FINAL
Preliminary Assessment Report
Ellyson Field
Pensacola, Florida

Perfluorooctanesulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA) Impacted Sites
ARNG Installations, Nationwide

June 2020

Prepared for:

Army National Guard Bureau
111 S. George Mason Drive
Arlington, VA 22204

UNCLASSIFIED

Table of Contents

Figures

Tables

Appendices

Acronyms and Abbreviations

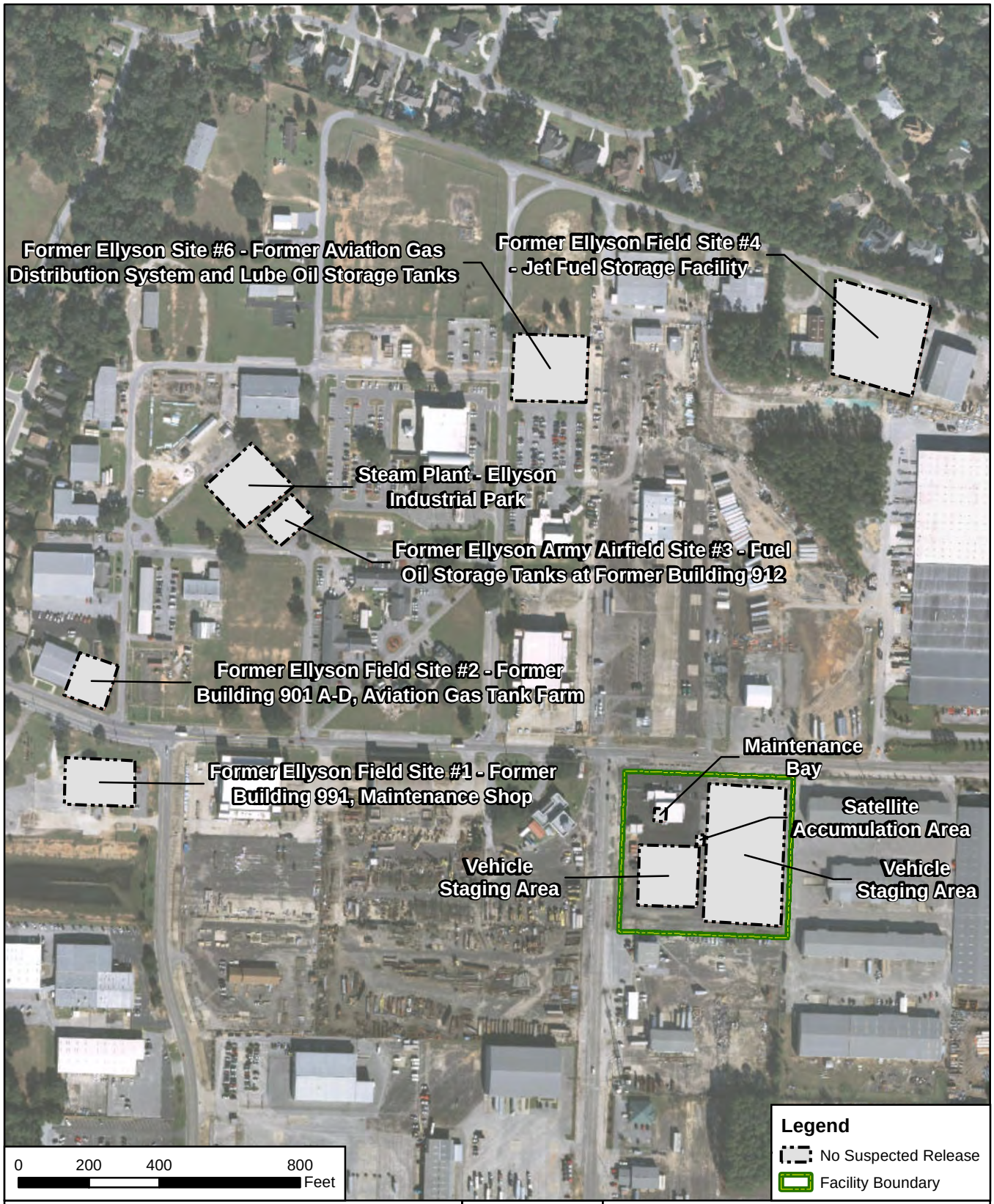
°F	degrees Fahrenheit
AECOM	AECOM Technical Services, Inc.
AFFF	aqueous film forming foam
AOI	Area of Interest
ARNG	Army National Guard
bgs	Below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CSM	conceptual site model
ECUA	Emerald Coast Utility Authority
EDR™	Environmental Data Resources, Inc.™
FDEP	Florida of Department of Environmntal Protection
FL	Florida
FLARNG	Florida Army National Guard
FTA	fire training area
GSA	General Service Administration
HA	Health Advisory
IED	Installations & Environment Division
NAS	Naval Air Station
PA	Preliminary Assessment
PFAS	per- and poly-fluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
SI	Site Inspection
UCMR 3	Unregulated Contaminant Monitoring Rule 3
US	United States
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
UST	Underground storage tank
VSI	visual site inspection

Executive Summary

The Army National Guard (ARNG) is performing *Preliminary Assessments (PAs) and Site Inspections (SIs) for Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanoic acid (PFOA) Impacted Sites at ARNG Facilities Nationwide*. A PA for per- and polyfluoroalkyl substances (PFAS)-containing materials was completed for the Ellyson Field facility in Pensacola, Florida (FL), to assess potential PFAS release areas and exposure pathways to receptors. The current Ellyson Field facility is constructed on a parcel of land owned by Escambia County and leased to the Florida ARNG (FLARNG). The performance of this PA included the following tasks:

- Reviewed available administrative record documents and Environmental Data Resources, Inc. (EDR)™ report packages to obtain information relevant to potential PFAS releases, such as: drinking water well locations, historical aerial photographs, Sanborn maps, and environmental compliance actions in the area surrounding the facility;
- Conducted a site visit on 31 January 2019 and completed visual site inspections at locations where PFAS-containing materials were suspected of being stored, used, or disposed; and
- Interviewed current Ellyson Field FLARNG personnel during the site visit and FLARNG environmental managers and operations staff.

The Ellyson Field facility has been identified as No Suspected Release (**Figure ES-1**). Prior to 1981, the US Navy operated at the subject property. FLARNG personnel have indicated that the property came under ARNG control circa 1985. According to available property records, the subject property was sold to the Pensacola-Escambia Promotion & Development Commission in 1981 (USACE, 2015). Based on the US Environmental Protection Agency (USEPA) Unregulated Contaminant Monitoring Rule 3 (UCMR3) data, it was indicated that PFAS were detected in a public water system above the USEPA's lifetime Health Advisories (HAs) (70 parts per trillion for PFOA and PFOS) within 10 miles of the facility. PFAS analyses performed in 2016 had method detection limits that were higher than currently achievable. Thus, it is possible that low concentrations of PFAS were not detected during the UCMR3 but might be detected if analyzed today. Based upon available information collected during PA interviews, no Areas of Interest (AOIs) were identified during the PA. Evidence does not indicate that current or former ARNG activities contributed PFAS contamination to soil, groundwater, surface water, or sediment at the facility or adjacent areas. The Ellyson Field facility will not move forward in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process.



CLIENT	ARNG			
NOTES	Preliminary Assessment for PFAS at Ellyson Field, FL			
REVISED	7/3/2019	GIS BY	MS	7/3/2019
SCALE	1:4,800	CHK BY	BM	7/3/2019
Base Map: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,		PM	RG	7/3/2019

N

Summary of Findings

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure ES-1

Q:\Projects\ENV\GEARS\GEO\ARNG PFAS\900-CAD-GIS\920-GIS or Graphics\MXD\FL\Ellyson_Field\Fig_ES-1_Ellyson_Field_Summary.mxd

1. Introduction

1.1 Authority and Purpose

The Army National Guard (ARNG)-Installations & Environment Division (IED) is the lead agency in performing *Preliminary Assessments (PAs) and Site Inspections (SIs) for Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanoic acid (PFOA) at Impacted Sites at ARNG Facilities Nationwide*. This work is supported by the United States (US) Army Corps of Engineers (USACE) Baltimore District and their contractor AECOM Technical Services, Inc. (AECOM) 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 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 (HAs) 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. The state of Florida does not currently have drinking water standards for PFAS.

This report presents the findings of a PA for PFAS-containing materials at the current Ellyson Field facility, Florida (FL), 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 [CFR] Part 300), and Army requirements and guidance.

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

1.2 Preliminary Assessment Methods

The performance of this PA included the following tasks:

- Reviewed available administrative record documents and Environmental Data Resources, Inc. (EDR)™ report packages to obtain information relevant to potential PFAS releases, such as: drinking water well locations, historical aerial photographs, Sanborn maps, and environmental compliance actions in the area surrounding the facility;
- Conducted a site visit on 31 January 2019 and completed visual site inspections (VSIs) at locations where PFAS-containing materials were suspected of being stored, used, or disposed; and
- Interviewed Florida ARNG (FLARNG) personnel including environmental managers and operations staff during the site visit.

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 FTAs at the facility identified during the site visit
- **Section 3** – **Non-Fire Training Areas:** describes other locations of potential PFAS releases at the facility identified during the site visit
- **Section 4** – **Emergency Response Areas:** describes areas of potential PFAS release at the facility, specifically in response to emergency situations
- **Section 5** – **Adjacent Sources:** describes sources of potential 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 Area(s) 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 Description

The Ellyson Field facility is located off Copter Road, approximately 1.5 miles north of Interstate 10, off the North Davis Highway exit, in Escambia County, Pensacola, FL, (**Figure 1-1**). The facility is situated on an approximately 5-acre lot and consists of a 1,920 square-foot armory building (Escambia County Propert Appraiser, 2019). The parcel is one of multiple parcels in the area owned by Escambia County. FLARNG leases the property from the county through the Armory Board of the State of Florida. The lease document appears in **Appendix A**. According to current FLARNG personnel with knowledge of the property dating back to 2000, ARNG took possession of the property circa 1985 and has operated a maintenance facility since that time. The facility is currently developed with one building with ARNG vehicle staging areas to the south and east of the building. The Emerald Coast Utility Authority (ECUA) provides potable water and wastewater service as well as electricity to the Ellyson Field facility.

Historically, the US Navy operated an auxiliary landing field for the Pensacola Naval Air Station (NAS) in the surrounding area and encompassing the current Ellyson Field Armory location. The entire Navy facility, including easements, consisted of 607.66 acres. Improvements of the Navy facility included a magazine, underground fuel pits, above ground fuel storage tanks, a small arms range, skeet ranges, a sewage treatment plant, aviation hangars and associated ramp areas, and a firefighting training area. By report of excess dated 8 May 1979, the Navy declared the entire site and improvements excess, and the General Service Administration (GSA) conveyed the entire facility by quitclaim deed dated 24 June 1981 to the Pensacola-Escambia Promotion & Development Commission, a public corporation in the state of Florida. Most of the land used by

the Navy has been sold to private interests, and Escambia County has retained several parcels, including the FLARNG Ellyson Field property (USACE, 2015). Based on aerial imagery provided in the Environmental Data Resource (EDR)™ report, provided in **Appendix A**, the FLARNG Ellyson Field Facility is located on what was historically part of the former US Navy Airfield flight line. The location of the current Ellyson Field facility appears to have been vacant in the aerial image taken in 1940 (**Appendix C**). Aerial images from 1949 to 1983 show the location of the current FLARNG facility developed as part of the historical flight line. Based upon aerial images provided in the EDR™ report, no discernable features suggesting fire training areas were identified at the location of the current Ellyson Field facility.

Currently, surrounding properties are commercial/industrial. With the exception of remnant Navy hangars to the northwest and west of the Ellyson Field facility and the former Navy air traffic control tower located to the west of the Ellyson Field facility, most features associated with the former Navy airfield have been removed from the area.

1.5 Facility Environmental Setting

The Ellyson Field facility is located in northwest Florida, in Escambia County, and is situated in the Coastal Plain physiographic province. The topographic relief of the area is relatively great when compared to most of Florida, attaining 290 feet in adjacent northern Santa Rosa County. Topography in the area is associated with remnants of ancient marine terraces preserved in Escambia County as upland plateaus, flat-topped hills, low coastal plains, and benches along the rivers and bays (Marsh, 1966).

1.5.1 Geology

Beneath the facility, undifferentiated Miocene Age coarse clastics and the Pleistocene Age Citronelle Formation are often encountered below ground surface (bgs). The Miocene coarse clastic sediments are virtually indistinguishable from the overlying Citronelle formation, with the exception of an absence of shell fossils in the Citronelle Formation. The Citronelle Formation is generally described as light yellowish brown to reddish brown, very fine to very coarse, and poorly sorted sand with lenses of clay and gravel. Relatively thin Pleistocene marine terrace deposits unconformably overly the Citronelle Formation and generally consist of light tan, fine to coarse sand. Together, the Citronelle Formation and overlying terrace deposits range from 30 feet at the border in southern Santa Rosa County to about 790 feet thick in northwest Escambia County. The variable thickness can be attributed to the irregular base of the Citronelle Formation, as it is an unconformity at the top of the terrace deposits, which coincide with an irregular surface topography of considerable relief (Marsh, 1966).

In most of the area, undifferentiated Miocene Age coarse clastics conformably overlay Pensacola Clay. The Pensacola Clay Formation is generally described as a tough, dark- to light-gray clay. The clay is typically silty and contains variable amounts of very fine to very coarse quartz sand. Fragments of carbonized wood and plant remains, such as leaves and reeds, are present throughout the formation. Mollusk shells and foraminifers are abundant throughout the Pensacola Clay (Marsh, 1966).

The Pensacola Clay conformably overlays undifferentiated Upper Oligocene, and Lower Miocene, Tampa and Chickasawhay Formations, respectively. In general, these units consist of limestones and are characterized as light-gray to grayish-white, hard, with several beds of clay. The Chickasawhay Formation tends to be more dolomitic and vesicular when compared to the Tampa Formation. The Chickasawhay formation thickens toward the Gulf of Mexico, with thicknesses of 30 to 40 feet in Northern Escambia County to as much as 130 feet at the coast. The Tampa formation seems to only be present in southern Escambia County, having been removed by

erosion in northern Escambia County prior to deposition of the Pensacola Clay and undifferentiated course classics (Marsh, 1966).

The Tampa and Chickasawhay formations are conformably overlain by the Middle Oligocene Bucatunna Clay Member of the Bryam Formation. This clay unit is generally defined as dark-gray, soft, silty to sandy, foraminiferal, and carbonaceous. The Bucatunna Clay Member averages 125 feet thick and ranges from 45 feet in northeastern Santa Rosa County to 215 feet thick just north of Escambia Bay (Marsh, 1966).

Upper Eocene age Ocala Group carbonates unconformably underlay the Tampa and Chickasawhay formations and is comprised generally of light-gray to chalky-white limestones with abundant foraminifer fossils. The Ocala group has an average thickness of about 165 feet in Escambia and Santa Rosa Counties, ranging from 90 feet just east of Pensacola to 235 feet in northeastern Santa Rosa County (Marsh, 1966).

1.5.2 Hydrogeology

The primary aquifer systems beneath Escambia County are the surficial aquifer, also known as the Sand and Gravel Aquifer, and the deeper Floridan Aquifer System. These two units are separated by an aquiclude, commonly containing water bearing units, named the intermediate aquifer/confining unit (Rupert, 1993).

The majority of water wells in Escambia County draw from the Sand and Gravel Aquifer, which is formed in the porous siliciclastic sediments of the Pleistocene terrace deposits, Citronelle Formation and undifferentiated Miocene coarse clastics. The Sand and Gravel Aquifer thickness ranges from ground surface to depths of 200 to 500 feet bgs. Unlike the carbonate aquifer system used throughout most of Florida, the Sand and Gravel Aquifer has low mineral content due to the insoluble quartz sand and gravel composition of the water bearing units. For this reason, the Sand and Gravel Aquifer makes an economical industrial water source for manufacturing processes requiring low mineral content (Rupert, 1993). Based on the USEPA Unregulated Contaminant Monitoring Rule 3 data, it was indicated that PFAS were detected in a public water system above the USEPA's HA within 10 miles of the facility (**Appendix A**). PFAS analyses performed in 2016 had method detection limits that were higher than currently achievable. Thus, it is possible that low concentrations of PFAS were not detected during the UCMR3 but might be detected if analyzed today.

The Sand and Gravel Aquifer is separated from the Floridan Aquifer System by the intermediate confining unit made up of the Pensacola Clay Formation. The Pensacola Clay acts as an aquiclude and effectively isolates the two aquifer systems. The intermediate confining unit ranges from 380 to 1,000 feet thick. Some water bearing lenses do exist in the Pensacola clay but are not used as a water source in Escambia County (Rupert, 1993).

The Florida Aquifer System is encountered beneath the Pensacola Clay Formation, in the porous carbonate rock of the Ocala Group, Chickasawhay, and Tampa Formations. Water in the Florida Aquifer system has a higher dissolved mineral content than the Sand and Gravel Aquifer. Although the Floridan Aquifer is used as the primary aquifer system throughout much of Florida, the higher quality water at shallower depths in the Sand and Gravel Aquifer precludes the need to drill deeper wells to reach the Floridan Aquifer System (Rupert, 1993).

Regional groundwater flow in the Floridan Aquifer is generally toward the south. Groundwater monitoring assessment data at the nearby facilities suggests local groundwater is approximately 20 feet bgs, and flow in the Sand and Gravel Aquifer is to the southeast, toward Escambia Bay (USACE, 2015). Groundwater features surrounding the facility are shown in **Figure 1-2**.

1.5.3 Hydrology

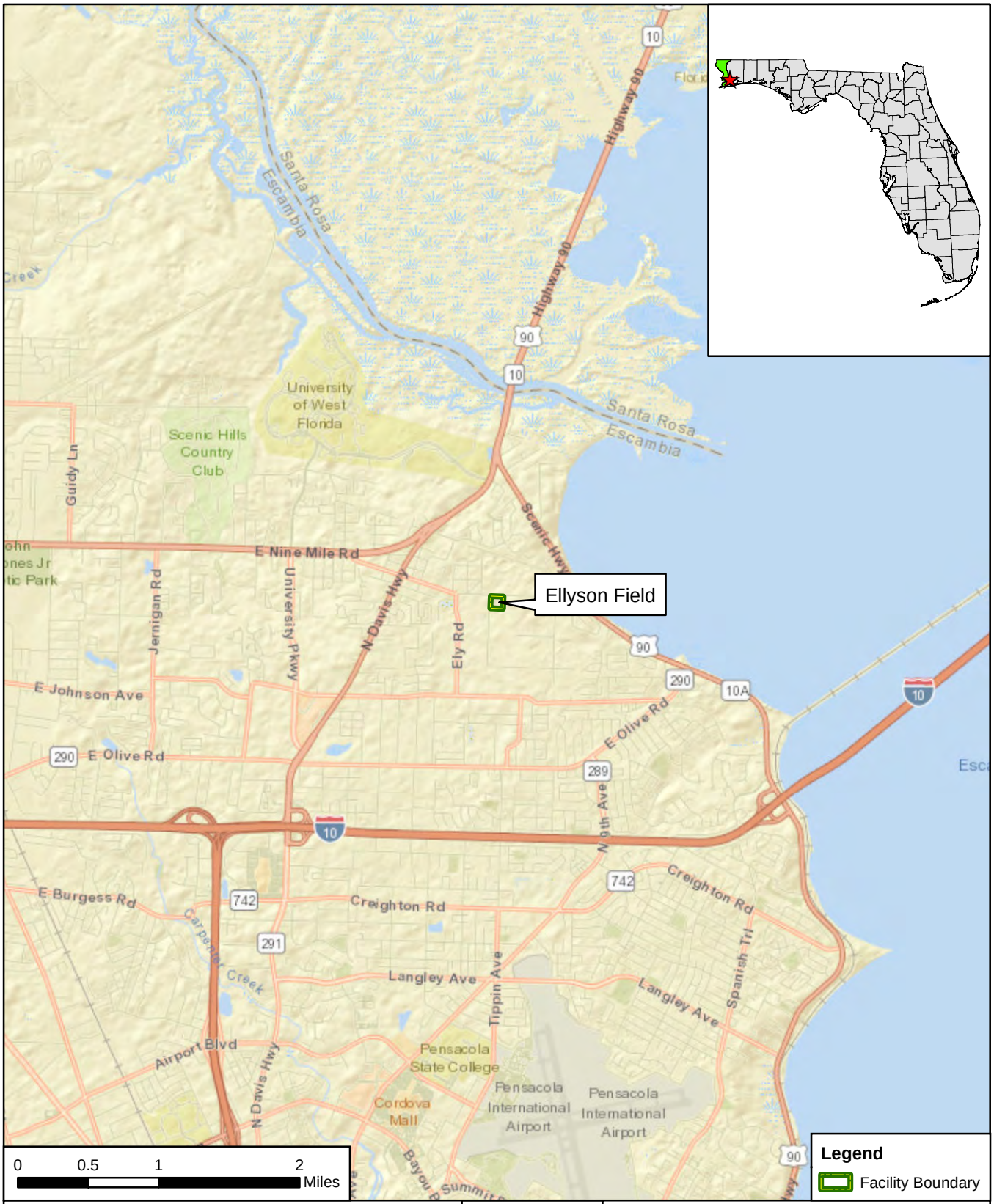
A well-developed network of waterways drains Escambia County. The Escambia River is the largest stream in the area and flows south from Alabama and into Escambia Bay (Marsh, 1966). The Ellyson Field facility is located approximately 0.82 miles west of Escambia Bay. Apparent surface water drainage is to the northwest toward the drainage ditch on the north side of Copter Road, which drains to Skinner Mill Creek, which ultimately empties to Escambia Bay. Hundreds of small ponds dot Escambia County. These ponds are apparently accumulations of rainwater held up by underlying layers of clay or iron-cemented sandstone commonly referred to as hardpan (Marsh, 1966). Surface water features surrounding the facility are shown in **Figure 1-3**.

1.5.4 Climate

The Ellyson Field facility is located in northwest Florida, which has a humid, warm-temperate climate. Summers are hot and humid, and winters are mild. Thunderstorms of high intensity are common, and tropical storms and hurricanes occasionally blow in from the Gulf of Mexico (Marsh, 1966). The average annual high temperature is 97 degrees Fahrenheit (°F), and the average annual low temperature is 60.2 °F (National Weather Service, 2018). The average annual precipitation in 2018 was 60.52 inches (Florida Climate Center, 2019).

1.5.5 Current and Future Land Use

The Ellyson Field facility is currently owned by Escambia County and leased to FLARNG. According to FLARNG personnel with knowledge of the property dating back to 2000, FLARNG began operations onsite circa 1985, and the facility has been developed with a maintenance building and ARNG vehicle staging areas. As described in **Section 1.4**, land surrounding the facility is used for commercial/industrial purposes. Reasonably anticipated future land use is not expected to change from the current land use.



CLIENT	ARNG			
NOTES	Preliminary Assessment for PFAS at Ellyson Field, FL			
REVISED	7/3/2019	GIS BY	MS	7/3/2019
SCALE	1:63,360	CHK BY	MG	7/3/2019
Base Map: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI,		PM	RG	7/3/2019

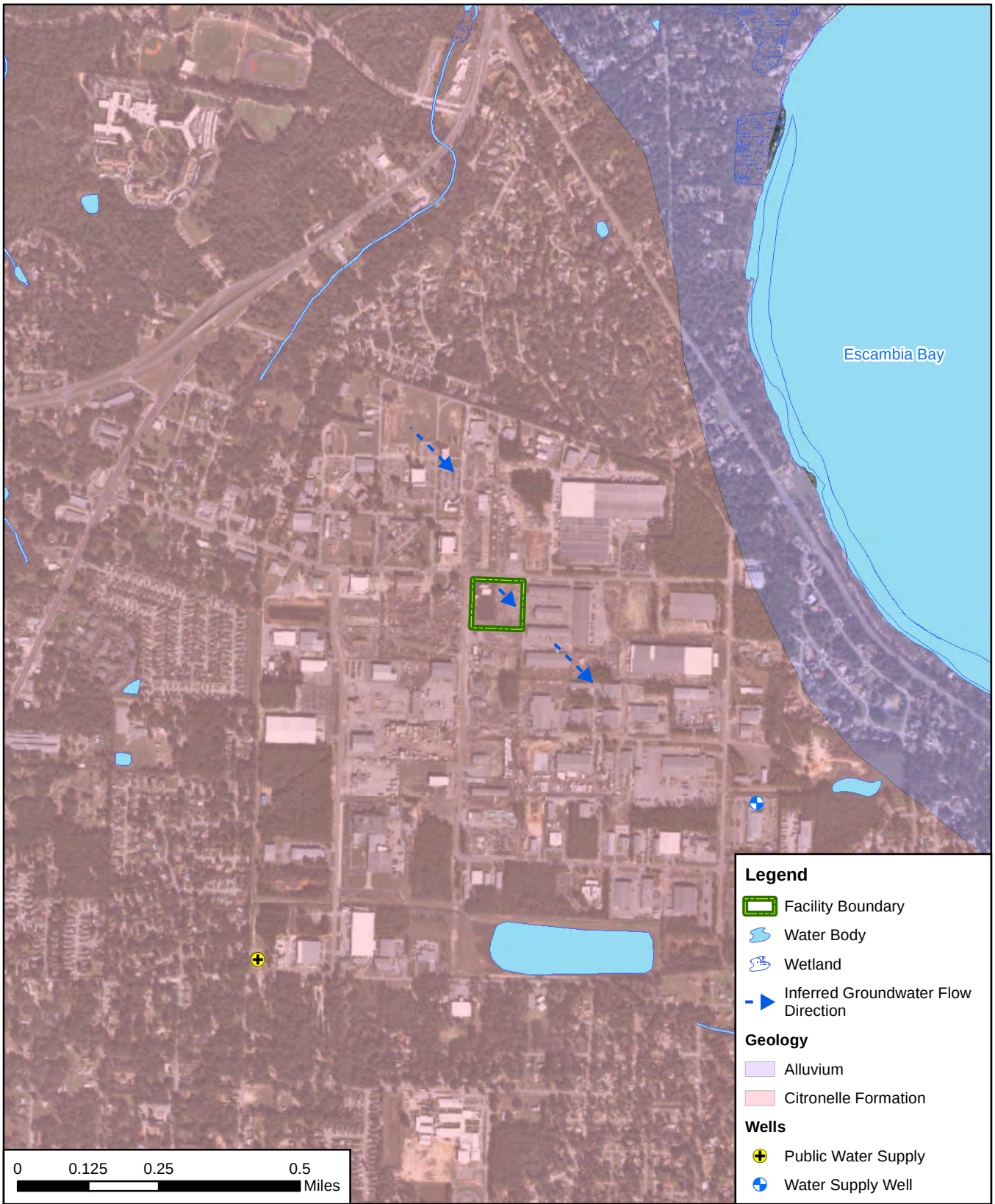
N

Facility Location

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 1-1

Q:\Projects\ENV\GEARS\GEO\ARNG PFAS\900-CAD-GIS\920-GIS or Graphics\MXD\FL\Ellyson_Field\Fig_1-1_Ellyson_Field_Facility_Location.mxd



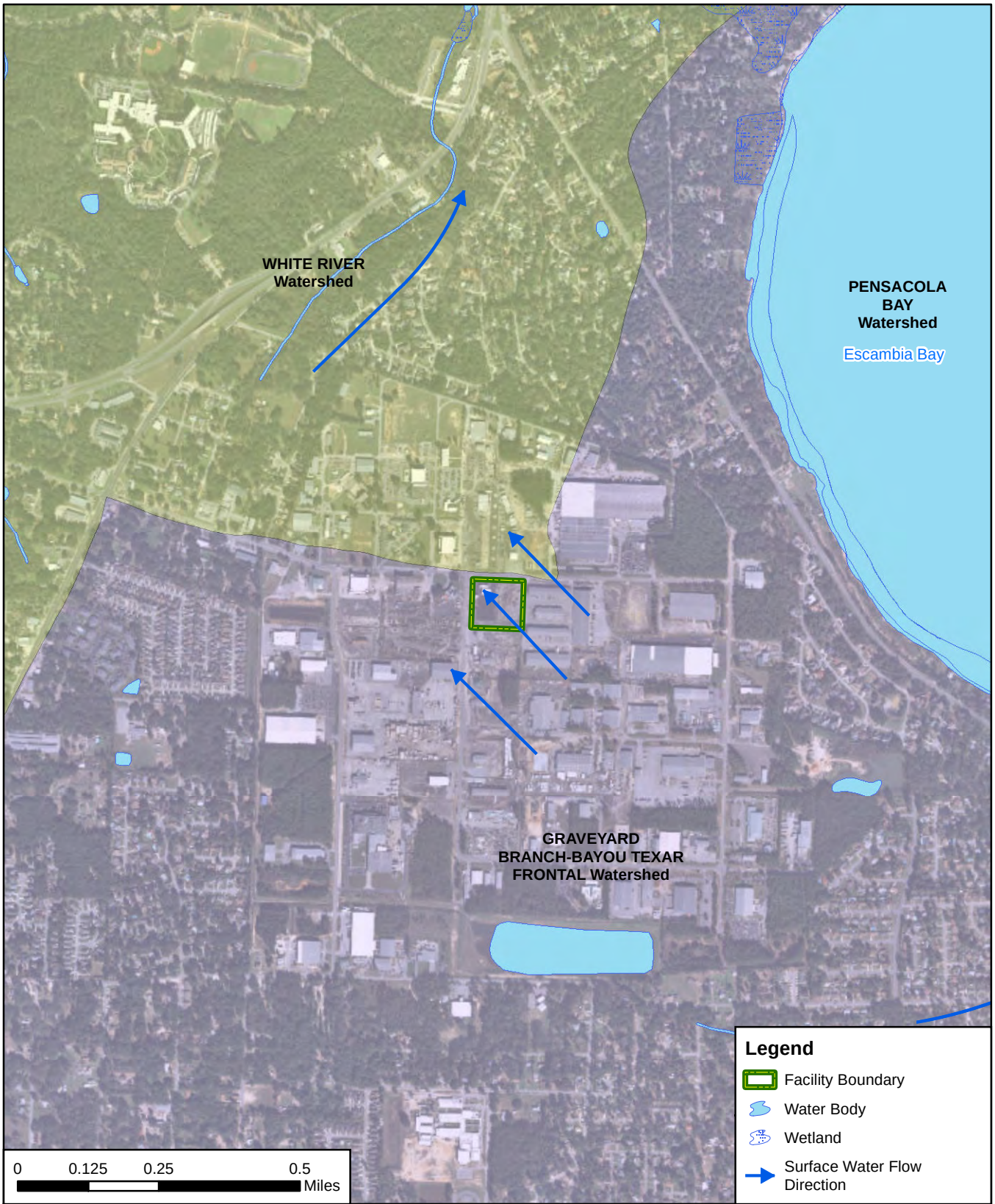
CLIENT	ARNG			
NOTES	Preliminary Assessment for PFAS at Ellyson Field, FL			
REVISED	5/7/2019	GIS BY	MS	5/7/2019
SCALE	1:15,840	CHK BY	BM	5/7/2019
Base Map: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,		PM	RG	5/7/2019

Groundwater Features

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 1-2

Q:\Projects\ENV\GEARS\GEO\ARNG PFAS\900-CAD-GIS\920-GIS or Graphics\MXD\FL\Ellyson_Field\Fig_1-2_Ellyson_Field_Groundwater.mxd



CLIENT	ARNG			
NOTES	Preliminary Assessment for PFAS at Ellyson Field, FL			
REVISED	5/7/2019	GIS BY	MS	5/7/2019
SCALE	1:15,840	CHK BY	BM	5/7/2019
Base Map: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,		PM	RG	5/7/2019

N

Surface Water Features

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 1-3

Q:\Projects\ENV\GEARS\GEO\ARNG PFAS\900-CAD-GIS\920-GIS or Graphics\MXD\FL\Ellyson_Field\Fig_1-3_Ellyson_Field_Surface_Water.mxd

2. Fire Training Areas

Based on interviews conducted during this PA, FLARNG personnel with knowledge of the property dating back to 2000 confirmed that no fire training occurred during their occupation of the subject property. Prior to FLARNG occupation of the subject property, no information was available regarding FTAs.

3. Non-Fire Training Areas

In addition to FTAs, the PA evaluated areas where PFAS-containing materials may have been broadly used, stored, or disposed. This may include buildings with fire suppression systems, paint booths, AFFF storage areas, and areas of compliance demonstrations. Information on these features obtained during the PA are included in **Appendices A** and **B**. Historically, the US Navy operated an airfield that encompassed the subject property and the surrounding area from after 1940 to about 1981, when the property was sold to Escambia County. Storage or use of AFFF prior to FLARNG occupation circa 1985 was not known, according to FLARNG personnel. FLARNG personnel with knowledge of the Ellyson Field facility dating back to 2000 have confirmed that AFFF has not been used or stored at the Ellyson Field facility during FLARNG occupation of the subject property. Based upon aerial images provided in the EDR™ report (**Appendix A**), no discernable features suggesting FTAs were identified at the location of the current FLARNG facility. Descriptions of these non-FTAs are presented below, and the non-FTAs are shown on **Figure 3-1,** with photographs appearing in **Appendix C**.

3.1 Maintenance Bay

The maintenance bay is located in the south side of the Armory building, with bay doors opening at the southern edge of the building. The geographical coordinates are 30°31'37.8"N; 87°11'49.6"W. The maintenance bay was constructed with the armory building in 1998 and is used for general maintenance on ARNG vehicles. The maintenance bay is not equipped with an overhead AFFF fire suppression system. It was noted during the visual inspection that fire protection is provided by wall mounted ABC class fire extinguishers. Based on FLARNG knowledge of the property dating back to 2000, AFFF was not used or stored in the maintenance bay during FLARNG occupation.

3.2 Vehicle Staging Area

ARNG owned vehicles are staged at the south and east side of the Ellyson Field building. The geographical coordinates of the southern staging area are 30°31'36.2"N; 87°11'49.5"W. The geographical coordinates of the western staging area are 30°31'37.2"N; 87°11'46.9"W. It was noted during the visual inspection that fire protection is provided by ABC class fire extinguishers mounted on the exterior wall of the Armory building. Based on FLARNG knowledge of the property dating back to 2000, AFFF was not used or stored in the maintenance bay during FLARNG occupation.

3.3 Satellite Accumulation Area

The Satellite Accumulation area is located approximately 80 feet off the southeast corner of the Ellyson Field building. The geographical coordinates of the satellite accumulation area are 30°31'37.3"N; 87°11'48.3"W. This area is used for storing waste associated with ARNG vehicle maintenance such as fuel filters and anti-freeze. Fire protection in this area is provided by a wall mounted sodium fire extinguisher. Based on FLARNG knowledge of the property dating back to 2000, AFFF was not used or stored in the maintenance bay during FLARNG occupation.

CLIENT	ARNG			
NOTES	Preliminary Assessment for PFAS at Ellyson Field, FL			
REVISED	5/1/2019	GIS BY	MS	5/1/2019
SCALE	1:3,600	CHK BY	BM	5/1/2019
Base Map: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,		PM	RG	5/1/2019

N

Non-Fire Training Areas

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 3-1

Q:\Projects\ENV\GEARS\GEO\ARNG PFAS\900-CAD-GIS\920-GIS or Graphics\MXD\FL\Ellyson_Field\Fig_3-1_Ellyson_Field_Non-Fire_Training_Areas.mxd

4. Emergency Response Areas

No emergency response areas were identified within the current Ellyson Field facility based upon information provided in the EDR™ report (**Appendix A**), dated 12 February 2019, and knowledge of the facility by FLARNG personnel dating back to 2000.

5. Adjacent Sources

Historically, the US Navy operated an airfield that encompassed the subject property and the surrounding area from approximately after 1940 to about 1981, when the property was sold to Escambia County. The FLARNG Ellyson Field facility makes up approximately 5 acres of the 607.66-acre former US Navy Airfield. Previous assessment reports conducted by USACE and available in the Florida Department of Environmental Protection (FDEP) public record suggest that portions of the former US Navy airfield were used for fire training. However, fire training by the US Navy and the location of the FTAs were not described in these reports and were not known by FLARNG personnel interviewed as part of this PA.

Based on EDR™ information (**Appendix A)** and the FDEP public record, six areas associated with US Navy activities at the former Ellyson Airfield were reviewed. Locations of these areas are depicted on **Figure 5-1**. An environmental assessment was conducted at each location by USACE, and these assessments are available in the FDEP public record. Summaries of the six areas are provided below:

- **Steam Plant – Ellyson Industrial Park:** The Steam Plant facility was utilized by the US Navy until 1981, when Ellyson Airfield was sold to Escambia County and private interests. Maps indicate that at one time, a part of the building also housed the ambulance service and firehouse for Ellyson Field during occupation by the US Navy (USACE, 2002).
- **Former Ellyson Field Site #1 (Former Building 991, Maintenance Shop):** The original building (former Building 991) is identified on a map dated 1971 as the maintenance shop for airfield support vehicles. According to USACE reports, underground storage tanks (USTs) east of Building 991 are believed to contain solvents, used oil or kerosene, and were probably associated with an aircraft wash rack that was located immediately east of this property, in an area that is now Ely Road (USACE, 2003). The USTs and associated components were removed prior to 2003 based on reporting by the USACE.
- **Former Ellyson Field Site #2 (Former Building 901 A-D, Aviation Gas Tank Farm):** The Former Ellyson Field #2 site is a former aviation gas fuel farm location. Components associated with the fuel farm were removed from the site prior to 2003. A site rehabilitation completion order was approved based upon soil and groundwater analytical data collected up to January 2014 (USACE, 2015).
- **Former Ellyson Army Airfield Site #3 (Fuel Oil Storage Tanks at Former Building 912):** Historically, there is a fuel oil storage tank area adjacent to former building 912. Based on investigations conducted by USACE, building 912 appears on plans for Ellyson Field, dating 1941, as a mess hall for enlisted personnel (USACE, 2006).
- **Former Ellyson Field Site #4 (Jet Fuel Storage Facility):** Former jet fuel storage facility currently located at the north edge of the former Ellyson Airfield. Jet fuel was stored at Site 4 in a UST system and delivered to the former flight line via tanker truck until 1978 (USACE, 2006).
- **Former Ellyson Field Site #6 – Former Aviation Gas Distribution System and Lube Oil Storage Tanks:** Site 6 encompasses selected components of the Aqua System Network of gasoline piping, fueling pits, and lubrication service pits that were scattered around the flight line areas of the former airfield. The system piped high- and low-octane gasoline using water pressure from the USTs at the aviation gas tank farm (Site 2) to a series of service points that encircled the east-west and north-south flight line and warm-up pads adjacent to the hangar areas. Design drawings dating back to 1944 indicate that the system included 65 gasoline dispensing pits and 22 lube oil dispensing pits with tanks. The total length of the dispensing

system exceeded 8,700 feet. Many of the dispensing pits that are still in place are currently flooded with rainwater (USACE, 2003).

AFFF could have been stored at the historical firehouse associated with the Steam Plant location. AFFF fire extinguishers could have been used at Site 3 (in the former mess hall) and along the Former Aviation Gas Distribution System (Site #6). Additionally, Navy hangars were likely to have been equipped with suppression systems and the associated ramp areas along the historic flight line were likely to have mobile AFFF extinguishers present. However, based on information provided in the public record, use and storage of AFFF at all of the aforementioned locations could not be ascertained. Therefore, these areas are not considered adjacent off-facility sources of PFAS for the FLARNG Ellyson Field Armory.

CLIENT	ARNG			
NOTES	Preliminary Assessment for PFAS at Ellyson Field, FL			
REVISED	7/3/2019	GIS BY	MS	7/3/2019
SCALE	1:4,800	CHK BY	BM	7/3/2019
Base Map: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,		PM	RG	7/3/2019

N

Adjacent Sources

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 5-1

Q:\Projects\ENV\GEARS\GEO\ARNG PFAS\900-CAD-GIS\920-GIS or Graphics\MXD\FL\Ellyson_Field\Fig_5-1_Ellyson_Field_Adjacent_Sources.mxd

6. Preliminary Conceptual Site Model

Based on the PA findings, no release areas were identified as AOIs at Ellyson Field. A conceptual site model (CSM) identifies three components necessary for potentially complete exposure pathways related to a site: (1) source, (2) pathway, and (3) receptor. If any of these elements are missing, the pathway is considered incomplete. Based on the findings of this PA, there are no PFAS sources that originate at Ellyson Field facility.

7. Conclusions

This report presents a summary of available information gathered during the PA on the use and storage of AFFF and other PFAS-related activities at the current Ellyson Field facility. The PA findings are based on the information presented in **Appendix A** and **Appendix B**.

7.1 Findings

No PFAS releases relating to current or historical activities at Ellyson Field were identified during this PA. The following areas, which were discussed in **Section 3** (**Figure 7-1**) and are presented in **Table 7-1** below, were determined to have no suspected release:

Table 7-1: No Suspected Release Areas

No Suspected Release Area	Used by	Rationale
Maintenance Bay, Vehicle Staging Area, and Satellite Accumulation Area	FLARNG	Based upon FLARNG personnel with knowledge of the site back to 2000, AFFF was not stored or used at the subject site during FLARNG occupation. Evidence of AFFF use was not identified during this PA visual inspection.

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. Therefore, records were not typically kept by the facility or available during the PA on the use of PFAS in training, firefighting, or other non-traditional activities, or on its disposition.

The conclusions of this PA are based on all available information, including: previous environmental reports, EDRs™, observations made during the VSI, and interviews. Interviews of personnel with direct knowledge of a facility generally provided the most useful insights regarding a facility's historical and current PFAS-containing materials. 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 was first used (1969 to present), and a reliance on personal recollection. Inaccuracies may arise in potential PFAS release locations, dates of release, volume of releases, and the concentration of AFFF used. There is also a possibility the PA has missed a 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 storage of PFAS were reviewed, current personnel were interviewed, multiple persons were interviewed for the same potential source area, and potential source areas were visually inspected.

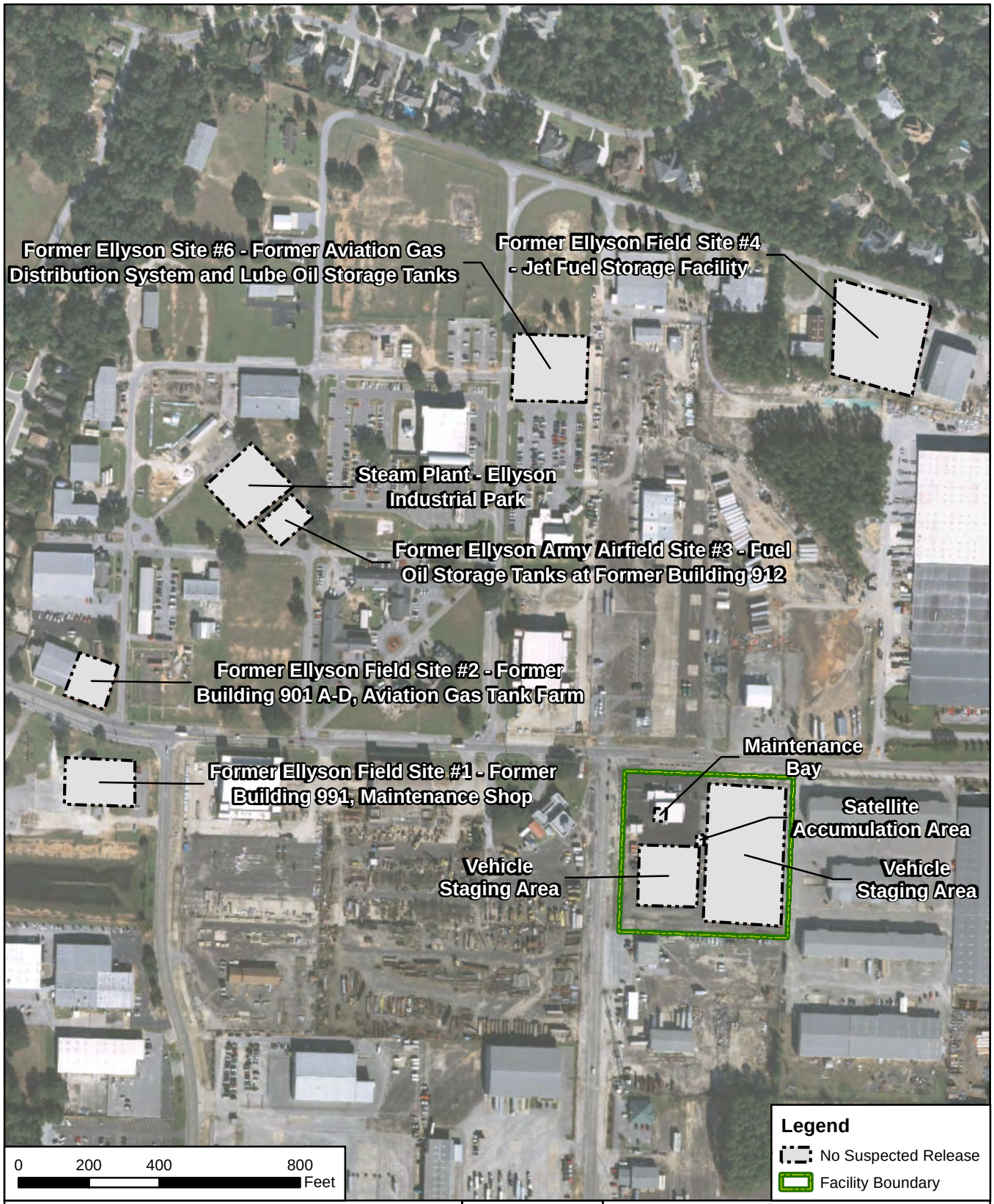
Table 7-2 summarizes the uncertainties associated with the PA:

Table 7-2: Uncertainties Within the Area

Area of Interest	Source of Uncertainty
Maintenance Bay, Vehicle Staging Area, and Satellite Accumulation Area	Use and storage of AFFF by the US Navy during their occupation of the Ellyson Airfield prior to 1981 is unknown. There is reason to believe that the US Navy conducted fire training at the former airfield. However, the location and descriptions of the fire training areas could not be ascertained based on available public information. There former airfield was comprised of 607.66 acres. The FLARNG Ellyson Field facility makes up approximately 5 acres of the former Ellyson Airfield. Personnel interviewed as part of this PA did not have direct knowledge of the site when FLARNG began operation in 1985. FLARNG personnel had knowledge of the facility was limited to the time frame of 2000 to the present.

7.3 Potential Future Actions

Based upon available information, no AOIs were identified during the PA. Evidence does not indicate that current or former ARNG activities contributed PFAS contamination to soil, groundwater, surface water, or sediment at the facility or adjacent areas. The Ellyson Field facility will not move forward in the CERCLA process.



CLIENT	ARNG			
NOTES	Preliminary Assessment for PFAS at Ellyson Field, FL			
REVISED	7/3/2019	GIS BY	MS	7/3/2019
SCALE	1:4,800	CHK BY	BM	7/3/2019
Base Map: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,		PM	RG	7/3/2019

N

Summary of Findings

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 7-1

Q:\Projects\ENV\GEARS\GEO\ARNG PFAS\900-CAD-GIS\920-GIS or Graphics\MXD\FL\Ellyson_Field\Fig_7-1_Ellyson_Field_Summary.mxd

8. References

Escambia County Propert Appraiser. (2019). *Escambia County Propert Appraiser.* Retrieved March 5, 2019, from Escambia County Propert Appraiser: https://www.escpa.org/cama/Detail_a.aspx?s=031S291002000000

Florida Climate Center . (2019, October 11). Statewide Averages - Precipitation. Retrieved from Florida Climate Center : https://climatecenter.fsu.edu/products-services/data/statewide-averages/precipitation

Marsh, O. T. (1966). *Geology of Escambia and Santa Rosa Counties, Western Florida Panhandle.* Tallahassee: Florida Geological Survey.

National Weather Service. (2018, April 30). *National Weather Service Forcast Office*. Retrieved from NOWData - NOAA Online Weather Data: https://w2.weather.gov/climate/xmacis.php?wfo=mob

Rupert, F. R. (1993). *The Geomorphology and Geology of Escambia County, FLorida.* Tallahassee: Florida Geological Survey.

United States Environmental Protection Agency (USEPA). 1991. *Guidance for Performing Preliminary Assessments under CERCLA.* September

U.S. Army Corp of Engineers. (2002). *Site Assessment Report Former Steam Plant.* Savannah: U.S. Army Corp of Engineers.

U.S. Army Corp of Engineers. (2003). *Site Assessment Report for Site Assessment at Former Ellyson Field Sites 1,2,3, and 6.* Savannah: U.S. Army Corp of Engineers.

U.S. Army Corp of Engineers. (2015). *Sixth Quarter Natural Attenuation Monitoring Report and Site Rehabilitation Competion Report Former Ellyson Field Site#2 - Gray Property, FDEP Facility ID No. 179800543 Pensacola, Escambia County, Florida FUDS Project No. I04FL098102.* Jacksonville: U.S. Army Corps of Engineers South Atlantic Division.

U.S. Army Corps of Engineers. (2006). *Phase II Site Assessment Report for Sites 2,3, and 4 at Former Ellyson Field (FEF) Naval Air Station.* Savannah: U.S. Army Corp of Engineers.

Appendix A
Data Resources

Data resources will be provided separately on CD. Data resources for Ellyson Field include:

Ellyson Field Leases, Licenses, and Permits

- 1993 Armory Board, State of Florida Lease No. 30-1983 located at Ellyson Field, Florida
- 1993 OMS, State of Florida Lease (Insert lease #) located at Ellyson Field, Florida

Environmental Data Resources, Inc.™ Geocheck Report

- 2019 Environmental Data Resources, Inc.™ Geocheck Report for Ellyson Field

Miscellaneous Data Resources

- 2002 Site Assessment Report, Former Steam Plant
- 2003 Site Assessment Report for Former Ellyson Field Sites 1,2,3 and 6.
- 2006 Phase II Site Assessment Reports for Former Ellyson Field Sites 2,3 and 4
- 2015 Sixth Quarter Natural Attenuation Monitoring Report and Site Rehabilitation Completion Order for Former Ellyson Field Site #2.

Ellyson Field UCMR3 Data Set

- Tabulated UCMR3 Data Set

Appendix B
Preliminary Assessment Documentation

Appendix B.1
Interview Records

PA Interview Questionnaire - Environmental Manager

Facility: Ellyson Field
Interviewer: [redacted]
Date/Time: 1/31/19 11:00

Interviewee: [redacted] **Title:** 1st Sgt / Chief warrant officer **Phone Number:** [redacted] **Email:**	Can your name/role be used in the PA Report? (Y) or N Can you recommend anyone we can interview? Y or (N)

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

1st Sargent [redacted] has worked at the facility for 18 years (≈ 2000).
Chief [redacted] has worked at the facility ≈ 2 years.
Both handle maintenance of ARNG vehicles & generators.

2. Where can I find previous facility ownership information?

unknown. historical records indicate that the Navy operated in the area after 1940. An airfield was constructed on a large area encompassing the subject site. Property appraiser records indicate that the Navy sold the property to the County in 1981. ARNG staff indicate the guard took over ≈ 1985. the Armory built 1998 (FSCPA)

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 (Yes) site is used for maintenance but no record of AFFF during guard occupation
Fire Training Areas N/A
Firefighting (Active Fire) N/A
Crash N/A
Fire Suppression Systems (Hangers/Dining Facilities) N/A
Fire Protection at Fueling Stations Station at south side of building removed 20 years ago. No AFFF.
Non-Technical/Recreational/ Pest Management N/A
Metals Plating Facility N/A
Waterproofing Uniforms (Laundry Facilities) N/A
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?

No buildings constructed with AFFF dispensing systems or fire suppression systems. Sgt. Gastal does not recall any instance of AFFF storage or use.

PA Interview Questionnaire - Environmental Manager

Facility: Elkson field
Interviewer: [redacted]
Date/Time: 1/31/19 1500

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?

N/A

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

N/A

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)?

N/A

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?

N/A

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?

No training by FLARNG Prior use by the Navy is unknown.

PA Interview Questionnaire - Environmental Manager

Facility: Elkson Field
Interviewer: [redacted]
Date/Time: 1/31/19 11:00

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?

N/A

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 fire training by FLARNG.

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

No offsite fire training by FLARNG at Elkson Field.

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?

No

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?

None onsite. Sgt [redacted] recalls are garbage truck catching on fire on Copter Road. the vehicle itself was not on fire but the bed with garbage was on fire. The local fire department put out the flames with water.

PA Interview Questionnaire - Environmental Manager

Facility: Ellyson Field
Interviewer: [redacted]
Date/Time: 1/31/19 11:00

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?

The fuel point used to be located South of the Armory Building. According to Sgt. Gastak it was removed 20 yrs ago. No records of spilled fuel of fuel spill logs.

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

N/A

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?

Escambia County Fire Rescue Station #7 located at 2231 E. Johnson Ave. Local fire department provides fire Protection Service to this location.

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)?

No use or storage by ARNG. Prior use by the Navy is unknown.

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

NO

PA Interview Questionnaire - Environmental Manager

Facility: Ellyson Field
Interviewer: [redacted]
Date/Time: 1/31/19 11:00

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?

None available

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

A Surface water Spill plan is being developed but has not been finalized.

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?

N/A

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.?

N/A

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?

No use or Storage by FLARNG

PA Interview Questionnaire - Environmental Manager

Facility: [redacted]
Interviewer: ~~Ellyson Field~~ Ellyson Field
Date/Time: 1/31/19 11:00

[redacted]

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

NO one he can think of

Appendix B.2
Visual Site Inspection Checklists

Facility ST
Visual Survey Inspection Log

Recorded by: [redacted]
ARNG Contact: [redacted]
Date: 1/31/19

Site Name / Area Name / Unique ID: Ellyson Field - Maintenance bay
Site / Area Acreage: Maintenance bay inside armory building
Historic Site Use (Brief Description): No historic use. Building built in 1998.

Current Site Use (Brief Description): General maintenance on ARNG vehicles & generators.

1. Was AFFF used at the site/area? Y / (N)
   3a. If yes, document how AFFF was used and usage time (e.g., *fire fighting training 2001 to 2014*)
2. Has usage been documented? Y (N)
   2a. If yes, keep a record (place electronic files on a disk)

Significant Topographical Features:

1. Has the infrastructure changed at the site/area? (Y) / N
   1a. If so, please describe change: (*ex. Structures structures longer exist.*) Former Navy Airfield until 1961. Armory building built 1998 with maintenance bay
2. Is the site/area vegetated? Y / (N)
   2a. If not vegetated, briefly describe the site/area composition:
3. Does the site or area exhibit evidence of erosion? Y / (N)
   3a. If yes, describe the location and extent of the erosion :
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 :

Migration Potential:

1. Does site/area drainage flow off installation? Y / (N)
   1a. If so, please note observation and location:
2. Is there standing water or drainage issues within the site/area? Y (N)
   2a. If so, please note observation and location:
3. Is there channelized flow within the site/area? Y / N
   3a. If so, please note observation and location: Floor drain in bay. flow presumed to OWS.
4. Have man-made drainage channels been constructed within the site/area? Y / N
   4a. If so, please note the location of the channel: floor drain to OWS

Additional Notes

Facility ST
Visual Survey Inspection Log

Photographic Log

Photo ID/Name	Date & Location	Description	Photograph
1	BM ~~1130~~ 1/31/19 Ellyson Field	maintenance bay	looking southwest direction
2	1/31/19 Ellyson Field	maintence bay w/ Floor drain	" "
3	1/31/19 Ellyson Field	Fire Protection in bay	looking N toward front of Bldg

Facility ST
Visual Survey Inspection Log

Recorded by: [redacted]
ARNG Contact: [redacted]
Date: 1/31/19

Site Name / Area Name / Unique ID: Ellyson Field Vehicle Staging Area
Site / Area Acreage: Vehicle Staging area
Historic Site Use (Brief Description): unknown prior to ARNG occupation

Current Site Use (Brief Description): vehicle staging for ARNG vehicles

1. Was AFFF used at the site/area? Y / (N)
   3a. If yes, document how AFFF was used and usage time (e.g., *fire fighting training 2001 to 2014*)
2. Has usage been documented? Y / (N)
   2a. If yes, keep a record (place electronic files on a disk)

Significant Topographical Features:

1. Has the infrastructure changed at the site/area? (Y) / N
   1a. If so, please describe change: (*ex. Structures structures longer exist.*) Former Navy airfield prior to 1981 when property was sold to the County
2. Is the site/area vegetated? Y / (N)
   2a. If not vegetated, briefly describe the site/area composition:
3. Does the site or area exhibit evidence of erosion? Y / (N)
   3a. If yes, describe the location and extent of the erosion :
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 :

Migration Potential:

1. Does site/area drainage flow off installation? (Y) / N
   1a. If so, please note observation and location: appears to flow to storm drainage ditch to the North
2. Is there standing water or drainage issues within the site/area? Y / (N)
   2a. If so, please note observation and location:
3. Is there channelized flow within the site/area? Y / (N)
   3a. If so, please note observation and location:
4. Have man-made drainage channels been constructed within the site/area? (Y) / N
   4a. If so, please note the location of the channel: drainage ditch north of Copter rd.

Additional Notes

Facility ST
Visual Survey Inspection Log

Photographic Log

Photo ID/Name	Date & Location	Description	Photograph
4	1/31/19 Ellyson Field vehicle Staging	Looking South	Vehicle Staging area South of Armory Building
5	1/31/19 Ellyson Field vehicle Staging	Looking east	Vehicle Staging area east of Armory Bldg.
6	1/31/19 Vehicle Staging area	looking North	Fire protection used at the Vehicle Staging areas.

Facility ST
Visual Survey Inspection Log

Recorded by: [redacted]
ARNG Contact: [redacted]
Date: 1/31/19

Site Name / Area Name / Unique ID: Ellyson Field Satellite Accumulation Area
Site / Area Acreage: Satellite Accumulation Area
Historic Site Use (Brief Description): unknown prior to ARNG occupation.

Current Site Use (Brief Description): Storage of Satellite waste including fuel filters / antifreeze

1. Was AFFF used at the site/area? Y / (N)
   3a. If yes, document how AFFF was used and usage time (e.g., *fire fighting training 2001 to 2014*)
2. Has usage been documented? Y / (N)
   2a. If yes, keep a record (place electronic files on a disk)
   ~~to~~ (be)

Significant Topographical Features:

1. Has the infrastructure changed at the site/area? (Y) N
   1a. If so, please describe change: (*ex. Structures structures longer exist.*) Former Navy airfield prior to 1981 when property sold to the County
2. Is the site/area vegetated? Y / (N)
   2a. If not vegetated, briefly describe the site/area composition:
3. Does the site or area exhibit evidence of erosion? Y / (N)
   3a. If yes, describe the location and extent of the erosion :
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 :

Migration Potential:

1. Does site/area drainage flow off installation? (Y) / N
   1a. If so, please note observation and location: appears to flow to the drainage (be) ditch located North of Site.
2. Is there standing water or drainage issues within the site/area? Y / (N)
   2a. If so, please note observation and location:
3. Is there channelized flow within the site/area? Y / (N)
   3a. If so, please note observation and location:
4. Have man-made drainage channels been constructed within the site/area? (Y) / N
   4a. If so, please note the location of the channel: Drainage (be) ditch North of Carter Road.

Additional Notes

Facility ST
Visual Survey Inspection Log

Photographic Log

Photo ID/Name	Date & Location	Description	Photograph
7	1/31/19 Satellite area	Satellite accumulation area	Fire Protection in satellite accumulation area. looking east

Appendix B.3
Conceptual Site Model Information

Preliminary Assessment – Conceptual Site Model Information

Site Name: Ellyson Field

Why has this location been identified as a site?

Former Navy Airfield operated an area encompassing the Ellyson Field facility and surrounding area

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

Heavy commercial/industrial activity surrounding the site.

Training Events

Have any training events with AFFF occurred at this site? No training during ARNG occupation

If so, how often? N/A

How much material was used? Is it documented? N/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? Storm water drainage ditch ultimately drains to Skinner Creek. Skinner Creek to Escambia Bay.

Average rainfall? Average annual precipitation in Pensacola is reported 65.35 inches

Any flooding during rainy season? None

Direct or indirect pathway to ditches? No pathway identified. Stormwater ditch to the North of property

Direct or indirect pathway to larger bodies of water? Stormwater ditch to Skinner Creek, Skinner Creek to Escambia Bay

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

Any impoundment areas or retention ponds? No retention ponds onsite. One pond 0.6 miles SE.

Any NPDES location points near the site? unknown

How does surface water drain on and around the flight line? No flight line

Preliminary Assessment – Conceptual Site Model Information

Groundwater:

Groundwater flow direction? Assumed to the east/SE toward Escambia bay.

Depth to groundwater? ~20

Uses (agricultural, drinking water, irrigation)? No. Few industrial + Agriculture uses in area water provided by ECUA.

Any groundwater treatment systems? No

Any groundwater monitoring well locations near the site? Gray Property (Former Ellyson Field) FDEP FACID 9800543

Is groundwater used for drinking water? No provided by ECUA (municipal)

Are there drinking water supply wells on installation? No

Do they serve off-post populations? No

Are there off-post drinking water wells downgradient N/A

Waste Water Treatment Plant:

Has the installation ever had a WWTP, past or present? Not during ARNG occupation. Prior use by others unknown.

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

Do we understand the fate of sludge waste? N/A

Is surface water from potential contaminated sites treated? N/A

Equipment Rinse Water

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

No fire fighting equipment onsite.

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?

No fire equipment or use onsite.

3. Other?

Preliminary Assessment – Conceptual Site Model Information

Identify Potential Receptors:

Site Worker

Construction Worker Possible with subsurface utility work.

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	Ellyson Field	Pensacola, Florida

Photograph No. 1

Description:

Unknown direction of photo.

Maintenance bay inside Ellyson Field building

Photo date 1/31/19

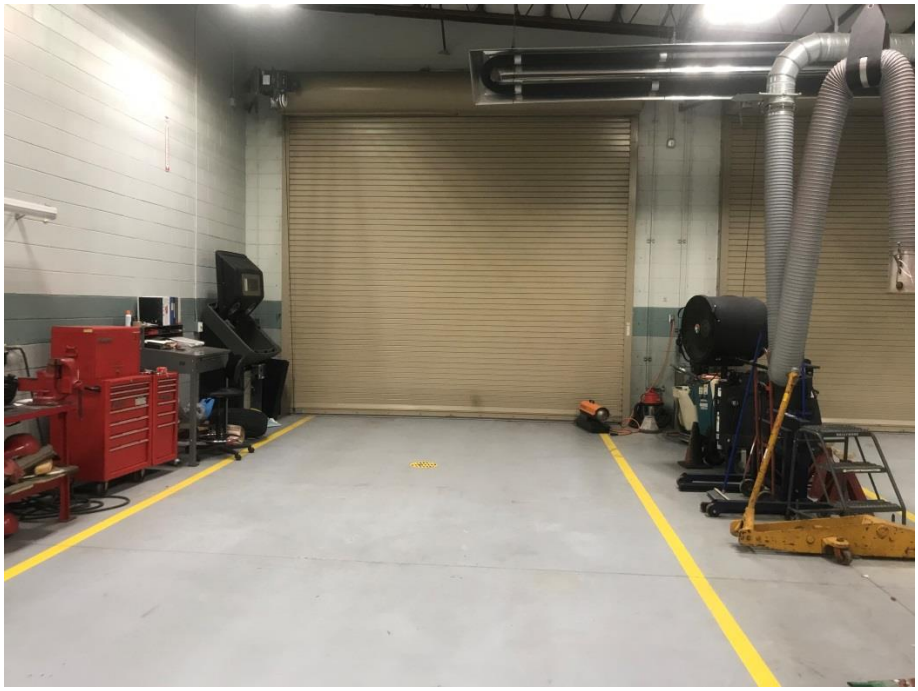
Photograph No. 2

Description:

Unknown direction of photo.

Floor drain inside maintenance bay

Photo Date: 1/31/19



APPENDIX C – Photographic Log

Army National Guard, Preliminary Assessment for PFAS	Ellyson Field	Pensacola, Florida

Photograph No. 3

Description:

Looking north toward the front of the building. ABC fire protection in maintenance bay

Photo Date: 1/31/19

Photograph No. 4

Description:

Looking south. Vehicle staging area south of the Ellyson Field building

Photo Date: 1/31/19

APPENDIX C – Photographic Log

Army National Guard, Preliminary Assessment for PFAS	Ellyson Field	Pensacola, Florida

Photograph No. 5

Description:

Looking east. Vehicle staging area east of the Ellyson Field building

Photo Date: 1/31/19

Photograph No. 6

Description:

Looking north. ABC fire protection used at the vehicle staging areas.

Photo Date: 1/31/19

APPENDIX C – Photographic Log

Army National Guard, Preliminary Assessment for PFAS	Ellyson Field	Pensacola, Florida

Photograph No. 7

Description:

Looking east. Sodium fire extinguisher at the satellite accumulation area.

Photo Date: 1/31/19