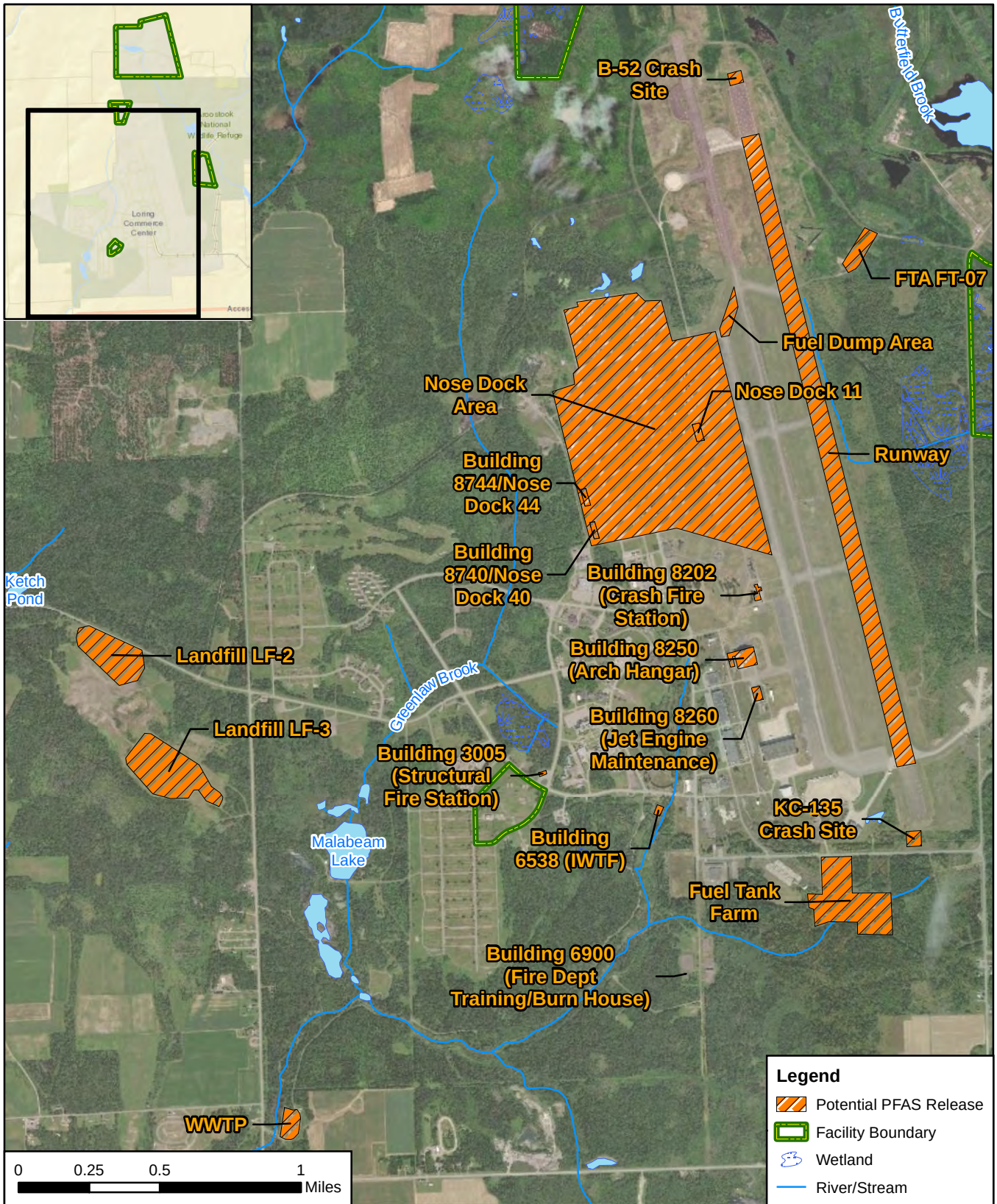
Fire training and other activities resulting in PFAS releases have occurred in several locations associated with the adjacent former LAFB. Fire training activities at the former LAFB occurred at two former FTAs: FT-07 and Building 6900. Based on the 2015 PA report for the former LAFB (Amex Foster Wheeler, 2015), 21 locations were selected for further study as part of a 2018 SI (Wood Environment & Infrastructure Solutions, Inc. [Wood], 2018) (**Appendix A**). Because Maine does not currently have legally enforceable drinking water standards for PFAS, PFAS concentrations in samples collected from the former LAFB were screened against the Maine Department of Health and Human Services (DHHS) Maximum Exposure Guideline (MEG) concentration of 70 nanograms per liter (ng/L), the MEDEP screening levels for beneficial use of 5.2 micrograms per liter (µg/L) in soil for PFOS and 2.5 µg/L in soil for PFOA, and the MEDEP Fish Tissue Remedial Action Guideline for PFOA (0.52 milligrams per liter [mg/L]) and PFOS (0.052 mg/L) (Pierce Atwood, 2019). The 21 areas at the former LAFB investigated as part of the 2018 SI report are identified in **Table 5-1** below.

Table 5-1: Loring Air Force Base PFAS Release Locations

Potential LAFB Release Areas	Nature of Release or Potential Release
FTA FT-07	FTA where AFFF was primarily used at unknown frequency between 1970 and 1989. PFAS concentrations in groundwater at FT-07 exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
Landfill LF-2	Potentially received PFAS-impacted soil from the former LAFB industrial areas. PFAS concentrations in groundwater at LF-2 exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
Landfill LF-3	Received impacted soil from FT-07, a known AFFF use area, at unknown frequency. PFAS concentrations in groundwater at LF-3 exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
Building 3005 (Structural Fire Station)	Active fire station where AFFF was used occasionally during testing operations between 1970 and 1994. The facility is upgradient from the MEARNG LCHP Building. PFAS concentrations in groundwater at Building 3005 exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
Building 6900 (Fire Department Training / Burn House)	FTA where AFFF equipment was used during training at various times and unknown frequency. PFAS concentrations in groundwater at Building 6900 exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).

Potential LAFB Release Areas	Nature of Release or Potential Release
Building 8202 (Crash Fire Station)	Facility used for storage of 55-gallon drums, 5-gallon buckets, and a 750-gallon aboveground storage tank filled with AFFF. Daily, weekly, and annual testing of AFFF equipment occurred at this location between 1970 and 1994. PFAS concentrations in groundwater at Building 8202 exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
Building 8250 (Arch Hangar)	The facility periodically stored AFFF; the timeframe of storage is unknown. PFAS concentrations in groundwater at Building 8250 exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
Building 8260 (Jet Engine Maintenance)	A 55-gallon drum of AFFF was punctured by forklift, resulting in the discharge of the entirety of its contents onto facility floor in 1994. PFAS concentrations in groundwater at Building 8260 exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
Fuel Tank Farm	AFFF was applied to a number of fuel spills to minimize fumes and prevent ignition at various times and unknown frequency. PFAS concentrations in groundwater at the Fuel Tank Farm exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
Fuel Dump Area	AFFF was applied in response to a 20,000-gallon fuel spill at north end of the ramp to prevent ignition on an unknown date. PFAS concentrations did not exceed the DHHS MEG during 2016 sampling (Wood, 2018).
Runway	AFFF was sprayed along length of the former LAFB runway during equipment testing; the date is unknown. PFAS concentrations in groundwater at the runway exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
KC-135 Crash Site	An unknown, large quantity of AFFF was applied to fuel spill from crash at southern end of flightline in 1974. PFAS concentrations did not exceed the DHHS MEG during 2016 sampling (Wood, 2018).
B-52 Crash Site	An unknown, large quantity of AFFF was applied to north end of runway in response to crash in 1984. PFAS concentrations in groundwater at the B-52 Crash Site exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
Flightline Drainage Ditch (FLDD) / Industrial Wastewater Treatment Facility (IWTF) (Building 6538)	The unlined drainage ditch received stormwater from areas potentially contaminated with AFFF including the flightline, hardstands, runway, and industrial shop areas. The former IWTF processed stormwater and drainage from the drainage ditch. PFAS concentrations in groundwater at the FLDD/IWTF exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).

Potential LAFB Release Areas	Nature of Release or Potential Release
Wastewater Treatment Plant (WWTP)	The WWTP processed industrial wastewater likely containing AFFF from the sanitary sewer system, and sludge was dried via landfarming on the west side of the WWTP prior to disposal. PFAS concentrations in groundwater at the WWTP exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
Greenlaw Brook	Greenlaw Brook receives drainage from numerous AFFF release areas associated with the former LAFB. PFAS concentrations in surface water of Greenlaw Brook exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018). Additionally, PFAS was detected in fish tissue from specimens collected from Greenlaw Brook.
Butterfield Brook	Butterfield Brook receives drainage from numerous AFFF release areas associated with the former LAFB. PFAS was detected in fish tissue from specimens collected from Greenlaw Brook.
Nose Dock Area:	
- Nose Dock 11	Approximately 100- to 200-gallons of AFFF were used to extinguish a B-52 aircraft fire in 1970. PFAS concentrations in groundwater did not exceed the DHHS MEG during 2016 sampling (Wood, 2018).
- Building 8740 / Nose Dock 40	The facility maintained an AFFF fire suppression system. PFAS concentrations in groundwater at Building 8740 exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
- Building 8744 / Nose Dock 44	The facility was equipped with an AFFF fire suppression system that had four documented releases at unknown dates. PFAS concentrations in groundwater and surface water at Building 8744 exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).
- Aircraft Hardstands and ramps	AFFF was applied to occasional fuel spills at these locations at various times between 1970 and 1994. Approximately 1000-gallons of AFFF were applied to a B-52 fuel line spill at Hardstand #19 to prevent ignition in the early 1970s. Approximately 500-gallons of AFFF were applied to a fuel spill on Ramp #1 to prevent ignition on an unknown date. PFAS concentrations in groundwater at the aircraft hardstands and ramps exceed the DHHS MEG concentration of 70 ng/L (Wood, 2018).



CLIENT	ARNG			
NOTES	Preliminary Assessment for PFAS at Caswell Training Site, ME			
REVISED	10/18/2019	GIS BY	MS	10/18/2019
SCALE	1:31,680	CHK BY	LC	10/18/2019
Base Map: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI,		PM	RG	10/18/2019

Adjacent Source

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 5-1

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6. Preliminary Conceptual Site Model

Based on the PA findings, no release areas were identified at any MEARNG parcels associated with the CTS as a result of MEARNG actions; therefore, a preliminary conceptual site model (CSM) is not required for the facility. A CSM identifies three components necessary for a potentially complete exposure pathway: (1) source, (2) pathway, (3) receptor. If any of these elements are missing, the pathway is considered incomplete. Based on the findings of this PA, there are no sources at MEARNG CTS parcels, thus, there is no complete pathway to potential receptors from ARNG use of PFAS sources at the facility.

7. Conclusions

This report presents a summary of available information gathered during PA efforts on the use and storage of AFFF at CTS. The PA findings are based on personnel interviews, environmental investigations and reports, historical documents, and the VSI. The PA findings are based on the information presented in **Appendix A**, **Appendix B**, and **Appendix C**.

7.1 Findings

No AOIs related to potential PFAS release were identified at any MEARNG parcels associated with CTS based on information gathered as part of this PA (**Figure 7-1**). Based on the documented absence of the use/release of PFAS-containing materials at CTS, evidence does not support current or former ARNG activities at the facility having contributed to PFAS contamination in soil, groundwater, surface water, or sediment at the facility or adjacent areas.

Adjacent potential PFAS release areas were identified within the vicinity of the MEARNG CTS. Numerous confirmed release areas associated with the former LAFB were identified in the former LAFB 2015 PFC PA report (Amec Foster Wheeler, 2015), including FTAs, a runway, nose dock areas, landfills, and several other maintenance and storage areas. PFAS concentrations in groundwater exceeded the MEDEP MEG of concentration of 70 ng/L at the majority of those locations, as well as in surface water, soil, and fish tissue (Wood, 2018).

As a result of adjacent PFAS releases on the east side of the LAFB runway (such as at FTA FT-07), it is possible that PFAS have migrated to surface water, sediment and surface soil in Parcel C-1 via overland flow and surface water runoff. Surface water near the numerous PFAS releases in the former LAFB cantonment area generally flows southwest towards the LCHP property. As a result, it is possible that PFAS have migrated to surface water in the vicinity of the property. PFAS releases at the adjacent former LAFB Building 3005 may have also resulted in overland migration of PFAS to surface soil on the LCHP property. Although Parcel C and the Former AAB Site are cross-gradient and upgradient of the former LAFB PFAS releases, wind dispersion at the time of release may have transported PFAS to those parcels as well. Additionally, it is possible that PFAS are present in groundwater beneath Parcel C, Parcel C-1, and the LCHP property as a result of former LAFB PFAS releases because they are located downgradient from releases.

The following areas discussed in **Section 2** through **Section 5** were determined to have no suspected PFAS releases to the environment (**Table 7-1**).

Table 7-1: No Suspected Release Areas

No Suspected Release Area	Used by	Rationale for No Suspected Release Determination
Former AAB Site	MEARNG	No evidence indicates that AFFF has ever been stored or used at the CTS by the MEARNG.
Parcel C-1	MEARNG	No evidence indicates that AFFF has ever been stored or used at on Parcel C-1 by the MEARNG.
Parcel C	MEARNG	No evidence indicates that AFFF has ever been stored or used on Parcel C by the MEARNG.
LCHP Building	MEARNG	No evidence indicates that AFFF has ever been stored or used at the LCHP Building by MEARNG.

The summary of findings is presented in **Figure 7-1**.

7.2 Uncertainties

A number of information sources were investigated during this PA to determine the potential for PFAS-containing materials to have been present, used, or released at the facility. Historically, documentation of PFAS use was not required because PFAS were considered benign. Records were not typically kept by the ARNG on the use of PFAS in emergency response or by non-ARNG units during training events at ARNG facilities. There is no historically documented use of PFAS containing materials at CTS.

The conclusions of this PA are predominantly based on the information provided during interviews with personnel who had direct first-hand knowledge of the facility. Sometimes, the provided information is vague. Gathered information has a degree of uncertainty due to the absence of written documentation, the limited number of personnel with direct knowledge due to staffing changes, the time passed since PFAS were first used by the ARNG (early 1970s), and a reliance on personal recollection. Inaccuracies may arise in potential PFAS storage locations at the CTS. There is also a possibility the PA has missed a potential source of PFAS, as the science of how PFAS may enter the environment continually evolves.

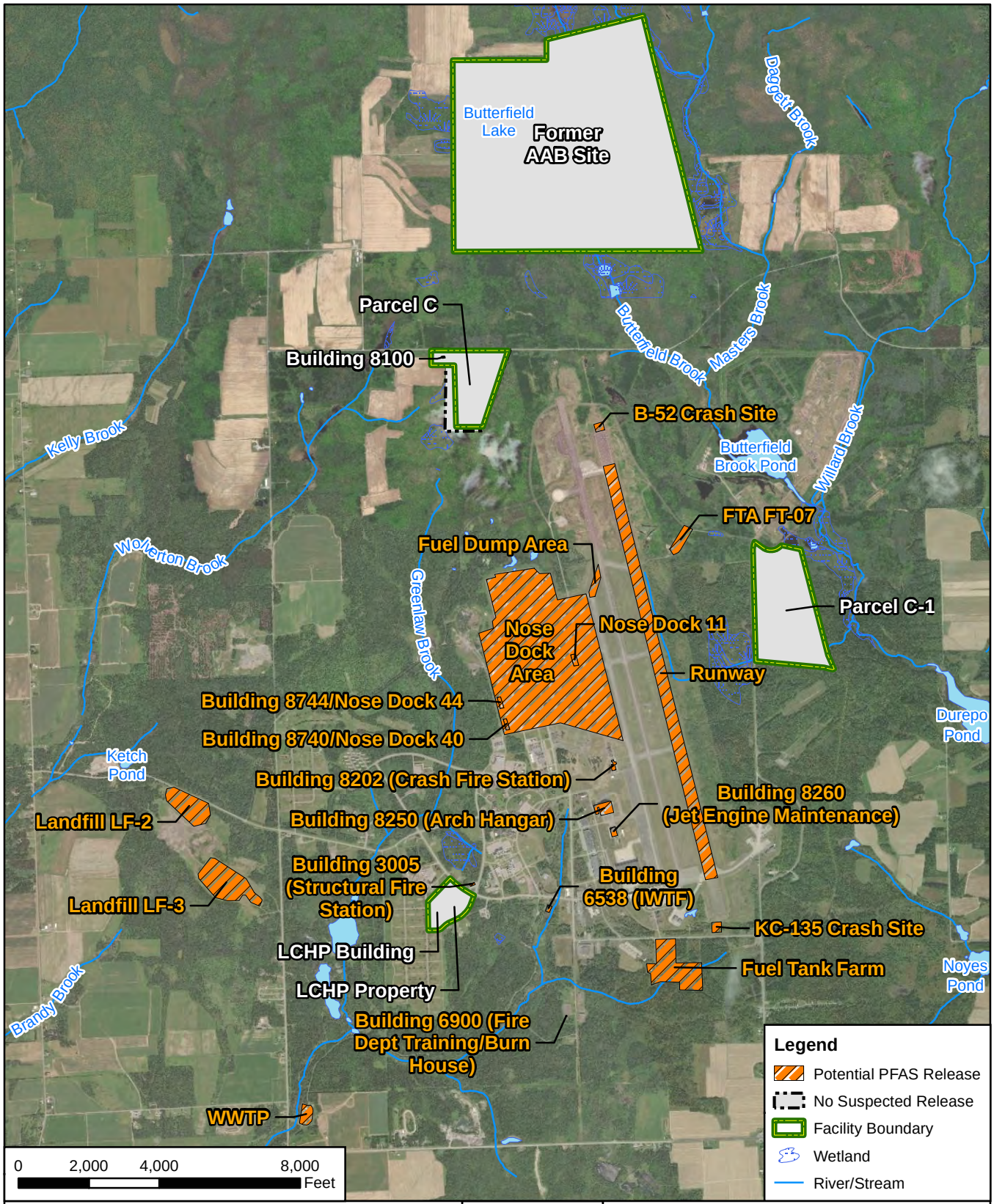
In order to minimize the level of uncertainty, readily available data regarding the use and potential storage of PFAS were reviewed at adjacent sources, multiple persons were interviewed for the same potential source area, and potential source areas were visually inspected.

Due to the numerous PFAS releases at the adjacent former LAFB, PFAS may have migrated to MEARNG CTS properties, but the exact fate and transport of PFAS during releases are unknown. It is unclear whether PFAS releases east of the LAFB runway migrated overland via surface water runoff or via surface water to Parcel C-1. Although MEARNG Parcel C and the Former AAB Site are cross-gradient and upgradient of the former LAFB release areas, wind-dispersion at the time of release may have resulted in transport of PFAS to those parcels. It is unknown whether PFAS released at the former LAFB migrated to Parcel C or the Former AAB Site. Additionally, numerous former LAFB PFAS releases have occurred upgradient and upstream of the LCHP property. Although there are no wetlands within the LCHP property, overland flow of PFAS releases at the adjacent Building 3005 could have resulted in PFAS presence in surface soil at the LCHP property.

7.3 Potential Future Actions

Interviews (with personnel whose tenure span the entire history of the MEARNG CTS parcels) and records indicate that current or former ARNG activities have not resulted in PFAS releases at the CTS. Based on the absence of the use or release of PFAS-containing materials at CTS, no AOIs were identified during the PA.

The MEARNG CTS will not move forward in the CERCLA process.



CLIENT	ARNG			
NOTES	Preliminary Assessment for PFAS at Caswell Training Site, ME			
REVISED	11/12/2019	GIS BY	MS	11/12/2019
SCALE	1:48,000	CHK BY	LC	11/12/2019
Base Map: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,		PM	RG	11/12/2019

N

Summary of Findings

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 7-1

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8. References

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Wood Environment and Infrastructure Solutions, Inc., 2018. Site Inspection Report for Aqueous Film Forming Foam (AFFF) Areas at Former Loring Air Force Base, Maine.

Appendix A
Data Resources

Data Resources will be provided separately on CD. Data Resources for Caswell Training Site includes:

Caswell Training Site Background Information Sources

- 2009 Environmental Baseline Study for the MEARNG Proposed Loring CHP Site
- 2015-2019 Integrated Cultural Resources Management Plan Update for Site and Training Installations of the Maine Army National Guard
- 2018 Preliminary Assessment Pre-Interview Form

Real Property Documents

- 1966 Transfer and Acceptance of Military Real Property for 859.60 Acres
- 1981 Department of the Army License for National Guard Purposes for DACA-3-81-183
- 1986 Department of the Army License for National Guard Purposes for DACA51-3-86-584
- 1999 Department of the Army License for DACA33-3-00-012

Caswell Training Site EDR Report

- 2019 Caswell Training Site EDR Report 5715041

Loring Air Force Base PFAS Investigations

- 2015 Final Perfluorinated Compounds Preliminary Assessment at Former Loring Air Force Base, Maine
- 2018 Final Site Inspection Report for Aqueous Film Forming Foam Areas at Former Loring Air Force Base, Maine
- 2018 Final Site Inspection Report for Aqueous Film Forming Foam Areas at Former Loring Air Force Base, Maine Appendices

Appendix B
Preliminary Assessment Documentation

Appendix B.1
Interview Records

PA Interview Questionnaire - Other

Facility: Caswell TS
Interviewer: J. Witte
Date/Time: 7/2/2019

Interviewee: Darren Woods **Title:** County EMA Director **Phone Number:** 207-493-4328 **Email:** darren@aroostookema.com	Can your name/role be used in the PA Report? Y or N Can you recommend anyone we can interview? (Y) or N Norman Mcpherson (Former AF FD chief) Civil service 207-429-9057

Roles or activities with the Facility/Years working at the Facility:

- Captain at Paul L. Barnes Loring Fire Department 1994-2002 (full time), 2002-2004 (part time)
- Currently the Aroostook County EMA Director

PFAS Use: Identify accidental/intentional release locations, time frame of release, frequency of releases, storage container size (maintenance, fire training, firefighting, buildings with suppression systems (as builts), fueling stations, crash sites, pest management, recreational, dining facilities, metals plating, or waterproofing). How are materials ordered/purchased/disposed/shared with others?

- P-15 truck stored in a stall adjacent to former crash station on runway. AFFF stored at the stall.
- Used AFFF for fire on sawyer road at gas station illicit dumping pit in the mid-1990s (1996), ~30 gal used
- Likely provided AFFF to Presque Isle FD at one point or another
- Two or three trucks with AFFF used to be used, stored at Crash Fire Station. Likely still there. Now the crash fire station is cold storage, maintained by no one
- Moved out of/downsized from Crash Fire Station in 1995
- An old FTA in the former dorm location, demolished dorm, built small fire training building, south of runway
  - ↳ A couple gallons used about once per year to flush lines
- Maintenance was performed for small issues at Crash Fire, larger jobs performed at maintenance shop (still used today)

Known Uses
Use
Procurement
Disposition
Storage (Mixed)
Storage (Solution)
Inventory, Off-Spec
Containment
SOP on Filling
Leaking Vehicles
Nozzle and Suppression System Testing
Dining Facilities
Vehicle Washing
Ramp Washing
Fuel Spill Washing and Fueling Stations
Chrome Plating or Waterproofing

PA Interview Questionnaire - Other

Facility: _____
Interviewer: _____
Date/Time: _____

- Crash Fire Station was also the location for training (a couple gallons) every other year where AFFF discharged.
- During demonstations the FD only used water
- By 1994, majority of flight operations were over
- Used to be ~10,000 people living on Loring AFB
- Other fire training occurred in the housing developments but no AFFF used
- Madawska Dam reservoir piped water to AFB. No known wells.
- WWTP exists off of west gate road. Unknown fate of treated water.
- Town of Limestone and Loring AFB believed to share the WWTP.
- Currently at Loring AFB: LDA, DFAC, and Job Corps (troubled kid/alternative concert)
- Fish concerts in ~1997, 1999, 2000. Over 100,000 people
- Air Field FTA was used by Loring FD with AFFF a couple times per year
- Base closed September 30, 1994, Darren started October 1, 1994.
  - ↳ AF FD left September 30, 1994
- AF FD likely used AFFF more frequently at the air field FTA.
- Potentially a crash north of runway prior to 1994
- Drains from runway would transport AFFF from Crash Fire station to stream adjacent to Bldg. 6000
- DC or Arch hangar release of unknown foam (maybe high-expansion) deluge system accidentally pre-1994
- Never disposed of any AFFF, just used it
- Nearby town of limestone used to use surface water for DW, switched to well water

PA Interview Questionnaire

Facility: Caswell Training Site
Interviewer: Joe Witte
Date/Time: 10/26/2018; 10:00am

Interviewee: Peter Forbes **Title:** Air Force/BRAC Caretaker **Phone Number:** 207-328-7109x7 **Email:** peter.forbes@us.af.mil	Can your name/role be used in the PA Report? **Y** or N Can you recommend anyone we can interview? **Y** or N Fire Department Staff

1. Roles or activities with the Facility/years working at the Facility.

BRAC Caretaker
Environmental PM for Air Force; 1991-Present

2. Where can I find previous facility ownership information?

Air Force PA already written. Air Force Administrative Record available in public domain.

3. What can you tell us about the history of PFAS including aqueous film forming foam (AFFF) at the Facility? Was it used for any of the following activities, circle all that apply and indicate years of active use, if known? Identify these locations on a facility map.

Maintenance – **Not on MEARNG property**
Fire Training Areas – **Not on MEARNG property, but nearby; unknown if MEARNG used FTA**
Firefighting (Active Fire) – **No MEARNG firefighting units**
Crash – **No known crashes**
Fire Suppression Systems (Hangers/Dining Facilities) – **None suspected on MEARNG properties**
Fire Protection at Fueling Stations – **None suspected on MEARNG properties**
Non-Technical/Recreational/ Pest Management - **None suspected on MEARNG properties**
Metals Plating Facility - **None suspected on MEARNG properties**
Waterproofing Uniforms (Laundry Facilities) - **None suspected on MEARNG properties**
Other

4. Fill out CSM Information worksheet with the Environmental Manager.

5. Are any current buildings constructed with AFFF dispensing systems or fire suppression systems? What are the AFFF/suppression system test requirements? What is the frequency of testing the AFFF/suppression system? Do you have "As Built" drawings for the buildings?

Not on any MEARNG parcels.

PA Interview Questionnaire

Facility: Caswell Training Site
Interviewer: Joe Witte
Date/Time: 10/26/2018; 10:00am

6. Are fire suppression systems currently charged with AFFF or have they been retrofitted for use of high expansion foam? If retrofitted, when was that done?

Unknown.

7. How is AFFF procured? Do you have an inventory/procurement system that tracks use?

Unknown.

8. What type of AFFF has been/is being used (3%, 6%, Mil Spec Mil-F-24385, High Expansion)? Manufacturer (3M, Dupont, Ansul, National Foam, Angus, Chemguard, Buckeye, Fire Service Plus)?

Unknown.

9. Where is the AFFF stored? How is it stored (tanks, 55-gallon drums, 5-gallon buckets)? What size are the storage tanks? Is the AFFF stored as a mixed solution (3% or 6%) or concentrated material?

Unknown, see reports.

10. How many FTAs are/were on this facility and where are they? Locate on a map. How many FTAs are active and inactive? For inactive FTAs, when was the last time that fire training using AFFF was conducted at them?

One former LAFB FTA located on the northeast side of the runway. Several other current and former fire stations where AFFF may have been stored or used.

PA Interview Questionnaire

Facility: Caswell Training Site
Interviewer: Joe Witte
Date/Time: 10/26/2018; 10:00am

11. When a release of AFFF occurs during a fire training exercise, now and in the past, how is the AFFF cleaned and disposed of? Were retention ponds built to store discharged AFFF? Was the AFFF trickled to the sanitary sewer or left in the pond to infiltrate?

Unknown.

12. Can you recall specific times when city, county, and/or state personnel came on-post for training? If so, please state which state/county agency or military entity? Do you have any records, including photographs to share with us?

No

13. Did military routinely or occasionally fire train off-post? List the units that you can recall used/trained at various areas.

Unknown.

14. Did individual units come with their own safety personnel, did they also bring their own AFFF? Was training with AFFF part of these exercises? How were emergencies handled under these circumstances?

Unknown.

15. Are there specific emergency response incident reports (i.e., aircraft or vehicle crash sites and fires)? If so, may we please copy these reports? Who (entity) was the responder?

No, but specific accounts of releases are detailed in the Air Force PFAS PA reports.

PA Interview Questionnaire

Facility: Caswell Training Site
Interviewer: Joe Witte
Date/Time: 10/26/2018; 10:00am

16. Do you have records of fuel spill logs? Was it common practice to wash away fuel spills with AFFF? Is/was AFFF used as a precaution in response to fuel releases or emergency runway landings to prevent fires?

No, but AFFF releases in response to fuel spills are outlined in the Air Force PFAS PA report.

17. Was AFFF used for forest fires or fire management on-post/off-post? If so, please describe what happened and who was involved?

No AFFF is believed to have been used to fight forest fires.

18. Are there mutual aid/use agreements between county, city, and local fire department? Please list, even if informal. If formalized, may we have a copy of the agreement?

Unknown

19. Can you provide any other locations where AFFF has been stored, released, or used (i.e. hangars, buildings, fire stations, firefighting equipment testing and maintenance areas, emergency response sites, storm water/surface water, waste treatment plants, and AFFF ponds)?

See previously written Air Force PFAS reports.

20. Are you aware of any other creative uses of AFFF? If so, how was AFFF used? What entities were involved?

Numerous uses at former Loring Air Force Base. None known at MEARNG parcels.

PA Interview Questionnaire

Facility: Caswell Training Site
Interviewer: Joe Witte
Date/Time: 10/26/2018; 10:00am

21. Are there past studies you are aware of with environmental information on plants/animals/ groundwater/soil types, etc., such as Integrated Cultural Resources Management Plans or Integrated Natural Resources Management Plans?

Yes, Air Force PA and SI should be available through the Air Force administrative record.

22. What other records might be helpful to us (environmental compliance, investigation records, admin record) and where can we find them?

See above

23. Do you have or did you have a chrome plating shop on base? What were/are the years of operation of that chrome plating shop?

No.

24. Do you know whether the shop has/had a foam blanket mist suppression system or used a fume hood for emissions control? If foam blanket mist suppression was used, where was the foam stored, mixed, applied, etc.?

NA

25. How is off-spec AFFF disposed (used for training, turned in, or given to a local Fire Station)? If applicable, do you know the name of the vendor that removes off-spec AFFF? Do you have copies of the manifest or B/L?

Unknown

PA Interview Questionnaire

Facility: Caswell Training Site
Interviewer: Joe Witte
Date/Time: 10/26/2018; 10:00am

26. Do you recommend anyone else we can interview? If so, do you have contact information for them?

Current and former Fire Department staff.

PA Interview Questionnaire - Other

Facility: Caswell TS
Interviewer:
Date/Time:

Interviewee: Josh Heckerd **Title:** Training NCO **Phone Number:** 207-430-5430 **Email:** Joshua.l-heckerd-mil@mail.mil	Can your name/role be used in the PA Report? (Y) or N Can you recommend anyone we can interview? (Y) or N Darren Woods

Roles or activities with the Facility/Years working at the Facility:

3 years at Armory

PFAS Use: Identify accidental/intentional release locations, time frame of release, frequency of releases, storage container size (maintenance, fire training, firefighting, buildings with suppression systems (as builts), fueling stations, crash sites, pest management, recreational, dining facilities, metals plating, or waterproofing). How are materials ordered/purchased/disposed/shared with others?

	Known Uses
REDACTED	Use
	Procurement
• Repair roads for mobility or survivability	Disposition
• Used to use the shooting range but it was not renovated when Bangor/Gardner were in 2012 and fell out of use	Storage (Mixed)
• Training Site employees responsible for maintenance of small arms range	Storage (Solution)
• Bring vehicles equipped with dry chemical extinguishers, never anything else.	Inventory, Off-Spec
• The Caribou Armory / Solomon Armory & the Bangor Transportation Unit (1136 Transportation Company) are the only units using Caswell. 1136 stopped about 2 years ago.	Containment
• Loring Development Area ssociation operates the area	SOP on Filling
	Leaking Vehicles
	Nozzle and Suppression System Testing
	Dining Facilities
	Vehicle Washing
	Ramp Washing
	Fuel Spill Washing and Fueling Stations
	Chrome Plating or Waterproofing

Appendix B.2
Visual Site Inspection Checklists

Visual Site Inspection Checklist

Names(s) of people performing VSI: J. Witte, M. Leeper, T. Peck, E. Barton

Recorded by: J. Witte

ARNG Contact: M. Leeper

Date and Time: July 2, 2019

Method of visit (walking, driving, adjacent): Walking

Source/Release Information

Site Name / Area Name / Unique ID: Building 3005 - Structural Fire Station (adjacent source)

Site / Area Acreage: Building = 0.23 acres

Historic Site Use (Brief Description): Same as current

Current Site Use (Brief Description): Structural Fire Station

Physical barriers or access restrictions: None

1. Was PFAS used (or spilled) at the site/area? **Y / N**

1a. If yes, document how PFAS was used and usage time (e.g., fire fighting training 2001 to 2014):

AFFF was stored at the site and occasionally used in equipment testing

2. Has usage been documented? **Y / N**

2a. If yes, keep a record (place electronic files on a disk):

NA

3. What types of businesses are located near the site? **Industrial / Commercial / Plating / Waterproofing / Residential**

3a. Indicate what businesses are located near the site

US Defense Department, Loring Jobs Center, MEARNG cold storage

4. Is this site located at an airport/flightline? **Y / N**

4a. If yes, provide a description of the airport/flightline tenants:

Yes, located near the southern end of the former LAFB runway

Visual Survey Inspection Log

Other Significant Site Features:

1. Does the facility have a fire suppression system? **Y / N**

1a. If yes, indicate which type of AFFF has been used:

No

1b. If yes, describe maintenance schedule/leaks:

NA

1c. If yes, how often is the AFFF replaced:

NA

1d. If yes, does the facility have floor drains and where do they lead? Can we obtain an as built drawing?

Unknown

Transport / Pathway Information

Migration Potential:

1. Does site/area drainage flow off installation? **Y / N**

1a. If so, note observation and location:

This is an adjacent facility. Drainage flows along the roads surrounding the fire station

2. Is there channelized flow within the site/area? **Y / N**

2a. If so, please note observation and location:

No

3. Are monitoring or drinking water wells located near the site? **Y / N**

3a. If so, please note the location:

A well listed by the Maine database is located ~0.5 miles to the southwest

4. Are surface water intakes located near the site? **Y / N**

4a. If so, please note the location:

Freshwater wetlands, streams and a lake are located within 0.5 miles of Building 3005 in every direction

5. Can wind dispersion information be obtained? **Y / N**

5a. If so, please note and observe the location.

No

6. Does an adjacent non-ARNG PFAS source exist? **Y / N**

6a. If so, please note the source and location.

Yes, other adjacent PFAS release areas associated with LAFB are nearby

6b. Will off-site reconnaissance be conducted?	**Y / N**	

Visual Survey Inspection Log

Significant Topographical Features:

1. Has the infrastructure changed at the site/area? **Y / N**

1a. If so, please describe change (ex. Structures no longer exist):

No

2. Is the site/area vegetated? **Y / N**

2a. If not vegetated, briefly describe the site/area composition:

Yes

3. Does the site or area exhibit evidence of erosion? **Y / N**

3a. If yes, describe the location and extent of the erosion:

No

4. Does the site/area exhibit any areas of ponding or standing water? **Y / N**

4a. If yes, describe the location and extent of the ponding:

No visible standing water

Receptor Information

1. Is access to the site restricted? **Y / N**

1a. If so, please note to what extent:

No

2. Who can access the site? **Site Workers / Construction Workers / Trespassers / Residential / Recreational Users / Ecological**

2a. Circle all that apply, note any not covered above:

Anyone

3. Are residential areas located near the site? **Y / N**

3a. If so, please note the location/distance:

0.5 miles to the northwest

4. Are any schools/day care centers located near the site? **Y / N**

4a. If so, please note the location/distance/type:

No

5. Are any wetlands located near the site? **Y / N**

5a. If so, please note the location/distance/type:

Freshwater wetlands, streams and a lake are located within 0.5 miles of Building 3005 in every direction

Visual Survey Inspection Log

Additional Notes

Photographic Log

Photo ID/Name	Date & Location	Photograph Description

Visual Site Inspection Checklist

Names(s) of people performing VSI: J. Witte, M. Leeper, T. Peck, E. Barton

Recorded by: J. Witte

ARNG Contact: M. Leeper

Date and Time: July 2, 2019

Method of visit (walking, driving, adjacent): Walking

Source/Release Information

Site Name / Area Name / Unique ID: Building 6900 - FD Training/Burn House (adjacent source)

Site / Area Acreage: Building = 0.01 acres

Historic Site Use (Brief Description): FD training

Current Site Use (Brief Description): None

Physical barriers or access restrictions: None

1. Was PFAS used (or spilled) at the site/area? **Y / N**

1a. If yes, document how PFAS was used and usage time (e.g., fire fighting training 2001 to 2014):

AFFF was used at the site during training

2. Has usage been documented? **Y / N**

2a. If yes, keep a record (place electronic files on a disk):

No

3. What types of businesses are located near the site? **Industrial / Commercial / Plating / Waterproofing / Residential**

3a. Indicate what businesses are located near the site

Loring Development Authority

4. Is this site located at an airport/flightline? **Y / N**

4a. If yes, provide a description of the airport/flightline tenants:

Yes, located southwest of theformer LAFB runway

Visual Survey Inspection Log

Other Significant Site Features:

1. Does the facility have a fire suppression system? **Y / N**

1a. If yes, indicate which type of AFFF has been used:

No, but AFFF was formerly used here

1b. If yes, describe maintenance schedule/leaks:

NA

1c. If yes, how often is the AFFF replaced:

NA

1d. If yes, does the facility have floor drains and where do they lead? Can we obtain an as built drawing?

No known drains

Transport / Pathway Information

Migration Potential:

1. Does site/area drainage flow off installation? **Y / N**

1a. If so, note observation and location:

This is an adjacent facility. Drainage flows along the roads surrounding the fire station

2. Is there channelized flow within the site/area? **Y / N**

2a. If so, please note observation and location:

No

3. Are monitoring or drinking water wells located near the site? **Y / N**

3a. If so, please note the location:

Wells listed by the Maine database are located within ~1.2 miles to the south-east, southwest, and west

4. Are surface water intakes located near the site? **Y / N**

4a. If so, please note the location:

Freshwater wetlands, streams and a lake are located within 0.2 miles to the east, north, and west

5. Can wind dispersion information be obtained? **Y / N**

5a. If so, please note and observe the location.

No

6. Does an adjacent non-ARNG PFAS source exist? **Y / N**

6a. If so, please note the source and location.

Yes, other adjacent PFAS release areas associated with LAFB are nearby

6b. Will off-site reconnaissance be conducted? **Y / N**

Visual Survey Inspection Log

Significant Topographical Features:

1. Has the infrastructure changed at the site/area? **Y / N**

1a. If so, please describe change (ex. Structures no longer exist):

No

2. Is the site/area vegetated? **Y / N**

2a. If not vegetated, briefly describe the site/area composition:

Yes (mixed paved and grassy surfaces)

3. Does the site or area exhibit evidence of erosion? **Y / N**

3a. If yes, describe the location and extent of the erosion:

No

4. Does the site/area exhibit any areas of ponding or standing water? **Y / N**

4a. If yes, describe the location and extent of the ponding:

No visible standing water

Receptor Information

1. Is access to the site restricted? **Y / N**

1a. If so, please note to what extent:

No

2. Who can access the site? **Site Workers / Construction Workers / Trespassers / Residential / Recreational Users / Ecological**

2a. Circle all that apply, note any not covered above:

Anyone

3. Are residential areas located near the site? **Y / N**

3a. If so, please note the location/distance:

0.8 miles to the southeast (including agricultural space)

4. Are any schools/day care centers located near the site? **Y / N**

4a. If so, please note the location/distance/type:

No

5. Are any wetlands located near the site? **Y / N**

5a. If so, please note the location/distance/type:

Freshwater wetlands, streams and a lake are located within 0.2 miles to the east, north, and west

Visual Survey Inspection Log

Additional Notes

Photographic Log

Photo ID/Name	Date & Location	Photograph Description

Visual Site Inspection Checklist

Names(s) of people performing VSI: J. Witte, M. Leeper, T. Peck, E. Barton

Recorded by: J. Witte

ARNG Contact: M. Leeper

Date and Time: July 2, 2019

Method of visit (walking, driving, adjacent): Walking

Source/Release Information

Site Name / Area Name / Unique ID: Building 8202 - Crash Fire Station (adjacent source)

Site / Area Acreage: Building = 0.64 acres

Historic Site Use (Brief Description): Same as current

Current Site Use (Brief Description): Crash Fire Station

Physical barriers or access restrictions: None

1. Was PFAS used (or spilled) at the site/area? **Y / N**

1a. If yes, document how PFAS was used and usage time (e.g., fire fighting training 2001 to 2014):

AFFF was stored at the site and occasionally used in equipment testing

2. Has usage been documented? **Y / N**

2a. If yes, keep a record (place electronic files on a disk):

NA

3. What types of businesses are located near the site? **Industrial / Commercial / Plating / Waterproofing / Residential**

3a. Indicate what businesses are located near the site

Loring Development Authority, former LAFB runway

4. Is this site located at an airport/flightline? **Y / N**

4a. If yes, provide a description of the airport/flightline tenants:

Yes, located adjacent to the former LAFB runway

Visual Survey Inspection Log

Other Significant Site Features:

1. Does the facility have a fire suppression system? **Y / N**

1a. If yes, indicate which type of AFFF has been used:

No, but it formerly stored AFFF

1b. If yes, describe maintenance schedule/leaks:

NA

1c. If yes, how often is the AFFF replaced:

NA

1d. If yes, does the facility have floor drains and where do they lead? Can we obtain an as built drawing?

Unknown

Transport / Pathway Information

Migration Potential:

1. Does site/area drainage flow off installation? **Y / N**

1a. If so, note observation and location:

This is an adjacent facility. Drainage flows along the roads surrounding the fire station

2. Is there channelized flow within the site/area? **Y / N**

2a. If so, please note observation and location:

No

3. Are monitoring or drinking water wells located near the site? **Y / N**

3a. If so, please note the location:

Wells listed by the Maine database are located ~1.5 miles to the southwest and 3 miles to the northeast

4. Are surface water intakes located near the site? **Y / N**

4a. If so, please note the location:

Freshwater wetlands, streams and a lake are located within 0.75 miles of the fire station to the east and west

5. Can wind dispersion information be obtained? **Y / N**

5a. If so, please note and observe the location.

No

6. Does an adjacent non-ARNG PFAS source exist? **Y / N**

6a. If so, please note the source and location.

Yes, other adjacent PFAS release areas associated with LAFB are nearby

6b. Will off-site reconnaissance be conducted? **Y / N**

Visual Survey Inspection Log

Significant Topographical Features:

1. Has the infrastructure changed at the site/area? **Y / N**

1a. If so, please describe change (ex. Structures no longer exist):

No

2. Is the site/area vegetated? **Y / N**

2a. If not vegetated, briefly describe the site/area composition:

Yes (mixed paved and grassy surfaces)

3. Does the site or area exhibit evidence of erosion? **Y / N**

3a. If yes, describe the location and extent of the erosion:

No

4. Does the site/area exhibit any areas of ponding or standing water? **Y / N**

4a. If yes, describe the location and extent of the ponding:

No visible standing water

Receptor Information

1. Is access to the site restricted? **Y / N**

1a. If so, please note to what extent:

No

2. Who can access the site? **Site Workers / Construction Workers / Trespassers / Residential / Recreational Users / Ecological**

2a. Circle all that apply, note any not covered above:

Anyone

3. Are residential areas located near the site? **Y / N**

3a. If so, please note the location/distance:

1.4 miles to the west

4. Are any schools/day care centers located near the site? **Y / N**

4a. If so, please note the location/distance/type:

No

5. Are any wetlands located near the site? **Y / N**

5a. If so, please note the location/distance/type:

Freshwater wetlands, streams and a lake are located within 0.75 miles of the fire station to the east and west

Visual Survey Inspection Log

Additional Notes

Photographic Log

Photo ID/Name	Date & Location	Photograph Description

Visual Site Inspection Checklist

Names(s) of people performing VSI: J. Witte, M. Leeper, T. Peck, E. Barton

Recorded by: J. Witte

ARNG Contact: M. Leeper

Date and Time: July 2, 2019

Method of visit (walking, driving, adjacent): Walking

Source/Release Information

Site Name / Area Name / Unique ID: LCHP Building (Cold Storage)

Site / Area Acreage: Parcel = 27.9 acres; LCHP Building = 0.24 acres

Historic Site Use (Brief Description): military housing, garages and storage buildings

Current Site Use (Brief Description): Cold storage building

Physical barriers or access restrictions: None

1. Was PFAS used (or spilled) at the site/area? **Y / N**

1a. If yes, document how PFAS was used and usage time (e.g., fire fighting training 2001 to 2014):

No

2. Has usage been documented? **Y / N**

2a. If yes, keep a record (place electronic files on a disk):

NA

3. What types of businesses are located near the site? **Industrial / Commercial / Plating / Waterproofing / Residential**

3a. Indicate what businesses are located near the site

US Defense Department, Loring Jobs Center, structural fire station

4. Is this site located at an airport/flightline? **Y / N**

4a. If yes, provide a description of the airport/flightline tenants:

Yes, located near the southern end of the former LAFB runway

Visual Survey Inspection Log

Other Significant Site Features:

1. Does the facility have a fire suppression system? **Y / N**

1a. If yes, indicate which type of AFFF has been used:

No

1b. If yes, describe maintenance schedule/leaks:

NA

1c. If yes, how often is the AFFF replaced:

NA

1d. If yes, does the facility have floor drains and where do they lead? Can we obtain an as built drawing?

Unknown

Transport / Pathway Information

Migration Potential:

1. Does site/area drainage flow off installation? **Y / N**

1a. If so, note observation and location:

Yes, drainage potentially flows off the MEARNG parcel

2. Is there channelized flow within the site/area? **Y / N**

2a. If so, please note observation and location:

No

3. Are monitoring or drinking water wells located near the site? **Y / N**

3a. If so, please note the location:

A well listed by the Maine database is located ~0.5 miles to the southwest

4. Are surface water intakes located near the site? **Y / N**

4a. If so, please note the location:

Freshwater wetlands, streams and a lake are located within 0.5 miles of the LCHP Building in every direction

5. Can wind dispersion information be obtained? **Y / N**

5a. If so, please note and observe the location.

No

6. Does an adjacent non-ARNG PFAS source exist? **Y / N**

6a. If so, please note the source and location.

Yes, the former LAFB structural fire station is 0.25 miles northeast of the LCHP building

6b. Will off-site reconnaissance be conducted? **Y / N**

Visual Survey Inspection Log

Significant Topographical Features:

1. Has the infrastructure changed at the site/area? **Y / N**

1a. If so, please describe change (ex. Structures no longer exist):

Yes, former military housing structures were razed and a cold storage building was constructed

2. Is the site/area vegetated? **Y / N**

2a. If not vegetated, briefly describe the site/area composition:

Yes

3. Does the site or area exhibit evidence of erosion? **Y / N**

3a. If yes, describe the location and extent of the erosion:

No

4. Does the site/area exhibit any areas of ponding or standing water? **Y / N**

4a. If yes, describe the location and extent of the ponding:

No visible standing water

Receptor Information

1. Is access to the site restricted? **Y / N**

1a. If so, please note to what extent:

No

2. Who can access the site? **Site Workers / Construction Workers / Trespassers / Residential / Recreational Users / Ecological**

2a. Circle all that apply, note any not covered above:

Anyone

3. Are residential areas located near the site? **Y / N**

3a. If so, please note the location/distance:

0.5 miles to the northwest

4. Are any schools/day care centers located near the site? **Y / N**

4a. If so, please note the location/distance/type:

No

5. Are any wetlands located near the site? **Y / N**

5a. If so, please note the location/distance/type:

Freshwater wetlands, streams and a lake are located within 0.5 miles of the LCHP Building in every direction

Visual Survey Inspection Log

Additional Notes

Photographic Log

Photo ID/Name	Date & Location	Photograph Description

Visual Site Inspection Checklist

Names(s) of people performing VSI: J. Witte, M. Leeper, T. Peck, E. Barton

Recorded by: J. Witte

ARNG Contact: M. Leeper

Date and Time: July 2, 2019

Method of visit (walking, driving, adjacent): Walking

Source/Release Information

Site Name / Area Name / Unique ID: Nose Dock Area (adjacent source)

Site / Area Acreage: 300 acres

Historic Site Use (Brief Description): Nose docks for LAFB aircrafts

Current Site Use (Brief Description): Mostly abandoned nose docks. A few are still operable.

Physical barriers or access restrictions: None

1. Was PFAS used (or spilled) at the site/area? **Y / N**

1a. If yes, document how PFAS was used and usage time (e.g., fire fighting training 2001 to 2014):

AFFF was stored, used in testing, and accidentally released numerous times

2. Has usage been documented? **Y / N**

2a. If yes, keep a record (place electronic files on a disk):

See LAFB 2015 PA and 2018 SI reports

3. What types of businesses are located near the site? **Industrial / Commercial / Plating / Waterproofing / Residential**

3a. Indicate what businesses are located near the site

Loring Commerce Center, Crash Fire Station

4. Is this site located at an airport/flightline? **Y / N**

4a. If yes, provide a description of the airport/flightline tenants:

Yes, located adjacent to the former LAFB runway

Visual Survey Inspection Log

Other Significant Site Features:

1. Does the facility have a fire suppression system? **Y / N**

1a. If yes, indicate which type of AFFF has been used:

Formerly

1b. If yes, describe maintenance schedule/leaks:

NA

1c. If yes, how often is the AFFF replaced:

NA

1d. If yes, does the facility have floor drains and where do they lead? Can we obtain an as built drawing?

Unknown

Transport / Pathway Information

Migration Potential:

1. Does site/area drainage flow off installation? **Y / N**

1a. If so, note observation and location:

This is an adjacent facility. Drainage flows along the roads surrounding the fire station

2. Is there channelized flow within the site/area? **Y / N**

2a. If so, please note observation and location:

No

3. Are monitoring or drinking water wells located near the site? **Y / N**

3a. If so, please note the location:

A well listed by the Maine database is located ~1.5 miles to the southwest, and another 3 miles to the east

4. Are surface water intakes located near the site? **Y / N**

4a. If so, please note the location:

Freshwater wetlands, streams and a lake are located within 0.5 miles to the north, northwest, and west

5. Can wind dispersion information be obtained? **Y / N**

5a. If so, please note and observe the location.

No

6. Does an adjacent non-ARNG PFAS source exist? **Y / N**

6a. If so, please note the source and location.

Yes, other adjacent PFAS release areas associated with LAFB are nearby

6b. Will off-site reconnaissance be conducted?	**Y / N**	

Visual Survey Inspection Log

Significant Topographical Features:

1. Has the infrastructure changed at the site/area? **Y / N**

1a. If so, please describe change (ex. Structures no longer exist):

No

2. Is the site/area vegetated? **Y / N**

2a. If not vegetated, briefly describe the site/area composition:

Mixed, paved and grassy surfaces

3. Does the site or area exhibit evidence of erosion? **Y / N**

3a. If yes, describe the location and extent of the erosion:

No

4. Does the site/area exhibit any areas of ponding or standing water? **Y / N**

4a. If yes, describe the location and extent of the ponding:

No visible standing water

Receptor Information

1. Is access to the site restricted? **Y / N**

1a. If so, please note to what extent:

No

2. Who can access the site? **Site Workers / Construction Workers / Trespassers / Residential / Recreational Users / Ecological**

2a. Circle all that apply, note any not covered above:

Anyone

3. Are residential areas located near the site? **Y / N**

3a. If so, please note the location/distance:

1 mile to the southwest

4. Are any schools/day care centers located near the site? **Y / N**

4a. If so, please note the location/distance/type:

No

5. Are any wetlands located near the site? **Y / N**

5a. If so, please note the location/distance/type:

Freshwater wetlands, streams and a lake are located within 0.5 miles to the north, northwest, and west

Visual Survey Inspection Log

Additional Notes

Photographic Log

Photo ID/Name	Date & Location	Photograph Description

Appendix B.3
Conceptual Site Model Information

Preliminary Assessment – Conceptual Site Model Information

Site Name: Caswell Training Site

Why has this location been identified as a site?

Facility is located on parcels formerly operated by the Air Force at a very large installation.

Are there any other activities nearby that could also impact this location?

Yes, former Loring Air Force Base has several documented PFAS release areas

Training Events

Have any training events with AFFF occurred at this site? Not on any MEARNG parcels.

If so, how often? NA

How much material was used? Is it documented?

Specific volume releases at the adjacent former LAFB can be found in the Air Force PA and SI report included in Appendix A.

Identify Potential Pathways: Do we have enough information to fully understand over land surface water flow, groundwater flow, and geological formations on and around the facility? Any direct pathways to larger water bodies?

Surface Water:

Surface water flow direction? Generally east and west away from the LAFB runway

Average rainfall? 38 inches annually

Any flooding during rainy season? No

Direct or indirect pathway to ditches? Drainage channels vary from parcel to parcel

Direct or indirect pathway to larger bodies of water? Butterfield Brook, Greenlaw Brook, others

Does surface water pond any place on site? No ponding on MEARNG parcels

Any impoundment areas or retention ponds? No

Any NPDES location points near the site? Unknown

How does surface water drain on and around the flight line? east and west of the runway

Preliminary Assessment – Conceptual Site Model Information

Groundwater:

Groundwater flow direction? east-west direction, with the eastern portion draining to Butterfield Brook, and the western portion draining toward Greenlaw Brook and the flightline drainage ditch

Depth to groundwater? During SI work at LAFB, depth ranged from approximately 14-85 bgs

Uses (agricultural, drinking water, irrigation)? No known uses; domestic wells exist nearby

Any groundwater treatment systems? Not on MEARNG parcels

Any groundwater monitoring well locations near the site? Maybe (GW collected as part of Air Force SI)

Is groundwater used for drinking water? Not on MEARNG parcels

Are there drinking water supply wells on installation? No

Do they serve off-post populations? NA

Are there off-post drinking water wells downgradient Yes

Waste Water Treatment Plant:

Has the installation ever had a WWTP, past or present? Not one associated with MEARNG parcels

If so, do we understand the process and which water is/was treated at the plant? NA

Do we understand the fate of sludge waste? Sludge was dried adjacent to the WWTP before disposal

Is surface water from potential contaminated sites treated? NA

Equipment Rinse Water

1. Is firefighting equipment washed? Where does the rinse water go?

NA - none used on MEARNG parcels

2. Are nozzles tested? How often are nozzles tested? Where are nozzles tested? Are nozzles cleaned after use? Where does the rinse water flow after cleaning nozzles?

NA

3. Other?

Preliminary Assessment – Conceptual Site Model Information

Identify Potential Receptors:

Site Worker No PFAS releases at MEARNG CTS, therefore, no receptors

Construction Worker

Recreational User

Residential

Child

Ecological

Note what is located near by the site (e.g. daycare, schools, hospitals, churches, agricultural, livestock)?

Documentation

Ask for Engineering drawings (if applicable).

Has there been a reconstruction or changes to the drainage system? When did that occur?

Appendix C
Photographic Log

Appendix C - Photographic Log

Army National Guard, Preliminary Assessment for PFAS	Caswell Training Site	Aroostook County, Maine

Photograph No.

Date 7/2/2019

Time 14:40

Description:

Access road to the MEARNG former AAB Site restricted by gate.

Orientation:

North

Photograph No.

Date 7/2/2019

Time 13:30

Description:

MEARNG LCHP building located west of the southern end of the former LAFB runway

Orientation:

West

Appendix C - Photographic Log

Army National Guard, Preliminary Assessment for PFAS	Caswell Training Site	Aroostook County, Maine

Photograph No.

Date 7/2/2019

Time 9:00

Description:

Historical photo of possible AFFF use by the former Paul L. Barnes Loring Fire Department at the former LAFB

Orientation:

NA

Photograph No.

Date 7/2/2019

Time 13:00

Description:

Former Paul L. Barnes Loring Fire Department Structural Fire Station (adjacent source) located 0.2 miles northeast of the MEARNG LCHP Building

Orientation:

Northwest